CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

Catalogue of the papers and correspondence of

SIR HANS ADOLF KREBS, FRS

(1900-1981)

Compiled by Jeannine Alton and Peter Harper

VOLUME I

List of Contents

General Introduction

Sections A - B

Deposited in the Library Sheffield University

CSAC 113/4/86

All rights reserved

The work of the Contemporary Scientific Archives Centre, and the production of this catalogue, are made possible by the support of the following societies and institutions:

The Biochemical Society

The Charles Babbage Foundation for the History of Information Processing

The Institute of Physics

The Institution of Electrical Engineers

The Institution of Mechanical Engineers

The Nuffield Foundation

The Rhodes Trustees

The Royal Society of London

The Wolfson Foundation

NOT ALL THE MATERIAL IN THE COLLECTION IS

YET AVAILABLE FOR CONSULTATION. ENQUIRIES

SHOULD BE ADDRESSED IN THE FIRST INSTANCE TO:

THE LIBRARIAN,

SHEFFIELD UNIVERSITY LIBRARY,

SHEFFIELD S10 2TN.

LIST OF CON	ITENTS		Items	Page
GENERAL IN	TRODUCTION			9
SECTION A	BIOGRAPHICAL A	AND AUTOBIOGRAPHICAL	A.1-A.1280	17
	A.1 -A.7	Obituaries		19
	A.8 -A.22	Articles and tributes		19
	A.23 -A.26	Bibliographies		21
	A.27 -A.40	Scrapbooks		22
		With an introductory note		
	A.41 -A.399	Diaries and jotters		30
		With an introductory note		
	A.400 -A.714	Career, honours and awards		54
		With an introductory note		
	A.715 -A.887	Family correspondence and papers		86
		With an introductory note		
	A.888 -A.924	Hildesheim (City and school)		98
	A.925 -A.966	Miscellaneous biographical items		101
	A.967 -A.1062	Personal correspondence		104
	A.1063-A.1083	Shorter autobiographical writings		110
	A.1084-A.1278	Reminiscences and Reflections		112
		With an introductory note		
	A.1279, A.1280	Press-cuttings		129

				<u>Items</u>	Page
SECTION B	SHEFFIELD			B.1-B.104	130
	Introduction to S	Section B			
	B.1 -B.29	Pharmac ol ogy	/Biochemistry Departm	nents	132
	B.30-B.40	Wartime resec	arch		138
		With an intro	ductory note		
	B.41-B.77	Funding and o	administration of Krebs	's ,	140
		B.41-B.52	Rockefeller Foundat With an introductory		140
		B . 53-B . 67	Medical Research C With an introductor		143
		B.68-B.77	Miscellaneous		145
	B.78-B.90	General Univ	versity correspondence		146
	B.91-B.104	Later contact	s with Sheffield		149
		With an intro	oductory note		
SECTION C	OXFORD			C.1-C.389	151
	C.1 -C.96	Biochemistry	Department		153
		C.1 -C.34	General administra	tion	153
		C.35-C.58	Lectures		157
		C.59-C.85	Building extension		162
		C.86-C.96	Sub-departments		166

H.A. Krebs CSAC 113/4/8	36		Items	5 Page
Section C (Cont'd.)	C.97 -C.182	Funding and acresearch	dministration of Krebs's	168
		C.97 -C.123	Medical Research Council Unit/ Metabolic Research Laboratory	168
		C.124-C.144	Financing bodies	172
		C.145-C.182	Miscellaneous	176
	C.183-C.240	Development of	of science at Oxford Juctory note	178
		C.183-C.189	Development of Biology	179
		C.190-C.201	'Oxford's needs in science' With an introductory note	183
		C.202-C.204	Biology centre	186
		C.205-C.211	Zoology	187
		C.212-C.236	Molecular Biophysics	188
		C.237-C.240	Miscellaneous	192
	C.241-C.334	University refo		194
		With an introd	luctory note	
		C.241-C.260	General correspondence and papers	195
		C.261-C.273	Salaries With an introductory note	197
		C.274-C.278	Schedule A Professorships	201
		C.279-C.328	Committees and Commissions of Inquiry	202
		C 320-C 334	Publications	211

H.A. Krebs	_				_
CSAC 113/4/	86			Items	6 Page
Section C (Cont'd.)	C.335-C.389	General Univer	sity correspondence		213
		C.335-C.361	Central administration	on	213
		C.362-C.372	Electoral Boards		218
			Libraries, department and societies	ts, colleges	219
SECTION D	RESEARCH			D.1-D.569	221
	Introduction to S	Section D			
	D.1 -D.45	Laboratory note			224
	D.46 -D.100	Indexed notes of			238
	D.101-D.514	Research project With an introdu of contents	cts uctory note and a list		251
	D.515-D.548	Miscellaneous	notes		315
	D.549-D.569	Bibliographical	references		318
SECTION E	SCIENCE-RELA	TED INTERESTS		E.1-E.507	319
	Introduction to Section E				
	E.1 -E.204	History and ph	ilosophy of science		321
	E.205-E.315	Sociology of re With an introd			342
	E.316-E.492	Sociobiology With an introd	uctory note		352
	E.493-E.501	Science and re	ligion		371
	E 502-E 507	Background mo	aterial		372

H.A. Krebs CSAC 113/4/86		7
	<u>Items</u>	Page
SECTION F VISITS AND CONFERENCES	F.1-F.360	373
Introduction to Section F		
SECTION G SOCIETIES AND ORGANISA	TIONS G.1-G.243	427
Introduction and list of conter	nts	
SECTION H PUBLICATIONS, LECTURES,	BROADCASTS H.1-H.446	460
Introduction to Section H		
H.1 -H.97 Publication	ns	462
H.98 -H.271 Lectures		475
H.272-H.284 Broadcasts	and television	500
H.285-H.446 Correspond	ence	502
SECTION J CORRESPONDENCE	J.1-J.985	518
Introduction to Section J		
SECTION K REFERENCES AND APPOINT	MENTS K.1-K.72	616
SECTION L NON-PRINT MATERIAL	L.1-L.108	620
List of contents	100 t 100 0 00000 \$15000	

H.A. Krebs	
CSAC 113/4/86	-8
	Page
BIBLIOGRAPHY	633
With an introductory note	
SUPPLEMENTARY BIBLIOGRAPHY	670
NOTE OF ADDITIONAL PUBLICATIONS	671
With an introductory note	
CONSPECTUS	673
With an introductory note	
INDEX OF CORRESPONDENTS	695

GENERAL INTRODUCTION

PROVENANCE

This very extensive collection has been brought together from several sources and at various dates between July 1982 and June 1986.

The main sources, made available by Lady Krebs, were Krebs's home at Iffley and his Metabolic Research Laboratory at the Radcliffe Infirmary, Oxford. A little material was received from Dr. J.R. Krebs. Microfilm transcripts and photocopies of his own research material on the history of biochemistry were kindly provided by Professor F.L. Holmes.

OUTLINE OF THE CAREER OF SIR HANS KREBS

Krebs, a pioneer of research in intermediary metabolism and an internationally-respected figure in biochemistry, died in 1981, the same year that his autobiography Reminiscences and Reflections was published. A further account of his life and work by two long-term colleagues, H.L. Kornberg and D.H. Williamson, appeared in 1984 (Biographical Memoirs of Fellows of the Royal Society, 30, 349-387). These recent and accessible sources, which have been drawn upon throughout the compilation of this catalogue, make it unnecessary to give more than a brief rehearsal of the facts of Krebs's career.

He was born in 1900 to a Jewish family in Hildesheim, where his father was a doctor. After studies at the universities of Göttingen, Freiburg and Munich he began a career as a medical graduate in Berlin with P. Rona, until the decisive step of his appointment as Research Assistant to Otto Warburg (1926–30) who strongly influenced him. Subsequently he worked briefly at Altona, then accepted an offer from S. Thannhauser to join the Department of Medicine at Freiburg where he worked from April 1931 and where his first major work, the discovery of the ornithine cycle, was completed and met with immediate international recognition on its publication in 1932.

The following year saw the rise to power of the Nazi party, Krebs's suspension and dismissal from his post, and the start of a new career in England in the laboratory of Gowland Hopkins at Cambridge. In 1935 Krebs moved to Sheffield. Here his

second major research discovery, of the citric or tricarboxylic acid cycle, was made; here also was created, from 1945, the Medical Research Council Unit for Research in Cell Metabolism which remained in being as the focus of his research and the base of his 'team' until his retirement in 1967. During the Sheffield period two of the greatest honours of the scientific world were awarded him – Fellowship of the Royal Society in 1947 and the Nobel Prize for Physiology and Medicine (jointly with F. Lipmann) in 1953. In private life it was also the period of his marriage and the birth of his three children.

In 1954 he accepted the Whitley Chair of Biochemistry at Oxford and moved there, with his Unit and many of his 'team', until 1967, the year of his official 'retirement'. In his autobiography Krebs uses inverted commas for the chapter on this subject, since he continued to work, still funded by the Medical Research Council and by other research grants and still with some at least of his original Sheffield 'team', in the Metablic Research Laboratory sited in the Radcliffe Infirmary, Oxford. His research continued to focus on physiological biochemistry and the regulation of biochemical processes, but he developed an increasing interest in the history and philosophy of science, its methodology and sociology, and in sociobiology and criminality. He was hard at work on all these topics, with a full programme planned ahead for publications and visits, when he died after a short illness.

DESCRIPTION OF THE COLLECTION

The material fully documents all aspects of Krebs's career and is presented in the order shown in the List of Contents. Additional explanatory notes accompany many of the Sections, sub-sections and individual entries in the body of the catalogue. The following paragraphs aim only to draw attention to matters of particular substance or interest, since the material considerably expands the published accounts of Krebs's life and thought.

Krebs was of a naturally retentive disposition. He refers to this frequently in the drafts of his autobiography, one of which, written in 1975 under the rubric 'Collection of junk' and now included in A.1104, runs:

"Throughout my life I had a tendency not to throw things that I might care to see again or to use again away. This applied to all correspondence that contained personal and technical matters, all photographs, many drafts of papers, scientific notebooks of course, books, reprints, souvenirs of memorable occasions, newspaper cuttings, extracts of other readings, sayings, quotations (which I stuck into scrap books).

I kept no diaries except on special occasions, such as during the war years and during some of my travels."

Furthermore, the international acclaim which greeted the publication of the ornithine cycle work in 1932 had made him aware of the value of his research. Thus when he left Germany he was able to bring to England 'sixteen wooden boxes and several suitcases' of apparatus and also his notebooks and personal documents; and when he assembled the 'scrap books' referred to above, he added notes and comments linking the selected material to the events of his own life.

Section A (Biographical and autobiographical) is rich in material of this kind. It contains several 'scrap books', a very substantial number of engagement books, diaries and 'jotters' and full documentation of the long gestation of the eventual autobiography Reminiscences and Reflections. The events of Krebs's career, notably his successive moves to Warburg's laboratory, to Cambridge, Sheffield and Oxford are represented together with many other offers or applications for appointments.

Of the many honours he received, pride of place goes to the Nobel Prize and his own careful recording of the event, and the concomitant ceremonies and correspondence. In addition to Krebs's own life, there is extensive correspondence and papers from the 1930s and later relating to his family and friends and reflecting on the suffering of the Jews in Germany, their enforced emigration to Britain, Palestine and America, renewal of contacts after the Second World War and claims of restitution from the German state.

Section B (Sheffield) is relatively short, but documents the funding of his research by the Rockefeller Foundation, the setting-up of his Medical Research Council Unit and the problems of establishing and running a biochemistry department. It includes Krebs's 'Reflections' on the history of the Sheffield department on the occasion of his resignation. The most important research discovery of the Sheffield period (the citric acid cycle) is recorded in his research notebooks in Section D, but Section B preserves

correspondence and papers relating to the wartime research on nutrition and (very scantily) Krebs's ideas on carbon dioxide fixation.

Section C (Oxford) contains some not dissimilar material on the running (and in this case the major extension) of a university department and its sub-departments, Krebs's Medical Research Council Unit during and after his tenure of the Whitley Chair, and the funding of his research, including support from the Rockefeller Foundation. The Section is greatly extended and complicated, however, by Krebs's involvement in what he called 'debates on shortcomings'. These include his efforts to strengthen the development of science - and especially the biological sciences - in new or extended ways such as a 'Biology Centre', Zoology and Molecular Biophysics. Documents include not only Krebs's substantial unpublished account of the history of molecular biology at Oxford but photocopies of the relevant papers which the late J.W.S. Pringle (Linacre Professor of Zoology) made available to him. More general topics of 'University Reform' are salary and income structure, collegiate and noncollegiate appointments, the Robbins Committee, the National Incomes Commission and the Franks Commission; to all of these Krebs submitted memoranda for which drafts and background material survive. The records preserved here greatly expand Krebs's published writings on the subject at the time and later in his autobiography.

Section D (Research) is a very full record of the contributions to metabolic research made by Krebs and his collaborators over the long period 1926-81. It takes various forms - traditional laboratory notebooks, binders of dated and indexed notes, folders and boxes, and loose pages - and may include data and experimental results, records of discussions and information, reflections on work in hand or projected, drafts for publications, correspondence, extensive bibliographical references and background material usually annotated. The Section includes a photocopy of a laboratory note-book on the ornithine cycle research by Krebs's collaborator at Freiburg, K. Henseleit, and many pages of notes and results by long-term members of the Medical Research Council Unit, notably L.V. Eggleston, R. Hems and P. Lund.

Section E (Science-related interests) is one of the most interesting in the collection, since it gives substantial documentation of abiding interests of Krebs only briefly acknowledged in his own and other published accounts, and also contains much material for articles and lectures not listed in the extant bibliographies. The

topics dealt with in the Section are history and philosophy of science (including considerable material on Otto Warburg), sociology of research (policy-making, funding, team-work and leadership, motivation and recognition), sociobiology and criminality, and the scientist's duty to bring his gifts to bear on social problems. Another note by Krebs of 1977 and now included in E.324 headed 'Why I concern myself with "Sociological" problems' may usefully be quoted here:

"People have asked me why I do not stick to my last (as Apelles, the Roman painter, shouted to the cobbler who criticised not only the shoes on his painting but also other matters) considering that I know little about sociology and that I had enough problems on my hands in connection with my research.

I am not only a scientist, but also a citizen, and as a citizen I have good reason to be worried about what I call the diseases of society. I hold the view that every citizen ought to contribute to the best of his ability to matters of public life, especially on the basis of his own professional experiences and skills. Having been trained as a physician and as a scientist I fancy, rightly or wrongly, that I can look upon problems of society from a special point of view, that of the medical scientist. It is also my view which I know is shared by others, that the great majority of those who profess sociological subjects are appallingly ignorant of the biology of Homo sapiens."

Section F (Visits and conferences) covers a long period (1933-81, with ongoing plans up to 1983) though in varying detail and with some overlap with material in other Sections. Krebs was in great demand as speaker, chairman or honoured guest, and he as an active scientist placed high value on the contacts and exchanges with colleagues offered by symposia, visits to institutions and laboratories and the like. Of special interest is the record 1962-77 of his visits to the annual international conferences on advances in enzyme regulation organised at Indianapolis, where he presented papers on his current research for publication in Advances in Enzyme Regulation.

Section G (Societies and organisations) includes some seventy British and overseas organisations. While some entries are relatively trivial, others are substantial sequences covering a lengthy timespan and matters of consequence such as research policy and grant applications. These include the Agricultural Research Council, the Biochemical Society, especially Krebs's chairmanship of the Society's Sub-committee on the Report of the Working Group on Molecular Biology, the Royal Society and the Science Research Council. There is also some material on organisations concerned with refugee scientists and with sociological matters.

Section H (Publications, lectures, broadcasts) brings together notes, drafts, correspondence and other related material for published and unpublished work 1927-81; it includes some book-reviews and some radio and television work. There is also an extensive sequence of correspondence with editors and publishers which testifies both to the many requests Krebs received to write or lecture which he was not able to accept and also to his long-term editorial commitments to two journals, <u>Biochimica et Biophysica</u> Acta and FEBS Letters.

Section J (Correspondence), though essentially confined to professional exchanges with colleagues and collaborators (personal correspondence being in Section A), is very extensive and diverse. It includes substantial exchanges with life-long friends such as H.K.F. Blaschko, D. Nachmansohn and F. Lipmann, and documents the careers of many younger scientists who spent some of their research years with Krebs and maintained contact with him as their careers developed. This material thus supplements and confirms the attention paid by Krebs in many of his writings to the concept of 'filiation' or 'scientific genealogy' in fostering scientific excellence, and his persuasion that his own Unit had been a step in such filiation.

The value placed on Krebs's judgment is shown by the very large number of requests for advice and references, which have been placed separately in Section K, subject to restricted access.

Section L, the last of the collection, is of non-print material and includes many photographs of Krebs, his family, colleagues and laboratories, sound-recordings and videotapes of lectures given by him. Of interest are the microfilms of transcripts of conversations between Krebs and the historian F.L. Holmes.

BIBLIOGRAPHICAL NOTE

All references in the catalogue are to the Bibliography of 396 items which was published on microfiche to accompany the Royal Society Memoir, and to a Supplementary Bibliography of 11 items taken from the list of publications by members of the Metabolic Research Laboratory, Oxford, 1980-83. These bibliographies are listed, with permission, in the present catalogue.

This represents the latest information available on Krebs's published works. It supersedes the list of 356 items which Krebs published in his autobiography and the selection of only 121 items printed after the text of the Royal Society Memoir.

The manuscript collection contains considerable additional material relating to publications or to the intention to publish. This may range from a fully-prepared draft with references and figures ready for despatch to a journal to a reference in editorial correspondence. It applies especially, though not exclusively, to writings on social problems which were such a feature of Krebs's later years, but also includes such important scientific contributions as his Jayne Lectures, not to mention book-reviews and abstracts omitted from the canon. A separate list of catalogue entries for such material has been compiled and appears on pp. 671-72.

CONSPECTUS

This aims to relate Krebs's publications as defined above to their principal sources in the manuscripts. Only the more extended references, to research, publications and reception of the work, ensuing correspondence and the like, are given.

Passing allusions in correspondence or requests for reprints are omitted.

ACKNOWLEDGEMENTS

The assembling and cataloguing of the collection have drawn on the time and goodwill of many. Particular thanks are due to:

Lady Krebs, for making the material available, for collecting family letters and documents from several sources, and for her many visits to provide information and encouragement over a long period;

Professor F.L. Holmes, for much invaluable information and advice, for his generosity in adding to the collection microfilm transcripts of his conversations with Krebs, microfilm copies of Krebs's laboratory notebooks, and the photocopy of a notebook of K. Henseleit, and for continuing visits and support;

Dr. D.H. Williamson and Mr. R. Hems for help in dealing with the research material, with special gratitude to Reg Hems for many visits of patient explanation and advice, for checking Section D and for making available a copy of his memorial address for Krebs;

Mr. C.K. Balmforth, Mr. M.S-M. Hannon and Mr. W.J. Hitchens of Sheffield University Library for mutual visits, help and encouragement;

Drs. Martin and Martina Jeningshausen-Lauster and Dr. C.J. Wells for help with manuscripts in German script;

Lady Phillips for invaluable assistance in the early stages of sorting and listing;

Miss M. J. Erskine for help with the index;

Mrs. M.M. Edwards, our long-term typist, for help with the conspectus and index and for more than usual patience with successive emendations and additions to the catalogue.

Jeannine Alton
Peter Harper
Oxford 1986.

SECTION A	BIOGRAPHICAL AND AUTOBIOGRAPHICAL A.1 - A.1280
A.1 -A.7	OBITUARIES
A.8 -A.22	ARTICLES AND TRIBUTES
A.23 -A.26	BIBLIOGRAPHICAL
A.27 -A.40	SCRAPBOOKS With an introductory note
A.41 -A.399	DIARIES AND JOTTERS With an introductory note
A.400-A.714	CAREER, HONOURS AND AWARDS With an introductory note
A.715-A.887	FAMILY CORRESPONDENCE AND PAPERS With an introductory note
	A.715-A.786 The Krebs family
	A.787-A.791 The Davidson family
	A.792 The Traube family
	A.793-A.869 Restitution claims
	A.870-A.887 Genealogy

A.888 -A.924

HILDESHEIM (City and School)

A.925 -A.966

MISCELLANEOUS BIOGRAPHICAL ITEMS

A.967 -A.1062

PERSONAL CORRESPONDENCE

A.967 -A.1013

By name

A.1014-A.1046

By year

A.1047-A.1062

Shorter personal (unindexed)

A.1063-A.1083

SHORTER AUTOBIOGRAPHICAL WRITINGS

A.1084-A.1278

Reminiscences and Reflections (Bibliog. 391).

With an introductory note

A.1279, A.1280

PRESS-CUTTINGS

A.1-A.7	OBITUARIES
A.1	Memoir by H.L. Kornberg and D.H. Williamson (Bibliographical Memoirs of Fellows of the Royal Society, 30, 1984).
A.2	The Times (3 photocopies); Daily Telegraph; Oxford Times.
A.3	Frankfurter Allegemeine Zeitung (2 photocopies); Naturwissenschaftliche Rundschau; memoir for Orden Pour Le Mérite, by A. Butenandt (Reden und Gedenkworte, 19, 1983).
A.4	AJR Information (publication of the Association of Jewish Refugees in Great Britain).
A.5	British Medical Journal (H. Blaschko); The Lancet (H.L. Kornberg).
A.6	Journal of General Microbiology (J.R. Quayle).
A.7	American Philosophical Society Yearbook (F.L. Holmes). 15pp. typescript draft and covering letter to Lady Krebs.
A.8-A.22	ARTICLES AND INTERVIEWS See also A.911, A.923, A.1072, H.404, H.405, H.408.
A.8	'Biographical Material', July 1953. 6pp. typescript draft.
	'His achievements in the study of metabolism', July 1953. 6pp. typescript draft.

A.9 'Biography'

2pp. photocopy with ms. note by Krebs 'From Nobel Lectures in Physiology or Medicine 1942-1962'.

'With Camera and Pen'

Press-cutting of Oxford Times article, 15 October 1965.

A.10 F. Dickens's 'Chairman's Opening Remarks' at symposium held to mark Krebs's retirement from his Oxford chair, 1967.

'Personal View' by W.M. Keynes, British Medical Journal, 1968.

Dedicatory preface by O.H. Warburg in Essays in Cell Metabolism presented to Krebs on his seventieth birthday, 1970.

- A.11 'Wir sprachen mit Sir Hans A. Krebs', <u>Therapeutische Berichte</u>, 1970.

 Correspondence, 1969-70; copy of published interview.
- A.12 'Medicine's Living History'
 Interview with Krebs in Medical World News, 1974.
- A.13 Dedicatory preface by S. Grisolia, R. Báguena and F. Mayor for The Urea Cycle, 1976.

'Three things I'd do if I were President', PHP, 1976.

- A.14 'Le portrait du mois', <u>Médicine et Hygiène</u>, May 1977.

 Article and drawing.
- A.15 American College of Physicians Convocation Program, 1978, with biographical note on the occasion of honour for Krebs.

'Why Krebs is still in circulation', <u>General Practitioner</u>, September 1979. Brief correspondence, draft and published article.

A.16 'Tribute to Sir Hans Krebs' by D.H. Williamson, <u>Biochemical Society</u>
Transactions, 1980.

'Sir Hans Krebs: Eightieth Birthday Congratulations' by H.L. Kornberg, Biochemical Society Bulletin, 1980 (2 copies).

'Hans Krebs: Nineteen Nineteen and after', by H. Blaschko, <u>FEBS Letters</u>, 1980.

- 'Hans Krebs and the Discovery of the Ornithine Cycle', by F.L. Holmes,

 Federation Proceedings (Federation of American Societies for Experimental Biology), 1980.

 Reprint sent by Holmes to Krebs, with the author's ms. dedication.
- A.18 'Krebs cycle takes him back to challenge of learning'
 Interview for The Medical Post, June 1981.
- A.19
 'Der Oxforder Professor Sir Hans A. Krebs: Forscher-Kulturphilosoph-Humanist'

 32pp. typescript draft by E. Szirmai, n.d.

 Szirmai published a biographical account of Krebs in Biographie der Erinnerungen, 1981. See J.707-J.709.
- A.20 Krebs's entry in McGraw-Hill Modern Scientists and Engineers, n.d.

Entry for 'Zitronensdure' from Brockhaus Enzyklopadie, n.d.

Krebs's entry in an unidentified German encylcopaedia, n.d.

A.21, A.22 Requests for personal and biographical information.

2 folders.

A.23-A.26 BIBLIOGRAPHIES

Miscellaneous lists of publications. A.26 is list of publications, Metabolic Research Laboratory, Oxford, 1980-83, the basis of the Supplementary Bibliography.

A.27-A.40 SCRAPBOOKS

This general description conveniently brings together material of biographical or general interest assembled by Krebs and either pasted onto loose leaves and kept in binders or specially bound volumes, or pasted straight into commercially available scrapbooks.

A.27-A.31 are four large blue binders containing loose leaves assembled by Krebs (some already detached) on which he had pasted original documents and a few photocopies, together with his own typescript notes on their significance and, in a few cases, translations The first two binders, entitled 'Documents from the Life of a Scientist' from the German. I and II, contain some of the most important surviving documents relating to Krebs's career and honours and were probably intended to serve instead of an autobiography. In his preface to the autobiography published in 1981 Krebs noted that some time after 1960 he had the idea of putting together for publication documents from his files - 'those that had been important in influencing the course of my professional life and those that reflected more personal aspects, such as letters, announcements, and published articles'. When Krebs showed some of the assembled material to the Oxford University Press, however, they proposed a considerable expansion to include a fuller account of his personal life. reservations about this proposal, thinking 'that the documents would speak for themselves, illustrating how the social and political history of the times was reflected in the career of an individual scientist. Among other things they showed how the recognition of research expresses itself, how the rise of Nazism temporarily upset my career, and how British scientists and the Rockefeller Foundation came to my rescue; and how, later on, I became Although Krebs agreed to write a full-scale autobiography involved in wider issues'. these scrapbooks remain not merely assemblages of biographical documents of the greatest significance but also evidence of his original intention for a published record of his life The remaining two binders of this format are untitled and contain further as a scientist. material (mostly certificates) re Krebs's very numerous honours and awards.

A.31 is also of great biographical interest and contains extensive material on the award of the Nobel Prize. It was begun in 1952 when Krebs was informed by a Swedish journalist that he was a candidate for the prize – a year early as it turned out (see Rem. & Refl., p.166).

A. 32 contains material relating to visits and conferences covering a period of over ten years and A.33–A.37 contain material relating to individual visits from the extended tour of American research centres in 1949 (A.33) to a 1978 visit to North Carolina

(A.37). A.38-A.40 are scrapbook assemblages of miscellaneous sayings or quotations of interest to Krebs or newspaper-cuttings relating to his research, honours and awards.

References to the relevant passages in the published autobiography, and to published papers, are given, and the correspondence is indexed.

A.27

'Documents from the Life of a Scientist I' 1925-54

Documents <u>re</u> Krebs's early career including work in Warburg's laboratory and at Freiburg, the termination of Krebs's appointment at Freiburg and the move to Cambridge and subsequent appointments at Sheffield.

Documents include:

Certificate of Krebs's doctor of medicine degree, 1925.

Krebs's application for a grant of equipment, with corrections by Warburg, 1930.

Enquiry about Krebs's interest in a post in the Department of Medicine, Freiburg, 1930.

Admission as a teacher in internal medicine in the Medical Faculty, Freiburg, 1932.

'Encouragements': invitations to lecture from Otto Meyerhof and Max Planck, F.G. Hopkins's reference to Krebs's work in his Royal Society Presidential Address and C. Neuberg's recommendation of Krebs for professorial appointment at Münster, 1932–33.

Notification of compulsory leave of absence from Dean of Medical Faculty, Freiburg, April 1933 (Rem. & Refl., p.61).

Notification of termination of University appointment, April 1933 (Rem. & Refl., p.62).

Correspondence with W. Herkel (in Cambridge) <u>re</u> Krebs's situation in Germany and the possibility of something being done for him in Cambridge, April 1933 (<u>Rem. & Refl.</u>, p.64).

Photocopy of letter from A. Szent-Győrgi which prompted Krebs to write to F.G. Hopkins, April 1933 (Rem. & Refl., p.65). The original is at A.420.

A.27 (Cont'd.)

Correspondence with F.G. Hopkins re possible move to Cambridge, April 1933 (Rem. & Refl., pp.65-66). See also A.420, A.421.

Offers of help from O. Warburg and F. Knoop, April 1933 (Rem. & Refl., pp.66-67).

Original and translation of students' manifesto 'Wider den undeutschen Geist', (Rem. & Refl., pp.68-69).

Letter from Krebs to Rockefeller Foundation, 13 May 1933 (Rem. & Refl., p.67).

Letter from H. Druckey previously accepted by Krebs as a research worker in his laboratory, 24 May 1933 (Rem. & Refl., pp.72-73).

Correspondence with F.G. Hopkins re move to Cambridge, June 1933.

List of scientific equipment brought by Krebs from Germany to England.

Letter from R.A. Peters about a post at Oxford, 27 June 1933 (Rem. & Refl., pp.85-86).

Warning of final notice of termination of appointment at Freiburg signed by the Rector, Martin Heidegger, 15 July 1933.

Letter of appointment as demonstrator at Cambridge, 6 July 1934.

Letter of appointment as lecturer in Pharmacology at Sheffield, 21 October 1935.

Correspondence with J.C. Aub <u>re</u> post at Harvard Medical School, 1933-34. See also A.424.

Photocopies of Krebs's application and confidential letters from referees (F.G. Hopkins and D. Keilin) for the Sheffield post.

Letter from F.G. Hopkins offering a position in his laboratory, 12 January 1936, with Krebs's draft reply (Rem. & Refl., p.96).

Copy of Krebs's published paper (with W.A. Johnson), 'The role of citric acid in intermediate metabolism in animal tissues' (Bibliog. 62).

Change of appointment at Sheffield from Lecturer in Pharmacology to Lecturer in Biochemistry, 17 February 1938.

Letters from German Consul at Liverpool, May, June 1938 (Rem. & Refl., pp.102-103).

An APPEAL for ... BRITONS. Anti-refugee leaflet circulated at Sheffield, 1938 (Rem. & Refl., p.101).

'Original copy' of paper containing the first announcement of the citric acid cycle, 10 June 1937. This is the paper submitted to Nature for publication as a Letter and returned by the Editor because 'he had already sufficient letters'. In his own typescript introduction Krebs notes that it was never published: 'Instead a full paper was submitted to Enzymologia on June 27th and published within three months. (Bibliog. 62.) This work was awarded a joint Nobel Prize in 1953'. Krebs indicates in his introductory note that the 'next page' in the binder should be the letter from the Editor of Nature. This page is, however, missing from the binder. (Rem. & Refl., pp.98-99.)

Statement on Krebs's scientific work compiled by him at the invitation of A.C. Chibnall, with reference to his candidature for the Royal Society, 20 September 1945.

Offer of a Chair of Biochemistry at the Chester Beatty Research Institute, 3 June 1947.

Correspondence with the Editors of Nature, October, November 1953, in which Krebs refers to his 'experience of 1937 and ... the difficulty (sometimes) of assessing the merits of a paper'.

A.28

'Documents from the Life of a Scientist II' 1946-66, 1978

Documents re Krebs's career and honours at Sheffield and Oxford, including:

Printed copy of Krebs's inaugural lecture as Professor of Biochemistry, Sheffield, 8 May 1946 (Bibliog. 111).

Correspondence re enquiry from the University of Basel about a Chair of Physiological Chemistry, October 1946.

Papers re reestablishing contacts after the war with former German colleague (K. Henseleit), February 1947.

Election to Fellowship of the Royal Society, March 1947.

Election as 'Socio Straniero, Accademia Nazionale dei Lincei', 7 July 1951.

Memorandum on the Department of Biochemistry, Sheffield, submitted to the University authorities on the occasion of the offer of a Professorship at Harvard, November 1951. Krebs notes that 'in consequence of this memorandum the University decided to provide additional space in the Scala Cinema. This made the institution of an honours school possible'.

A.28 (Cont'd.) American Public Health Association's Lasker Award, 12 November 1953.

Photocopy of letter from the Dean of the Medical Faculty, University of Freiburg, 21 November 1953, enclosing testimony written by E. Rehn in December 1932. (Rem. & Refl., pp.170-171). For originals see A.31.

'The citric acid cycle'. Nobel Lecture, Stockholm, 11 December 1953 (Bibliog. 173). Printed copy.

Copy (reduced size) of Nobel Diploma, 10 December 1953.

Krebs's speech at dinner given in his honour by the Friends of the Hebrew University of Jerusalem, 27 January 1954.

Honorary Degree, University of Chicago, 19 March 1954.

Offer of Whitley Professorship of Biochemistry, Oxford, 8 May 1954.

Memorandum on the future of the Biochemistry Department at Sheffield, written at the invitation of the Vice-Chancellor, 4 August 1954.

Royal Medal, 30 November 1954.

Address of welcome by the Dean of the Faculty of Medicine, University of Freiburg, 5 July 1955; typescript copy of Krebs's introduction to his Aschoff Memorial Lecture and reprint of lecture (Bibliog. 179).

Member of Deutsche Akademie der Naturforscher Leopoldina, 7 June 1956.

Honorary Doctorate, University of Paris, 29 October 1956.

Foreign Honorary Member, American Academy of Arts and Sciences, 8 May 1957.

Knighthood, 1958.

Admiral in the Texas Navy, 6 October 1958.

Honorary Doctorate, University of Sheffield, 12 May 1959. See also A.29.

Sagamore of the Wabash, 13 November 1966.

Letter from W.A. Johnson, 6 June 1978. (Krebs's collaborator on Enzymologia paper, Bibliog. 62.).

A.29

Untitled

1959-65

Documents <u>re</u> various honours and awards, mainly certificates, but including speeches of public orators presenting Krebs for honorary degrees at Sheffield and London Universities (1959) and draft of Krebs's address on the occasion of the conferment of an honorary degree by the Hebrew University of Jerusalem (1960).

A.30

Untitled

1955, 1964-78

Documents re various honours and awards, mainly certificates, with speeches of presentation and a little correspondence; also includes H. Theorell's reply to Krebs's congratulations on the occasion of his Nobel Prize (1955).

A.31

Large format hardback scrapbook consisting of miscellaneous gatherings assembled by Krebs and bound in book form. This is apparently the scrapbook referred to by Krebs in his autobiography (Rem. & Refl., p.166).

Principally correspondence, photographs and newspaper-cuttings rethe rumoured award of a Nobel Prize in 1952 and the actual award in 1953, with Krebs's typescript diary of events, 19–24 October 1952 and 12–25 October 1953.

Documents include:

Letter from F. Cedrangelo informing Krebs that he had nominated him for a Nobel Prize, January 1952.

Letters of congratulation (1952).

Photographs of Krebs and family (1952).

Letter from H. Theorell requesting photograph of Krebs for his Institute, 8 October 1953.

Letter from Rector of the Royal Caroline Institute confirming his telegram re award of Nobel Prize, 23 October 1953. The telegram itself is not in the scrapbook.

Material re travel to Stockholm and award ceremonies.

Speech by F. Davies, Professor of Anatomy, Sheffield, at dinner given in Krebs's honour by the University.

Address by R.N. Salaman at a dinner in Krebs's honour given by the Friends of the Hebrew University in Sheffield.

A.31 (Cont'd.)

Draft of Krebs's speech at a dinner in his honour given by the Friends of the Hebrew University of Jerusalem at the Savoy Hotel, London.

Letter from F. Lipmann <u>re</u> joint 'Smoker' talk with Krebs at the Atlantic City Federation of American Biological Chemists meeting, 1954.

Newspaper-cuttings re Krebs's election to the Whitley Professorship of Biochemistry, Rockefeller grant for Krebs's research and the award of a Royal Medal (1954).

A.32

Large format hardback scrapbook similar to A.31 above.

Principally correspondence, newspaper-cuttings and photographs <u>re</u> visits and conferences, 1957-70, which should be consulted in conjunction with similar material in Section F.

The visits include J.R. Geigy A.G. bicentenary celebrations in Basel (1958), Lindau meetings of Nobel Prize winners, and Indianapolis Enzyme Regulation Symposia.

A.33

Blue large format hardback scrapbook containing material <u>re</u> 1949 visit to USA, including schedule of visit but principally miscellaneous memorabilia. Many loose items. See also F.8-F.16.

A.34

Small format scrapbook with record of journey to Oslo, 17-26 May 1952, including correspondence re arrangements and Krebs's ms. diary of events. Some loose items. See also F.20.

A.35

Blue quarto-size binder containing gatherings of items assembled by Krebs re his visit to USA in 1954. See also F.23-F.46.

Miscellaneous memorabilia including invitations, receipts and (loose) two photographs taken on board RMS Queen Mary.

A.36

Large format softcover scrapbook, with record of Krebs's visit to Houston, Mexico, Berkeley and Philadelphia, December 1961. See also F.99, F.100

Correspondence re arrangements; invitations declined; lecture programme and poster; newspaper-cuttings; miscellaneous memorabilia. Many loose items.

A.37

Quarto-size ringback loose-leaf binder containing a collection of documents in plastic covers re Krebs's visit to Charlotte North Carolina, January 1978. Some loose items. See also F.314.

- A.38

 Blue large format hardcover scrapbook containing miscellaneous press-cuttings of interest to Krebs, c.1945-61. The scrapbook is paginated 1-54 and has (on loose pages) a 2pp. typescript index.
- A.39 Red large format hardcover scrapbook containing miscellaneous sayings and quotations of interest to Krebs (typescript and printed), and presscuttings, many of a biographical nature. Some loose items. The scrapbook is paginated 1-108 and has (on loose pages) a 5pp. typescript index. Of particular interest are the press-cuttings re the wartime Vitamin C experiment and a photograph of the volunteers.
- A.40 Large format softcover scrapbook containing miscellaneous sayings and quotations of interest to Krebs (typescript and printed). Some loose items.

A.41-A.399 DIARIES AND JOTTERS

The material is presented as follows:

A.41-A.79 DESK DIARIES 1943-81

A.80-A.106 POCKET DIARIES 1942, 1954-81

A.107-A.114 PERSONAL DIARIES 1941-46, 1946-48, 1957-62

A.115-A.399 JOTTERS 1949-81

Krebs was a compulsive recorder of information, but by no means a systematic one. The various sequences presented here are distinguished as much by format as by content. Certain broad distinctions may nevertheless be drawn.

The <u>Desk Diaries</u> (A.41-A.79) are hard-backed engagement books of fairly standard octavo format. The entries are on the whole summary lists of appointments, meetings, visits, things to do at home or work, shopping lists, birthdays to remember, preparations for journeys, often crossed through as the tasks were performed. Diaries for the later years include more references to scientific work in hand, experiments to undertake, books and articles to be read, instructions for laboratory colleagues, notes of meetings and discussions, and a little more personal material; in his last years, for example, Krebs kept notes at the rear of diaries on his health and its treatment.

The <u>Pocket Diaries</u> (A.80-A.106) with the exception of A.80 for 1942, are all Oxford University Diaries, a very small format until 1980. They record appointments and some general notes but perforce in relatively compressed form.

The <u>Personal Diaries</u> (A.107-A.114) are few in number. The first of this type (A.107, A.108) are exercise books used for diary entries extending over several years, and with some holiday notes by Margaret Krebs. The later diaries (A.109-A.114) are an octave sequence, some in handsome limp leather, all with the initials 'J.L.F.' stamped on the cover. There is also a change of content, or rather of proportion. Personal engagements and memoranda become fewer; scientific information, ideas for experiments, etc. continue; but most of the pages are filled with drafts for speeches (many on the Oxford controversies of the period), letters, shorter writings, or reflections arising from conversations or reading. Most, not all, of these are dated though they do not correspond to the calendar dates, and there are some blank pages unrelated to the holiday or travel periods which occur in the equivalent desk and engagement diaries.

The Jotters (A.115-A.399) are in many respects a development of the personal diaries, except in format. They are small soft-backed books which Lady Krebs describes as 'bought at Woolworths' though some obviously originate abroad. Krebs seems to have begun this type of journal in 1949 and continued to the end of his life. They were in essence travel diaries in which he would record in careful detail his journeys, meetings, discussions, purchases, reflections on general topics, research ideas, etc. The small format and easy replacement suited Krebs's temperament perfectly, but at the same time create problems of dating and attribution. The original intention was to keep a jotter for each journey; sometimes, however, a year's travel or, more frequently, a complicated lecture and conference trip to several centres can be found in one book. In later years, Krebs's travel became so extensive that a considerable number of jotters would be used in a single year and Lady Krebs confirms that he would have five or six in use at the same time. Usually there is a starting date at the front or on the cover and the contents can be assumed to extend forwards but not retrospectively from it. Sometimes the pages are numbered; occasionally there is an index; the middle or rear pages are often used for general reflections while a more or less chronological sequence of events is recorded at the front. Many of the later jotters include autobiographical Some of the more extended writings on all or self-analytical passages.

topics, often become the basis of the short typescript notes found throughout the collection. Examples of pages torn out of jotters for this purpose can be found at A.134, A.249, A.377 and many other jotters can be seen to have been mutilated in this way.

All these categories of notebook, which are all autograph manuscript, may include loose pages, letters, notes, press-cuttings, etc. which are mentioned though not always itemised in the catalogue entries. The variety of the material, which often overlaps disconcertingly with similar documentation elsewhere in the collection, makes this section an important supplementary source for Krebs's personal and scientific development.

A.41-A.79

DESK DIARIES

1943-81

A.41 1943

Includes notes of meetings pasted in, and, as loose pages, presscuttings, correspondence, note of diet administered to volunteers November 9th, letter of news of family and Jewish friends.

A.42 1944

Includes items pasted in, and as loose pages.

A.43 1945

Includes a few loose intercalated pages.

A.44 1946

A.45 1947

A.46 1948

A.47 1949

Includes a few intercalated pages, and some items as loose pages (at rear of book).

A.48 1950

Includes a few loose intercalated pages.

A.49 1951

At rear of book are Krebs's notes on negotiations with Sheffield over his possible move to Harvard (Rem. & Refl., pp.180–185). See A.470-A.476.

A.50 1952

Includes a few intercalated pages, and items pasted in.

A.51 1953

Includes a few intercalated pages.

A.52 1954

Note: the diaries for 1953 and 1954 are of different format from those preceding and following them.

A.53 1955

A.54 1956

Includes a few intercalated pages, and one letter.

A.55 1957

Some health notes at rear of book.

A.56 1958

Some health notes at rear of book.

A.57 1959

Includes a few loose pages, and items pasted in.

A.58 1960

Includes a few loose press-cuttings.

A.59 1961

A.60 1962

A.61 1963

Includes a few intercalated items.

A.62 1964

Includes a few loose press-cuttings; some health notes at rear of book.

A.63 1965

Includes Krebs's notes of negotiations about his post-retirement laboratory space, and some health notes at rear of book.

A.64 1966

Includes a few press-cuttings, pasted in and as loose items.

A.65 1967

Includes a few items pasted in and as loose pages.

A.66 1968

Includes a few items pasted in and as loose pages.

A.67 1969

Includes a few items pasted in and as loose pages; some health notes at rear of book.

A.68 1970

Some health notes at rear of book.

A.69 1971

Includes several items pasted in or as loose pages, and health notes at rear of book.

A.70 1972

Includes a few items pasted in or as loose pages, and health notes at rear of book.

A.71 1973

Includes several intercalated items, and loose pages at front and rear of book; health notes at rear of book.

A.72 1974

Includes several items pasted in or as intercalated pages; health notes at rear of book.

A.73 1975

Includes several items pasted in.

A.74 1976

Includes a few items pasted in or as intercalated pages; brief health notes at rear of book.

A.75 1977

Includes a few items pasted in or as loose pages; brief health notes at rear of book.

A.76 1978

Includes several items pasted in; health notes at rear of book.

A.77 1979

Includes several items pasted in, and a few loose pages; health notes at rear of book.

A.78 1980

Includes several items pasted in and some loose pages intercalated and at front and rear; health notes at rear of book.

A.79 1981

Includes several items pasted in and some loose pages at rear. Extensive health notes.

	A.80-A.106 POC	KET DIARIES	1942, 19	54-81
	A.80	1942		
A.81	1954-55	A. 8	4	1 957-5 8
A.82	1955-56	A.8	5	1958-59
A.83	1956-57	A.8	86	1959-60
A.87	1960-61	A.9	2	1965-66
A.88	1961-62	A.9	3	1967
A.89	1962-63	A.9	94	1967-68
A.90	1963-64	A.9	5	1968-69
A.91	1964-65	A.9	96	1969-70
	D. (1070 71)			
N.B.	Diary for 1970-71 is r	nissing		
A.97	1971-72	A.1	02	1976-77
A.98	1972-73	A.1	03	1977-78
A.99	1973-74	A.1	04	1978-79
A.100	1974-75	A.1	05	1979-80
A.101	1975-76	A.1	06	1980-81

A.107-A.114 PERSONAL DIARIES 1941-46, 1946-48, 1957-62

A.107 Exercise-book used as diary, with many press-cuttings pasted in and others left as loose items; letters, postcards, notices of meetings also pasted in or inserted in the book.

The entries run 23 December 1940-23 May 1946 and include domestic and scientific material, and also many press-cuttings on the progress of the war with comments and reflections by Krebs. There are a few entries by Margaret Krebs about family holidays, children's progress, etc. Some of the pasted-in material is similar to that sometimes chosen for the scrapbooks (qqv.) or used by Krebs in his autobiography. It includes:

- 11 March 1941 Acknowledgement of Krebs's letter to Churchill 'on the importance of home production'
- 6 May 1941 Meeting with J.G. Crowther about yeast production from bracken (Rem. & Refl., p.123)
- 2 February 1942 Letter from T. Davidson with news of relatives in Germany
- 24 March 1945 Notice of conferral on Krebs of title of professor of biochemistry at Sheffield
- 18 May 1945 Extract from letter from Canon A.C. Austen about his meeting with Krebs's family during the last days of the war (quoted in Rem. & Refl., pp.147-48 when the date of the letter is given as 16 May). Also enclosed is a photocopy of a note from Maria and Gisela Krebs (date not legible) describing the meeting.

A.108 Exercise-book used as diary, with press-cuttings pasted in and others left as loose items; letters, postcards, various personal and other items also inserted at front and rear of book. The content is similar to A.107 but covers a shorter period and is less consistently maintained.

Entries run 7 June 1946-25 October 1948.

At front of book - miscellaneous family letters, including letters of recommendation (1946, 1947) for Maria Krebs to visit England.

At rear of book - press-cuttings.

A.109-A.114	Sequence of limp leather diaries all with initials 'J.L.F.' on cover.	
A.109	1957 Includes, at rear of book, 2pp. ms. notes on 'Use of power' and 'Service' dated November 1956.	
A.110	1958	
A.111	1959 With part index at rear.	
A.112	1960	

A.113 1961 With some loose pages, including note on 'Research Councils and University Research' dated 15 November, from D.D. Woods.

A.114 1962

N.B. The initials 'J.L.F.' are those of Krebs's father-in-law, Joseph Leo Fieldhouse. 'HAK used up the unwanted diaries passed on by JLF!' (Information from Lady Krebs, May 1986.)

A.115-A.399 JOTTERS 1949-81

These are too numerous, and their content too heterogeneous, to be described in detail (see the introductory note). Dates and places given by Krebs are quoted in inverted commas, and a little additional information is given where it is felt to be of special use or interest. Cross-references to Section F, Visits and Conferences, is likewise given only exceptionally, since they can be linked relatively easily from the dates. In many cases, the jotters fill out the information or attest to shorter journeys not documented elsewhere.

From the early 1970s almost all the jotters contain ideas, memoranda or narratives for Krebs's autobiography; in addition, from 1979 they all reflect his thoughts on evolution in preparation for the Dunham Lectures.

The presentation is chronological as far as this is ascertainable; undated jotters are at A.392-A.399.

A.115	'1949 American Journey'. March-April. Paginated 1-128.
A.116	'1949 USA Hildesheim'. This was Krebs's first visit to Germany after the Second World War (Rem. & Refl., pp.155-157).
A.117	Notebook inscribed 'Material on fermentation chapters'. Several pages torn out. Some dated September 1951.
A.118	'Teleology'. Some pages dated September 1951.
A.119	'Norway' April 1952 (and several other journeys in Britain and abroad).
A.119A	'Summer holiday 1952' (and other material, some dated November 1952).
A.120	'1953 Heidelberg, Freiburg, Schweiz' (and several other journeys). Various dates June-October 1953. Cover also bears a note 'See last pages On Spending One's Time' (a 2pp. note headed 'Train Hook

21/6/53'). There is also a 'Draft New York', see A.121.

	<u> </u>
A.121	New York November 1953. See also A.122.
A.122	'Stockholm 1953' (for Nobel Prize).
A.123	Sheffield 1954. Includes preparations for journey to U.S.A.
A.124	'U.S.A. 1954' (lacks cover). February.
A.125	'U.S.A. 1954' February.
A.126	'U.S.A. 1954'. Several pages torn out.
A.127	U.S.A. 1954. Annual diary with entries from 8 March to 5 May.
A.128	'USA 1954' Similar dates but with additional material.
A.129	'Oxford Summer 1954. Exploratory visit May 18th 1954' (also later visits).
A.130	'Visit to Oxford London 6/7 July 1954. Till September 1954'
A.131	'Jobs at Oxford' Various dates October-November 1954.
A.132	Similar material on Oxford laboratory and personnel, various dates October 1954-March 1955.
A.133	'US 1954' October.
A.134	Dec. 1954 and Jan. 1955. Loose pages torn from a jotter.
A.135	'Sheffield 1955' March-April (and Oxford).
A.136	'Freiburg' July 1955.
A.137	'Warzburg' July 1955.
A.138	'Holiday 1955 Brussels Congress Biochemistry' July-August 1955.
A.139	November 1955, and some pages dated February, June 1956.
A.140	Undated, found with 1955 notebooks, and same format. Many pages torn out.
A.141	'Hamburg 1956' September. Also includes Brussels and Rome.
A.142	'Hamburg-Rome trip'. Similar format and material to A.141.
A.143	'Paris November 1956'

'Summer Holiday 1957'

A.144

A.145	Nov. 1957. Many pages torn out.
A.146	Dec. 1957 - April 1958, paginated 1-79 and some unnumbered pages; part index on p.1.
A.147	'Holland March 1958'
A.148	'Holiday 1958' (and some pages 1959)
A.149	'USA 1958' New York, October, paginated 1-41 and some unnumbered pages.
A.150	'Paris March 1959' on front cover. On rear cover 'Paris 1964 3-6 November', paginated 1-10.
A.151	'1959 Ciba Symposium', May.
A.152	'Ciba 1959' June (and November 1959); some pages torn out.
A.153	June-July 1959. Switzerland, Hamburg, Paris.
A.154	'USA Sept, Oct 1958 [pp.11-47. Switzerland, Saar, Paris June-July 1959 [pp.148-90'.
A.155	'Germany 1960'. An empty cover from which all pages have been removed.
A.156	'USA 1960' February-March.
A.157	'USA 1960' One page dated March.
A.158	'USA 1960' April.
A.159	'Israel 1960' March.
A.160	'Israel 1960' March-April.
A.161	May-June 1960.
A.162	'Lindau 1960 & 1961 Freiburg 1961' (also Lindau 1963); some pages torn out.
A.163	June, July 1960; some pages torn out.
A.164	'August 1960 1' (visit to Germany); some loose items tucked in; includes 'Reflections on German National Character'.
A.165	'August 1960 2' (as above).

A.166	'Berlin 1961' May.
A.167	'Holiday 1961'. Many pages torn out.
A.168	'Holidays 1961' Various dates January-July.
A.169	'USA Mexico 3-19 Dec. 1961'. Paginated 5-113 and some unnumbered pages.
A.170	'Trip to Israel March 1962'
A.171	'Easter 1962 Concarneau. Whitsun 1962 Louvain Symposium'. Paginated 1-45 and some unnumbered pages. Some pages torn out.
A.172	'1962' Various dates July, August 1962; paginated 13-96 with several pages torn out. Mainly drafts and ideas on university reform, science and creativity, etc. Part index on back cover.
A.173	'Holiday 1962' Various dates July, August; paginated 2-38, and also includes Munich August 1963.
A.174	'Trip to Harvard, Indianapolis September 1962'
A.175	'Diary Harvard, Indianapolis September 1962'
A.176	'1962 Scandinavia'. Many pages torn out.
A.177	'Scandinavian Trip December 1962'
A.178	'Science Only Scandinavia December 1962' Paginated 1-25 and some unnumbered pages.
A.179	'US 1963 March. Dartmouth Kansas City'
A.180	'US 1963 March'. A few pages torn out.
A.181	'US 1963'. March; many pages torn out.
A.182	'Edinburgh May 1963 Poultry Research Centre' and other material; several pages torn out.
A.183	'Summer 1963 Marseilles' July-August.
A.184	'Indianapolis 1963' Many pages torn out.
A.185	'1963 Indianapolis'. Diary September-October.
A.186	'Indianapolis 1963' October.

A.187	'California February 1964 Deuel Conference. Diary'
A.188	'California Feb. 1964'
A.189	'Spain 1964' March.
A.190	'1964' May, Honorary Degree at Leeds; a few pages torn out.
A.191	'Notts 1964' Some pages dated July.
A.192	'US 1964. Int. Biochem. Congress' July-August. Paginated 1-37 and some unnumbered pages.
A.193	'1964 New York [July] - Wengen [August].' Paginated 1-81; index on inside front cover.
A .194	'Wengen 1964' August. Paginated 1-80; index on inside front cover.
A.195	'Notes 1964' November-December; mainly notes and drafts for Franks Commission; a few pages torn out.
A.196	'Houston November 1964. Welch Foundation Symposium'. Diary, paginated 1-23; schedule of visit pasted in.
A.197	'1965' General notes December 1964-January 1965, paginated 1-53 and some unnumbered pages; some pages torn out. On pp. 32-33 is 'My travel record' 1961-64 and a note of trips planned for 1965.
A.198	General notes, some dated March 1965; many pages torn out.
A.199	'1965 Vienna' European Biochemical Congress, 20-24 April; note of travel plans for 1965 on inside back cover.
A.200	'USA' Exercise-book, some pages dated May 1965; many pages torn out.
A.201	'1965 USA' May-June.
A.202	'USA 1965' May-June.
A.203	'Germany 1965' June-July.
A.204	'Italy 1965' September.
A.205	'1965 Portugal Indianapolis' September-October.
A.206	'1965 Indianapolis' Paginated 1-93; some pages torn out.

March-April.

'1966 Israel Warsaw'

A.207

A.208	'Spring 1966 Jerusalem Warsaw'. Paginated 1-88, index on p.1; several pages torn out.
A.209	'Lindau Hildesheim 1966' June-July.
A.210	'Indianapolis Bordeaux 1966. Indianapolis 1967 1968' Paginated 1-159, with index on inside front cover (continued on pp.31-32) and travel schedule for 1966 on inside back cover. Visits to Indianapolis and Bordeaux are October 1966. Second visit to Indianapolis is September-October 1967 (p.47 et seq.) and third visit is September-October 1968 (p.59 et seq.). Includes some material about the Oxford Chair.
A.211	'USA November 1966 Yale Galveston'. November-December.
A.212	'USA November 1966 Mexico' Paginated 1-73 and some unnumbered pages.
A.213	'1966' London, December. Paginated 1-49 and some unnumbered pages.
A.214	General notes, some dated January, March 1967.
A.215	'Bari March 1967 May 1968'
A.216	'Oestrich Symposium 27-29 April 1967'
A.217	'Oslo 1967 FEBS' July.
A.218	General notes, some dated September, October 1967. Travel schedule for 1967 on inside back cover.
A.219	'Indianapolis' October 1967.
A.220	'Indianapolis 1967'
A.221	'Stockholm 1967' November.
A.222	'Helsinki Stockholm 1967' Nov. Scientific drafts and notes at front, paginated 1–51; diary at rear, paginated 1–17.
A.223	'1967 Oxford' General notes.
A.224	'Notes'. Undated but includes notes for speeches related to retire- ment from Oxford.
A.225	'1968'; inside cover inscribed 'December 1967'; general notes December 1967-January 1968.

A.226	'USA January 1968 Boston Philadelphia'
A.227	'USA January 1968 Boston Philadelphia'
A.228	'USA March 1968' Diary and notes February-March.
A.229	'1968 California USA & Notes on General Matters' Many pages torn out. See A.230.
A.230	Pages torn from notebook, headed 'Flight Dallas - London 17.3.68'
A.231	'1968' General notes and drafts, May.
A.232	'Tutzing Feldafing 1968' June.
A.233	'1968 Feldafing' June.
A.234	'FEBS Prague July 1968'
A.235	'Salisbury Cove. Washington 1968' Exercise-book of notes and drafts August, referring to visit to Mount Desert Island Biological Laboratory, Maine, and to XXIV International Congress of Physiological Sciences, Washington D.C.
A.236	'US 1968' August.
A.237	'Indianapolis 1968' September-October; paginated 1-29 and some unnumbered pages.
A.238	'Visit to US October 1968 Indianapolis' September-October.
A.239	'Philadelphia 1968' October.
A.240	'1968' General notes and drafts.
A.241	'1969' Freiburg 5-9 January.
A.242	'MGH [Massachusetts General Hospital] Boston Jan. 1969'
A.243	'Boston Miami 1969 January'
A.244	'Israel 1969' March-April.
A.245	'Madrid 1969' (FEBS Congress) April.
A.246	'Berlin 1969' May.
A.247	'Berlin', May; and later journey to Europe June-July.

A.248	'June 1969 Lindau Notes' Many pages torn out, see A.249.
A.249	Notes on motivation of research, dated 30 June 1969 on pages torn from notebook, similar format to A.248.
A.250	'Stockholm Konstanz 1969' September.
A.251	'Stockholm 1969' September (and August).
A.252	'Konstanz 1969' September.
A.253	'USA Sept./October 1969'
A.254	'Visit to Indianapolis & Philadelphia 1969' General notes, some dated September 1969 (1p. dated March).
A.255	'Hildesheim' December.
A.256	'Boston 1969' Diary.
A.257	'Dec. 1969 Boston London' General notes and drafts including 'MGH Report' (see A.258); some pages torn out.
A.258	'MGH Dec 1969 1970 Early part' General notes and drafts, many pages torn out; travel schedule for 1970 on inside back cover.
A.259	'1969' General notes and drafts.
A.260	'Schering 1970' General notes and drafts (includes a few notes dated October 1969).
A.261	'CIBA February 1970'
A.262	'Hildesheim Berlin Göttingen 1970' February.
A.263	'FLIMS 1970' March (in Switzerland).
A.264	'FLIMS 1970'
A.265	'USA April 1970'
A.266	'Marburg 1970' May.
A.267	'Oslo 1970' May; also Amsterdam.
A.268	'July 1970 Hamburg Heidelberg'
A.269	Undated, perhaps October 1970; very many pages torn out.

A.291

Biographical and autobiographical

August-September. Paginated 1-121. Italy 1970' 'Switzerland A.270 Paginated 3-119; index on pp.15-17. 'Indianapolis October 1970' A.271 'Halle 1970' November. A. 272 A.273 'Munich 1970' November. Paginated 1-57. General notes and drafts, some dated November, December 1970 and A. 274 1971; several pages torn out. 'Louvain' March 1971. A.275 April-May 1971' A.276 'Canada, US 'Canada - US 1971' April-May. A.277 'Madrid 1971 & 1972' Both visits in May. A.278 General notes and drafts, some dated June. Many pages torn out. A.279 'Holiday 1971' June. A few pages torn out. A.280 'Indianapolis 1971' October. A.281 Undated, probably October 1971 Index inside front cover; many pages A. 282 torn out. General notes and drafts, some dated November, December 1971. A.283 Index inside December 1971 January 1972' A. 284 'Miami Indianapolis front cover; paginated 1-100. '1971/1972' General notes and drafts. Several pages forn out. A.285 General notes and drafts. Paginated 1-71; index on p.1 '1971/2' A.286 and inside front cover. 'Israel 1972' March-April. A.287 'Germany 1972' April. Includes some loose pages torn from another A. 288 notebook and dated February 1970. 'Madrid May 1972', paginated 1-59. A.289 'Holland August 1972' (and some later notes). A.290

'Lindau 1972' June-July (and some notes dated September). Brief

index on inside front cover.

A.292	'Kansas City Indianapolis 1972 Washington Bethesda' September. Paginated 2-118; index on inside front cover and front page.
A. 293	General notes, mainly October-November 1972.
A.294	General notes and drafts, some dated October 1972, and some related to Indianapolis visit.
A.295	Malta, December 1972. Paginated 1-31.
A.296	Malta, December 1972.
A. 297	General notes and drafts, mainly on historical topics, perhaps for work on Warburg. Undated but kept with 1972 material.
A.298	General notes and drafts, some dated April 1972, some related to visit to Copenhagen.
A.299	'Copenhagen, Hamburg, Bonn 1973' May (and some later notes).
A.300	'Bellagio 1973' General notes and drafts.
A.301	'Bellagio' May. Includes work for Indianapolis.
A.302	'Trier. Irish Holiday 1973' July-September (and some later notes).
A.303	'US' September-October; part engagement schedule on inside front cover and front page.
A.304	'USA Sept. 1973' September-October.
A.305	'USA October 1973 Columbia Iowa City Chicago Philadelphia' October-November.
A.306	'USA October 1973'
A.307	'1973/74 Notes'
A.308	General notes and drafts; same format as A.307 and kept with it; several pages torn out.
A.309	'Visit to Freiburg November 1973'
A.310	General notes and drafts (undated but kept with 1973 material).

A.311	General drafts and notes, including notes for Indianapolis dated February 1974; last entry in book, dated April 1973, is notes on 'Causes of Poverty'.
A.312	'Israel 1974' March. Paginated 3-71; index on front page.
A.313	'EMBO 3-5 April 1974 Sheffield'
A.314	'Hannover 1974' April.
A.315	'Madrid Kronberg Düsseldorf Bonn' (and other visits). May- June. Paginated 1-157.
A.316	'Kronberg 1974' May.
A.317	'Berlin 7-10 July 1974'
A.318	General notes and drafts, some dated June, July 1974. Paginated 1-29 and some unnumbered pages.
A.319	'Düsseldorf, Indianapolis, Philadelphia October 1974'
A.320	'Jerusalem' November.
A.321	'USA 1974/75' December 1974-January 1975. Paginated 3-119; index on first page.
A.322	General notes and drafts, some dated December 1974.
A.323	Visit to Hanover, February, and other notes.
A.324	'Seville Brussels 1975' Paginated 1-85, index on inside front cover.
A.325	'Vacation travel 1975' March-April. Paginated 1-83; index on inside front cover.
A.326	'Travel May-June 1975' Visits to Madrid, Valencia, Bordeaux, Bonn. Paginated 1-79.
A.327	'June 1975 Basel-Lindau'
A.328	General notes and drafts, mainly at Lindau, June 1975.
A.329	'Barcelona USA 1975' September-October.
A.330	'Boston 1975' General notes and drafts; a few pages torn out.

A.331	'USA October 1975'
A.332	'Hildesheim 28-30.11.75' Visit for 750th Anniversary of the 'Andreanum' (Krebs's old school) (Rem. & Refl., pp.9-10).
A.333	Undated notes and drafts (kept with 1975 material).
A.334	Undated notes and drafts (kept with 1975 material).
A.335	'Malta 1976' January.
A.336	'Berlin February 1976'. With some loose intercalated pages.
A.337	'Notes for Philadelphia' Begins February, includes visit in August.
A.338	'Australia 1976' April-May. Paginated 1-93.
A.339	General notes and drafts, some during visit to Australia. Paginated 1-89.
A.340	'Bonn Konstanz Hamburg Passau 1976' May-June.
A.341	'May 1976' General notes and drafts.
A.342	'1976' June; mainly related to visit, but some more general notes.
A.343	'Hamburg' International Biochemical Congress, July.
A.344	'USA September 25 to October 5 1976' Paginated 1-97.
A.345	Spiral-bound notebook of drafts and notes written during visit, a few only dated September.
A.346	'Munich Zurich Nov. 1976'
A.347	'US January 1977 Miami Houston'. Paginated 3-95; index inside front cover.
A.348	Larger format exercise-book of general notes and drafts, several related to Miami visit. Index inside front cover; very many pages torn out.
A.349	'Ulm' February 1977. Paginated 1-111; index on p.1.
A.350	Israel, March 1977. Paginated 1-111; index on p.1.
A.351	Larger format exercise-book of general notes and drafts, several related to Israel visit and dated March 1977. Paginated 1-79; index inside back cover; many pages torn out.

A.352	'May 1977 Indianapolis - Toledo (Ohio) - East Lansing (Michigan) Bermuda' Paginated 1-109; index inside front cover.
A.353	'June 1977 Pour le Mérite Frankfurt Marburg'
A.354	'Philadelphia' September-October. Paginated 1-123.
A.355	General notes and drafts. Paginated 1-71; index inside front cover.
A.356	'USA 1978 January Miami, Dallas Charlotte' Large format exercise-book. Paginated 23-71; index inside front cover; many pages torn out. Includes some notes on other topics, and some dated May, June 1979.
A.357	'Trip US January 1978' Paginated 3-112.
A.358	'Berlin München March 1978' (and some later notes).
A.359	'1978 Boston Evanston Bonn Lindau' (visits to Boston and Evanston in April, to Bonn in May, to Lindau June-July). Paginated 1–103, index on back cover.
A.360	'1978 Braunlege Augsburg Rockville-Bethesda Madison' (visit to Germany in September, to US in October).
A.361	General notes and drafts, some dated October and continued from A.360; also includes reflections 'On 80'.
A.362	General notes and drafts related to 1978. Paginated 1-111, index inside front cover.
A.363	General notes and drafts, December 1978 and later.
A.364	'Saarbrücken Düsseldorf 5-8 March Berlin 14/15 March' (Visit to Berlin was for the publication of Krebs's biography of Warburg). Also visits to Hamburg and Hildesheim May-June, and Liverpool.
A.365	Larger format exercise-book of general notes and drafts, mainly in German, some dated March 1979.
A.366	Larger format exercise-book of general notes and drafts, some dated March, April 1979, a few dated August 1980; some pages torn out.
A.367	General notes and drafts, some dated August, September 1979.
A.368	General notes and drafts, some dated September, October 1979. Paginated 1-25 and several unnumbered pages; part index inside front

cover.

A.369	General notes and drafts, some dated September, December 1979, and some February 1980. Paginated 1–109; index on p.1; travel plans for 1980–81 inside front cover.
A.370	'Monte Carlo US Mexico Nov-Dec.1979' Paginated 1-105; index on pp.28-29.
A.371	Larger format exercise-book of notes and drafts made during visits and dated November-December 1979. Paginated 1-75; index inside front cover; some pages torn out.
A.372	Larger format exercise-book of notes and drafts December 1979. Paginated 1-33 and some unnumbered pages; index on p.1 and inside front cover; very many pages torn out.
A.373	'Miami Dec-Jan. (1979-80)' Paginated 1-113; index inside front cover.
A.374	'Munich 1980 Madrid' (Visit to Munich in February-March, to Madrid in June; another visit to Munich in July). Paginated 1-103; index on p.1 and inside front cover; a few pages missing, one loose intercalated page.
A.375	'Dallas 1950' (sic) March. Paginated 1-103; index inside front cover.
A.376	Loose pages torn from a different book, Dallas, March 1980.
A.377	'USA May 1980'. Mainly Indianapolis, but also other journeys.
A.378	Larger format exercise-book of notes and drafts, several dated May 1980. Paginated 17-39; many pages torn out.
A.379	'Germany May-June 1980 Liège Düsseldorf Berlin Bonn Göttingen'. Paginated 1-67; index inside front cover.
A.380	Visit to Germany, September-October. Paginated 1-111; index inside front cover.
A.381	Visits to Halle, 10-12 November, and USA 13 November-1 December 1980. Paginated 1-111; index on p.1.
A.382	Larger format exercise-book of notes and drafts, mainly on evolution, various dates November 1980; paginated 1-39; index inside front cover.
A.383	'Notes on evolution', undated but kept with 1980 material.

A.384	Larger format exercise-book of notes and drafts, various dates November 1980-May 1981.		
A.385	Larger format exercise-book of notes and drafts, some dated December 1980, January 1981; a few pages torn out.		
A.386	'USA May 1981 Washington-Harvard'. Also Berlin, May-June, and includes 1p. dated 2 November. Paginated 1-111.		
A.387	General notes and drafts, for US visit and later. Paginated 1–113.		
A.388	'Lindau 1981 June'. Some notes at rear dated 1982 and 1984, perhaps in error.		
A.389	General notes and drafts, 1981.		
A.390	Larger format exercise-book of general notes and drafts, mainly on evolution, some dated June, July 1981.		
A.391	Larger format exercise-book of notes and drafts, 1981.		
A.392-A.399	Undated notebooks		
	A tentative order has been made on internal grounds.		
A.392	'Visit to National Institute for Research in Dairying' c.1954.		
A.393	c.1971		
A.394	Latest reference 1972.		
A.395	Before 1974. Several pages torn out.		
A.396	Latest reference 1974. Several pages torn out.		
A.396 A.397			
	Latest reference 1974. Several pages torn out.		

A.400-A.714 CAREER, HONOURS AND AWARDS

This is a major sequence of documentation on all aspects of Krebs's life, in chronological order.

Of especial interest and importance for the history of Krebs's career are the documents from his student days in Germany (A.400 - A.407), his time in the laboratory of Otto Warburg (A.408 - A.410) and as an assistant in the Department of Medicine at Freiburg (A.411 - A.419) and re his enforced emigration to England where he found refuge first at Cambridge and then at Sheffield (A.420 - A.424, A.436). The documents relating to a possible move to Palestine in the mid 1930s (A.425 - A.435) provide insights into Krebs's thinking on this subject not reflected in his autobiography.

In the postwar period the material <u>re</u> renewing contacts with Germany (A.449 - A.468), the offer of a Professorship at Harvard (A.470 - A.476) and the attempts of the Agricultural and Medical Research Councils to find, at Babraham and Carshalton respectively, larger accommodation for Krebs and his research team than was available at Sheffield (A.477 - A.481) are of particular interest.

The documentation of Krebs's career in this subsection should be consulted in conjunction with the scrapbooks, especially A.27, A.28.

Material respecting Krebs's numerous honours and awards bulks very large in this subsection but there are additional honours recorded with the visits in Section F and the certificates themselves are usually to be found in the scrapbooks especially A.29, A.30. The very substantial material relating to the award of the Nobel Prize in 1953 should be consulted in conjunction with the scrapbook at A.31.

The very numerous letters of congratulation received by Krebs on a great variety of occasions, the birthday greetings especially for his 70th and 80th birthdays and the letters of condolence sent to Lady Krebs often contain interesting reminiscences and tributes of both a personal and scientific nature.

A.400	Miscellaneous items \underline{re} Hildesheim and Krebs's school, the Gymnasium Andreanum.
	Includes school report, 1918.
A.401	'Militärpass': booklet with details of Krebs's military service, 1918.
A.402	Documents <u>re</u> student career at Göttingen University (December 1918 to the end of the summer of 1919).
A.403	Documents re student career at Freiburg University (1919-21).
A.404	Documents re student career at Munich University (1921-23).
A.405	Documents <u>re</u> student career at Berlin University (one term only, winter 1922–23).
A.406	Passport, issued 3 September 1924.
A.407	Documents re Krebs's 'Promotion' to M.D., Hamburg University, 7 August 1925.
	Folder includes earlier 1924 correspondence with Berlin, Halle and Hamburg universities <u>re</u> the acceptability of already published work as a dissertation.
A.408	Documents from the period in the laboratory of Otto Warburg (1926-30).
	Includes Krebs's letter applying for post of laboratory director in Mannheim, 10 May 1928, with copies of his curriculum vitae and list of publications and Warburg's letter of recommendation; also four typescript notes dated between January and May 1929 recording the remarks of 'W'.
A.409	Brief correspondence related to or arising from 1929 visit to USA to attend 13th International Physiological Congress at Boston.
A.410	Correspondence, 1930, re Krebs's search for a post when the time came for him to leave Warburg's laboratory.
	Krebs moved first to the municipal hospital at Altona and then accepted an offer of a post at Freiburg under S.J. Thannhauser commencing 1 April 1931 (Rem. & Refl., pp.43-45).

A.411

Jahresbericht der Freiburger Medizinischen Gesellschaft 1931.

'H.A. Krebs: Versuche über den Kohlehydratabbau in lebenden Zellen' (pp.17-18).

A.412 Correspondence re scientific equipment, 1930-31.

Invitation card for opening of new Freiburg clinic, 1 December 1931.

A.413

Correspondence with C.F. Cori <u>re</u> possibility of Krebs joining his department at Washington University, St. Louis, May-October 1932.

Cori's initial approach was to Warburg.

Letter from Ella Sachs Plotz Foundation <u>re</u> grant for Krebs's research, 2 August 1932.

A.414 Copy of article on Krebs's research written by his collaborator T.H. Benzinger, Kosmos, 1932.

Copy of Nature for 10 December 1932 incorporating F.G. Hopkins's Royal Society Presidential Address, with Krebs's ms. note explaining that the copy was given him by Georg von Hevesy because of Hopkins's reference to his work.

A.415 Invitation card for Krebs's lecture on 'Harnstoffbildung im Tierkörper', Chemisches Gesellschaft Freiburg, 6 June 1932.

Invitation card for Krebs's lecture on 'Untersuchungen über den intermediären Eiweissstoffwechsel', Medizinisch-biologischer Abend der Universität, 18 July 1932.

3 invitation cards for Krebs's lecture on 'Untersuchungen über den Eiweissstoffwechsel', Kaiser Wilhelm-Gesellschaft zur Förderung der Wissenschaften, Berlin-Dahlem, 16 December 1932.

Card confirming payment of membership subscription to 'Verband der Arzte Deutschlands (Hartmannbund)', 7 November 1932.

A.415A Shorter unidentified items, all in German script, n.d. but possibly early 1930s.

Photocopies of important biographical documents, 1932-33. A.416

Many of the originals are to be found in A.27 and were reproduced by

Krebs in his autobiography, Reminiscences and Reflections.

Freiburg University Vorlesungs-Verzeichnis (summer semester 1933); A.417

also photocopy of p.15 which refers to Krebs.

Freiburg University Akademisches Vademecum (summer semester 1933). A.418

Correspondence, price list and receipts re scientific equipment, A.419

1932, 1933 and n.d.

Folder also includes 5 'Eigentumschilder' of the 'Notgemeinschaft

Deutschen Wissenschaft'.

Correspondence re Krebs's departure from Germany and resettlement A.420-A.423

in England, 1933. See also A.27.

A.420 March-April

> Folder includes correspondence with W. Löffler re possible post for Krebs in Zurich, letter from A. Szent-Győrgi encouraging Krebs to write to F.G. Hopkins if he was interested in a move to Cambridge (original of photocopy in A.27) and ms. draft of Krebs's letter to

Hopkins (the letter as sent is in A.27).

May A.421

> Folder includes S.J. Thannhauser's reference for Krebs (3 copies), carbons of Krebs's letters to R.A. Peters, F.G. Hopkins, F. Dickens

and E.J. Allen and correspondence with Rockefeller Foundation.

A.422 June

Folder includes letters from H.K.F. Blaschko, D.D. van Slyke and

E.J. Allen.

July-November A.423

Letter from Krebs in Cambridge, 16 July, noting that everyone

endeavoured to make life easy for him and that he had everything he

needed for work.

Letter from Home Office, 3 August, re length of Krebs's stay in the

United Kingdom.

Letter from the Verband der Ärtze Deutschlands, 16 November, terminating

Krebs's membership.

A.424

Letter from Comité-International Pour Le Placement Des Intellectuels Réfugiés re a post of Physiological Chemist at a Portuguese university, 12 March 1934.

Correspondence with J.C. Aub <u>re</u> post at Harvard Medical School, March-July 1934. See also A.27.

Letters of congratulation on the occasion of Krebs's appointment as Demonstrator in Biochemistry at Cambridge.

Letters from Cambridge University Vice-Chancellor re Krebs's continued residence in the United Kingdom, May and July 1934.

Invitation (inspired by D. Keilin) for Krebs to attend meeting of Royal Society, December 1934.

A.425-A.435 Correspondence and papers re possible move to Palestine, 1934-37.

See also correspondence with D. Nachmansohn in Section J.

For Krebs's own account of his interest in Palestine at this time and his visit there with Nachmansohn in 1936 see Rem. & Refl., pp.90-91.

A.425

Correspondence with J.L. Magnes, Rector of the Hebrew University of Jerusalem, March-August 1934.

Magnes's letter of 23 March informs Krebs of a proposed Cancer Research Institute and invites Krebs to come to the Hebrew University as head of the Division in Cell Chemistry and Metabolism.

A.426 Correspondence with colleagues in Jerusalem, April-August 1934.

A.427 Correspondence with Ch. Weizmann (and R.N. Salaman re meeting with Weizmann), May 1934-December 1935, March 1937.

A.428 Correspondence with Rockefeller Foundation, September 1934.

Krebs sought advice on the financial side of building up a research institute.

A.429

Correspondence with J.H. Quastel, December 1934-January 1935.

Includes long and very important letter from Krebs dated 22 December 1934 in which he explains (in terms of the financial difficulties and more especially the management of the Hebrew University) why he has declined the post at the Cancer Institute. The letter is marked 'nicht abgeschickt'.

A.429 (Cont'd.)	The folder also contains a carbon of the shorter letter (dated 27 December 1934) which Krebs actually sent.
A.430	Letters from the Jewish Agency for Palestine and the Zionist Organisation Central Office (both at 77 Great Russell Street, London W.C.1), May 1935-July 1937.
A.431	Correspondence with the Trustees of the Cancer Research Trust at the Hebrew University of Jerusalem, February-July 1937.
A.432	Brief miscellaneous correspondence <u>re</u> possible move to Palestine, 1934, 1936.
A.433	'Memorandum über die Errichtung eines biologischen Forschungsinstitut in Palestina', Cambridge, 19 May 1935.
	5pp. typescript.
A.434	'Ordnung 5' (on research and teaching) of 'Gesamtdarstellung der Hebraeischen Universitaet, Jerusalem, 1936'.
A.435	Notebook used to keep record of journey to Palestine and (part of) Krebs's stay there, 15 March-9 April 1936, with miscellaneous receipts, tickets, etc., kept as loose papers.
A.436	Duplicated sheet advertising lecturership in pharmacology at Sheffield University; letters from E.J. Wayne to Krebs <u>re</u> his appointment; carbon of letter from Rockefeller Foundation to Vice-Chancellor of Sheffield University <u>re</u> grant for Krebs's research. 1935.
	Letters from Royal Society <u>re</u> application for a Royal Society Government Grant, February 1936.
A.437	'The role of citric acid in intermediate metabolism in animal tissues', 1937.
	2 copies of the paper containing the first announcement of the citric acid cycle which was returned by the Editor of <u>Nature</u> because 'he had already sufficient letters'.
	2 photocopies of the letter from the Editor of Nature returning the paper, 14 June 1937.
	Carbon of Krebs's letter to the Editor of <u>Nature</u> , 7 April 1967, <u>re</u> the 1937 episode.
	See also A.27.

A.438 Letter from Academic Assistance Council re unconditional permit of residence for Krebs, 29 October 1935.

Letters from German Consulate in Liverpool <u>re</u> Krebs's passport, 1937-38. See also A.27.

Letters from French Consulate re visa application, August 1938.

Correspondence re Krebs's naturalisation as a British subject, 1938-39.

A.439 Card indicating that Krebs was registered with the Medical Department Central Office for Refugees and had 'offered his professional services in a time of National emergency'; newspaper-cutting re compulsory registration under a Ministry of Labour and National Service Order; documentation from Royal Society re Central Register (Section for Scientific Research). 1939-40.

A.440 Letter for publication re 'internment and restriction measures against aliens of the C class, that is those classed as "victims of Nazi oppression", submitted to the Manchester Guardian, 4 June 1940.

Letter to the Editors of Nature on the same subject (not for publication) and the Editors' reply, July 1940.

A.441 Copy of letter from Vice-Chancellor, Sheffield University, to Minister of Health, applying for Krebs's inclusion in the Temporary Medical Register, 10 April 1942.

Letter from Registrar, Sheffield University, <u>re</u> deferment of military service, 22 March 1943.

A.442 Duplicated sheet inviting applications for the Johnston Chair of Biochemistry, University of Liverpool; Krebs's letter of application and curriculum vitae, July 1943.

A.443 Letter offering Krebs post of Professor of Biochemistry at Sheffield, 12 February 1945.

Letters of congratulation presented in an alphabetical sequence.

A.444-A.448 Election to the Fellowship of the Royal Society, 1947.

A.444 Correspondence re Krebs's admission to the Fellowship.

Copy of the Sheffield Jewish Journal, June 1947, with report of

Krebs's election.

A.445-A.448 Letters of congratulation presented in an alphabetical sequence.

A.445 B-F A.447 N-S

A.446 G - M A.448 T - Y, unidentified and

first names only

A.449-A.468 Renewing contacts with Germany, 1945-50

At the end of the Second World War, Krebs took very seriously the question of renewing contacts with Germany both in respect of his own family (A.107, A.108, A.775) and of scientific colleagues, and devoted a chapter of his autobiography to discussing it (Rem. & Refl., ch.13). The material presented here was kept together by Krebs and probably used in the preparation of the autobiography.

See also A.28.

A.449 Visit of German scientist (E. Lehnartz) to Sheffield in March 1948.

One letter only.

Invitation from German Biochemical Society for Krebs to attend their annual conference at Frankfurt on 29 and 30 September 1948. Krebs agreed to attend this meeting but owing to 'unforeseen and urgent' duties at Sheffield he was later forced to withdraw.

Correspondence re arrangements with Foreign Office (German Section) and British and German colleagues, May-September 1948.

A.450-A.453 First International Congress of Biochemistry, Cambridge, 1949.

In 1948 the organising subcommittee decided that because of the objections of other continental biochemists, German scientists would not be invited. Krebs felt very strongly that three years after the end of the war the time for such exclusions was past and that as a refugee from Nazi persecution himself he had a special responsibility to advocate the reestablishment of normal relations with Germany. In the end personal invitations were sent to four German biochemists: K. Felix, E. Lehnartz, Th. Wieland and H.-J. Deuticke. (Rem. & Refl., pp.152-153.) See also F.17, H.425, J.51.

A.450-A.452 Correspondence with British, German and French colleagues re admission of German scientists to the Congress.

A.450 September-November 1948 A.452 February-June 1949

A.451 January 1949

A.453 Correspondence, 1972, 1975-76, undertaken by Krebs while researching an article on the 1949 Congress which was published in TIBS, August 1976 (not listed in Bibliog.).

Folder also includes copies of Biochemical Society Committee Minutes, 1946-47; copy of published article; and Krebs's ms. notes on renewing contacts with Germany after the war.

A.454 Annual conference of the German Biochemical Society, Göttingen, 31 August-3 September 1949.

This was the occasion of Krebs's first postwar visit. See Rem. & Refl., pp.155-156.

Brief correspondence \underline{re} arrangements; programme.

A.455-A.468 Correspondence with individuals (mostly Germans) and organisations re renewing of contacts after the war, 1945-49.

A.455 Abderhalden, E. 1947

Relocation in Zurich; starting a new journal.

Benesch, R. (Polish Jewish refugee) 1946

Breusch, F.L. 1947

News of German universities; thanks Krebs for his friendly reception in Sheffield.

A.456-A.459

Bücher, Th.

1945-49

Much of the correspondence relates to Krebs's efforts to help this former collaborator of Otto Warburg secure publication of his scientific papers and includes Krebs's correspondence with editors of journals. See Rem. & Refl., pp.149-150.

Four folders.

A.456 November 1945-June 1946. Includes undated ms. letter (and typescript copy dated 28.11.45 by Krebs) with news of Warburg.

A.457 July-December 1946. Includes carbon of Krebs's letter of 15 August in which he mentions that the idea of providing Warburg with facilities for work in Britain had aroused the violent opposition of some people.

A.458 1947. Includes carbon of Krebs's letter of 16 June in which he discusses the polemical character of Warburg's book Schwermetalle als Wirkungsgruppen von Fermenten.

A.459 1948-49. Includes Bücher's letter of 15 October 1948 with report of the Frankfurt meeting of the German Biochemical Society.

A.460

Butenandt, A.

1947

Krebs wrote that it was time to rebuild international scientific contacts and enquired about C. Martius.

Elsevier Publishing Company / Biochimica et Biophysica Acta 1946, 1949-50

1946 announcement of new journal (BBA).

1949 suggestion that the Board of Editors should be enlarged to include a representative from Germany.

Foreign Office (German Section)

1949

Supply of scientific literature between Britain and Germany.

A.461

Gaffron, H. (refugee)

1949

Meeting Warburg in America; symposium on carbon dioxide fixation to be held in Sheffield in July 1950.

Guyot, Olga

1948

One letter only.

A.461 (Cont'd.)

Handovsky, H.

1945

re article on Cell Metabolism by Krebs (and W.A. Johnson) which had been due to appear in Cellula in 1940. (Bibliog. 125.)

A.462

Kogut, Margot

1947

Postwar conditions in Berlin in general and at the University in particular; securing a copy of Warburg's book for Krebs.

A.463

Kroetz, Klothilde

1946-49

Terrible conditions in Germany; arrangements for a visit to England.

A.464

Kussmann, Eva Maria

1947

One letter only.

Lynen, F.

1948

Scientific cooperation; transporting samples of yeast to Sheffield.

Martius, C.

1948

One letter only.

A.465

re Ostern, P. (Polish biochemist d.1943) 1945-46, 1949.

News of his death in Poland; return to his widow in Poland of valuables left by Ostern in England in 1939.

Parnas, J.K. (Polish biochemist relocated in Russia) 1947

His non-attendance at the International Physiological Congress in Oxford.

A.466

Thannhauser, S.J. (refugee)

1949

Krebs's 1949 visit to the USA.

Tidow, G.

1946-49

Includes correspondence <u>re</u> shortage of medical supplies in Germany, especially insulin.

A.467

Warburg, O.H.

1945, 1947

1945. Correspondence with H.K.F. Blaschko and J.S. Huxley re news of Warburg.

1947. 2 copies of Krebs's letter to Warburg of 14 June re his book Schwermetalle als Wirkungsgruppen von Fermenten (Rem. & Refl., pp.150-151).

A.468

Weber, H.H.

1947-48

Reprints; the Frankfurt Congress of the German Biochemical Society; the First International Biochemical Congress.

Weil-Malherbe, H. (refugee)

1947

re posts in New Zealand and Geneva.

Wrede, F.

1947

A.469

Documents re Krebs's candidacy for the Sir William Dunn Professorship in Biochemistry at Cambridge, 1949.

Brief correspondence <u>re</u> Krebs's election by the Accademia Nazionale dei Lincei as Socio Straniero della Classe delle Scienze Biologiche, 1951.

A.470-A.476 Correspondence and papers re offer of Professorship at Harvard, 1951.

In May 1951 Krebs received a letter from George Wald, Professor of Biology at Harvard, informing him 'that Harvard's Administration had decided to explore the possibility of appointing a small number of new Professors in the Department of Biology in order to bring a few men of high distinction into the Department'. Krebs expressed interest in such an appointment and Harvard invited him 'to spend a week there as Visiting Lecturer, to give two or three lectures, and discuss the projected professorship' (Rem. & Refl., p.180). Krebs visited Harvard from 16 October and lectured on 'The tricarboxylic acid cycle in micro-organisms', 'The free energy changes associated with the tricarboxylic acid cycle and the efficiency of oxidative phosphorylation' and 'Some aspects of energy utilization in living matter' (Bibliog. 157). See also A.49.

- A.470 Correspondence with Harvard <u>re</u> projected professorship, arrangements for visit; lecture poster.
- A.471, A.472 Correspondence with colleagues and Rockefeller Foundation repossible move to Harvard, other engagements during visit.

 2 folders.
- A.473 Social and personal correspondence during visit.
- A.474 Typescript diary of American visit; miscellaneous ms. and typescript notes.
- A.475 Miscellaneous memorabilia.
- A.476 Correspondence with Harvard and Rockefeller Foundation after Krebs's return to Sheffield; documents re Exchange Control Act, 1947 and Krebs's ms. notes on the financial considerations involved in emigration.

A.485

Biographical and autobiographical

A.477-A.480 Correspondence and papers re projected move of Krebs and his research team to the Agricultural Research Council Institute at Brabraham, near Cambridge, September 1951-January 1952. Four folders: A.477 September-October 1951 Includes typescript notes of Krebs's discussions with Sir William Slater and Lord Rothschild. A.478 November 1951 Includes typescript notes of Krebs's discussions with Sir William Slater, the Vice-Chancellor of Sheffield University and Sir Arthur Trueman (Chairman of the University Grants Committee). A.479 December 1951 (1) Includes typescript notes of discussions with Slater and of Sheffield Biochemistry Department meeting after visit to Brabraham; also photographs of Brabraham. A.480 December 1951 (2), January 1952 Includes typescript notes of discussions with Slater and Vice-Chancellor of Sheffield University and of departmental meeting. Correspondence and papers re projected move to the Medical Research A.481 Council's Serum Research Institute at Carshalton, January-February 1952. Lasker Award of the American Public Health Association, 1953. A.482-A.486 Letter informing Krebs of award; correspondence rearrangements for A.482 visit to New York for award ceremony; letters of thanks. A.483 Publicity material, etc. re Lasker Awards. A.484 Press-cuttings.

A.486 Small hardbacked notebook used by Krebs for diary of visit to New York.

some letters of congratulation.

Correspondence with colleagues re visit to New York. Includes

A.487-A.554 THE NOBEL PRIZE, 1953

See also A.28, A.31, A.122.

For Krebs's own account of the rumoured award of the Nobel Prize in 1952 and the actual award in 1953 see Rem. & Refl., ch.15.

A.487

Invitation to nominate a candidate for the Nobel Prize for Physiology and Medicine in 1949, with carbon of Krebs's reply explaining why he felt unable to comply.

Letter from F. Cedrangolo <u>re</u> his proposal to nominate Krebs for Nobel Prize, 23 November 1951; Krebs's reply with summary of his research.

Brief correspondence <u>re</u> rumoured award of Nobel Prize to Krebs in 1952.

Documents re award of Nobel Prize in 1952 to S.A. Waksman.

A.488

Two photocopies of telegram from Caroline Institute announcing award of the 1953 Prize in Physiology and Medicine.

Original and photocopy of telegram of congratulations from Swedish Ambassador.

A.489-A.531 Letters of congratulation

By his own reckoning, Krebs received 586 letters and telegrams of congratulation, over a period of one year. He arranged them in groups according to date received (not, of course, the date of despatch) and this arrangement has been respected here. Krebs's sheet of notes setting out his arrangement is preserved at A.489. Initially, Krebs kept together all the letters arriving on a particular day, but as the flow of letters lessened so the timespan covered by each group lengthened from a few days to a week, a month and so on. Letters sent to his wife, Christmas cards, and late or special messages form groups of their own. Letters for 21 and 22 October 1953 are described by Krebs as 'premature', presumably because they were sent before the official announcement. It should be noted that the three congratulations which Krebs lists as arriving on 20 October are not preserved here but in the scrapbook at A.31, and the thirty-one congratulations which Krebs lists as arriving on 29 October were not found separately identified by him and seem at some point to have become incorporated with those that arrived on 26 October.

The correspondents include scientific colleagues, personal friends and relations, and acquaintances and sometimes unknown writers in Germany who sent, along with their congratulations, reminiscences of Krebs's family, home and events during and after the Second World War.

There is a separate, additional group of letters written to Krebs's step-mother in Germany and subsequently forwarded to him; these appear at A.528.

Carbons of Krebs's replies to the letters and telegrams of congratulation appear at A.529-A.531.

A.489		Krebs's ms. note of his arra	ngement of t	he letters.
	A.490	'Premature 21.10.53'	A.509	4.11.53
	A.491	'Premature 22.10.53'	A.510	5.11.53
	A.492	23.10.53 (1)	A.511	6.11.53
	A.493	23.10.53 (2)	A.512	7.11.53
	A.494	23.10.53 (3)	A.513	9.11.53
	A.495	24.10.53 (1)	A.514	10-11.11.53
	A.496	24.10.53 (2)	A.515	12-14.11.53
	A.497	24.10.53 (3)	A.516	18.11.53
	A.498	25.10.53	A.517	19-21.11.53
	A.499	26.10.53 (1)	A.518	23-28.11.53
	A.500	26.10.53 (2)	A.519	29.116.12.53
	A. 501	26.10.53 (3)	A.520	7-31.12.53
	N.B.	A.499-A.501 probably inc	orporate lett	ers received 29.10.53
	A.502	27.10.53 (1)	A.521	January 1954
	A.503	27.10.53 (2)	A.522	February 1954
	A.504	28.10.53	A.523	'Margaret'
	A.505	30.10.53	A.524	March-April-May 1954
	A.506	31.10.53	A.525	'Christmas'
	A.507	2.11.53	A.526	'Late and Special'
	A.508	3.11.53		

A.527	Miscellaneous correspondence \underline{re} Nobel Prize including letters of congratulation not found with the preceding.		
	Folder includes translation of letter from the Dean of the Faculty of Medicine at Freiburg. For original see A.31.		
A.528	Letters of congratulation written to Krebs's step-mother in Germany. Unindexed.		
A.529-A.531	Krebs's replies to letters of congratulation presented in an alphabetical sequence. Unindexed.		
	3 folders:		
	A.529 A - H A.530 I - R A.531 S - Z		
A.532	Miscellaneous correspondence: requests for autographs.		
A.533	Miscellaneous correspondence: cranks (Krebs's designation).		
A.534	Miscellaneous correspondence: appeals for help.		
A.535	Miscellaneous correspondence: requests for articles, interviews and photographs for the press.		
A.536-A.544	Visit to Stockholm		
A.536	Correspondence with Swedish authorities re Nobel Prize ceremonies.		
A.537	Correspondence re travel arrangements.		
A.538	Correspondence with P.S. Hench with advice about Nobel ceremonies; printed matter.		
A.539	Social and personal correspondence.		
A.540	Invitations to lecture in conjunction with Nobel ceremonies.		
A.541	Krebs's notes on visit to Stockholm, address to students.		
	Short articles written by the Krebs children on their impressions of		

Stockholm, for a Swedish newspaper.

A.542	Programmes, statutes of the Nobel Foundation, etc.
A.543	<u>Traduction des Discours à la Fête Nobel 1953</u> (printed booklet).
A.544	Printed copy of Krebs's Nobel Lecture 'The Citric Acid Cycle' (Bibliog. 173).
A.545-A.547	Krebs honoured by City and University of Sheffield
A.545	Copy of minutes of the University Senate, 6 November 1953.
	Copy of minutes of the Board of the Faculty of Medicine, 18 November 1953.
	Addresses to the University Court, 11 December 1953.
	Copies of the Sheffield University Gazette for November 1953 and March 1954.
A.546	Correspondence <u>re</u> dinner given by University in Krebs's honour, illuminated copy of Sheffield City Council's resolution of congratulations, etc.
A.547	Menus and table plan for university dinner; drafts of Krebs's remarks; 2 copies of song for October 22, 1953: 'The first Nobel that was honoured this day'.
A.548, A.549	Krebs honoured by Friends of the Hebrew University of Jerusalem
A.548	Correspondence (principally with W. Zander, Secretary of the Friends) <u>re</u> dinner held under the auspices of the Medical Group of the Friends.
	Personal correspondence with Grete Zander.
	Newspaper-cutting.
A.549	Invitation cards for dinner given by the Sheffield Branch of the Friends (Krebs was chairman of the Sheffield Branch).
	Draft for Krebs's speech at Sheffield dinner.
	Invitations from Leeds and Manchester Friends (declined).

A.550-A.553	75th Anniversary of Nobel Foundation, 1975
A.550	Correspondence with Swedish organisers; correspondence <u>re</u> travel arrangements.
A.551	Information about anniversary, programmes, lists of participants.
A.552	Invitation cards; press-cuttings.
A.553	Correspondence re seminar by Krebs at University of Stockholm during anniversary celebrations.
	Krebs talked on the 'Regulation of Folate and Methionine Metabolism in the Rat'.
A.554	Newspaper-cuttings
	1 Box.

A.555-A.566	Whitley Professorship of Biochemistry, University of Oxford, 1954
A.555-A.557	Correspondence with scientific colleagues, officers of the university and Medical Research Council re Krebs's election to the Whitley Professorship, transfer of the Medical Research Council Unit, etc., arranged in a chronological sequence.
A.555	March-April
	Letters encouraging Krebs to apply for the Whitley Professorship. In a letter drafted at The Ambassadors Hotel, Atlantic City, Krebs raised the question of his long-term responsibilities towards the MRC and towards the staff of his unit.

May A.556

> Letter (photocopy) offering Krebs the Professorship; correspondence and minutes of telephone conversations and personal discussions re the offer and in particular the feasibility of a transfer of the Medical

Research Council unit.

A.557 June

Continuing correspondence, etc. re conditions of offer.

Arrangements for Krebs's election to the Oxford Chair were completed by the end of the month and on 30 June he tendered his resignation

from the Sheffield Chair.

Correspondence re detailed arrangements for move to Oxford. A.558-A.560

> A.558 July (1)

A.560 August-September

A.559 July (2)

Correspondence and papers re financial considerations of members A.561 of the MRC unit in respect of the move to Oxford.

Various lists of equipment drawn up in respect of the move to Oxford. A.562

Miscellaneous papers re move to Oxford. A.563

Includes material re accommodation for MRC unit, technicians at

Oxford, etc.

Letters of congratulation arranged in an alphabetical sequence. A.564-A.566

> M - W H-L A.566 A.565 A.564 B - G

For jotters with material re move to Oxford see A.129-A.132.

Royal Medal, 1954 A.567, A.568

Letter informing Krebs of award; documents re anniversary dinner A.567 to which Krebs was invited as a recipient of a Royal Medal.

Letters of congratulation. A.568

A.569	Brief correspondence re Krebs's appointment as a member of the Agricultural Research Council, 1955.
	Brief correspondence re Krebs's re-appointment, 1960.

A.570

Brief correspondence re Krebs's appointment as Honorary Consulting Biochemist to the United Oxford Hospitals, July 1956.

Brief correspondence re offer of Chair of Physiological Chemistry at Freiburg, October 1956.

A.571, A.572 Honorary Degree of the University of Paris, November 1956.

A.571 Correspondence re arrangements.

A.572 Programme; invitation cards; press-cuttings, etc.

A.573 Brief correspondence <u>re</u> Krebs's election as Honorary Fellow of the National Institute of Sciences of India, 1957.

A.574 Letters of sympathy on the occasion of Krebs's street accident, 1957.

A.575-A.591 Knighthood, 1958

Letters of congratulation presented in an alphabetical sequence.

A.575	A - Ba	A.583	М
A.576	Be-Bu	A.584	N - P
A.577	C, D	A.585	Q, R
A.578	E, F	A.586	S
A.579	G	A.587	T - V
A.580	Н	A.588	w, z
A.581	I - K	A.589	first names and
A.582	L		unidentified
		2	2021 1 12 12

A .590 Carbons of Krebs's replies to letters of congratulation. Unindexed.

A.591 Newspaper-cuttings.

A.592	Brief correspondence <u>re</u> Krebs's election to the Royal College of Physicians, April 1958.
A.593, A.594	Honorary Degree of the University of Glasgow, June 1958.
A.593	Correspondence re arrangements.
A.594	Order of proceedings, presentation address, etc.
A.594A	Honorary Degree of University of Sheffield, 12 May 1959. Order of proceedings only.
A.595, A.596	Honorary Degree of the University of London, November 1959.
A.595	Correspondence re arrangements.
A.596	University of London <u>Gazette</u> with presentation address; invitation cards; information sheets.
A.597	Telegram from President of Federal Republic of Germany with 60th birthday greetings; carbon of Krebs's reply; newspaper-cutting.
	Telegram from Dean of the Medical Faculty of Humboldt University with news of honorary degree for Krebs, November 1960.
A.598-A.601	The Copley Medal of The Royal Society, 1961.
A.598	Certificate.
A.599	Brief correspondence with Royal Society; newspaper-cutting.
A.600, A.601	Letters of congretulation arranged in an alphabetical sequence.
	A.600 A - K A.601 L - Z
A .602	Invitation to deliver Royal Society Croonian Lecture, May 1963.

A.603 Honorary Degree of the University of Leicester, July 1963.

Correspondence \underline{re} arrangements for degree ceremony; order of proceedings.

Correspondence <u>re</u> reception in Krebs's honour given by Leicester Branch of the Friends of the Hebrew University of Jerusalem; presscutting <u>re</u> endowment of scholarship in Krebs's honour at the Hebrew University.

A.604 Letter from Spenish Ambassador informing Krebs of the wish of the University of Granada to confer an honorary degree, 27 April 1964.

Also included is brief leter correspondence with Rector of the University

of Granada, 1981.

A.605 Election to the Associate Foreign Membership of the U.S. Academy

of Sciences, April 1964.

Letters of congratulation presented in an alphabetical sequence.

A.606 Honorary Degree of the University of Leeds, 14 May 1964.

Newspaper-cuttings only.

Election to Council of Royal Society, November 1964.

A.607 Gold Medal of the Royal Society of Medicine, 1965.

Brief correspondence only.

Honorary Degree of the University of Pennsylvania, 1965.

Newspaper-cutting only.

Life Membership of the Medical Protection Society Limited, 1965.

Brief correspondence only.

A.608 65th birthday greetings including telegram from President of the Federal Republic of Germany and Krebs's draft reply, 1965.

A.609

Brief correspondence re appointment as Vice-President of the Royal Society, 1966.

Brief correspondence re election to Fellowship of St. Cross College, Oxford, 1966; miscellaneous later correspondence re St. Cross.

Invitation for Krebs to serve as member of Board of Electors to the Sibthorpian Professorship of Rural Economy, Oxford, 1966.

A.610, A.611

Honorary Degree of the University of Bordeaux, October 1966.

A.610

Correspondence re arrangements.

A.611

Invitation cards; menus; press-cutting.

A.612

Honorary Professorship at the Royal Free Hospital School of Medicine. 1966.

A.613-A.626

Retirement from Whitley Professorship of Biochemistry, 1967.

A.613-A.616

Correspondence re offers of post-retirement appointments, 1965-67, Presented in an alphabetical sequence by name declined by Krebs. of institution. Includes earlier (1962) offer from University of Pennsylvania and one later letter (1969). See also F.124, F.137, F.138, F.156.

A.613 A, Ca-Ch

A.615 E, L, N

A.614

Co, D.

A.616

P, T, W

For Krebs's post-retirement move to a laboratory at the Radcliffe Infirmary, Oxford, see C.108-C.123.

A.617-A.623

Biochemical Society Symposium in Krebs's honour, Oxford, July 1967.

A.617-A.620

Correspondence with organisers, contributors et al presented in an alphabetical sequence.

A.617 A, B

A.619

K

A.618

F, G

A.620

L, R, S

A.621

Krebs's ms. and typescript notes re symposium, photocopies from published proceedings of F. Dickens's opening remarks and H.L. Kornberg's biographical account, etc.

A.622	Agenda p	apers annotated by K	rebs.		
A.623	Telegrams of congratulation and letters from those unable to attend symposium. Presented in an alphabetical sequence.				
A.624	Miscellar MRC staf	neous items <u>re</u> dinner f and visitors at Trini	for Sir Hans and Lad ry College, Oxford,	ly Krebs given by July 1967.	
	Includes	signed menu.			
A.625	Ms. and	typescript drafts of K	rebs's various retiren	nent speeches.	
A.626	Miscellar	neous items <u>re</u> Krebs's	retirement.		
	from H.P	lp. typescript note 'A . Himsworth expressing s work and letter from	ng his own and the M	ARC's appreciation	
A.627	Honorary	e of Pathologists, 19	967.		
	Visitor to the Flour Milling and Baking Association, 1967.				
A.628	Honorary Therapeu	Member of the Secti tics of the Royal Soc	e Section of Experimental Medicine and al Society of Medicine, 1968.		
	Foreign A	Member Istituto Lomb	ardo, 1968.		
	Honorary	Fellow Trinity Colle	ge, Oxford, 1968.		
A.629	Honorary Member of the Deutsche Akademie der Naturforscher Leopoldina, 1969. Honorary Fellow Institute of History of Medicine and Medical Resear (New Delhi), 1969.				
A.630-A.640	Krebs's 70th Birthday, 1970.				
A.630-A.635	Birthday	greetings presented i	n an alphabetical se	quence.	
	A.630	А, В	A.632	K - P	
	A.631	C - J	A. 633	R - W	

unidentified and first names only.

A.634, A.635

A.636	Press-cuttings.			
A.637-A.640	Birthday dinner party in Trinity College, Oxford.			
A.637	$Ms.$ notes and brief correspondence with Trinity College \underline{re} arrangements.			
A.638	Draft and carbons of letter of invitation.			
A.639, A.640	Replies presented in an alphabetical sequence.			
	A.639 B - Q A.640 R - W, first names and unidentified			
A.641, A.642	Honorary Member Deutsche Gesellschaft für Innere Medizin, 1972.			
A.641	Brief correspondence re Krebs's election.			
A.642	Cased certificate.			
A.643	Honorary Degree of University of Bristol, 1973.			
	Correspondence re arrangements; presentation address; certificate.			
	Birthday greetings card, with ms. note by Lady Krebs, 1973.			
A.644	Corresponding Member Bayerische Akademie der Wissenschaften, 1974.			
	Correspondence re Krebs's election.			
A.645, A.646	Médaille de Vermeil de la Ville de Paris, 1975.			
A.645	Correspondence \underline{re} arrangements; drafts of Krebs's speech in English and French.			
A.646	Certificate.			
A.647, A.648	75th Birthday, 1975.			

Birthday greetings. 2 folders.

A.649

Letter from the Medical School Offices, Oxford University, informing Krebs that his name has been removed from the list of members of the Faculty of Clinical Medicine, 16 September 1975.

Letter from the President of the Bavarian Academy of Sciences with good wishes on the occasion of Krebs's Golden Jubilee as a doctor, December 1975.

- A.650 Honorary Fellow of the Royal Society of Edinburgh, 1976.

 Brief correspondence re election.
- A.651

 Letter from Oxford University informing Krebs that his name is not included in the revised Register of Members of Congregation, as Emeritus Professors over 75 are not eligible for membership, 18 February 1977.

Socio d'Onore Società Italiana per il Progresso delle Scienze, 1977. Brief correspondence re election.

Academico Correspondiente Extranjero, Academia de Ciencias Medicas (Argentina), 1977.

77th birthday greetings, 1977.

- A.652 Award of the American College of Physicians, 1978.

 Correspondence re arrangements.
- A.653 Honorary Degree of University of Cambridge, 1979.

 Correspondence re arrangements; order of proceedings and speeches of the orator.
- A.654 Copy of letter from Krebs to Managing Director, Reader's Digest Association Limited, 15 June 1979, re 'Library of Modern Knowledge' in which his lifespan is noted as 1900–1976.

Hans Krebs Lecture of the Medizinische Hochschule, Hanover, 1979. Brief correspondence <u>re</u> association of Krebs's name with annual lecture at Hanover.

A.655	Honorary Degree of University of Liverpool, 1979.
	Correspondence re arrangements; orations; certificate.
A.656	Honorary Citizenship of Texas, March 1980.
	Certificates only.
A.657, A.658	Honorary Degree of Indiana University, May 1980.
A.657	Brief correspondence; certificate; presentation address, etc.
A.658	'Commencement 1980'. Printed booklet.
A.659, A.660	Honorary Degree of the University of Göttingen, May 1980.
A.659	Brief correspondence; certificate.
A.660	Annual report of the Gymnasium Andreanum Hildesheim with account of Krebs's honorary degree at Göttingen.
A.661	30th Conference of the Biological Chemistry Society, University of Düsseldorf, 27-29 May 1980.
	The conference was held 'in honour of Sir Hans A. Krebs in the year of his 80th Birthday'.
	Invitation; programme; list of participants; published accounts;

photograph, etc.

Krebs's 80th Birthday, 1980.

A.662-A.680 Birthday greetings.

Many are very brief messages of congratulation but others include extended reminiscences, tributes or discussions of current research.

A.662	Ba - Be	A.671	N, P
A.663	Bi - C	A.672	Q, R
A.664	D	A.673	Sa - Sh
A.665	E - G	A.674	Si - Sz
A.666	Н	A.675	T, V
A.667	J	A.676	W - Z
A.668	K	A.677	Family
A.669	L	A.678-A.6	80 Unidentified and first names only
A.670	M		11131 11311133 31117

A.681 'Sir Hans Krebs: Eightieth Birthday Congratulations', <u>Biochemical</u>
Society Bulletin (1980).

Tribute by H.L. Kornberg, and photograph (4 copies).

A.682 Press-cuttings.

A.683 Dinner for Sir Høns Krebs at Trinity College, Oxford, 4 November 1980.

Menu only.

For Biochemical Society meeting at Sheffield, July 1980, to honour Krebs's 80th birthday see B.98-B.100.

A.684 Visitor, Boston University School of Medicine, 1981
Invitation to Krebs to become a member of Board of Visitors, correspondence re scheduling of annual meeting, etc., 1980-81.

A.712

Biographical and autobiographical

A.685 Member of Board of Directors, Heineman Medical Research Center, Charlotte, North Carolina, 1981.

Brief correspondence re Krebs's membership of Board of Directors.

Folder also includes later (1982) letter to Lady Krebs \underline{re} the establishment of the 'Hans Krebs Fellowship' at Charlotte.

A.686

Brief correspondence re establishment of the 'Hans-Adolf-Krebs-Preis' by the Deutsche Gesellschaft für Ernährung, 1981.

Krebs's death.

A.687 'Arrangements after my death'

Ms. and typescript notes by Krebs, n.d., <u>re</u> disposition of his papers, books, reprints, etc.

A.688 Order of service for Krebs's funeral, Trinity College Chapel, Oxford, 26 November 1981.

Notices and order of service for memorial service, University Church of St. Mary the Virgin, 6 February 1982; memorial service addresses.

A.689-A.711 Letters of condolence, some including extended reminiscences and tributes.

Li-Lo A.701 A.689 Α M A.702 Ba - Be A.690 N A.703 BI - Bu A.691 0 - Q A.704 A.692 C A.705 R D A.693 A.706 Sa - Sh A.694 E, F Si - Sz A.707 G A.695 Т A.708 Ha - He A.696 U, V A.709 Hi - Hu A.697 W - ZA.710 A.698 J A.711 First names only A.699 K A.700 La - Le

Messages sent with flowers. I envelope.

A.713

Honours offered to Krebs in ignorance of his death, 1982.

Accademia Mediterranea delle Scienze.

University of Southern California.

A.714

Invitation card and photocopy of press-cutting for 'acto de Homenaje' of the University of Granada on the first anniversary of Krebs's death, 1982.

A.715-A.887 FAMILY CORRESPONDENCE AND PAPERS

A.715-A.786 The Krebs family

A.787-A.791 The Davidson family

A.792 The Traube family

A.793-A.796 Other relatives

A.797-A.869 Restitution claims

A.870-A.887 Genealogy

The material is presented as above, with an indication of the family relation-ships where this is ascertainable. The very extensive sequences of family correspondence of the 1930s and later reflect on the sufferings of Jews in Nazi Germany, their enforced emigration to Britain, Palestine and elsewhere, renewal of contacts after the Second World War and claims of restitution from the German state.

The Krebs family

A.715-A.728 Georg Krebs (father), 1867-1939

Letters and cards from Krebs's father, 1922-24, 1933-39.

Many of the 1930s letters have postscripts from Krebs's stepmother, Maria. There is one letter from Krebs to his father, 26 December 1938, re his half-sister, Gisela. The letter from W.A. Rosenstein to Krebs in A.728 is about the death of Krebs's father.

14 folders.

A.715	1922-24	A.722	1937, January, February
A.716	1933, April-July	A.723	1937, June-December
A.717	1933, August-December	A.724	1938, January-April
A.718	1934, February-June	A.725	1938, June-August
A.719	1934, July-December	A.726	1938, September-December
A.720	1935	A.727	1939, January, February
A.721	1936	A.728	1939, May-September

A.729 Alma Krebs (née Davidson) (mother), 1870-1919
Letters and cards to Krebs, 1918-19.

A.730-A.744 Elisabeth (Lise) Krebs (later Daniel) (sister), 1895-1985

Letters and cards from Krebs's sister, 1917-70, from Germany and, after the Daniels'emigration in 1936, from Palestine. The sequence includes a small number of items from Lise's husband, Adolf Daniel, and a small number of items addressed to Krebs's younger brother, Wolfgang. There is a letter from Krebs to his sister re their father's estate, 26 November 1939, and a 6pp. report of his first post-Hitler visit to Germany, dated 11 September 1949.

15 folders.

A.730	1917-19	A.738	1938, July-December
A.731	1920-23	A.739	1939
A.732	1933	A.740	1940-42
A.733	1934	A.741	1944-46
A.734	1935	A.742	1947-49
A.735	1936	A.743	1950-52
A.736	1937	A.744	1967, 1970, n.d.
A.737	1938, January-May		

A.745-A.762

Ernst Wolfgang Krebs (brother), b.1902

Letters and cards from Krebs's younger brother, 1919-52. Wolfgang came to England in 1936 and was interned for a time in the war. Includes some items from Wolfgang's wife, Lotte.

18 folders.

A.745	1919, nd., 1923	A.754	1940, April-August
A.746	1934	A.755	1940, September (1)
A.747	1935	A.756	1940, September (2)
A.748	1936, January-May	A.757	1940, September (3)
A.749	1936, July-December	A.758	1940, October
A.750	1937, January-March	A.759	1941
A.751	1937, June-December	A.760	1942
A.752	1938	A.761	1945-47
A.753	1939	A.762	1948-52

A.763-A.769

Maria Krebs (née Werth) (stepmother), 1902-77

Letters and cards from Krebs's stepmother, 1933-39, 1945-48. Many of the pre-war letters have postscripts by Krebs's father. The last pre-war letter from Maria, dated 17 August 1939, is addressed to Alice Garnett, a colleague of Krebs at Sheffield, and relates to Alice Garnett's proposed visit to Hildesheim.

7 folders.

A.763	1933-34	A.767	1939
A.764	1935-36	A.768	1945-46
A.765	1937	A.769	1947-48
A.766	1938		

A.770-A.776 Gisela Krebs (half-sister), b.1932

Correspondence re Gisela Krebs, 1938-39.

The correspondence is explained by Lady Krebs in a note dated 5 January 1983:

'In 1938 – soon after our marriage – we became anxious for the safety of Gisela Krebs – Hans' young half-sister – aged about 7. I set about writing to Convents to see whether any could take the child, without fees, as a boarder and we would look after her in the holidays.

The rough copies in pencil are in my hand and Maria wrote some of them out to send.

We finally had a most helpful letter from N[otre] D[ame] Leeds where both mother and child were taken. But in the summer of '39 when they had gone to Germany to see the father they were caught by the war and had a very very difficult time.

My family were all Notre Dame Convent educated and Gisela is also a Catholic.'

A.770

Lady Krebs's note (quoted above); drafts of letters to the Bishop of Leeds, Catholic Womens University Federation Society, Sisters Superior.

A.771,

Replies from Convents and others, December 1938.

A.772

2 folders.

A.773

Further draft letters to Sisters Superior; letter from Catholic Committee for Refugees from Germany, 17 January 1939.

A.774

Later correspondence re Maria and Gisela, 1939-41.

A.775

Correspondence re renewing contacts with Maria and Gisela Krebs after the war and Krebs's attempts to get permission for Gisela to come to England, 1945-47.

Includes ms. draft of long letter of family news in part written on back of University of Sheffield School of Dental Surgery Attendance Sheet (used 21-25 April 1945); correspondence with Home Office and Eleanor Rathbone MP; also later (1948) letter from E.F.W. Dux who had met Maria on a visit to Hildesheim and draft letter from Krebs re family (also 1948).

See also A.107, A.108.

A.776

Letter from Gisela Krebs, 1953.

Margaret Krebs (née Fieldhouse) (wife), b.1913

A.777, Letters from Margaret Fieldhouse on a pre-wedding visit to Krebs's family in Germany, December 1937-January 1938.

2 folders.

A.779, Wedding congratulations, 1938.

A.780

A.779 B - W A.780 Unidentified

A.781 Miscellaneous personal items, 1938.

A.782 Miscellaneous shorter family or domestic items, 1940s.

A.783 Miscellaneous shorter family or domestic items, 1950s or n.d.

- A.784 Paul Stephen Krebs (son), b.1939

 Brief correspondence, 1962, 1975.
- A.785 <u>Helen Margaret Krebs</u> (later Lowell) (daughter), b.1942.

 Miscellaneous items, 1958, 1963, 1967 and n.d.
- A.786 <u>John Richard Krebs</u> (son), b.1945.

 Brief correspondence, 1956, 1961-62, 1972 and n.d.

The	Davidson	family

The Davidson family was Krebs's mother's family.

A.787	Arnold Davidson	n.d.			
	Gertrud Davidson (m. W.A. Rosenstein)	n.d.,	1934,	1935	
A.788	Gertrud Ilse Davidson (m. L.H. Cromer) (later Geraldine Cromer)	1941, 1952	1943,	1945-46,	1950,
A.789	Helene Davidson ('Talene') (m. W. Fuld)	1933			
	Kurt Adolph Davidson	1966			
A.790	Reni Davidson	1934			
	Siegfried Davidson	1933,	1939,	1940	
A.791	<u>Ursula Lück</u>	1966			

The Traube family

Ilse Schragenheim

The physical chemist Isidor Traube was a cousin of Krebs's mother.

1939-40

A.792	Elli Trombetta Traube	1970
	Moritz Traube	1948

For Isidor Traube and Sonya Boas-Traube see J.730-J.733.

Other relatives

A.793 D.H. Curtis 1968

R. Sanders (formerly Rudi Zweig) 1958

Sanders's aunt Ernestine was Krebs's grandfather's second wife.

Ena Steiner (née Rosenthal) 1958

Steiner's and Krebs's grandfathers were brothers.

A.794, Correspondence re Krebs family and namesakes, various dates,

A.795 1962-80.

2 folders.

A.796
'Gott und Welt Albrecht Dürer Handzeichnungen aus dem Gebetbuche des Kaiser Maximilian mit der Besprechung von

J.W.v. Goethe'.

Copy forwarded to Krebs by Helmut Krebs, 1973.

A.797 - RESTITUTION CLAIMS

A.869

Comprehensive documentation re claims of the Krebs family for restitution from the German state after the Second World War. The correspondents are members of the Krebs family, lawyers (J. Loeb in Britain and F. Nülsen in Germany) and official agencies in Britain and Germany. See also A.739, A.768, A.769.

A.797,	Originals and photocopies of 1930s financial documents.				
A.798	2 folders.				
A.799- A.855	including	ogical sequence of corresp Krebs's ms. drafts and car y poor condition.	oondence ar bons. Ma	nd papers, 1946–79, ny of these documents	
1946	A.799				
1947	A.800				
1948	A.801	April, May	A.803	September-December	
	A.802	June-August			
1949	A.804	June-August	A.805	September - December	
1950	A.806	January-March	A.807	April-December	
1951	A.808	May-June. Also include	ed are some	original letters of 1938.	
	A.809	July-October	A.810	November, December	
1952	A.811				
<u>1953</u>	A.812	January-June	A.813	July-November	
1954	A.814	February-May	A.816	October - December	
	A.815	June-September			
1955	A.817	January-March	A.819	September-December	
	A.818	April-July			
1956	A.820	January-June	A.821	July-December	

, ,		Biographical and autobio	graphical	
1957	A.822	January, February	A.825	July
	A.823	March	A.826	August-October
	A.824	April-June	A.827	November, December
1958	A.828	January, February	A.831	October
	A.829	March-June	A.832	November, December
	A.830	July-September		
1959	A.833	January	A.836	June
	A.834	February, March	A.837	July
	A.835	April, May	A.838	August - December
1960	A.839	February-May	A.841	October - December
	A.840	August, September		
1961	A.842	January-April		
1962	A.843	February-April	A.844	June-September
1964	A.845	February-June	A.846	August-November
1965	A.847	January-March		
1967	A.848	January-April	A.849	July-December
1968	A.850	January-March	A.852	October - December
	A.851	June-September		
1969	A.853	January-March		
1972, 1976, 19	79			
	A.854			
n.d.	A.855			

A.856- A.869		sequence of documenta lawyer's death in 1979.		rebs by Loeb's secretary above.
	A.856	1950, 1955	A.863	1956, April (3)
	A.857	1956, January	A.864	1956, April (4)
	A.858	1956, February	A.865	1956, April (5)
	A.859	1956, March (1)	A.866	1956, May
	A.860	1956, March (2)	A.867	1956, July, August
	A.861	1956, April (1)	A.868	1957
	Δ 862	1956 April (2)	A.869	Press-cuttings

A.870- A.887	GENEALOGY			
A.870	Correspondence with Mrs. G. Neuberg, principally about genealogical matters, 1969-70, 1977.			
	Mrs. Neuberg was a distant relative of the German biochemist, C. Neuberg.			
A.871 - A.875	Correspondence with James H. Heineman about genealogical matters, 1977-80, including copies or extracts of Heineman's correspondence with other relatives especially Krebs's first cousin, Kurt Davidson. Krebs's mother was a first cousin of Heineman's maternal grandmother.			
	A.871 1977, March-June A.873 1978, February, March			
	A.872 1977, July-December A.874 1978, June-October			
	A.875 1979, 1980			
	Genealogical material sent to Krebs by Heineman			
A.876	Genealogy of the descendants of David Moses Davidson, d.1794, with index.			
	Krebs appears on p.8 of the genealogy.			
A.877	Photocopies of the Hanover City Directory for 1890 and 1899.			
A.878	Photocopy of 'Der alte jüdische Friedhof in Hannover', by Margret Wahl (76 pp.).			
A.879, A.880	Photocopies of documents \underline{re} the Schiff family of Charlotte, North Carolina.			
	2 folders.			
A.881 -	Photographs of the Schiff family.			
A.883	3 folders.			
A.884,	Miscellaneous geneal ogical material.			
A.885	2 folders.			
A.886,	Information re Minna-James-Heineman-Stiftung.			
A.887	2 folders.			

A.888-A.924 HILDESHEIM (City and school)

A general sequence of correspondence and papers, 1965-79. For Krebs's school, the Gymnasium Andreanum, see A.907-A.924.

1965 A.888

Conferral of 'Ehrenbürger' status on Krebs, 1966. A.889-

A.898

A.893

Correspondence with Oberstadtdirektor Kampf and others re arrange-A.889

ments for ceremony.

Letters of congratulation, correspondence with other members of family A.890, A.891

re conferral of the honour. A.890 includes photocopy of Krebs's

letter to his sister explaining why he was prepared to accept the award.

2 folders.

Letters of congratulation written to Krebs's stepmother and forwarded A.892,

Maria Krebs's covering letter identifies the corresto him by her.

pondents.

2 folders.

Printed booklet with text of speech of Bürgermeister Boyken on the A.894

occasion of the conferral of the 'Ehrenbürgerrecht' and Krebs's speech

of thanks.

Ms. draft of Krebs's speech of thanks; ms. note on 'Ehrenbürger Hildesheim' A.895

and typescript note entitled 'Trennung und Wiedervereinigung'.

A.896 Press-cuttings.

Printed material re Hildesheim. A.897,

A.898

1968 A.899

Correspondence re visit of party of girls from the Hildesheim High School

to Krebs's laboratory.

1969-71, 1978-79 A.900

> Miscellaneous correspondence with Stadtarchivdirektor, H. von Jan. Includes text of von Jan's 1978 lecture on the rise of Nazism and the

> persecution of the Jews with some reference to the fate of individual

Hildesheim Jews.

A.901 1970

Includes letter from R. Liecke with memories of Krebs's father.

A.902 1971

Includes correspondence re visit of schoolgirls to Krebs's laboratory and 5pp. typescript re old Jewish cemeteries.

A.903 1972

'Beziehungen zu einer stadt'

Article by Krebs for a Hildesheim number of the journal Merian. (Not listed in Bibliog.)

Heavily corrected draft and related correspondence.

A.904 1973-74

Includes material re visit of students of the Pddagogische Hochschule to Oxford and invitation for Krebs to lecture to Lions Club Hildesheim-Rose (declined).

A.905 1975

re Krebs's 75th birthday.

A.906 1978-79, n.d.

Gymnasium Andreanum Hildesheim

A.907 Correspondence with M. Boyken, Oberstudiendirektor, 1967, 1970, 1974-75.

Folder also includes 1967 note on Didrik Pining, former pupil of the Andreanum and 'Amerikafahrer vor Columbus'.

A.908 Correspondence with R. Thomasius, Boyken's successor as Oberstudiendirektor, re the school's 750th Anniversary Celebration in 1975. See also A.332.

Krebs was invited to make a contribution to a published 'Festschrift'. He also delivered the 'Festvortrag' on 29 November 1975.

A.909, 'Non scholae sed vitae discimus'

A.910 Ms. and typescript drafts of Krebs's contribution to the Festschrift; brief correspondence.

2 folders.

A.924

Miscellaneous.

Biographical and autobiographical

'750 Jahre Andreanum' A.911 Printed copy of Festschrift with R. Thomasius on 'Professor Sir Hans Adolf Krebs' and Krebs's own contribution 'Non scholae sed vitae discimus'. (Not listed in Bibliog.) 'Festrede zur Feier des 750 jährigen Bestehens des Gymnasium Andreanum, A.912-29th November 1975' (Bibliog. 354). A.916 Ms. and typescript drafts (with letter commenting on Krebs's German); printed background material re vandalism, juvenile delinquency and crime and punishment in GDR. 5 folders. Programmes of the 'Festveranstaltung'; press-cutting re 750th anniversary. A.917 Correspondence with R. Thomasius, 1977-82, re news of the school, A.918miscellaneous invitations, visit of pupils to Oxford, etc. A.920 1977 A.918 Folder also includes correspondence with German embassy re J.G. Lohmeyer, Rector of the Gymnasium Andreanum, 1650-75. 1978 A.919 1979-82. A.920 Printed and duplicated background material. A.921 Annual report, 1966/67. Annual report, 1978. A.922 Annual report, 1980, incorporating 'Laudatio für Herrn Prof. Sir Hans-A.923 Adolf Krebs' on the occasion of his honorary degree at Göttingen in May. See also A.659, A.660. A.923A Annual report, 1984, with photograph of the award of the 'Hans-Adolf-Krebs-Preis' for 1983.

A.936

(pamphlet).

Biographical and autobiographical

	Biographical and autobiographical
A.925-A.966	MISCELLANEOUS BIOGRAPHICAL ITEMS
	Miscellaneous items presented in a chronological sequence.
A.925	'Radfahrkarte', 17 April 1915.
A.926	Address book, in use early 1930s, with lists of recipients of outgoing letters and reprints, 1930 and 1931.
A.927	'Aids to Good English', Cambridge, 1933.
	Annotated by Krebs.
A.928	'Arrows', December 1937 (Sheffield University Students Union publication).
	Includes review of play in which Krebs acted.
A.929	Duplicated typescript copy of 'The Happy Journey', by Thornton Wilder; letter from 'Kate Kirby' to 'little Arthur', n.d.
	Krebs played little Arthur; Alice Garnett (q.v.) was Kate Kirby.
A.930	Hotel bills, France (1937) and Italy (n.d.).
A.931	Documents re German refugee organisations, March and November 1938.
	Leaflet on Goering printed by the Anti-Hitler Information Bureau, n.d.
A.932	Meticulous ms. records of food grown by Krebs (and eggs laid by his hens) as contribution to wartime digging-for-victory campaign, with ms. copy of Krebs's letter to the owner of the land he was using, 1 May 1941; also 'Egg chart', January 1947-January 1950.
A.933	Duplicated circular from The 1941 Committee, 14 January 1942.
A.934	Reprint from English Studies, with covering letter from G. Bullough, 1942.
	The reprint is the edited text of a letter from Mary Butler written shortly after the death of her brother, Samuel, printed 'by the kind permission of the owner and of Professor and Mrs. Krebs'.
A.935	Documents re City of Sheffield Victory Ball, 1945.

'Science and Victory. The Contribution of the Refugees', 1946

A.937 Card with Krebs's National Insurance number, postmarked 26 April 1948.

Ration Book, 1953-54.

A.938 Miscellaneous items, 1960s, 1970s.

A.939 Miscellaneous items, 1980s and n.d.

Miscellaneous items presented by topic

Appeals and Charities

A.940 General, various dates 1966-80, n.d.

A.941 - Appeals re Russian scientists, 1969-81.

A.943 3 folders.

Autographs

A.944- Letters requesting Krebs's autograph, signed photograph or samples of his work (draft papers, etc.) from a folder inscribed 'Autographs requested and despatched'.

4 folders.

A.948, 'Manuscripts for collectors!' (Inscription on original folder not preserved).

A.949

Description of collectors! (Inscription on original folder not preserved).

Pages torn from jotters and typescript drafts with ms. additions and corrections, set aside by Krebs for collectors. Some dated 1969-72. Includes draft paper on the role of equilibria in the regulation of metabolism.

2 folders.

Finances

A.950 - Miscellaneous material <u>re</u> income, expenditure, taxation, insurance, etc. A.953 4 folders.

A.950 1929-33 A.952 1950-54

A.951 1934-47 A.953 1978

Garden

A.954 Correspondence and papers re plants for Krebs's garden, 1958-64, 1978, 1981.

1961-62 papers re Gingko biloba seeds are accompanied by a ms. note by Lady Krebs, 1982.

Health

A.955 Miscellaneous material, various dates, 1964-81.

Humour

A.956- Miscellaneous items of biochemical or personal interest including many variations on the Krebs cycle theme, various dates, mid 1930s-1980.

3 folders.

Legal and court cases

A.959 1976, 1978

Marmalade

A.960 Copy of Rostrum (publication of Pfizer Limited, 1981) with article by Jocelyn Thomson on Krebs's marmalade making.

Correspondence re marmalade, 1967, 1978.

Photographs and portraits

A.961 - Miscellaneous correspondence <u>re</u> photographs and portraits of Krebs,
1961-81; also (in A.963) list of 'Contributors to Portrait Gift' with
ms. note by Lady Krebs.
3 folders.

Social Invitations

A.964-A.966 Correspondence, invitation cards, menus, etc. re miscellaneous invitations, principally social, mid 1930s-1980.

3 folders.

A.967-A.1062 PERSONAL CORRESPONDENCE

By name

N.B. These are sequences of letters to Krebs, predominantly of the 1930s. There are no letters from Krebs until the 1950s.

A.967 -A.972 Auerbach (later Auburn) W. (fellow refugee)

1932-56

Auerbach and Krebs were colleagues at Hamburg-Altona and became lifelong friends. Auerbach came to Britain as a refugee, moving to New Zealand after the war (Rem. & Refl., p.44).

Six folders.

A.967 1932

A.968 1934

A.969 1935

A.970 1936

A.971 1937

A.972 1945, 1947, 1956

1956 letter is Krebs's account of recent visit to Hamburg, his first since 1932, with news of Olga Guyot 'throughout the Nazi period ... a courageous centre of subversive activities' and of his contacts with survivors of the 1930-31 generation at Altona, especially the nurses. The letter is accompanied by Lady Krebs's ms. note, n.d. [? 1982].

A.973 Baumgarten, (patient)

19**3**3-37

Folder includes envelope postmarked 25.1.34. with Krebs's chemical notations.

A.974-

Burchardt, I. (fellow refugee)

1934-37, 1940, 1946

A.977

Four folders.

A.974 1934

A.976 1936-37

A.975 1935

A.977

1940, 1946

A.978

Daube, D. (fellow refugee)

1935, 1936, 1956

Three letters only, with attached description by Krebs 'David Daube, known to me since 1933 in Cambridge. Later Regius Professor of Civil Law at Oxford'.

A.979

'Fridolin' (F. Böhning)

1931, 1933

Fridolin was a woman paediatrician, first in Leipzig, then in Jena, and an old university friend of Krebs (from Freiberg).

A.980 -

Garnett, Alice

1936-39

A.985

Almost all the letters and messages (many left in Krebs's pigeon-hole at Sheffield) are undated.

Six folders.

A.986,

Goldschmidt, Hannah (fellow refugee)

1933-38

A.987

2 folders.

A.986

1934-35

A.987 1936, 1938

A.988-

Gütle, Helene

1933-37

A.990

Helene Gütle was a former patient of Krebs who worked as a social worker in Offenburg in South Germany.

Three folders.

A.988 1933

A.990 1935-37

A.989 1934

A.991-	Holsten, Katherina (Katinka)	1932-37, n.d.
A.1000	She appears to have been a nurse who hospital. She was apparently Krebs' visited him several times in England.	s girltriend for a long time and
	10 folders.	
	A.991 1932	A.996 1935, January-June
	A.992 1933	A.997 1935, July-December
	A.993 1934, January-June	A.998 1936, January-June
	A.994 1934, July-September	A.999 1936, July-October
	A.995 1934, October-December	A.1000 1937 (one letter only), n.d.
A.1001	Köstlin, Annemarie	1977-82
A.1002	Lane, Patricia S.	1975-76
A.1003- A.1007	Lindahl, Irmgard (fellow refugee)	1920, 1933-38, 1946, 1948, 1952
	Irmgard came to England in the mid home in Sweden. The two letters of but were found with the rest of the c	of 1920 are incomplete and unsigned
	Five folders.	
	A.1003 1920, 1933	A.1006 1936-38
	A.1004 1934	A.1007 1946, 1948, 1952
	A.1005 1935	
A.1008	Roughton, Alice	1936-37, 1944
A.1009	Steinberg, F.W.	1960, 1967, 1971
A.1010	Tośić, J.	1947, 1957-58
A.1011	Wayne, Nan (later Lady Wayne)	1936-37, 1954

A.1012,

Wolffenstein, E. (fellow refugee)

1939-50

A.1013

Wolffenstein apparently arrived in England as late as April 1939. He was interned at the outbreak of the war but eventually found a post at a Jewish hospital in Leeds.

2 folders.

A.1012 1939-41

A.1013 1945-46, 1950

By year

Brief exchanges or single letters arranged in a chronological sequence by year. 1930s correspondence includes letters from individuals in Germany seeking help and advice on emigration and from Krebs's fellow refugees in Britain.

A.1014 1918, 1919. Cards and letter from piano teacher, landlady, colleague and others.

A.1015 1920. Cards, letters, bills from the Ringwalds (Krebs's landlord and landlady in Freiburg).

A.1016 1920-22. Letters from P. Hoffman, medical student in Hamburg.

A.1017 1923, 1925

A.1018 1931, 1932

A.1019-A.1021 1933 Three folders

A.1019 January-May. Cards, letters, etc. addressed to Krebs in Freiburg.

A.1020 June-August

A.1021 September-November and n.d.

n.d.

Biographical and autobiographical

1	A.1022-A.1027	1934	Six folders		
		A.1022	January	A.1025	June, July
		A.1023	February, March	A.1026	August, September
		A.1024	April, May	A.1027	October - December and
	A.1028-A.1031	1935	Four folders		
		A.1028	January -March	A.1030	July, August
		A.1029	May, June	A.1031	October-December
	A.1032-A.1034	1936	Three folders		
		A.1032	January -March	A.1034	September-December
		A.1033	May-July		
	A.1035	1937		A.1041	n.d. (1940s)
	A.1036	1938		A.1042	1950-54, 1958
	A.1037	1939		A.1043	1956
	A.1038	n.d. (19	230s)	A.1044	1960s
	A.1039	1941 -46		A.1045	1970s
1	A.1040	1948-49		A.1046	1980-81 and n.d.

		Biographical and autobio	ographical		
	Shorter personal (unindexed)				
A.1047	Carbons of 1973-79.	of Krebs's letters of greetin	ng and cong	gratulation to colleagues,	
A.1048, A.1049	Replies to letters of congratulation sent by Krebs to colleagues on their election to Fellowship of the Royal Society.				
	A.1048	1936, 1966-75	A.1049	1976-81 and n.d.	
A.1050, A.1051	Replies to letters of congratulation from Krebs (general)				
	A.1050	1956-68	A.1051	1969-81 and n.d.	
A.1052	Replies to letters of condolence from Krebs, 1967, 1974-79.				
A.1053,	Miscellaneous letters of thanks received by Krebs.				
A.1054	A.1053	1950-69	A.1054	1971-80 and n.d.	
A.1055	Miscella	neous letters of complaint	from Krebs	, 1970-81.	
A.1056,	Requests	for Krebs's views on gener	ral topics.		
A.1057	A.1056	1968-73	A.1057	1977-79 and n.d.	
A.1058	Mark Tw	ain Society, 19 <i>67-</i> 76.			
	Includes	examples of the Mark Two	in Journal	*	
A.1059	Christma	s cards.			
A.1060	Posthumo	ous.			
A.1061,	A collec		nost with 1	930s postmarks) kept together	

A.1061, A.1061A by Krebs. 2 folders.

Miscellaneous German postcards, 1930s or earlier. A.1062

A.1063-A.1083 SHORTER AUTOBIOGRAPHICAL WRITINGS

A.1063 'Survey of Research Work'

12pp. typescript, n.d., but latest publications mentioned relate to wartime nutrition work.

A.1064 Shorter autobiographical writings, n.d.

3 items (one for Royal Society, ?1947).

A.1065, Autobiographical notes for Who's Who and other reference works,

A.1066 1953-76.

A.1068

Two folders.

A.1067, 'Notes for RS Obituary'

A.1067 Ms. notes on pages torn from jotter re arrival in England, Cambridge, 'My discoveries', etc., 1961 and 1962.

A.1068 Typescript notes with ms. additions and corrections <u>re</u> family and early days, 1961; also circular from Royal Society <u>re</u> personal records of Fellows, 1965.

A.1069 'Record of Research'

21pp. typescript with ms. corrections and additions, variously dated 1963-67.

A.1070 'Ten most important papers' (1p. typescript) and list of publications (to 1980), found with 'Record of Research' above.

A.1071 Exercise book with 'Account of Research re R.S.' and 'Review and Summary of Publications arranged according to subject matter', various dates 1964-

Exercise book was also used for notes on Franks Commission on Oxford. There are loose items including press-cutting (1968) on the state of the universities.

A.1072 'Creativity'

24pp. typescript, with 2 intercalated pages on 'Who makes discoveries?'.

The typescript comprises Krebs's replies to the interview questions of psychologist C.J. Meyers researching the creativity of scientists, 1964.

The folder also contains the list of questions, a further 13pp. typescript of general remarks on creativity, and related correspondence, 1964-69, 1974.

A.1073 Autobiographical notes for Sheffield symposium and visit to Germany, 1980.

A.1074Wie ich aus Deutschland vertrieben wurde. Dokumente mit Kommentaren',
A.1083

Medizinhistorisches Journal 15, 1980. (Bibliog. 382).

10 folders.

A.1074 Publications correspondence, 1979-81.

A.1075-A.1077 Typescript drafts and ms. notes. 3 folders.

A.1078, A.1079 Photocopies of original documents. 2 folders.

A.1080 Reprint of Bibliog. 382.

A.1081 Correspondence <u>re</u> publication of English translation in <u>Minerva</u>, 1981-82. (Not listed in Bibliog.)

A.1082, A.1083 Draft translation for Minerva. 2 folders.

A.1084-A.1278 REMINISCENCES AND REFLECTIONS (Bibliog. 391).

A.1084-A.1103 Complete or extended drafts.

A.1104-A.1233 Drafts by chapter

A.1234-A.1259 Notes and ideas

A.1260-A.1266 Jotters

A.1267-A.1276 Correspondence

A.1277 Reviews

A.1278 Background material.

After twenty years gestation Krebs's autobiography Reminiscences and Reflections (in collaboration with Anne Martin) was published by the Clarendon Press Oxford in 1981. Krebs was able to see a copy of the published work during his last illness.

Krebs's thinking on the writing of autobiographies in general and his own in particular can be gleaned from the Preface as published and the various drafts for the preface which he essayed over the years, the earliest being dated in January 1968 (A.1104-A.1106). It appears that it was the invitation in 1960 from the Biochemical Society to deliver the Annual Lecture in memory of Sir Frederick Gowland Hopkins which intiated the autobiographical reflection and writing culminating in the publication of Reminiscences and Reflections. In his lecture Krebs included a final section of personal recollections which was very well received by his audience and the readers of the published version, who encouraged him to write more extensively about his experiences. See H.150 for draft of the lecture.

A further spur to Krebs's thinking in this direction was a request from the Royal Society (made to every Fellow) to supply biographical material for later use by his memorialist, and he appears to have been assembling material and drafting autobiographical notes for this purpose during the early and mid 1960s. (See e.g. A.1067, A.1068, A.1071).

It seems likely also that further recollections were encouraged by the 'Thank-You Britain' Fund appeal (organised by former refugees) which was going forward at about the same time. (See G.233-G.238.)

Krebs's retirement from his Oxford Chair in 1967 seems to have coincided with approaches for autobiographical accounts from one or more Italian publishers and it is in this connection that the title 'Reminscences and Reflections' first appears (see A.1084). Colleagues who were shown Krebs's English drafts encouraged him to write at greater length about his life but Krebs's response was to put together for publication a collection of documents from his files - 'those that had been important in influencing the course of my professional life and those that reflected more personal aspects, such as letters, announcements, and published articles' (Rem. & Refl., v). For examples of drafts from this period which are essentially compilations of documents with Krebs's comments see A.1086-A.1091. It was material of this sort with which Krebs approached the Oxford Krebs notes in the Preface to the published autobiography University Press in 1969. that he had always retained documents. At some point (perhaps in the 1960s) he had compiled two scrapbooks (now at A.27, A.28) entitled 'Documents from the Life of a Scientist' I and II, containing some of the most important surviving records of his career and honours. It is highly probable that these compilations were intended to serve instead of an autobiography; indeed, there is a striking correspondence between the drafts at A.1086-A.1091 and the scrapbook at A.27 which deals with Krebs's early career.

When Krebs showed his autobiographical material to the Oxford University Press, they requested a considerable expansion to provide a fuller account of his personal life. Initially, Krebs had reservations about this request, thinking 'that the documents would speak for themselves, illustrating how the social and political history of the times was reflected in the career of an individual scientist. Among other things they showed how the recognition of research expresses itself, how the rise of Nazism temporarily upset my career, and how British scientists and the Rockefeller Foundation came to my rescue; and how, later on, I became involved in wider issues'. Nevertheless, with the encouragement of friends and colleagues, he acceded to the request of the Press and undertook to write a full-scale autobiography.

The surviving material is very extensive, and the succession of heavily—revised drafts, some dated as late as 1980, suggest that Krebs did not find the task an easy one.

He sought the advice of colleagues and friends, including Catherine Weber, whose husband George was the organiser of the Indianapolis Symposia on advances in enzyme regulation which Krebs attended almost annually 1962–77. However, the decisive step in producing a publishable text seems to have been the appointment of A.V. Martin as Krebs's secretary in 1978. Mrs. Martin took on the role of collaborator, and in the extensive redrafting which was then undertaken and in the surviving exchanges of correspondence, Krebs's respect for her ability and judgment is manifest. Of particular interest in this regard is the draft 'AVM copy 1977' which appears to be the draft as prepared by Krebs before Mrs. Martin's appointment and which bears her first (extensive) revisions. This draft, which ends with the award of the Nobel Prize in 1953, represents Krebs's original intention to end his autobiography at this point. However, he was encouraged to extend it by others, including his collaborator, who bore the principal responsibility for preparing the later chapters, especially the important 'Oxford' chapter.

Complete or extended drafts

A.1084 'Reminiscences and Reflections', 1968.

43pp. typescript draft for Edizioni Scientifiche e Techniche Mondadori.

A.1085 'Italian Biography. 30 June 1968 Required'

Contents of a folder so inscribed.

Krebs's ms. and typescript notes.

A.1086, A.1087 Typescript draft, with ms. additions and corrections, of Krebs's expansion of his earlier historical account of the work for which he was awarded the Nobel Prize written for Italian publishing firm, Fratelli Fabbri, 1968. This draft took the form of documents respecting Krebs's early scientific career, with comments.

2 folders.

A.1088 'Autobiographical'

Contents of a folder so inscribed, 1968 or later.

Typescript draft of autobiographical account, in the form of documents with comments.

A.1089 Typescript draft of autobiographical account, in the form of documents and comments; also ms. notes.

A.1090, 'Reminiscences and Reflections'

A.1091 'First draft' of Krebs's autobiography, 1968, 'with comments from publisher'.

2 folders.

A.1092 'Documents for appendix of autobiography'

Contents of a folder so inscribed.

Photocopies, ms. and typescript notes.

H.A. Krebs CSAC 113/4/86

Biographical and autobiographical

A.1093 - 'Early draft (1973/4). Superseded by 1976 version' A.1095

3 folders.

A.1096- 'From the Life of a Scientist. Reminiscences and Reflections' A.1098 [?1976 draft].

Preface and 10 chapters taking narrative to 1935.

3 folders.

1099- 'Autobiography 1979 Version'

Preface and eight chapters taking narrative to 1935.

5 folders.

Drafts by chapter

A.1104 Preface
A.1106

A.1104 Drafts, 1968-75.

A.1105 Drafts, 1976-79, and n.d.

A.1106 Printed background material.

A.1107- Chapter 1 'Beginnings (1900-1918)'
A.1117 A.1107 Drafts, 1973-76.

A.1108, A.1109 Drafts, 1977 (2 folders).

A.1110, A.1111 Drafts, 1978, with ms. comment by F.L. Holmes and redrafting by A.V. Martin (2 folders).

A.1112, A.1113 Drafts, 1979, with redrafting by A.V. Martin (2 folders).

A.1114, A.1115 Drafts, n.d. (2 folders)

A.1114 includes draft annotated in red by Catherine Weber (wife of G. Weber, Indianapolis).

A.1116, A.1117 Background material (2 folders).

	2.03.0			
A.1118-	Chapter 2 'Universi	ity (1919-1925'		
A.1122	A.1118	Early drafts including 1961 typescript with extensive ms. additions and corrections.		
	A.1119	Drafts, 1976-77. Includes 'AVM copy 1977' with annotation by C. Weber and redrafting by A.V. Martin.		
	A.1120-A.1122	Drafts, 1978–79, with redrafting by A.V. Martin (3 folders).		
A.1123-	Chapter 3 'In the	laboratory of Otto Warburg (1926–1930)'		
A.1130	A.1123	Early drafts, ? 1957, 1961, 1963, 1967		
	A.1124	Drafts, 1972-73, 1975-77		
	A.1125, A.1126	Draft, 1979, with redrafting by A.V. Martin. Incorporates earlier draft annotated by C. Weber (2 folders).		
	A.1127	Draft, n.d. but incorporates 1p. dated 1975.		
	A.1128	Background material.		
	A.1129, A.1130	Draft of original chapter 3 'Otto Warburg – an appreciation' omitted from published autobiography but largely drawn from Krebs's earlier published work on Warburg (2 folders).		
A 1101	Charter 4 Altere	and Freiburg (1930–1933)!		
A.1131- A.1136	Chapter 4 'Altona and Freiburg (1930-1933)'			
	and draft chapter 6 'F	d incorporates draft chapter 5 'Departure from Warburg' reiburg im Breisgau 1931–1933'.		
	A.1131	Early drafts, 1961.		
	A.1132	Drafts, 1973.		
	A.1133	Drafts, ? 1975-76.		
	A.1134, A.1135	'AVM copy 1977'. Draft annotated by C. Weber and revised by A.V. Martin (2 folders).		

A.1136

Miscellaneous shorter drafts, 1977, 1979, n.d.

		biograpinou	1 4114 40100 10914 11141		
A.1137-	Chapter 5	'The Disc	overy of the Ornithine Cycle of Urea Synthesis (1932)'		
A.1144	A.1137		Early drafts, 1961, 1963.		
	A.1138		Ms. notes from jotter and entitled 'First Draft of History of Ornithine Cycle', December 1971.		
	A.1139		Typescript draft of lecture on the discovery of the ornithine cycle, given at Valencia, 1975.		
	A.1140-A	.1142	Drafts, n.d. (3 folders).		
	A.1143		Miscellaneous shorter drafts, various dates, 1972-78.		
	A.1144		Background material.		
A.1145- A.1152	Chapter 6	Chapter 6 'Hitler's Seizure of Power'			
A.1152	A.1145		Early drafts, 1961, 1963.		
	A.1146		Drafts, 1973.		
	A.1147		33pp. typescript draft, with ms. corrections and additions by Krebs. 1p. dated in 1976.		
	A.1148, A	A.1149	'AVM copy 1977'. Typescript draft with slight ms. correction by C. Weber and substantial revision by A.V. Martin (2 folders).		
	A.1150		Miscellaneous shorter drafts, 1978-79, n.d.		
	A.1151		Correspondence 1968, 1975 and printed back-ground material re Heidegger (see Rem. & Refl., pp.70-72).		
	A.1152		Miscellaneous background material.		
A.1153-	Chapter 7	'Cambrid	ge (1933-1935)'		
A.1157			incorporates draft chapter 9 'Arrival in England, r 10 'Cambridge 1933–1935'.		
	A.1153		Early drafts, 1961, 1963, with later ms. additions and corrections and retyping.		
	A.1154		Miscellaneous shorter drafts, 1970-76.		

	A.1155, A.1156	'AVM copy 1977'. Draft annotated by C. Weber and revised by A.V. Martin (2 folders).
	A.1157	Drafts, 1978-79, n.d.
A.1158- A.1162	Chapter 8 'Settlin	g at Sheffield (1936)'
A, 1102	A.1158	Drafts, 1963, 1967.
	A.1159	Drafts, 1973.
	A.1160	'Early draft superseded', n.d. c.1976.
	A.1161	'AVM copy 1977. Copy seen by Catherine Weber'.
	A.1162	Miscellaneous shorter drafts, 1976-79.
A.1163- A.1166	<u>Chapter 9</u> <u>'The H</u>	listory of the Discovery of the Citric Acid Cycle
	A.1163	Draft consisting almost entirely of pasted-up pages of Bibliog 293 (1970).
	A.1164	Draft, 1979.
	A.1165	Miscellaneous shorter drafts, various dates 1964-77.
	A.1166	Background material.
		Correspondence with G. Rattray Taylor re the development of the idea of metabolic cycles, 1961.
		Reprint of Bibliog. 293.
		Note of 'discussions with F.L. Holmes on early work related to the TCA cycle', 1977.
A.1167-	Chapter 10 'The	War Years (1939–1945)'
A.1171	A.1167	Draft, 1973 'Copy seen by Margaret [Krebs]'.
	A.1168	'AVM copy 1977 draft'.
	A.1169	Miscellaneous shorter drafts, various dates 1963-79.

Continued

	A.1170	Printed background material including reprints of Bibliog. 93 and 102.	
	A.1171	Correspondence with H. Garling (former Sorby Research Institute volunteer) re Sorby reunion, 1977.	
A.1172, A.1173	Chapter 11 'The His in Animal Tissues'	story of the Discovery of Carbon Dioxide Fixation	
	A.1172	Drafts, 1976, 1977.	
	A.1173	Draft, 1979; reprint of Bibliog. 335.	
A.1174- A.1182	Chapter 12 The Me	edical Research Council Unit (1944 - 1967)'	
A.1102	A.1174	Draft, 1976.	
	A.1175	'AVM copy 1977'.	
	A.1176	Drafts, 1978-79.	
	A.1177	Miscellaneous shorter drafts, 1970-75.	
	A.1178	Miscellaneous shorter drafts, n.d.	
	A.1179-A.1182	Background material including lists of team members, visitors, co-authors of papers with Krebs, some in the hand of L.V. Eggleston; also example of letter heading with printing error 'Unfit for Research in Cell Metabolism' (4 folders).	
A.1183-	Chapter 13 'Re-est	ablishing Contacts with Germany (1945-49)'	
A.1187	The correspondence and papers now at A.449-A.468 were found with the drafts for this chapter.		
	A.1183	Drafts, 1976.	
	A.1184	'AVM copy 1977'.	
	A.1185	Draft, 1979.	
	A.1186	Miscellaneous shorter drafts, 1962, 1971, 1973.	
	A.1187	Miscellaneous shorter drafts, n.d.	

A.1188-	Chapter 14 'Final Formulation of the Citric Acid Cycle'			
A.1191	A.1188	Draft, 1979; photocopies of 1948 correspondence with A.G. Ogston.		
	A.1189	Draft, n.d.		
	A.1190	Ms. notes.		
	A.1191	Printed background material.		
A.1192- A.1195		bel Prize' ed incorporates draft chapter 16 'Nobel Prize' and kholm'.		
	A.1192	Drafts, 1973.		
	A.1193	Drafts, 1976. Annotated by B. Wilcock of the Oxford University Press.		
	A.1194	'AVM copy 1977'.		
	A.1195	Miscellaneous shorter drafts.		
A.1199 It seems that for a t		nic Invitations (1946-1954)' e Krebs had intended to cover this period with two Events 1946-1953' and 'Invitation to Oxford'.		
	A.1196, A.1197	Drafts, 1979 (2 folders).		
	A.1198	Draft, n.d.		
	A.1199	Miscellaneous shorter drafts.		

A.1200-A.1220

'Oxford (1954-1967)' Chapter 17

Much of the material now in section C on the development of Oxford Science and Oxford Reform was found with the drafts for this chapter.

'Ch.20 [later renumbered 17] Oxford early drafts etc.'

Contents of a bulky folder so inscribed, now divided into 11, for ease of reference.

A.1200

Drafts, 1970, 1973.

A.1201

Drafts, 1974.

A.1202

Drafts, 1979.

A.1203-A.1205

Drafts, 1980 (3 folders).

A.1206

Drafts, n.d.

A.1207-A.1210

Background material including copies of Krebs's 1961 articles for Oxford Mazagine on salaries, G.E.F. Chilver's article for the same on demonstrators, colleges and professors, extracts from University Registry files re D.D. Woods and correspondence with University Offices, 1980 (4 folders).

'Ch.20 - Oxford. Final draft and material for notes' Contents of a folder so inscribed, divided into four for ease of reference.

A.1211

'Final draft 20.2.80', pp.1-19.

A.1212

pp.19A-27.

A.1213, A.1214

Miscellaneous notes and drafts (2 folders).

Miscellaneous shorter drafts

1964, 1966-67 A.1215

1976, 1978-79 A.1218

A.1216 1970-71

1980 A.1219

1973-74 A.1217

A.1220 n.d. A.1224

Biographical and autobiographical

A.1221-	Chapter 18	'Retirement'
A.1223	A.1221	Draft, 1980.
	A.1222	Miscellaneous shorter drafts, 1968, 1973.
	A.1223	Miscellaneous shorter drafts, 1980, including draft of Krebs's concluding remarks for symposium held in his honour at Dallas.

'Envoi'

A.1225A.1227

'Notes'. In page order of book and unidentified. Some containing material not used in published version.

3 folders.

A.1228, Note on family
A.1229
Drafts, 1970, 1978, 1980 and n.d.
2 folders.

Chapter 19

Drafts, 1970, 1980.

A.1230 Note on honours

Drafts and background material.

A.1231 'People in the Book'

Krebs's lists of people to be referred to in book.

Ms. and typescript notes on individuals: Heisenberg, Henseleit ('Encounter with Rosa Henseleit 25th June, 1978'), Kuhn, Lipmann, Loeb (with original of his note referring to the 'good marriage' between Krebs and Beeson at the Radcliffe Infirmary, reproduced in Rem. & Refl., p.226), Löffler, Mendel and Pohl; also note on 'Nobel families'.

A.1232 References.

A.1233 Figures for book

Original and photocopy for figure 2 ('Wider den undeutschen Geist'), original and photocopy for figure 3 ('Ein Kapitel "Treue"'), photocopy for figure 4 (1937 Nature letter), original for figure 5 ('An Appeal for ... Britons').

The original of the 1937 Nature letter is retained by J.R. Krebs.

Notes and ideas

- A.1234, Typescript and ms. notes (kept together by Krebs) on scientific attitudes, various dates 1965–78.
- A.1236 'Misc. handwritten notes query if to be used'

 Contents of a folder so inscribed.

 Includes notes dated in 1967 and 1973; most undated.
- A.1237 Correspondence, ms. and typescript notes, etc. re historical development and organisation of chemical laboratories in general and Liebig's laboratory at Giessen in particular, 1970. See Rem. & Refl., p.137.
- A.1238 Typescript notes on academic polemics, 1970, 1978.
- A.1239 Ms. and typescript notes on team work, various dates 1972-75.

 Folder includes photocopy of letter from D.J. Weatherall to P.J. Randle, 3 November 1975.

A.1240 Typescript notes (kept together by Krebs) on medical and scientific aphorisms, autograph hunters, brighter biochemistry, criticisms of research achievements, 1972-79.

A.1241 Typescript notes on leadership, especially the headship of a university department, various dates, 1973-80.

A.1242- Miscellaneous notes arranged chronologically by year.

A.1255

Many of these notes, some quite extensive, contain interesting reflections on how to do research, changes in science during Krebs's lifetime, scientific colleagues including Martius and Warburg as well as Krebs's self-analysis of his own character.

14 folders.

A.1242	1960, 1963-64	A.1249	1976 (1)
A.1243	1968	A.1250	1976 (2)
A.1244	1969-71	A.1251	1 9 77 (1)
A.1245	1972	A.1252	1977 (2)
A.1246	1973	A.1253	1978
A.1247	1974	A.1254	1979
A.1248	1975	A.1255	1980-81

A.1256- Undated notes A.1258

3 folders.

A.1259 Quotations and anecdotes of interest to Krebs.

For a time Krebs intended to publish in the autobiography a selection from the readings and comments which he had collected over the years.

Jotters

activities'.

See note at A.115-A.399 for guidance on further jotters with notes and drafts for the autobiography.

- A.1260 Jotter (front cover missing), 1971, with notes on 'Brighter Biochemistry', 'Autobiography. Self-assessment', etc.
- A.1261 Exercise book inscribed 'Autobiographical' on front cover and used 1971, 1972. I loose page.
- A.1262 Jotter inscribed on cover 'Original Notes all Dictated' and used 1972.

 Contents include notes for preface and chapter on 'retirement'.

 1 loose page.
- A.1263 Exercise book inscribed 'Autobiography' on front cover, used 1973.

 Some loose pages.
- A.1264 Hardback notebook used December 1978-July 1981 for autobiographical notes, etc. Paginated 1-139 with contents list (incomplete) inside front cover. Many loose items.
- A.1265 Jotter inscribed on cover 'Notes dictated', n.d.

 Notes relate to autobiography 'At every stage of my career I was surprised at my successes' and also visit to Indianapolis.
- A.1266 Exercise book, n.d.

 Notes relate to autobiography 'People have often expressed interest in any comments I might make on general questions concerning my working

Correspondence

See also H.325, H.423

A.1267-A.1271 Correspondence with the Clarendon Press Oxford, 1969-82.

A.1267 1969-70. Letter of 23 January 1969 informs Krebs that the Delegates had accepted his scientific autobiography for publication. Folder also includes photocopy of memorandum of agreement, 14 February 1969.

A.1268 1973-76

A.1269 1979. Includes notes by B. Wilcock of the Press on chapters 1-10.

A.1270 1980. Krebs sent the manuscript of his autobiography to the Press in May.

A.1271 1981-82, and n.d. Includes draft blurb and notes on proofs.

A.1271A Brief correspondence re enquiry from John Murray about a possible autobiography from Krebs, 1971.

A.1272 Correspondence with family and friends with comments on the autobiography, 1976-77, 1979, n.d.

A.1273-A.1275 Correspondence with or about A.V. Martin (Krebs's collaborator), 1978-81.

A.1273 March-July 1978.

A.1274 August-October 1978.

A.1275 1979-81, n.d.

A.1276 Requests from Krebs for information about book, 1980.

A.1277

Reviews

Perhaps because of the close proximity in time of Krebs's death and the publication of the autobiography, many of the reviews are as much tributes to the man as critical assessments of the book. The reviewers include such lifelong friends and colleagues as H. Blaschko and F. Lipmann.

A.1278

Background material

Miscellaneous photocopied and printed material including copies of The Oxford Magazine and Oxford University Gazette.

1 Box.

PRESS-CUTTINGS

A.1279

General

A collection of British and German press-cuttings on political, social and economic topics as well as science and scientists, from the 1930s onwards.

1 Box.

A.1280

Biographical

Mostly re Krebs's career, honours and awards, and overseas visits. A few relate to other members of the Krebs family.

1 Box.

SECTION B SHEFFIELD B.1 - B.104

INTRODUCTION TO SECTION B

B.1 -B.29	PHARMACOLOGY/BIOCHEMISTRY DEPARTMENTS
B.30-B.40	WARTIME RESEARCH
	With an introductory note
B.41 -B.77	funding and administration of krebs's research
B.41-B.52	Rockefeller Foundation
	With an introductory note
B.53-B.67	Medical Research Council Unit
	With an introductory note
B.68-B.77	Miscellaneous
B.78-B.90	GENERAL UNIVERSITY CORRESPONDENCE
B.78-B.82	Central administration
B.83-B.86	Other university departments, committees and organisations
B.87-B.90	Sheffield hospitals
B.91-B.104	LATER CONTACTS WITH SHEFFIELD
	With an introductory note

In May 1935, at a meeting of the British Pharmacological Society at Cambridge, Krebs was offered the post of Lecturer in the Department of Pharmacology at the University of Sheffield by Professor E.J. (later Sir Edward) Wayne. Since there was not likely to be an equivalent post in Cambridge where he had settled immediately upon his arrival in England from Germany and since Sheffield offered him the possibility of continuing his research, he accepted the lecturership in Wayne's department. In 1938 the University agreed to change his title to Lecturer in Biochemistry and in 1945, the year in which the Medical Research Council established the Unit for Research in Cell Metabolism with Krebs as Honorary Director, Krebs was appointed to the University's newly-created Chair of Biochemistry. Everything still remained to be done in respect of the accommodation and staffing of the new department. Krebs's efforts to solve the space problem of the department met with considerable resistance within the university and it was not until 1952, when the university had at last provided greatly improved familities including the conversion of a disused cinema, that a three-year Honours course could be The offer of a Professorship at Harvard (1951) greatly strengthened his bargaining position, enabling him to secure the facilities he sought. In 1954 he left Sheffield to take up the Whitley Professorship of Biochemistry at Oxford.

For correspondence re Krebs's appointment as Lecturer in Pharmacology at Sheffield see A.27, A.436, D.12, D.13.

For correspondence <u>re</u> Krebs's appointment to the Chair of Biochemistry at Sheffield including letters of congratulation see A.443. A reprint of his inaugural lecture is at A.28.

For photographic record of Krebs's later years at Sheffield see L.5.

B.1-B.29 PHARMACOLOGY/BIOCHEMISTRY DEPARTMENTS

B.1 Pharmacology Department

1935-37

Brief correspondence with E.J. Wayne.

Folder includes letter (1935) re arrangements for Krebs to fulfil teaching commitment at Cambridge after his appointment to the Sheffield post. (Rem. & Refl. p.94.)

B.2-B.29 Biochemistry Department

1939-54

A chronological sequence of correspondence and papers on the general affairs of the department.

B.2 1939

Information on research workers in Krebs's department, provided in response to a request from the Vice-Chancellor, July.

B.3 1940

Brief correspondence with Vice-Chancellor \underline{re} Biochemical Society meeting at Sheffield.

B.4 1940

Brief correspondence <u>re</u> transfer to Sheffield of personnel from P. Fildes's department of Bacterial Chemistry in London.

B.5 1940-41

Correspondence and papers \underline{re} departmental expenditure, equipment and personnel (L.V. Eggleston and R. Hems).

B.6 1944

Exchange of letters with C.R. Harington <u>re</u> establishment of a research unit of Chemical Microbiology at Sheffield.

Krebs noted that since 1941 Sheffield had housed as an 'evacuee' the remnant of Fildes's department of Bacterial Chemistry: it was the wish of the university including Krebs himself that this type of research unit should continue at Sheffield after the war.

B.7 1944 (or later)

5pp. typescript memorandum on accommodation for the Department of Biochemistry and 2 ms. diagrams of biochemistry accommodation, n.d.

This memorandum compares 1941 proposals for the accommodation of the Biochemistry department with the much less generous space allocation for Biochemistry in the 1944 plan.

B.8 1945

Brief statement of the Biochemistry department's contribution to the war effort, produced in response to a university circular of 22 October.

B.9 1945-46

Exchange of letters, March 1945, between R. Hems (on war service) and Krebs, on the occasion of Krebs's appointment as Professor of Biochemistry at Sheffield.

Note to the University bursar, July 1946, confirming that Hems had returned from war service.

B.10 1946

Letter from T. Mann, 26 January, <u>re</u> possibility of placing a demobilised Polish Air Force officer as a student at Sheffield.

B.11-B.13 1947

B.11 Correspondence with Vice-Chancellor on research interests of the Biochemistry Department and proposed new developments, January-February.

Folder includes 1p. Vice-Chancellor's Memorandum of a talk with Professors Smyth and Krebs, 15 January, and 1p. memorandum on development in the Department of Biochemistry sent by Krebs to the Vice-Chancellor, 30 January.

B.12 Correspondence with the Vice-Chancellor re appointments, award of Fellowship by (United States) National Research Council to J. Stern to study under Krebs, additional accommodation for the department, etc., June.

Krebs's letter of 10 June discusses the possible candidature of S.R. Elsden for the post of Senior Microbiologist in the University and Krebs's letter of 13 June refers to a letter of invitation to a chair of Biochemistry at London he had received.

B.13 Correspondence with Vice-Chancellor <u>re</u> accommodation and staffing of the department, November.

B.14 1948

Correspondence with Vice-Chancellor and Bursar <u>re</u> departmental affairs, principally space problems.

Folder includes 3pp. typescript memorandum on accommodation for the Department of Biochemistry.

B.15 1948, 1951-53

Applications for posts in Krebs's department.

Folder includes reply to an invitation from Krebs to apply for unspecified Chair at Sheffield.

B.16 1949

Letters from Krebs's secretary in Sheffield during his absence in the United States as a Rockefeller Travelling Fellow, with news of the department, etc., March-April.

Correspondence \underline{re} travel funds to aid proposed conference on CO_2 fixation at Sheffield, May.

B.17 1950

Correspondence with University Grants Committee <u>re</u> possibility of Rockefeller Foundation finance for building and equipment of a new biochemical laboratory at Sheffield, June-July.

Letters from Krebs's secretary providing news of the department while he was on holiday, August.

B.18 1951

Correspondence with Vice-Chancellor re Rockefeller Foundation support for Krebs's research, departmental appointment, the Harvard Professorship, etc., April-July, November.

Folder also includes letter from Krebs to Dean of the Faculty of Medicine, J.G. McCrie, setting out the history of the Biochemistry Department.

B.19 1951

Letter from L. Young \underline{re} Biochemical Society meeting at Sheffield, July.

Letter from Krebs <u>re</u> history of Sheffield Biochemistry department in response to a circular from I.D. Ferguson who was writing a history of the Glasgow School of Physiology and Biochemistry, September.

B.20 1951-52

'Undergraduate teaching in the department of Biochemistry'

Typescript and ms. drafts of note on organisation of courses.

- B.21-B.23 1952
 - B.21 Brief correspondence re proposed B.Sc. Honours Course in Biochemistry and new chemical laboratory dealing with the preparation of substances on a large scale, September-October.
 - B.22 'The teaching of Biochemistry and Microbiology in Sheffield University'

7pp. duplicated typescript paper prepared by Krebs and S.R. Elsden in support of an honours course in biochemistry, dated 11 October 1952.

Typescript and ms. draft of the above paper, with many ms. additions and corrections.

B.23 'The Growing Science of Biochemistry'

6pp. typescript, n.d.

Observations on the teaching of biochemistry at Oxford by W.O. James, extracted from a letter from James to A.R. Clapham.

2pp. typescript, n.d.

Manchester Guardian, 13 October 1952

research fellows and research students.

Marginal emphasis has been added to an article on research grants and technological education.

B.24 1953

1 letter only.

- B.25-B.27 1954
 - B.25 Formal letter of thanks from the University on the occasion of Krebs's resignation from the Sheffield Chair of Biochemistry.
 - B.26

 'Reflections on Resigning from the Chair of Biochemistry at Sheffield'
 3 drafts (one incomplete); brief correspondence with Vice-Chancellor.

 The section headings include origin and resources, personnel, morale, choice of successor. Appendices detail the budget of the MRC unit, 1945-46 to 1954-55, full-time research workers in the Biochemistry Department supported by outside bodies, 1936-54, and the present personnel (1954) including university staff, MRC staff, special

card.

Sheffield

- B.27 Ms. and typescript drafts of portions of Krebs's 'Reflections', often very heavily corrected.
- B.28 Miscellaneous items <u>re</u> the supply of equipment and rationed foodstuffs to the department, various dates and n.d.

 The folder also includes a Biochemistry Department Christmas
- B.29 18pp. typescript account of his own career and the work of the department, 1934-48, by L.V. Eggleston.

Continuation of the preceding to 1972, paginated 19-52.

B.30-B.40 WARTIME RESEARCH

Krebs's particular contribution to the war effort lay in the field of nutrition research. He undertook investigations into the properties of 'National Wheatmeal', with K. Mellanby, the Sorby Research Fellow of the Royal Society, who was based in Sheffield from 1941. According to Krebs's own statement of his department's contribution to the war effort (B.8): 'the digestibility of National Wheatmeal and its effect on the absorption of calcium from the intestine were examined on human volunteers prior to the compulsory introduction of the National Wheatmeal, and of the addition of calcium salts to it. The results of the work contributed towards shaping government policy'. Krebs also undertook investigations into vitamin A and vitamin C requirements of human adults, work which was also carried out on volunteers. Nutrition surveys were carried out in the Sheffield area and Krebs served on the Yeast Sub-Committee of the Scientific Committee on Food Policy of the War Cabinet.

The material is presented as a chronological sequence of correspondence and papers.

For additional material re wartime nutrition work see H.28, H.106, H.107, H.109, H.110, H.113, H.114, H.116, H.119, J 234, J.507, J.542, J.543, J.688.

As a continuation of Krebs's work on the citric acid cycle he was interested, in the early war years, in 'the idea that carbon dioxide might be an active metabolite taking part in synthetic processes' and the possibility of carrying out experiments with isotopic carbon to determine the question of carbon dioxide participation.

(Rem. & Refl., pp.126-131).

There is little material in this section on these developments (see especially B.30); for further related correspondence which Krebs had set aside for the October 1973 Boston conference on the historical development of bioenergetics, see E.31-E.33.

The diaries and research notebooks in Sections A and D also include additional information on research projects during the war years.

- B.30 Correspondence, 1940, 1942, <u>re</u> Krebs's attempts to obtain carbon isotopes for research on tissue metabolism.
- B.31 1940
- B.32 May-June 1941
- B.33 July-December 1941
- B.34 1942

Includes letter to the Lord President of the Council, C.R. Attlee, 3 March, re the 'almost complete failure' of the Scientific Committee on Food Policy (the Bragg Committee) and ms. draft of letter to The Times, 23 September, re the Nutrition Council advocated by its correspondents.

- B.35 1943
- B.36 1944
- B.37 1946-47

Includes long letter of complaint from a vitamin experiment volunteer, principally about expenses.

- B.38-B.40 Duplicated newsletters produced to enable the volunteers to keep in touch after the war.
 - B.38 Sorby News Letter, no.3, February 1946. Described as the last Sorby News Letter.

Sorby Newsletter. New Series, no.1, April 1946.

Sorby Newsletter. New Series, no.2, July 1946.

- B.39 Sorby Newsletters, nos. 5, 6, 7, 1947
- B.40 Sorby Newsletters, nos. 8, 9, 10, 1948 Sorby Newsletter, no. 13, 1949

Folder also includes a short letter from Krebs to W. Bartley, 16 August 1977, re recorded message for a Sorby reunion.

B.41-B.77 FUNDING AND ADMINISTRATION OF KREBS'S RESEARCH

B.41-B.52 Rockefeller Foundation 1935, 1937-42, 1946-47, 1949-55

A chronological sequence of correspondence principally between Krebs and officers of the Foundation and relating to support for Krebs's research and the development of biochemistry at Sheffield. In a letter of 21 April 1947 (see B.45), Krebs noted the extent of his debt to the Rockefeller Foundation: 'At a critical period of my career, when I was young and without reputation, they generously supported me, first at Freiburg and especially during my first year in this country at Cambridge in 1933. Later the help of the Foundation contributed much to the development of my present department'. For material re Rockefeller funding after Krebs's move to Oxford, see C.129-C.139. See also B.17, B.18, B.65, D.30.

B.41 1935

1 letter only, predating Krebs's move to Sheffield.

B.42 1937-38

1937 letter is the Rockefeller Foundation's response to a request from E.J. Wayne for financial assistance to purchase equipment for Krebs's research.

1938 material relates to Rockefeller Foundation proposal for a fiveyear scheme of assistance for Krebs's research conditional on the establishment of a Department of Biochemistry at Sheffield. Includes memorandum by Krebs on the probable requirements of the Department of Biochemistry during the next five years (3pp. typescript).

B.43 1939-40

June 1939 correspondence relates to the award of a Rockefeller Fellowship to V.R. Potter to work in Krebs's laboratory.

September-October 1939 and July 1940 correspondence relates to working conditions in the department and the prospects for the continuation of research.

B.44 1941-42

Correspondence <u>re</u> two one-year extensions of financial assistance to Krebs's department. In May 1941 Krebs submitted, in the form of a 4pp. letter, 'an account of the progress of the research which the Foundation has now supported for five consecutive years, and also a report on future plans and on the general working conditions in the present circumstances'.

B.45 1946-47

1946 correspondence includes Krebs's letter to the Import Licensing Department re importing of scientific apparatus from the USA.

In April 1947 Krebs, in reply to congratulations on his election to the Royal Society, expressed his gratitude for Rockefeller Foundation's generous support for his work from Freiburg onwards.

B.46 1949-50

1949 correspondence is with the British Commonwealth Scientific Office (North America) re Krebs's purchase of scientific equipment during a visit to the USA, with Rockefeller funds.

1950 correspondence relates to Krebs's enquiry whether the Foundation might be willing to consider an application for financial assistance in respect of new accommodation for the Sheffield Biochemistry Department.

B.47 1951

Correspondence <u>re</u> Krebs's application to the Foundation for financial support for his research. Krebs's letter of 24 April and its appendices detail the research area and the equipment needs of the department. He was awarded a grant of \$35,000 for a three-year period beginning 1 June.

B.48 1953

1 letter only.

B.49-B.51 1954

B.49 January

Correspondence <u>re</u> extension of Foundation support when current grant came to an end in June 1954. In his letter of 21 January Krebs submits an estimate of expenditure under the current grant for 1953–54 and lists of envisaged expenditure for 1954–55.

B.50 February-May

Continuing correspondence re support for Krebs's research.

In his letter of 6 February Krebs reflects on the prospect of the Oxford chair – 'the future of Oxford is so uncertain that I omit it entirely from my present plans for the future' – and in April the Foundation agreed to make available \$80,000 for Krebs's research at Sheffield during the five-year period beginning 1 June 1954.

B.51 July-August

In his letter of 1 July Krebs confirmed that he would be going to Oxford on 1 October. Subsequent correspondence deals with problems in respect of the grant already made to Krebs for his work at Sheffield and the prospect of financial support for Krebs at Oxford.

Includes 1p. ms. note of totals of university grants 1946–54 and Rockefeller Foundation funding 1935–54.

B.52 1955

Copies of letters from Rockefeller Foundation to Sheffield University retermination of Rockefeller grant to Sheffield for biochemical research under Krebs.

B.53-B.67 Medical Research Council Unit, 1944-54

In 1944 the Medical Research Council made an offer to Sheffield University to establish a research unit in Krebs's department under his directorship. The MRC insisted on the provision of adequate accommodation and that Krebs's status should be raised to that of professor on the understanding that they would contribute half his professorial salary. Krebs suggested the designation of 'Unit for Research in Cell Metabolism'. This development was of great importance to the scope of Krebs's research, providing long-term financial support for the salaries of a team of collaborators, equipment and running expenses. In 1954, when Krebs accepted the Whitley Professorship of Biochemistry, the unit moved with him to Oxford. (Rem. & Refl., pp.132-3.)

At its inception the unit was a victim of a famous printing error. The new departmental notepaper was headed 'Medical Research Council. Unfit for Research in Cell Metabolism'. See B.56, D.37.

A sequence of correspondence and papers presented chronologically.

B.53 1944

Letter from Vice-Chancellor, 22 November, informing Krebs that he had replied to Sir Edward Mellanby (Secretary of the Medical Research Council) 'to the effect that the University would greatly welcome the formation of an M.R.C. Unit of research in Biological Chemistry with you as Director if his Council decide to propose it'.

Copy of letter of same date from Vice-Chancellor to Dean of Medicine at Sheffield re new accommodation for Krebs.

B.54-B.56 1945

- B.54 Correspondence, January, between Krebs and Sir Edward Mellanby.

 In his letter of 17 January Krebs suggests as a name for the proposed unit: 'Unit for Research in Cell Metabolism'.
- B.55 Correspondence, October-December, between Krebs and Sir Edward Mellanby.

Relates to a proposal of the Therapeutic Research Corporation to pay the remuneration of additional members of Krebs's staff.

B.56 Four examples of the letter-heading of the new departmental notepaper with the printing error 'Unfit for Research in Cell Metabolism', one incorporated into a draft page of Krebs's autobiography.

B.57-B.64 Correspondence re salaries and staffing of MRC unit, 1946-50.

B.57 1946, February-March

B.58 1946, April-November

B.59 1946, December; 1947, January

B.60 1948-49

B.61 1949, June-July

B.62 1949, June (relates to visit of H.P. Himsworth to Sheffield before taking over as MRC Secretary in October)

B.63 1950, February-April

B.64 1950, August-October

B.65 1951

Correspondence <u>re</u> Rockefeller funding, research proposals, Harvard professorship and space problems at Sheffield, April-October.

B.66 1954

Letter of 13 July from the MRC detailing the total financial provision for Krebs's unit for each of the nine years 1945–46 to 1954–55.

Correspondence, October and December, <u>re</u> the resignation of F.P. Chappel from the staff of the unit.

Chappel, a member of the unit's staff for the three years to October 1954, had worked at the Department of Physics, University of Leeds.

B.67 Various dates and n.d.

Medical Research Council Progress Report, 1950-53, of the Unit for Research in Cell Metabolism.

Two undated ms. lists of MRC personnel.

Also filed here for convenience is a notice of memorial service of Sir Edward Mellanby, 1955.

B.68-B.77 Miscellaneous

B.68 Home Office licences

B.69, B.70 Suppliers of research material

B.71-B.77 Requests to visit/work in Krebs's laboratory.

B.68 Home Office Licences. Various dates, 1936-46

Notes for the guidance of Krebs in his application for a licence to carry out experiments on live animals and the letter transmitting the licence to Krebs (but not the licence itself), 1936; Letters reminding Krebs of the statutory requirement to submit a return of experiments and a blank form for the return, 1936-46. For later material <u>re</u> Home Office licences see C.145-C.149.

B.69, B.70 Correspondence with suppliers of scientific material for Krebs's research, presented in a chronological sequence.

B.69 1945-49

B.70 1950-54

B.71-B.77 Correspondence <u>re</u> requests to visit or work in Krebs's laboratory, arranged in a chronological sequence. There is similar material in the correspondence files.

B.71	1947-58	B.75	1953(1)
B.72	1950	B.76	1953(2)
B.73	1952(1)	B.77	1954
B.74	1952(2)		

B.78-B.90 GENERAL UNIVERSITY CORRESPONDENCE

B.78-B.82 Central administration

A chronological sequence of correspondence and papers \underline{re} the general affairs of the university.

B.78 1939-40

B.79 1940

Correspondence with Vice-Chancellor, J.I.O. Masson, the General Secretary of the Society for the Protection of Science and Learning, Esther Simpson, and Eleanor Rathbone M.P. <u>re</u> the problems of enemy aliens at Sheffield University

According to Krebs the situation had arisen when the main buildings of the University were declared a 'special area' because of war research carried out there. As a result refugee students, if they were not interned, were barred from the University.

The position of alien refugees at other British universities, especially Cambridge, Bristol, Liverpool, Manchester, Birmingham and Durham-cum-Newcastle, is mentioned in the correspondence.

See also J.333.

B.80 1943

'A.R.P. Western Bank Rota No.15, Spring Term 1943'

Addresses to the University Court, 29 November 1943, by the Senior Pro-Chancellor and the Vice-Chancellor.

B.81 1948-49

B.82 1950-52

B.83-B.86 Other university departments, committees and organisations

B.83 Medical Sciences Club 1953

Notice of lecture by Krebs on 'Some Aspects of the Energy Transformations in Living Matter', 3 November (Bibliog. 157).

Medicine 1942, 1945

Includes programme of industrial medicine course with note of lecture by Krebs on nutritional requirements of industrial workers. See H.113.

- B.84, B.85 Microbiology. See also J.178.
 - B.84 1949

3pp. typescript memorandum on the question of instituting a department of microbiology, with ms. draft of Krebs's covering letter to L.E.S. Eastham (Professor of Zoology).

4pp. typescript draft of the memorandum with Krebs's ms. additions and corrections.

B.85 1950

Correspondence with W.K. Slater of the Agricultural Research Council re possibility of setting up an ARC Unit in Microbiology at Sheffield under S.R. Elsden.

B.86 Committee of the Non-Professional Staff 1939

North Wing 1949

Publication of Sheffield University Medical Society

Sheffield Jewish Students Association 1935

Women Day Students organisation 1937

B.87-B.90 Sheffield hospitals

B.87 1944

Krebs's appointment to supervise the biochemical departments of the Royal Sheffield Infirmary and Hospital, February.

2pp. typescript notes on the 'Biochemical Laboratory, Sheffield Royal Infirmary', with ms. corrections and additions. Initialled by Krebs and dated 27 November 1944.

2pp. typescript note on the 'Biochemical Laboratory', 21 December 1944.

B.88 1945

5pp. typescript memorandum on 'Developments at the Biochemical Laboratories of the Sheffield Royal Infirmary and Hospital'.

Letter from Krebs to Professor Barnes, 12 February, enclosing the preceding.

B.89 1945-47

Brief correspondence <u>re</u> transferring of testing of patients from Krebs's department to hospital biochemical departments, appointment of Senior Biochemist at the Royal Sheffield Infirmary and Hospital, etc.

In November 1945 Krebs accepted an invitation to the office of Honorary Biochemist at the Royal Sheffield Infirmary and Hospital and in May 1947 he accepted the same office at the Children's Hospital, Sheffield.

B.90 1951-52, 1954

Correspondence and papers \underline{re} requests for Krebs's advice on the treatment of patients, from Sheffield hospitals and the Postgraduate Medical School of London.

B.91-B.103 LATER CONTACTS WITH SHEFFIELD, various dates, 1954-58, 1961-64, 1973-80

Krebs retained a close interest in the university after his departure for Oxford. He returned on a number of occasions to lecture, most notably for the July 1980 Biochemical Society meeting held in his honour, and was consulted on appointments and university development especially in the biochemical and medical fields.

B.91, B.92 Sheffield University Student Biochemical Society, 1958, 1964, 1973–80.

In 1958 Krebs gave the inaugural lecture of the society on 'Rate control of metabolic processes'. In 1974 he returned to give the Biochemical Society Lecture on 'The role of chemical equilibrium systems in organ function'. For many years Krebs served as Vice-President of the Society.

Two folders:

B.91 1958, 1964

B.92 1973-80

B.93 Sheffield University Philosophical Society, 1961

Invitation to lecture (declined).

B.94 Correspondence with the University Bursar re accommodation at Crewe Hall for a meeting of the Society of General Microbiology, 1963.

As a result of Krebs's intervention the 27 year-old mattresses at Crewe Hall were replaced.

B.95 Sheffield University Medical Society, 1975-77

Krebs was invited to contribute to a programme of lectures to celebrate the fortieth year of publication of the Society's magazine

Northwing. He had contributed to the magazine's summer edition of 1943.

B.96 Brief correspondence re Biochemistry Department's collection of Krebs's reprints; drafts of Krebs's introduction to his collected papers at Sheffield. 1978.

B.97 Brief correspondence <u>re</u> Sheffield University Centenary Appeal, 1979-80.

Krebs was a patron of the appeal.

- B.98-B.100 Biochemical Society meeting at Sheffield, July 1980, to honour Krebs's 80th birthday. See also G.26.
 - B.98 Correspondence with organisers re arrangements, 1978-80.
 - B.99 Notes and draft for Krebs's speech.

4pp. draft of 'Envoi' chapter of autobiography presumably used in preparation of speech.

B.100 Biochemical Society Bulletin, February 1980, with announcement of July meeting at Sheffield.

Biochemical Society Bulletin, June 1980, with programme of Sheffield meeting.

Leaflet with details of arrangements for Sheffield meeting.

B.101 Sheffield University Dining Club, n.d.

2pp. typescript and 1p. ms. draft of speech of reminiscences on the early history of the club, given by Krebs on a visit to Sheffield.

2pp. typescript reminiscences, possibly delivered on the same occasion.

- B.102-B.104 References and appointments
 - B.102 1954-56, 1958
 - B.103 1973, 1977
 - B.104 Miscellaneous

CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

Catalogue of the papers and correspondence of

SIR HANS ADOLF KREBS, FRS

(1900-1981)

Compiled by Jeannine Alton and Peter Harper

VOLUME II

Sections C, D

Deposited in the Library Sheffield University

CSAC 113/4/86

All rights reserved

H.A.	Krebs
CSAC	113/4/86

SECTION C	OXFORD C.1 - C.389		
C.1-C.96	BIOCHEMISTRY DEPARTMENT		
C.1-C.34	General administration		
C.35-C.58	Lectures		
C.59-C.85	Building extension		
C.86-C.96	Sub-departments		
C.97-C.182	funding and administration of Krebs's research		
C.97-C.123	Medical Research Council Unit/Metabolic Research Laboratory		
C.124-C.144	Financing bodies		
C.145-C.182	Miscellaneous		
C.183-C.240	DEVELOPMENT OF SCIENCE AT OXFORD		
	With an introductory note		
C.183-C.189	Development of Biology		
C.190-C.201	'Oxford's needs in science'		
	With an introductory note		
C.202-C.204	Biology Centre		
C.205-C.211	Zoology		
C.212-C.236	Molecular Biophysics		
C.237-C.240	Miscellaneous		

C.241-C.334	UNIVERSITY REFORM
	With an introductory note
C.241-C.260	General correspondence and papers
C.261-C.273	Salaries
	With an introductory note
C.274-C.278	Schedule A Professorships
C.279-C.328	Committees and Commissions of Inquiry
C.329-C.334	Publications
C.335-C.389	GENERAL UNIVERSITY CORRESPONDENCE
C.335-C.361	Central administration
C.362-C.372	Electoral Boards
C.373-C.389	Libraries, departments, colleges and societies

For correspondence and papers \underline{re} Krebs's election to the Whitley Professorship of Biochemistry, see A.555-A.566.

C.1-C.96	BIOCHEMISTRY DEPARTMENT	
	See also C.335-C.361	

C.1-C.34	General Administration
	A chronological sequence of correspondence and papers \underline{re} the general affairs of the department.
C.1	'Notes on informal speech to assembled members of Oxford Biochem. Dept. on assuming office, 2.10.1954'.
C.2	Various lists of departmental personnel, 1954-55.
C.3	Correspondence re arrangements for visiting lecturer, 1955.
C.4	Applications for/enquiries about posts in Krebs's department, 1955, 1957-58.
C.5	'Departmental Estimates 1955/56'
	4pp. typescript with details of expenditure and income.
C.6	Brief correspondence re departmental personnel, 1956.
	Minute of staff meeting, 13 November 1956, re appointment.
C.7	Papers re teaching survey of members of department, 1956.
	Folder also includes 'Undergraduate Teaching Before HAK – Practical Classes 1953–1954' and material on the duties of demonstrators, 1955–56.
C.8	Material <u>re</u> effect of insufficiency of the quinquennial grant on the department, 1957.
C.9	Correspondence and papers <u>re</u> joint research project with Nuffield Department of Surgery, 1957–58.

	Oxford
C.10	Brief correspondence <u>re</u> departmental staff meetings, January and November 1958.
	'Outline proposal for the revision of the Honour School of Biochemistry with reference to the inclusion of suitable courses in Physiology', 1 May 1958. By C.W. Carter.
	Brief correspondence with Registry <u>re</u> undergraduate and research student numbers, June-July 1958.
C.11	Krebs's minute of student comments on departmental teaching, 28 January 1959.
	Statement of grave concern about the state of teaching in the department (2pp. typescript). Not by Krebs. n.d. but not later than October 1959.
	Proposal for reorganisation of Biochemistry teaching. n.d.? 1959.
	Folder also includes earlier (1956) minute <u>re</u> Biochemistry teaching.
C.12	Duplicated typescript notes (8pp.) 'intended to introduce students to the Department of Biochemistry at Oxford University'. By Krebs. September 1959.
C.13	Lists of departmental personnel, 1961 and 1963.
	Minutes of discussions re new Fellowship at Wadham College in chemistry-cum-biochemistry, 1961 and 1962.
C.14	Correspondence re arrangements for visiting lecturers, 1961-63.
C.15, C.16	'Future of Final Year Students'. Various dates 1961-67.
	Principally Krebs's typescript notes of interviews with under- graduate and postgraduate students, reports of tutors and super-

1961-65 C.15

C.16 1966-67

Krebs's orders for U.S. Government publications, 1961-67. C.17

visors, references provided by Krebs, etc.

	
C.18	Correspondence and papers re secretarial appointments, 1963-64.
C.19, C.20	Correspondence, etc., with The Wellcome Trust <u>re</u> fellowships, research training scholarships, etc., 1964-68.
C.19	1964
C.20	1965, 1967-68
	1965 material includes brief exchange <u>re</u> 90th birthday of Sir Henry Dale.
C.21	'Survey of Graduates in Biochemistry - January 1965'
	'Quinquennial Estimates - Department of Biochemistry' (1965).
C.22, C.23	Correspondence and papers \underline{re} arrangements for visiting lecturers, 1965.
	2 folders.
C.24	Papers <u>re</u> appointment of Krebs's successor as Whitley Professor of Biochemistry, 1966.
	Includes Krebs's 'Memorandum for Hebdomadal Council and Electors of the Whitley Professorship', 10 September (2 copies) and letter from A.L.P. Norrington commenting on the memorandum 23 September.
C.25	Duplicated typescript notes (8pp.) 'intended to introduce students to the Department of Biochemistry at Oxford University'. By Krebs. October 1966.
C.26	'Whitley Professorship'
	2pp. typescript draft with ms. corrections, 31 October 1966. Principally relates to departmental budget.
	'Departmental Finance'
	1p. typescript (carbon), 14 December 1966.

C.34

Oxford

Papers re use of classrooms in the department, practical classes, C.27 visiting lecturers, departmental seminars, applicant for lecturership in department, etc., 1966-67. C.28 Material re departmental expenditure financed from outside grants, 1967. Includes draft letters to the editor of the Oxford Magazine and the Registry. Papers re transfer to Oxford of Krebs's successor and his research C.29 team, 1967. Includes Krebs's 'Report on Recent Events in the Department of Biochemistry', 17 February, which relates to structural alterations necessitated by the transfer (Rem. & Refl., pp.204-5), and a draft of the section in Krebs's last annual report on the transfer of responsibility to his successor. Lists of departmental and microbiology unit personnel, 1967. C.30 Project work for Biochemistry department students in Krebs's C.31 laboratory, 1971. Biochemistry department examinations, 1973. Honorary MA degree for chief technician in Biochemistry, 1979. C.32 History of Biochemistry department. Letter from Edward Whitley (1973) re his father, the founder of the Whitley Professorship, with abridged pedigree of Whitley family. Folder also includes copy of booklet printed to commemorate the opening of the Oxford School of Biochemistry, 1927. Miscellaneous items re departmental personnel, research, student C.33 numbers, teaching, examinations, etc. Krebs's annual departmental reports, 1957-65.

C.35-C.58

Lectures

C.35-C.37

'First Year Biochemists'

Contents of a ring-back binder so inscribed.

The material is divided into three folders for ease of reference.

C.35

'The nature of biochemistry'

7pp. typescript draft, with a very few ms. additions and corrections, paginated 4-10.

'The nature of biochemistry'

2pp. typescript draft, headed 'HLK' and 'JRQ' [Kornberg and Quayle].

'The nature and scope of biochemistry'

2pp. typescript draft, with ms. corrections.

Untitled 6pp. typescript draft on the nature of biochemistry, headed with the names W.H. Elliot and K.M. Jones.

C.36

'Detailed Notes'

4pp. typescript draft, with ms. additions and corrections, on the nature of biochemistry. By R.B. Fisher.

'How to become a Biochemist'

2pp. typescript draft, with ms. corrections.

'What happens to the food we eat'

3pp. typescript draft, dated 8 August 1960.

Miscellaneous ms. and typescript notes on the nature of biochemistry.

C.37

Krebs's 1946 inaugural lecture at Sheffield, 'The advent of biochemistry', with underscoring and marginal emphasis.

'Prospects for the development of biochemistry in the light of the resolutions of the XXI Congress of the Communist Party of the Soviet Union', with underscoring and marginal emphasis.

Miscellaneous background material.

C.38

'Two introductory lectures for first-year biochemists'

6pp. typescript draft of first lecture, with ms. corrections, 1960.

7pp. typescript draft of second lecture, with ms. corrections, 1960.

1p. typescript note and 1p. ms. note on the history of biology since 1900, 1961. Found with the preceding.

C.39-C.43

'Lectures, Final Year Biochemists'

Contents of a folder so inscribed.

The material has been divided into 5 folders for ease of reference.

C.39

'Synopsis of Final Honour Biochemistry School Lectures, Hilary Term, 1960'

Notice of a series of lectures by Krebs on 'Special aspects of the energy-giving reactions (cause of specific dynamic action of foodstuffs, rate control of energy metabolism)'. Hilary Term, 1960.

2pp. typescript draft introduction to the series.

2pp. typescript draft, 20 January 1960. Untitled but 'mainly quoted from Medawar'.

Miscellaneous ms. and typescript notes.

C.40

'F.H. Biochem. Class Work January 1960'

Krebs's ms. and typescript notes of experimental method.

Experimental account and results in other hands, probably students.

C.41

Duplicated notes for practical classes. Hilary Term, 1960.

1p. typescript note on the use of the departmental library by 4th-year honours students, 14 October 1961.

C.42

Notice of a series of lectures by Krebs, on 'Control of Metabolic Processes', Hilary Term, 1962.

Duplicated notes for practical classes: advanced enzymology and cell fractionation studies, 1962.

C.43

Duplicated notes for practical classes, with ms. tables of results, 1964.

C.44-C.47

'F.H.S. Physiology Lectures I'

Contents of a spring-back binder so inscribed.

The material is divided into four folders for ease of reference.

C.44

'Energy transformations in living matter'

Krebs's first lecture, given 17 October 1959.

5pp. typescript draft, with a few ms. additions and corrections.

'Untitled second lecture, given 24 October 1959.

6pp. typescript draft.

Krebs discusses the question of how much energy is released by respiration on the one hand and fermentation on the other.

C.45

'Intermediary stages of the energy yielding reactions'

Krebs's third lecture, given 31 October 1959.

5pp. typescript draft.

Untitled fourth lecture, given 7 November 1959.

6pp. typescript draft.

C.46

Untitled fifth lecture, given 14 November 1959.

6pp. typescript draft and 1p. ms. note.

Untitled sixth lecture, given 21 November 1959.

4pp. typescript draft.

C.47 'General observations on the energy giving reactions'
22pp. typescript draft, with ms. additions. Includes tables and list of references.

Miscellaneous ms. and typescript notes.

C.48-C.52 'F.H.S. Physiology Lectures II'

Contents of a spring-back binder so inscribed.

The material has been divided into five folders for ease of reference.

- C.48 List of seven lectures to Final Honours Physiology. n.d.

 Dated ms. and typescript notes for Final Honours Physiology lectures, 1956-62.
- C.49 Untitled seventh lecture, dated 28 November 1959.7pp. typescript draft, with ms. additions and corrections.

Untitled first lecture, dated 23 January 1960.

8pp. typescript draft, with ms. additions and corrections.

C.50 Untitled second lecture, dated 30 January 1960.

8pp. typescript draft, with ms. additions and corrections.

Untitled third lecture, dated 6 February 1960.

7pp. typescript draft, with ms. additions and corrections.

- C.51 Undated ms. and typescript notes.
- C.52 Printed background material.

C.53

Biology option for chemists, 1966.

3pp. duplicated typescript course outline.

7pp. draft of Krebs's introductory lecture, typescript and printed material (extract from Krebs's 1946 inaugural lecture at Sheffield).

C.54

Letter from course organiser and list of lectures on disorders of human metabolism, 1973-74.

Ms. notes and printed background material.

C.55, C.56

'Regulation of the redox state'

Drafts of three lectures, 1972-73, letter from course organiser, reading list and lecture timetable.

Two folders.

C.57

Lecture timetable for F.H.S. Biochemistry option on the regulation of metabolic pathways, n.d.

Krebs gave two lectures on compartmentation.

Ms. and typescript notes on compartmentation, 1973.

C.58

Unattributed ms. and typescript notes. Some material dated in 1973.

C.59-C.85

Building extension, 1955-64

During Krebs's tenure of the Whitley Professorship a major building extension was planned and completed – an eight-storey wing which more than doubled the size of the department. Although the University Grants Committee provided the greater part of the finance for the extension and its equipment, Krebs was obliged to approach the Wellcome Trust for the finance for an extra research floor for the Head of Department (Rem. & Refl., p.196).

- C.59-C.74 Correspondence and papers <u>re</u> building extension with Registry, University Surveyor, the architects and academic colleagues, 1955-60.
 - C.59 April-May 1955

Folder includes Biochemistry location plan, May.

C.60 June-July 1955

Includes memorandum giving draft requirements for the first extension of the department.

- C.61 August-September 1955
- C.62 October-December 1955
- C.63 May-June 1956

Includes 8pp. memorandum on the Biochemistry extension submitted to the Building and Development Committee of Council and the General Board.

C.64 July 1956 (1)

Includes memorandum (various drafts) of additional information on the Biochemistry extension for the Building and Development Committee of Council and the General Board. Deals with curriculum changes and general aspects of the development of Biochemistry.

C.65 July 1956 (2)

Includes memoranda on 'Biochemistry Extension - Plan B', 'Future of Biochemistry', 'Physical Biochemistry' and 'Virus research'.

The memorandum on Plan B has the ms. comments of senior members of the department.

C.66 August-October 1956

Includes memoranda on the requirements for the extension and the canteen problem, sent to the architects.

C.67 November-December 1956

Includes undated papers found with 1956 material.

C.68 January-June 1957

Includes notes on meeting of members of the Biochemistry department, the University Surveyor and the architects, 27 February, and schedule of accommodation for the extension.

C.69 July-August 1957

Includes committee papers for consideration of the Building and Development Committee, 29 July, with timetable prepared by the University Surveyor of the planning stages for the Biochemistry extension.

C.70 October-December 1957

Includes reports and memoranda on the Biochemistry extension, F.H.S. Biochemistry and the microbiology unit and notice of a symposium on the design of teaching laboratories, organised by the RIBA for March 1958.

C.71 January-April 1958

Includes 'Comments on the scheme for the Biochemistry Extension dated 17.3.58.' (5pp. typescript).

C.72 1959

Includes memorandum (by R. Cecil) on the architects' short-comings in their planning of the extension. Sent to the Registrar by Krebs, 17 April.

C.73 1960

Includes Building and Development Committee paper <u>re</u> revised estimate of cost and notes made by Krebs in case he should be requested to raise the money to meet the shortfall, July.

C.74 Miscellaneous papers re Biochemistry department extension.

C.75-C.80 Outside grants for Biochemistry department extension.

C.75-C.79 Wellcome Trustees

C.75 1955

Minute of visit from Sir Henry Dale, 28 November.

C.76 June 1956

Minutes of discussions with Secretary of Wellcome Trustees, senior Biochemistry department staff and Registrar, and draft letter from the Registrar to Sir Henry Dale <u>re</u> possible grants from the Wellcome Trustees for the Biochemistry extension.

C.77 July-August 1956

Correspondence with Sir Henry Dale <u>re</u> award of grant towards the cost of the projected new biochemistry building.

C.78 1957-60

Includes copies of correspondence between the Registrar and Sir Henry Dale.

C.79 1963

Brief correspondence re plaque to record formally in the building the indebtedness to the Wellcome Trust.

C.80

J.R. Geigy, S.A. 1958-59

Correspondence <u>re</u> small contribution to Krebs's biochemical laboratories from Geigy and its British subsidiary.

C.81

Typescript notes (6pp.) recording progress of building extension, 16 October 1961 to 11 June 1964.

Folder also includes 1p. typescript note: 'Comment on the following inscription in the entrance hall of the Department of Biochemistry'.

C.82

Newspaper cuttings re Biochemistry department architect, 1959.

C.83

Photographs of work in progress on the extension, with one earlier (1954) photograph.

C.84, C.85

Biochemistry extension open day, 2 May 1964.

C.84

Correspondence <u>re</u> arrangements, invitations, letters of thanks, etc.

C.85

Notes of arrangements, programme, press-cutting, draft of Krebs's speech at open day lunch.

Folder also includes draft of Krebs's speech at buffet luncheon, 14 January, for members of department, architects, consultants, builders, etc.

C.93

1966

Oxford

C.86-C.96 Sub-departments

C.86-C.93 Iveagh Professorship of Chemical Microbiology, 1955, 1964-66

According to Krebs's own note preserved at C.89, the professorship was established in 1955 with outside support from Arthur Guinness & Sons, in the first instance for the expected tenure of the first professor, D.D. Woods, and after his death for the tenure of the second professor, J. Mandelstam. This support was sufficient to raise a readership to a professorship, to finance post-doctoral fellowships and contribute to general laboratory expenses. (Cf. Rem. & Refl., pp.204-5).

See also C.353.

C.86-C.89	Correspondence and papers <u>re</u> the establishment of the Iveagh Professorship, 1955.
C.86	May
C.87	June-July
C.88	September-November
	Includes Krebs's note for the 'News and Views' columns of Nature on the appointment of D.D. Woods as Iveagh Professor.
C.89	Ms. and typescript notes by Krebs and D.D. Woods on the establishment of the Iveagh Professorship.
C.90	D.D. Woods's thoughts on Schedule A professors, March 1964, and paper on the Iveagh Professorship which Woods and Krebs discussed with the Secretary of the Faculties, July 1964.
C.91-C.93	Correspondence and papers <u>re</u> the future of the Chair after the death of D.D. Woods and the appointment of his successor, 1964-66.
C.91	Krebs's memorandum on the Iveagh Professorship, 21 November 1964, and correspondence about it with J.W.S. Pringle and B. Bleaney; second copy of memorandum incorporates Bleaney's comments.
C.92	November 1964-January 1965

C.94-C.96	Laboratory of Human Nutrition, 1955-59, 1963		
	The laboratory was incorporated in the Department of Biochemistry in 1955. See also C.346.		
C.94, C.95	Correspondence with H.M. Sinclair, Sir Henry Dale and the University Registry <u>re</u> future of the laboratory.		
C.94	1955		
C.95	1956, 1963		
C.96	Grant from Chilean Iodine Educational Bureau, 1955-59		
	Correspondence and report on work carried out under the grant (1956-57).		

C.97-C.182

FUNDING AND ADMINISTRATION OF KREBS'S RESEARCH

C.97-C.123

Medical Research Council Unit/Metabolic Research Laboratory

A chronological sequence of papers and correspondence.

Most of the material presented here relates to a 1959 proposal to transfer the unit from the Medical Research Council to Oxford University, the future of the unit when Krebs retired from the Whitley Professorship and the move to and running of Krebs's 'retirement' quarters in the Radcliffe Infirmary, Oxford. The designation Metabolic Research Laboratory was adopted for these 'retirement' premises.

C.97 Medical Research Council Cell Metabolism Research Unit Progress Reports, 1953-57 and 1957-61.

C.98 Brief correspondence with University Registry <u>re</u> accommodation for MRC unit, 1954-55.

C.99 Lists of MRC unit personnel, 1957-58, 1966, 1968, 1972 and n.d.

C.100 Schedule and brief correspondence re visit by the Lord President of the Council, Lord Hailsham, to Oxford MRC units, 1959.

C.101-C.106 Correspondence and papers <u>re</u> proposed transfer of MRC unit to Oxford University, 1959-61.

This 'major threat to the work of the Unit' came about in 1959 when the University Grants Committee in a report on university development suggested that the responsibility for some MRC units should be transferred to universities. In compliance with this policy the MRC asked Oxford University to enter into negotiations about the transfer of Krebs's unit. In the discussions with the General Board of the University it became clear that there were major difficulties in the way of a transfer including discrepancies between MRC and university salaries for a number of senior members of the unit and the financing of the unit as a whole after the ending of MRC support. Negotiations were abandoned after two and a half years of frustrating argument and Krebs concluded that the University as a body attached little importance to his unit's work (Rem. & Refl., pp.141-4).

C.101 January-April 1959

Includes Krebs's memorandum on the proposed transfer of the MRC Unit in the Department of Biochemistry, 16 April. (13pp. duplicated typescript including tables and appendices).

C.102 Contents of envelope inscribed 'MRC Unit Transfer Staff
Meeting'

Copy of Krebs's memorandum (8pp. duplicated typescript) and comments on it of eight senior members of the Biochemistry department.

C.103 June-October 1959

Includes copy of memorandum on salaries of university demonstrators (see also C.261), notes for meeting of Council, 5 October, and second memorandum on the proposed transfer of MRC Unit, 8 October.

C.104 November-December 1959

Includes part of the report of the Standing Committee for Natural Science (10 November 1959) as related to the proposed transfer, with Krebs's comments, and various drafts and copies of the second memorandum on the transfer.

C.105 1960

Includes draft of speech prepared by Krebs for meeting of Council, 29 October 1960, but not delivered.

C.106 1961

C.107 Brief correspondence re official visit of MRC to Oxford units, 1963.

C.108-C.112

Correspondence, etc., with the Medical Research Council and the University re the future of the MRC unit after Krebs reached the statutory age of retirement. 1965-67.

The material relates to Krebs's post-retirement plans, the future of his research team and the disposition of MRC equipment.

See also C.353.

C.108

1965

Includes draft letter to Hebdomadal Council (not sent) on post-retirement activities.

C.109

January-March 1966

C.110

April-May 1966

Includes draft statement 'Laboratory in the Nuffield Department of Medicine, Radcliffe Infirmary', 15 April, giving details of Krebs's research team, recent research interests, wish to continue research after retirement, etc.

The statement was probably the basis of a grant application to meet the costs of alterations to the laboratory in the Nuffield Department offered to Krebs by P.B. Beeson, Nuffield Professor of Clinical Medicine.

C.111

June-August 1966

Includes correspondence \underline{re} the terms of the MRC's acceptance of Krebs's proposal for post-retirement research.

C.112

December 1966, September-October 1967

- C.113-C.123 Metabolic Research Laboratory, Radcliffe Infirmary, 1966-81
 - C.113-C.121 Correspondence and papers re accommodation, equipment and the general running of the laboratory.
 - C.113 1966

Material relates to the conversion into a biochemical research laboratory for Krebs of rooms vacated by the Department of Anaesthetics in the Nuffield Department of Clinical Medicine.

C.114 January-June 1967

Continuing correspondence on conversion of laboratory for Krebs. See also C.122.

C.115 July-December 1967

Includes correspondence with the Registry <u>re</u> the University's acceptance of the MRC's offer of support for Krebs's research in the Nuffield Department of Clinical Medicine.

- C.116 1968
- C.117 1970-72

Includes request from Nuffield Department of Orthopaedic Surgery for advice on proposed research (1971) and Krebs's letter to the Director of the Committee on Invisible Exports setting out the invisible earnings of his research laboratory (1972).

- C.118 1974
- C.119 1975-78

1975 correspondence relates to the future of Krebs's research group.

1977 papers include 'Material for the renewal of the grant of the Medical Research Council', 5 and 6 April (6pp. typescript).

C.120 1979

Includes material <u>re</u> possible move of the research group from the Radcliffe Infirmary to the John Radcliffe Hospital, Headington, Oxford.

C.121 1980-81 and n.d.

C.122 Grants to cover costs of converting accommodation into biochemical research laboratories.

J.R. Geigy, S.A. 1967-68

Nuffield Committee 1969

C.123 Staffing various dates 1969-80

C.124-C.144 Financing bodies

Arranged in an alphabetical sequence (incomplete).

See also C.339.

C.124 National Institute of Alcoholism and Alcohol Abuse

1971

C.125-C.128 Onassis Foundation 1980-81

Correspondence and papers <u>re</u> Krebs's candidature for the Olympia Prize awarded by the International Board of the Onassis Foundation.

Krebs's name was put forward for the prize by Sir Michael Stewart.

C.125 December 1980-January 1981

C.129-C.139

Oxford

C.126 February-March 1981

Includes draft statements about Krebs and his work by Krebs himself and Sir Michael Stewart.

C.127 April-June 1981

Includes the statement of recommendation submitted to the International Board.

C.128 Miscellaneous ms. and typescript material re Krebs's candidature.

Includes statement of honours received by Krebs.

Rockefeller Foundation

1954-61, 1964-65, 1969, 1971, 1977

A chronological sequence of correspondence <u>re</u> grant applications, annual expenditure, visits from officers of Rockefeller Foundation to Oxford, etc.

Rockefeller Foundation support for Krebs's research, initiated in Germany in 1932, continued in Oxford until 1965.

C.129 December 1954

Krebs's application for a grant to Oxford University for biochemical research under his direction, to replace the grant to Sheffield University returned on Krebs's acceptance of the Oxford Chair.

In his letter of 10 December Krebs explained what had happened to the equipment bought under previous grants at Sheffield.

C.130 1955

In January Krebs was awarded a grant of up to \$80,000 for a period of 5 years.

C.131 1956

C.132 1957

C.133 1958

C.134

January-May 1959

During this period Krebs made a major grant application to the United States Public Health Service and was advised by G.R. Pomerat, Associate Director of the Rockefeller Foundation, to await the outcome of this application before making a further request for Rockefeller funding.

C.135

September-December 1959

In a letter of 6 November Krebs announced the award of a United States Public Health Service grant and discussed informally a further grant from the Rockefeller Foundation. Appendix I of this letter is a list of the permanent and semi-permanent staff of the Biochemistry department and Appendix II is a survey of current investigations.

C.136

1960

In January Krebs made a formal application for a grant in support of research in the Oxford Biochemistry Department.

C.137

1961

C.138

1964-65

C.139

1969, 1971, 1977

C.140-C.144

Travenol Laboratories Limited

1976-82

Includes material re conferences as well as research funding.

C.140

1976-77

Conference on parenteral nutrition, Bermuda, 15-20 May 1977.

Correspondence with organisers \underline{re} arrangements, publication of proceedings, etc. $\underline{Bibliog}$. $\underline{364}$.

See also F.303.

C.141

1978

Correspondence and papers <u>re</u> financial support for research on parenteral nutrition.

C.142

1979

Correspondence re parenteral nutrition research project and symposia at Oxford and Glasgow which Krebs was unable to attend.

Letter from Sir David Cuthbertson, 10 July, reflects on early penicillin research in light of G. Macfarlane's biography of Howard Florey.

C.143

1979-82

Correspondence \underline{re} possibility of a staff member studying for a doctorate in Krebs's laboratory and research funding.

C.144

1980

Correspondence <u>re</u> research problems and Kiawah Island (South Carolina) symposium on branched chain amino and ketoacids.

C.145-C.182	Miscellaneous	
	C.145-C.149	Home Office licences
	C.150-C.157	Suppliers of research materials
	C.158-C.182	Requests to visit/work in Krebs's laboratory

C.145 Home Office licences Various dates 1954-81 Correspondence and papers re applications for and renewal of licences, statutory return of experiments, etc., for Krebs and his collaborators. For earlier material re Home Office licences see B.68. C.145 C.148 1954-67 1973-76 C.146 C.149 1967-70 1978-81 C.147 1971-72

C.150-C.157

Correspondence with suppliers of scientific material for Krebs's research, presented in a chronological sequence. Not indexed. Similar material is sometimes included with the research projects in Section D.

C.150 1954-58 C.154 1969

C.150	1954-58	C.154	1969
C.151	1960-67	C.155	1970-71
C.152	1968(1)	C.156	1973-76
C.153	1968(2)	C.157	1977-80

C.158-C.182 Correspondence <u>re</u> requests to visit or work in Krebs's laboratory, arranged in a chronological sequence. There is similar material in the correspondence folders.

C.158	1954-55	C.172	1973 (1)
C.159	1956-57	C.173	1973 (2)
C.160	1958	C.174	1973 (3)
C.161	1960	C.175	1974 (1)
C.162	1961	C.176	1974 (2)
C.163	1962-64	C.177	1975 (1)
C.164	1965-67	C.178	1975 (2)
C.165	1967-68	C.179	1976 (1)
C.166	1969	C.180	1976 (2)
C.167	1970 (1)	C.181	1977
C.168	1970 (2)	C.182	1978-81
C.169	1971		
C.170	1972 (1)		
C.171	1972 (2)		

C.183-C.240

DEVELOPMENT OF SCIENCE AT OXFORD

During Krebs's tenure of the Whitley Professorship, he worked for a strengthening of the sciences at Oxford and his interest and involvement in this, especially in respect of the biological sciences, is attested by the very substantial body of correspondence and papers presented here. As a member of the Board of the Faculty of Biological Sciences Sub-Committee on the Development of Biology he took part in discussions on the establishment of new departments (C.183-C.189) and when the new quinquennial grant proved inadequate for the developments envisaged, played a leading role in informal discussions within the university on alternative sources of finance (C.190-C.201). There is material re a proposed Biology Centre (C.202-C.204) and the difficulties faced by the new Linacre Professor of Zoology, J.W.S. Pringle, in respect of the provision of adequate accommodation for him by the university (C.205-C.211).

Perhaps the development to which Krebs attached the most significance, however, was the establishment of molecular biophysics at Oxford (C.212-C.236) not only because of the inherent importance of the subject but also because he believed that the difficulties which had to be overcome before the successful establishment of the Laboratory of Molecular Biophysics in 1967 were characteristic of most major innovations in the university. The papers presented here chart the contribution of Krebs and J.W.S.

Pringle to the establishment of the new laboratory and include copies of Pringle's own papers (C.219-C.227) made available as source material for Krebs's very substantial unpublished account of the history of molecular biology at Oxford (see C.229-C.234).

Krebs provided an interesting but much shorter account in his autobiography (Rem. & Refl. pp.207-213). There is also a draft article on the same subject for the Oxford Magazine (C.228).

For published accounts by others which touch upon some of these questions see D.C. Phillips's memoir of W.L. Bragg (<u>Biographical Memoirs of Fellows of the Royal Society</u>, <u>25</u>, 1979) and V. Wigglesworth's memoir of J.W.S. Pringle (<u>Biographical Memoirs of Fellows of the Royal Society</u>, <u>29</u>, 1983).

For Pringle's own account see the copy of his lecture on Oxford Zoology at C.211.

C.183-C.189

Development of Biology, 1956-58

Correspondence and papers <u>re</u> the Board of the Faculty of Biological Sciences Sub-Committee on the Development of Biology.

The Chairman of the Sub-Committee was C.D. Darlington.

At a later date these papers were shown to J.W.S. Pringle. See C.183.

C.183

'Memorandum from Professor Darlington: New Biology Departments', 20 November 1956.

2pp. duplicated typescript.

'Expansion of Biology in Oxford', 2 February 1957.

3pp. typescript memorandum by D.D. Woods.

Carbon of letter from W. Le Gros Clark to Darlington, 4 February 1957, with comments on Darlington's memorandum and points for his committee to consider.

Minutes of the meeting of the committee on the development of biology, 4 February 1957.

4pp. typescript.

Krebs attended this meeting.

C.184

Letter from D.D. Woods, 13 February 1957, enclosing two drafts of a document about a new department of chemical/general microbiology. Only one draft, described as the shorter version, was found with the letter.

Committee paper for meeting of 19 February 1957.

3pp. duplicated typescript.

Incorporates the longer version of Woods's memorandum on a new microbiology department and a memorandum by A.G. Ogston on physical biochemistry.

Copy of memorandum from W.O. James on the establishment of a department of plant physiology.

2pp. typescript, with covering letter, 21 February 1957.

C.184 (Cont'd.)

Copy of draft preamble 'which might contain suitable material for the report on the development of biology'.

2pp. typescript, with covering letter.

Sent to Darlington by Krebs, 28 February 1957.

Memorandum on virology by K. Burton.

lp. duplicated typescript.

C.185

Committee papers for meetings of 6 and 26 March 1957.

Includes:

Memorandum by Professor Burn on a New Department of Experimental Medicine.

Memorandum by Professor Darlington on a Department of Genetics.

Comments of Professor Pickering on Professor Burn's memorandum on a New Department of Experimental Medicine.

Memorandum by Professor Sir Wilfrid Le Gros Clark: Biological Science in Oxford: The case for a Department of Human Biology and Physical Anthropology.

Memorandum by Professor Sir Howard Florey on a new department of Medical Bacteriology.

C.186

Memorandum on the relations of biology with the physical sciences by C.D. Darlington, 1 April 1957.

2pp. typescript.

Comments by A.G. Ogston on Darlington's memorandum, 7 April 1957.

3pp. typescript (carbon).

Letters from R. Barer to Krebs, 11 and 12 April 1957, commenting on the memoranda by Darlington and Ogston.

Paper on biophysics by Barer and Ogston, n.d.

4pp. typescript (carbon).

C.186 (Cont'd.) Draft statement on growing points of biology and medicine.

6pp. typescript.

Sent to Krebs by J.H. Burn.

Drafts for 'Preamble' by Darlington, 24 April 1957, and Krebs.

C.187 Committee papers and correspondence <u>re</u> meetings of 2 and 31 May 1957.

Includes:

Memorandum by N.T.J. Bailey on a new department of Biometry.

Statements on Virology by Sir Macfarlane Burnet and K.M. Smith.

Copies of interim report of sub-committee and preamble.

C.188 'Notes on the development of science and medicine at Oxford',27 September 1957.

1p. duplicated typescript. By Krebs.

Untitled 3pp. typescript draft <u>re</u> conclusions of sub-committee and discussions with Chairman of the University Grants Committee by two of its members. n.d. but probably late 1957.

'Biology development', 25 November 1957.

1p. typescript note. By Darlington.

Draft statement on growing points of biology and medicine, 23 December 1957.

3pp. duplicated typescript, with ms. note 'this contains ammunition, but is not a suitable call for action'.

C.189

Committee papers for meeting of 28 May 1958:

Minutes of last meeting of 31 May 1957.

Report of Committee on the future of the Physical Sciences in Oxford, 19 January 1958.

Memorandum from Professor L.R. Wager: 'Developments in the Geological Sciences - Proposals for Departments or Sub-Departments of Geophysics, Geochemistry and Geomorphology'.

Copy of report of the sub-committee on the Development of Biology and Medicine. Virtually identical with interim report at C.187.

C.190-C.201

'Oxford's needs in science', 1957-61.

Correspondence and papers re informal discussions within the university arising from what was considered the inadequacy of the new quinquennial grant for providing much-needed scientific and other development at Oxford. Discussions centred on identifying the particular areas of science for development and the desirability of a public appeal to help finance them.

In addition to Krebs, the principal participants were:

B. Bleaney
Lord Bridges
A.L.C. (later Lord) Bullock
J.H. Burn
C.D. Darlington
Sir William Deakin
H.W. (later Lord) Florey
E.R.H. (later Sir Ewart) Jones
D. (later Sir Douglas) Veale
L.R. Wager

In April 1958 a memorandum on Oxford's needs in science was sent by Krebs to the Vice-Chancellor for consideration by Council. Apparently there was no action at the time because of the appeal for St. Catherine's College, though Krebs made an informal approach for financial support for Oxford science to British Petroleum, which came to nothing.

In 1960 Krebs approached the Wellcome Foundation <u>re</u> funding for the type of development envisaged in the memorandum on Oxford's needs in science. Although encouraged by the Foundation to make a proposal in respect of the biological sciences he had been unable to do so by late 1961 because of the uncertainty of suitable building sites.

See also C.338.

C.190

June-July 1957

On 8 July a meeting was held at Corpus Christi College to consider whether industry, commerce and private individuals should be approached for money for university development.

Folder includes the notes Krebs prepared in advance of the meeting -'not used since Registrar organised discussion in his own way' and an account, also by Krebs, of what took place at the meeting.

Krebs agreed to provide a statement outlining the kind of developments in biology and medicine for which any funds collected might be used.

C.191

August-September 1957

Includes letter (September) from J.M. Hammersley on how industrialists would react to a general request to finance extensions of academic work at Oxford and what kind of cooperation would be needed between industry and the universities in the future.

C.192

October-December 1957

Includes notes of discussions on 1 October and 22 November and drafts of ideas on growing points of biology and medicine.

C.193

January-February 1958

Includes statement on growing points in Geology and related sciences, note of discussions on 24 January, draft statement of Oxford's needs in science, 30 January, and notes on and drafts of letter to The Times.

C.194

April 1958

Includes drafts of covering note and memorandum on Oxford's needs in science sent to the Vice-Chancellor 22 April, for consideration by Council.

C.195

May 1958

Two drafts of Krebs's statement at Council meeting, 5 May.

C.196

June 1958

Includes material <u>re</u> meeting at the British Petroleum Company Offices about fund-raising for a new college (St. Catherine's), 10 June, and subsequent approach to a director of BP, Sir Percival Waterfield, about support for scientific development at Oxford from the oil company.

Folder also includes additions to the memorandum of 25 May 1958 on the developments in the geological sciences, 16 June. By L.R. Wager.

C.197

July 1958

Includes material <u>re</u> meeting between representatives of the University, including Krebs, and the Chairman of the University Grants Committee, Sir Keith Murray, and Krebs's approach to BP for financial support for Oxford science.

C.198

1959-60

Note of discussions between Krebs and Registrar re external financial support for scientific development, 19 September 1959.

Brief exchange between Krebs and Sir George Pickering, <u>re</u> a copy of the memorandum on Oxford's needs in science for Sir Harold Himsworth, October 1959.

Brief exchange between Krebs and L.R. Wager <u>re</u> earlier correspondence relating to possible financial support from BP, May 1960.

C.199

April-May 1960

Material <u>re</u> meeting between Krebs and Wellcome Trustees, 28 April, about possible financial support for the development of the growing points of science at Oxford, as set out in the memorandum on Oxford's needs in science.

Includes draft notes on research laboratories for developing the growing points of science and new biological laboratory.

C.200

October-November 1961

Brief correspondence re Wellcome Trust funding for proposed Biological Sciences Centre.

C.201

Undated ms. and typescript notes and drafts found with Oxford's needs in science material.

C.202-C.204

Biology Centre, 1962

Correspondence and papers <u>re</u> the Board of the Faculties of Medicine and Biological Sciences Committee on the proposed Biology Centre.

C.202

February

Includes a summary of the previous history of the question.

C.203

March

'Memorandum on the proposed biology centre', 1 March. By J.W.S. Pringle.

2pp. typescript.

'Memorandum on the Biology Centre'. By G.C. Varley. 2pp. typescript.

'Notes on the Biological Centre'. By G.L.B[rown]. 3pp. typescript.

'Further note on the Biology Centre'. By J.W.S. Pringle.

1p. duplicated typescript.

Memorandum of points to be decided, 9 March. By Krebs. 3pp. typescript.

'Points for Discussion', 15 March. By C.D. Darlington. 2pp. typescript.

'Note on the proposed Biology Centre', 15 March. By G.W. Pickering.

lp. typescript.

Draft note of points for discussion, 16 March. By Krebs. 2pp. typescript.

C.203 (Cont'd.)

Draft note of 'Dinner and committee meeting of biological centre', 19 March. By Krebs.

2pp. typescript.

C.204

April-June

Draft report of the committee on the proposed Biological Centre by G.C. Varley and related correspondence.

Also found with this material is a copy of a letter from Sir Henry Dale, 29 April 1960, re possible Wellcome funding for Oxford scientific development. See C.199.

C.205-C.211

Zoology, 1961-79

C.205-C.210

'Historical Documents regarding John Pringle'

Contents of a folder so inscribed divided into six folders for ease of reference.

The material relates to Pringle's appointment as Linacre Professor of Zoology, new accommodation for the Zoology department, the development of Zoological research in Oxford, etc.

C.205

January-March 1961

C.206

September-December 1961

C.207

February 1962

Includes material re candidates for readership in biophysics, 2pp. duplicated statement by the Vice-Chancellor, A.L.P. Norrington, on the Zoology building and 'Resolution on allocation of site for Zoology building', 4pp. typescript statement addressed to members of Congregation by J.R. Baker, W. Holmes and N. Tinbergen.

C.208

May-July, November 1962

Includes 3pp. typescript statement by Pringle entitled 'Crisis in Oxford', with Krebs's ms. comments.

C.209

1963

Includes material re the development of biophysics and insect physiology research in the Zoology department.

C.210

1964-67

C.211

'Oxford Zoology 1961-79'

20pp. duplicated typescript with ms. note, 'John Pringle. Unpublished script of lecture given in June 1979 on his retirement'.

C.212-C.236

Molecular Biophysics, 1956, 1958, 1962-67

C.212

1956

Material re possible transfer of J.T. Randall's biophysics unit from King's College, London, to Oxford.

Folder includes copy of the Medical Research Council Progress Report of Randall's biophysics unit for 1951-55.

C.213

1958

Material reflecting Krebs's continued interest in the further development of biophysics at Oxford.

He discussed the question with D.M.C. Hodgkin and sought the advice of M.F. Perutz.

Folder includes information <u>re</u> D.C. Phillips and copy of the Medical Research Council Progress Report of the Cavendish Laboratory Molecular Biology Research Unit, for 1956-58.

C.214

1962

Krebs's typescript notes of discussions with D.C. Phillips, D.M.C. Hodgkin and senior members of the biochemistry department re possible transfer of Phillips and his collaborators from the Royal Institution to Oxford, September and October.

C.215

January-May 1963

Material <u>re</u> possible transfer of Phillips and his unit to Oxford, including exchanges of correspondence between Krebs and J.W.S. Pringle, Krebs and Phillips, Pringle and Sir Harold Himsworth.

Considerations included the availability of accommodation in the new Zoology building and the date of retirement of Sir Lawrence Bragg, Director of the Royal Institution.

Much of the material is photocopies.

C.216

June-December 1963

June material relates to a meeting of Krebs and Pringle with Bragg to discuss the transfer of the biophysics unit to Oxford upon Bragg's retirement in 1967. Krebs hoped that Phillips and his group would do some lecturing in Oxford before that date.

In September Krebs wrote to Himsworth to arrange a meeting to discuss further the future of molecular biophysics in Oxford and this meeting was held at MRC headquarters in October.

C.217

1964, 1965

1964 correspondence relates to lecture course by Phillips at Oxford during the Trinity term.

1965 correspondence relates to Phillips's discourse at the Royal Institution, 5 November.

C. 218

1966

Includes letter from Phillips thanking Krebs for his part in making possible the move of Phillips and his team to Oxford and inviting Krebs to give an evening discourse at a Summer School on Molecular Biology and Biophysics to be held in Oxford 18-29 September.

CSAC 113/4/86	Oxford	U
C.219-C.227	Photocopies of documents <u>re</u> detailed arrangements for D.C. Phillips and his biophysics research unit to come to Oxford from the Royal Institution, 1964-67.	
	These documents are the correspondence and papers of J.W.S. Pringle re negotiations with Oxford University, D.C. Phillips, the Medical Research Council, Nuffield Foundation, etc.	
C.219	March-June 1964	
C.220	July-December 1964	
C.221	January-April 1965	
	Includes letter from Sir Harold Himsworth to the University Registrar with the news that Phillips and his team had 'got out the structure of lysozyme' and that Sir Lawrence Bragg had provided a champagne celebration.	
C.222	May-June 1965	
C.223	July-August 1965	
C.224	October-November 1965	
C.225	December 1965	
C.226	January 1966	
C.227	March-July 1966, August 1967	
C.228	'Molecular biophysics at Oxford'	

C.228 'Molecular biophysics at Oxford'

6pp. typescript draft, with slight ms. correction, intended for publication in the Oxford Magazine.

Copies of letters from Krebs to J.W.S. Pringle and D.C. Phillips, May 1966, enclosing draft of proposed article. For Pringle's reply see C.210.

C. 228 (Cont'd.)

1966 Hilary 7 issue of the Oxford Magazine in which the editor attributed the establishment of Molecular Biology entirely to the University administration.

It was this editorial comment which prompted Krebs to draft his article.

C.229-C.231

'Documents Concerning the History of Molecular Biophysics at Oxford'

Typescript draft with ms. corrections and additions. Paginated pp.I-II, 1-102, including some original documents. The pagination is not continuous, presumably because Krebs intended to add further documents at a later date.

Krebs's preface (p.II) explains the nature of the documents:

'This is a collection of letters, of minutes of personal discussions, and of University papers, especially of the Board of Biological Sciences, linked by comments.

It is not a complete collection of material bearing on the history of the Laboratory of Molecular Biophysics. It includes only those aspects with which I was personally concerned as a participant or witness. The material is in a rough draft form. It requires editing and in some places checking of facts.'

The typescript is divided into three folders for ease of reference.

C.232-C.234

'Documents concerning the History of Molecular Biophysics at Oxford'

Clean typescript copy of the preceding divided into three folders for ease of reference.

C.235

'Comments on the difficulties to keep Oxford science up to date, with reference to the history of Oxford science'

Typescript draft with ms. corrections, paginated pp.111a-123. Also clean typescript copy of the same.

The 'Comments' were a continuation or conclusion for the 'Documents'.

Krebs considered that the difficulties which had to be overcome to establish Molecular Biophysics at Oxford University were characteristic of the great majority of major innovations. He gave earlier examples of the struggles necessary to keep Oxford science up to date: the establishment of the University Museum, the Whitley Professorship of Biochemistry, the Clinical School, and the department of Nuclear Physics.

C.236

Miscellaneous typescript drafts re Molecular Biophysics.

C.237-C.240

Miscellaneous, 1956, 1959-61

C.237

Debate in Congregation re resolution on the Keble Road Triangle development, 4 December 1956.

Copy of statement of proposer, P.D. Henderson, as sent to Krebs, with ms. note explaining why p.2 was missing.

Draft of Krebs's speech seconding the resolution.

Newspaper cuttings.

C.238, C.239

Quinquennial Application, 1962-67

C.238

Krebs's notes of meeting of sub-committee considering policy for next quinquennium, 16 December 1959.

lp. typescript and lp. draft.

Memorandum on postgraduate education by G.W. Pickering, with brief related correspondence, February 1960.

Krebs's notes for meeting of Natural Sciences Committee of the General Board, 16 February 1960.

4pp. typescript, with a few ms. additions and corrections.

Interim report of Faculty Board of Biological Sciences Committee on Quinquennial Estimates. n.d.

4pp. typescript.

C.239

Board of the Faculty of Biological Sciences. Faculty expenditure: Quinquennial Application 1962–67.

2pp. duplicated typescript and appendices of statements by heads of department including Krebs.

The appendices are dated in February and March 1960.

C.239 (Cont'd.) Statements made by representatives of the Committee of Heads of Science Departments (including Krebs) at the discussions with the University Grants Committee on 9 November 1960.
3pp. duplicated typescript.

C. 240 New university science building.

corrections.

'The problem of planning university laboratories', 7 June 1961.

3pp. duplicated typescript and 6pp. typescript draft with ms.

The memorandum was prepared by R. Cecil, drawing on the experience of the Biochemistry Department in respect of its new extension.

'Planning of University Buildings', 7 July 1961. 2pp. typescript note of discussions. By Cecil.

'Comments on Messrs. Chamberlin, Powell and Bon's plan for the development of the Science Area'

4pp. typescript memorandum by Cecil, with covering letter from Krebs to the Registrar, 13 October 1961.

C.241-C.334	UNIVERSITY REFORM
	With an introductory note
C.241-C.260	General correspondence and papers
C.261-C.273	Salaries
	With an introductory note
C.274-C.278	Schedule A Professorships
C.279-C.328	Committees and Commissions of Inquiry
C.329-C.334	Publications
C.335-C.389	GENERAL UNIVERSITY CORRESPONDENCE
C.335-C.361	Central administration
C.362-C.372	Electoral Boards
C.373-C.389	Libraries, departments, colleges and societies

For correspondence and papers \underline{re} Krebs's election to the Whitley Professorship of Biochemistry, see A.555-A.566.

C.241-C.334

UNIVERSITY REFORM

Although Krebs begins the chapter of his autobiography on Oxford by praising the university as 'in many ways a splendid place for academics, one of the finest in the world' (Rem. & Refl., p.193), he was also very conscious of its shortcomings and his involvement in attempts to rectify these is evidenced by the substantial body of surviving material presented here.

It is divided into a chronological sequence of general papers and correspondence on various aspects of Oxford reform and further sequences of papers on particular areas for reform such as university salaries and schedule A professors and on specific committees or commissions of inquiry.

For Krebs's articles on reform written for the Oxford Magazine, see C.329-C.334.

General correspondence and papers, 1958, 1961-68, 1973, 1979
The material is principally Krebs's dated typescript notes, but includes correspondence with the Registry and others, newspaper cuttings and other background material.
1958
Note by C.D. Darlington for the Visitorial Board on the demands for lecturing made upon visiting professors, 19 March.
1961
Includes undated notes found with 1961 material.
January-May 1962
June 1962
September 1962
March-June 1963
July-December 1963

C.260

C3AC 113/4/80	Oxford
C.248	January-April 1964
C.249	June-October 1964
C.250	1965
	Includes draft of memorandum on improving communication within the university and between the university and the outside world.
C.251	1966
	'The difficulties in attracting staff in certain science subjects'
	3pp. typescript draft, with related newspaper cuttings.
C.252	July-August 1967
	'Thoughts on occasion of retirement'
	Intended as memorandum to General Board but never completed.
	This is a sequence of mainly typescript notes setting out Krebs's views on the inability of the General Board, as then constituted, to foster excellence within the university, especially scientific excellence.
C.253	September-December 1967
C.254	1968
C.255	1969-70
C.256	1973, 1979
C.257	Miscellaneous undated ms. and typescript notes.
C.258, C.259	Miscellaneous press-cuttings on various aspects of university reform and development including salaries, 1958-61.
	Two folders.

Press-cuttings on misgovernment and maladministration inside

and outside the universities, mid-1960s.

C.261-C.273 Salaries, 1959-61

Krebs identifies in his autobiography (Rem. & Refl., pp.196-201) a number of problems relating to salary and income structure within the university, especially:

- (1) the existence in the science departments of two classes of lecturer, those who enjoyed, in addition to their full-time university lecturership, a tutorial College Fellowship which brought considerable benefits in terms of income, status and amenities, and those who were without the all-important college attachment.
- (2) the rigid age-tie of the salary scale and the absence of the grade of Senior Lecturer which made it impossible, Krebs argued, to recognise special merit by more rapid promotion, or promotion to a higher grade.

Krebs first raised the question of abolishing the age-scale in October 1959 but although he had the support of the Faculty Board of Biological Sciences concerned about the effect of the salary-income structure on the recruitment and retention of good staff, the General Board decided against action. Hopes for movement in the direction Krebs wished the university to go came in May 1960 with a government decision to make funds available through the University Grants Committee to universities which were having difficulty in attracting or retaining academic staff of requisite quality. Oxford was offered £14,500, 'to recoup ... expenditure incurred in paying salaries above the normal in order to recruit or retain staff'.

While the university authorities considered the offer, a committee of Heads of Science Departments, on which Krebs played the leading role, collected detailed information on the difficulties in staffing certain departments – information which formed the basis of a memorandum submitted to the General Board on 21 October 1960. The General Board recommended the rejection of the offer of money. Krebs openly challenged this recommendation in an article for the Oxford Magazine published 1 June 1961 and he was supported in this public campaign by an article in the following week's edition in which an anonymous demonstrator described how those without college affiliations were treated as 'useful second-class citizens' – Krebs had a hand in drafting this second article. Despite these efforts Congregation voted on 13 June to turn down the offer of the University Grants Committee.

Krebs was reluctant to give up the fight over the university salary-income structure and published a further article in the Oxford Magazine in October 1961 in which he set out the inequalities between the incomes of Fellows and Non-Fellows. Although the article did not give rise to any action, the matters which concerned Krebs were considered by the Robbins Committee on Higher Education and the Franks Commission of Inquiry (qqv.). Krebs retained his interest in these questions over an extended period.

The papers, which include correspondence with the university authorities and academic colleagues, drafts of memoranda for the General Board, drafts of Krebs's speeches at the Hebdomadal Council and at Congregation, etc., are presented in a chronological sequence.

For drafts of the Oxford Magazine articles and related correspondence see C.329-C.334.

See also C.342-C.345, C.349-C.352.

C.261 1959

Includes Krebs's memorandum for the Biology Board on the salaries of university demonstrators (2 copies).

C. 262 February, May 1960

Includes note of Krebs's remarks on salary supplementation at a meeeting of the Hebdomadal Council, 22 February.

C.263 June 1960

Includes letter from Krebs to the President of Trinity College (A.L.P. Norrington), with information re the question of special supplementation of Demonstrators' salaries, note by Krebs on the UGC offer of flexibility money and two annotated copies of a memorandum on quinquennial policy, 1962-67, for consideration by Heads of Science Departments in respect of the visit of the UGC to Oxford, November 1960. Krebs kept the UGC material with that relating to salaries although it includes additional topics.

C.264

July 1960

Heads of Science Departments sub-committee on salary scales (1).

The members of the sub-committee were Krebs, G.E. Blackman and E.R.H. (later Sir Ewart) Jones.

Folder includes drafts of circular sent by sub-committee requesting information about the adequacy of present salary scales in attracting and retaining first-rate staff. There are replies from Sir Alister Hardy, C. Clark, W.D.M. (later Sir William) Paton, H.W. (later Lord) Florey and others.

C.265

October 1960

Heads of Science Departments sub-committee on salary scales (2).

Replies to the sub-committee's circular from C.D. Darlington, D.H. Wilkinson and A. Thom, Krebs's ms. and typescript notes on the replies, duplicated statement of comments on the adequacy of university demonstrator scales and some (undated) background material on university salaries.

C.266

November 1960 (1)

Visit of Medical Sub-committee of the UGC to Oxford, 8 November 1960.

Brief correspondence, programme of visit, draft statements by Krebs on postgraduate education and research.

C.267

November 1960 (2)

Visit of UGC to Oxford, 9 November 1960.

Various drafts, notes on background material, etc., put together by Krebs re UGC visit.

Folder includes draft for Krebs's speech at UGC meeting, duplicated note on the discussion with the UGC for Committee of Heads of Science Departments and draft letter from Krebs and B. Bleaney (probably to the editor of the Oxford Magazine) re meeting between UGC and Heads of Science Departments.

C.268

December 1960

Includes draft speech for Council meeting, 12 December, 'not delivered because item was adjourned', and draft of substantial paper by Krebs on the salaries of university demonstrators and lecturers: 'Comments bearing on the University Grants Committee's offer of selective supplementation and the General Board's proposal that the offer be rejected'.

C.269

January-April 1961

Includes duplicated typescript copy of Krebs's memorandum on the salaries of university demonstrators and lecturers and drafts of Krebs's speeches on the same subject at meetings of Council and Congregation.

C.270

May 1961 (1)

'Notes on the use of flexibility'

1p. duplicated typescript, 1 May, attached to 'Corrected Copy' of Krebs's paper on the salaries of university demonstrators and lecturers.

Photostat of report of standing committee on finance, 2 and 9 May, with record of interview of Krebs by the committee.

'Flexibility within the lecturers' scale: Communication from the General Board of the Faculties', 13 May.

C. 271

May 1961 (2)

Draft notes for meeting of Council and correspondence with academic colleagues, the Registry and the UGC.

C.272

June-July 1961

Includes correspondence with the Registrars of Oxford and Sheffield Universities, copy of Oxford University <u>Gazette</u> with agenda for 13 June meeting of Congregation and Krebs's typescript note, heavily corrected, on the vote of Congregation on 'flexibility' funds.

C.273

Printed university papers re salaries' question.

C.274-C.278 Schedule

Schedule A Professorships, 1961-64

Krebs advocated the replacement of the pyramidal structure of the large Oxford Science departments by the multi-professor type of departmental organisation he had admired in America (Rem. & Refl., pp.203-207).

The material includes correspondence, committee papers and Krebs's typescript notes and drafts.

For the creation of a second Professorship in Krebs's own department, see C.86-C.89.

C.274 March-July 1961

C.275 August-September 1961

Includes notes on the selection of demonstrators.

C.276 October 1961

C.277 1962-63

C. 278 February-June 1964

Includes undated ms. note by D.D. Woods: 'Some ill-digested random points re Professors. (Transatlantic reading).'

C.279-C.328	Committees and Commissions of Inquiry, 1961-68, 1980
C.279-C.281	Committee on the relations between Colleges and the University
C.282-C.291	Robbins Committee on Higher Education
C.292-C.297	National Incomes Commission
C.298-C.328	Franks Commission of Inquiry

C.279-C.281 Committee on the relations between Colleges and the University, 1961-63

The material, principally Krebs's typescript notes reflecting on matters affecting relations between the Colleges and the University, is presented in a chronological sequence.

C.279 1961

Includes copy of memorandum expressing the views of about 130 members of Congregation with full-time university, departmental or institutional appointments who were not Fellows of Colleges, November.

C.280 1962

Includes 'Report of the Syndicate on the Relationship between the University and Colleges', <u>Cambridge University Reporter</u>, 13 March, annotated by Krebs.

C. 281 1963 and n.d.

C.282-C.291	Robbins Committee on Higher Education, 1961-63
C.282, C.283	Correspondence with University Registry, Robbins Committee, academic colleagues, re memorandum prepared by Krebs, Krebs's oral evidence to the committee, etc.
C.282	1961-62
C.283	1963
C.284	Early drafts of Krebs's memorandum to Robbins Committee.
C.285	'Complete' draft of Krebs's memorandum, January 1962.
	9pp. typescript draft, with six appendices.
C.286	Draft of Krebs's memorandum with ms. comments of H.W. (later Lord) Florey and letter from Florey returning the draft, January 1962.
	Clean typescript copy of the memorandum, January 1962.
C.287	Krebs's verbatim evidence taken before the committee, 23 February 1962.
	5pp. duplicated typescript and 1p. ms. corrections.
C.288	Krebs's dated typescript and ms. notes on aspects of university reform especially the relationship between the colleges and the university, 1961-62.
C.289	Miscellaneous ms. notes <u>re</u> Robbins Committee.
C.290	Submissions to the Robbins Committee by others: Agricultural Research Council
	Association of University Teachers Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom The Institute of Physics and the Physical Society

C.291

Miscellaneous newspaper cuttings and printed material <u>re</u> various aspects of university reform and development including salaries, found with Robbins Committee papers.

Folder includes Commonwealth Relations Office Seventh Report of the Overseas Migration Board, December 1961,

C.292-C.297

National Incomes Commission, April-December 1963, February 1980

Krebs's continued concern about Oxford salaries and in particular the difficulties in attracting first-rate staff to full-time university posts not carrying a college fellowship is reflected in his interest in the Commission's review of academic salaries.

Krebs was one of a number of Oxford scientists who submitted memoranda to the Commission.

The material is presented in a chronological sequence.

C.292

April-May

Includes copy of memorandum submitted by C.D. Darlington, 'The consequences of the double standard of payment under the college system in Oxford'.

C.293

June

Two drafts of the memorandum Krebs submitted to the Commission, 'Salaries of Oxford University Staff'.

C.294

July-September

Includes Krebs's comments on the note submitted by the University Registry to the Commission.

C.295 October

Includes copy of memorandum submitted by J.W.S. Pringle, 'Salaries of University Biologists', further material produced by Krebs commenting on the Registry's factual note on Oxford salaries and note by Krebs on undergraduate and postgraduate teaching in the biochemistry department.

C.296 November-December

Includes copy of Krebs's second memorandum in the form circulated to other parties by the Commission.

C. 297 February 1980

Note by Krebs commenting on the work of the Commission.

C. 298-C. 328 Franks Commission of Inquiry, 1964-68

In February 1964 the Hebdomadal Council appointed a committee chaired by the Provost of Worcester College (Lord Franks) to consider the recommendations and criticisms in the Robbins Report on Higher Education which particularly affected Oxford. The committee's terms of reference were wide-ranging, extending 'not only to the organisation and activity of the University but also to the teaching arrangements of the Colleges' (Report of Commission of Inquiry, I, p.17). The committee issued general and specific invitations to persons and organisations to submit written evidence which might help them in dealing with any of their terms of reference and sent out questionnaires on aspects of academic policy and university organisation. It was made clear that all written evidence apart from replies to questionnaires addressed to individuals would be made available to the public (Report, I, p.13).

Krebs was involved as a member of an ad hoc sub-committee in preparing the Heads of Science Departments' response to the Commission's July questionnaire on teaching and research (C.298, C.299). He also prepared in October his own very extensive memorandum of written evidence on the organisation of science at Oxford (C.302-C.307). He was not able to submit this memorandum, however, because he was unwilling to have it made public. Instead, in November, he submitted a short memorandum which sought unsuccessfully to change the Commission's policy on the question of confidentiality (C.308). It was not until the end of January 1965 that Krebs submitted a major memorandum to the Commission (C.309) – a memorandum substantially different in character from that prepared in October 1964.

In 1966 the Commission issued a report of its findings with a large number of recommendations. In his autobiography Krebs expressed his disappointment that so very few had actually been implemented by the university (Rem. & Refl., pp.202-3).

See also A.195.

C.298, C.299

Heads of Science Departments Sub-committee on Franks Commission, 1964.

In June the Commission of Inquiry sent a letter to the Chairman of the Committee of Heads of Science Departments (followed by a detailed questionnaire in July) requesting written evidence on various aspects of academic policy. At its meeting of 13 July the Committee of Heads of Science Departments appointed a sub-committee to draft a reply to the Commission's questionnaire and all heads were invited to send short replies to the Chairman for the sub-committee's consideration. Krebs was a member of the sub-committee.

The material presented here is a chronological sequence of committee papers including copies of the heads' replies.

C.298

June-July 1964

Includes copies of the replies and comments on the questionnaire by D.D. Woods, W. Hume-Rothery, R.C. Oldfield, R.E. Peierls, C.A. Coulson, and C.D. Darlington, and draft of Krebs's answers to Franks's questionnaire, misdated 15 July 1965.

C.299

August-September 1964 and n.d.

Includes comments on the questionnaire by J.W.S. Pringle and D.H. Wilkinson, summary of comments received and draft replies to the questionnaire.

C.300

Correspondence with the Franks Commission, 1964-66

Includes letter from Lord Franks, 8 December 1964, replying to Krebs's request that the Commission reconsider the rule that all their evidence should be public.

For the memorandum in which Krebs's request was set out, see C.308.

C.301

Correspondence with J.E. (later Lord) Vaizey and R.N.W. (later Lord) Blake <u>re</u> Oxford reform and the Franks Commission, November and December 1964.

The correspondence arose because of Krebs's comments (in his memorandum on confidentiality submitted to Franks in November) on articles by Vaizey and Blake in the <u>Oxford Magazine</u> and <u>Oxford</u> respectively.

C.302

'Comments concerning the organisation of science at Oxford', October 1964.

'Complete' 60pp. typescript memorandum with ms. note by Krebs: 'Intended for Franks Committee [sic] but not accepted because of the confidentiality I asked for'.

C.303

'First draft' of section 16 of the preceding: 'Concepts to be clarified'.

At least part of this was written as early as 1962 for another purpose.

C.304, C.305

'Final Draft'

C.304

Typescript draft with ms. additions and corrections of sections 1-13 of Krebs's October 1964 memorandum on the organisation of science at Oxford.

C.305

Typescript draft, with ms. additions and corrections of sections 15-23 of the memorandum.

C.306, C.307

'Early Incomplete draft'

Typescript draft of part of Krebs's memorandum with ms. corrections and additions.

This appears to be a revision of the 'complete' October 1964 draft and may have been undertaken because of the confidentiality question. (See C.302.)

Two folders.

C.308

'Memorandum submitted to the Commission of Inquiry by H.A. Krebs', November 1964.

3pp. typescript with covering letter.

Krebs explains why he feels unable to submit the major memorandum he has completed and asks the Commission to reconsider their decision not to accept confidential evidence.

Folder also includes various ms. and typescript drafts relating to the memorandum submitted.

C.309

'Comments on the organisation and administration of a Science Department', 29 January 1965.

15pp. typescript and 2pp. appendix.

This is the major memorandum actually submitted to the Commission by Krebs. He describes it, in his first sentence, as 'written in response to an informal request from a member of the Commission'.

C.310-C.312

Miscellaneous ms. and typescript notes from a folder inscribed '1963-64. FRANKS'.

The material is presented in a chronological sequence as far as possible and divided into three folders for ease of reference.

C.313-C.315

A sequence of dated ms. and typescript notes, January 1963–March 1965.

The material is divided into three folders for ease of reference.

Krebs may have put this material together in connection with the evidence he gave before the Commission in person. See the original folder preserved at C.313.

C.316-C.318

Miscellaneous ms. and typescript notes and drafts re Franks Commission. A few are dated in 1964 and 1965.

3 folders.

- C.319, C.320 Submissions to Franks Commission by others.
 - C.319 Report of evidence submitted by Hebdomadal Council and General Board, June 1965.

52pp. duplicated typescript.

Folder also includes 1p. ms. note found with report of evidence.

C.320 Draft report to the Franks Commission from the postgraduate students of the Biochemistry Department.

Unidentified draft submission annotated by Krebs.

C.321 Copies of supplementary numbers of Oxford University Gazette, 20 January and 12 May 1965, re Franks Commission.

There is marginal emphasis and underscoring by Krebs.

C.322 A sequence of dated typescript and ms. notes commenting on the Franks report, June 1966-April 1967.

The report was published in May 1966.

Folder also includes 2pp. duplicated typescript statement, 16 June 1966, re attitude of Trinity College to the Franks report and initialled A.L.P.N [orrington] and 1p. duplicated typescript statement, 30 June 1966, on the 'General Board Comments on the Proposals of the Franks Commission', by J.W.S.P [ringle].

C.323

Brief exchange of correspondence and note of discussions on Oxford reform between Krebs and J.R. Maddox, February-March 1967.

Found with preceding material.

C.324 Hard-backed notebook. Unpaginated with many pages unused.

This notebook which was found with the Franks material is in the same format as those in which Krebs recorded his research at Berlin, Altona and Freiburg and may be the missing volume noted at D.10. Pages have been torn from the front of the notebook.

C.324 (Cont'd.)

Krebs used this notebook for jotting down his ideas on various aspects of Oxford reform which he may have intended to use for an article in Nature or the Oxford Magazine or a course of lectures. There are references to both the Robbins and Franks reports.

Dated entries run between 11 November 1967 and 7 February 1968.

Loose items have been removed and preserved in separate folders.

C.325

Krebs's ms. and typescript notes found in C.324 above. Some of these are identified as notes for proposed lectures. There is also material on Schedule A Professors dating from 1962, and on 'Democracy' and the 'Effectiveness of Postgraduate Teaching' from November 1967.

C.326

Soft-backed 'exercise book' found in C.324 above.

Krebs used this notebook for jotting down his ideas on university government and academic leadership, July-September 1967. Pages have been torn from the book.

C.327

Newspaper cuttings found in C.324 above.

Subjects include Oxford reform, democracy and the organisation of science.

C.328

Miscellaneous press-cuttings found with Franks material.

C.329-C.334

Publications, 1960-62, 1964, 1967

Drafts of articles by Krebs and others for the Oxford Magazine, and related correspondence.

For other material re Oxford Magazine see C.28, C.228 and C.267.

C.330-C.332 1961

C.330 'The Flexibility of Salaries'

Drafts of Krebs's article published 1 June.

C.331 'Oxford life as seen by a University Demonstrator appointed from

outside'

Drafts of article by W. Bartley, later Professor of Biochemistry

at Sheffield, published 8 June.

The article was heavily revised by Krebs and appears anonymously.

C.332 'The salaries of demonstrators'

Correspondence and draft of article, published October.

C.333 1962, 1964

1964 material is a letter to the editor submitting a letter for

publication on college taxation.

C. 334 1967

Material re Krebs's letter on graduate supervision fees published

17 February, including printed version of letter.

C.335-C.389 GENERAL UNIVERSITY CORRESPONDENCE

C.335-C.361 Central administration

C.362-C.372 Electoral Boards

C.373-C.389 Libraries, departments, colleges and societies.

C.335-C.361 Central administration

A chronological sequence of correspondence and papers with officers of the University, academic colleagues, etc. re the Biochemistry Department, and the general affairs of the university, kept together by Krebs as his 'University files'.

C.335 1954

Includes material <u>re</u> the qualifying examination in German for undergraduates offering Biochemistry in the Final Honour School of Natural Science.

C.336 1955

Includes material <u>re</u> Gotch Memorial Prize, General Board grant, bench fees and the provision of scientific equipment for the university (electron microscope) and department (recording spectrometer).

C. 337 1956

Brief correspondence re Japanese research student.

C.338 1957

Includes material re higher degrees, including A.G. Ogston's comments on a memorandum of C.D. Darlington about the training of students for higher degrees and re a cooperative effort of science professors to raise money for the university. With a memorandum by Krebs on university finance.

For the cooperative effort to raise money, see C.190-C.201.

C.339

1958

Includes material re removal expenses, support for Krebs's research from the United States Public Health Service and radiation hazards.

The question of removal expenses led Krebs to prepare a memorandum on the financial situation of the higher income groups in the university. One of the two copies in this folder has the marginal comments of E.R.H. Jones.

C.340

February, May 1959

Includes material \underline{re} the future of Astronomy in the university and the staffing requirements of the Biochemistry Department.

C.341

June 1959

Agenda and committee papers for Board of the Faculty of Biological Sciences meeting, 9 June.

C.342

June-July, December 1959

Includes material <u>re</u> the University Demonstrator scale and the relation between salaries in Oxford and in other universities. There is a copy of a memorandum by Krebs on the salaries of university demonstrators.

C.343

January 1960

Includes material <u>re</u> Biochemistry Department staffing and expenditure and salaries in Oxford generally.

C.344

February-March 1960

Includes material <u>re</u> salaries and staffing in the department and the university generally.

C.345

May-June, October 1960

Includes material <u>re</u> academic salaries, Biochemistry Department appointment and technicians in the department.

C.346

1961

Exchange of correspondence <u>re</u> Laboratory of Human Nutrition. See also C.94-C.96.

C.347

February-May 1962

Includes Krebs's offer of resignation from the Hebdomadal Council and his note of the future space requirements of the Biochemistry Department in response to a request from the University Surveyor.

C.348

June 1962

Includes note on college teaching and memorandum for the General Board on the lecturing obligations of readers, lecturers and demonstrators. Amongst the material associated with the memorandum are a heavily corrected draft, the report of the committee appointed (by the Board of the Faculty of Biological Sciences) to consider the duties of readers, lecturers and university demonstrators, 11 June, with Krebs's ms. comments, and a note by Krebs on the functions of professors and readers dated 15 July 1961.

C.349

July, October-November 1962

Includes material <u>re</u> Council papers, academic salaries, departmental estimates and animal house accommodation.

C.350

January-May 1963

Includes Krebs's memorandum on the payment of extra fees to full-time university teaching staff.

C.351

November-December 1963

Includes material <u>re</u> payment of fees to lecturers teaching in a department other than their own.

C.352

January-June 1964

Includes material re salaries, staffing and appointments.

C.353

July-December 1964

Includes material re the transfer of financial responsibilities for research projects from research councils to the university and the Schedule A Professorship of Chemical Microbiology.

In his letter to the Registrar of 5 October, Krebs raised the question whether a take-over of the Cell Metabolism Research Unit should be considered for 1967 when he was due to retire.

C.354

1965

Correspondence re arrangements for the resignation of a member of the department and the transfer to his new university of equipment bought from outside grants.

C.355

1966

Includes memorandum on future developments in the Biochemistry Department.

C.356

1967

Correspondence <u>re</u> inclusion in Krebs's last annual report of a special section on the transfer of responsibilities to his successor, and a draft of the special section.

Folder also includes a ms. note by Krebs (1979) which relates to his 1967 Annual Report.

C.357

1969

Draft letter to the Chairman of the General Board <u>re</u> current practice of selecting candidates for appointments to readerships, with draft paper, dated 4 December 1967, on the Biology Readership Committee.

Krebs's letter of resignation from the Electorship of the Sibthorpian Professorship of Rural Economy and of the Directorship of the Nuffield Institute.

For Biology Readership Committee, see C.368-C.372.

C.358

1970

Includes 12pp. typescript letter from Krebs to the Secretary of the General Board on the corruption 'in a subtle way' of the higher academic administration of the university. Krebs was encouraged to put his views on paper by the question of the use of fees by postgraduate students who received all their instruction in his laboratory and contended that the university administration was 'grossly biased towards channelling moneys to Colleges and College Fellows'.

C.359

1977, 1979

1977 material is a letter \underline{re} financial arrangements for the Metabolic Research Laboratory.

i979 material includes correspondence <u>re</u> a proposed 'German House' in Oxford and 2pp. typescript note of Krebs's discussions with the Chairman of the General Board on fees for postgraduate supervision.

C.360

1980

Correspondence <u>re</u> the finances of the Metabolic Research Laboratory in general and the use of fees paid by postgraduate students in particular.

C.361

1981

Continuing correspondence re financial arrangements for the Metabolic Research Laboratory and fees for graduate supervision.

C.362-C.372 Electoral Boards C.362-C.367 Board of Electors to the Waynflete Professorship of Physiology, 1959-60, 1967. The material, which consists of correspondence, committee papers and Krebs's typescript notes on the merits of the candidates, relates to elections in 1959-60 and 1967. C.362-C.364 1959-60 C.362 September-November 1959 December 1959 C.363 C.364 January 1960 and n.d. C.365-C.367 1967 C.365 March-May C.366 June C.367 July, September and n.d. Board of Faculty of Biological Sciences, Ad Hoc Committee C.368-C.372 on Readerships, 1965, 1967-69. C.368 1965 Details of applicant. C.369, C.370 1967 Agenda of meeting and details of applicants. 2 folders. C.371, C.372 1968-69 Correspondence, agenda, details of applicants and report of committee.

2 folders.

C.373-C.389	Libraries, departments, colleges and societies		
C.373	Bodleian Library/Radcliffe Science Library, 1955, 1958, 1963-64		
C.374	Nuffield Department of Clinical Biochemistry, 1960-61, 1971		
	1960-61 material relates to equipment grant for new laboratory.		
	1971 material relates to appointments.		
C.375	University Laboratory of Physiology, 1965		
C.376	Miscellaneous invitations for Krebs to attend lectures and seminars in other Oxford departments, 1955, 1967-68, 1972, 1978-79.		
	1967-68 material relates to a course in autoradiography techniques and includes brief related scientific correspondence and notes.		
C.377	Keble College, 1970		
C.377	Keble College, 1970 Centenary Appeal.		
C.377			
C.377	Centenary Appeal.		
C.377	Centenary Appeal. Trinity College, 1958–59, 1968, 1970–71, 1978		
C.377	Centenary Appeal. Trinity College, 1958–59, 1968, 1970–71, 1978 Ms. notes on Fellows by D.D. Woods, n.d. Miscellaneous correspondence with Fellows and Presidents		
	Centenary Appeal. Trinity College, 1958-59, 1968, 1970-71, 1978 Ms. notes on Fellows by D.D. Woods, n.d. Miscellaneous correspondence with Fellows and Presidents (in alphabetical order).		
	Centenary Appeal. Trinity College, 1958-59, 1968, 1970-71, 1978 Ms. notes on Fellows by D.D. Woods, n.d. Miscellaneous correspondence with Fellows and Presidents (in alphabetical order). St. Catherine's College, various dates 1961-78, 1980 1961-63 material is minutes of the committee on St. Catherine's		

C.380-C.389

C.389

Secure Retirement Association Limited, 1970-71

The Association was founded to provide in Oxford, 'apartments and amenities' for retired professional men and women. The prime mover was Dr. W. Ritchie Russell and Krebs was involved from an early stage in the planning.

The material, correspondence, committee papers, etc. is presented in a chronological sequence.

C.380	July, October 1970		
C.381	November-December 1970		
C.382	January-February 1971		
C.383	March 1971		
C.384	April 1971		
C.385	May 1971		
C.386	June 1971		
C.387	July 1971		
C.388	August-September 1971		

October, November 1971, and n.d.

SECTION D RESEARCH D.1 - D.569

INTRODUCTION TO SECTION D

- D.1 -D.45 LABORATORY NOTEBOOKS

 With an introductory note
- D.46 -D.100 INDEXED NOTES AND MEMORANDA

 With an introductory note
- D.101-D.514 RESEARCH PROJECTS

 With an introductory note and a list of contents
- D.515-D.548 MISCELLANEOUS NOTES
- D. 549-D. 569 BIBLIOGRAPHICAL REFERENCES

This Section is confined to Krebs's scientific research, essentially on various aspects of metabolism. Section E deals with his work on more general science-related topics, and includes memoranda, notes, research ideas and annotated background material of similar type. For additional material on Krebs's wartime research, especially on nutrition, see Section B.

As with the various engagement and personal diaries and jotters in Section A, so here the sub-divisions above correspond more to convenience and/or chronology than to any essential difference of content.

The most straightforward category is the sequence of <u>Laboratory Notebooks</u> (D.1-D.45). These are hardbacked notebooks of a traditional kind in which Krebs and his collaborators recorded data and experimental results. Even here, there are problems of dating, and complications arising from Krebs's habit of intercalating loose pages of notes, correspondence and other more or less related material (see the introductory note to D.1-D.45), a practice which threatened to reduce the original notebook to an over-strained outer shell.

Later, and certainly after his move to Oxford, Krebs began to keep his manuscript notes on loose pages or on dictated cassettes which were intended to be - and often were - typed up on standard octavo paper, dated, and kept with related correspondence, bibliographical and printed matter, records of discussions and information received, data and results, drafts, and all other miscellaneous material accumulated for research in progress. These are the basis of all the other categories in Section D, and, mutatis mutandis, Section E.

The <u>Indexed Notes and Memoranda</u> (D.46-D.100) were received in ring-back or clamped folders and binders, made up to incorporate research material, by Krebs or under his direction. It is possible that the task of making up the folders was often overtaken by pressure of active research, or that they were cannibalised and broken up to allow Krebs to remove material for use in research, writings or lectures. At all events, some incomplete bundles, part-indexed or with items missing, were received in plastic envelopes (see the introductory note to D.46-D.100).

The material designated as Research Projects (D.101-D.514) was received in boxes of various sizes and format whose only common denominator was that they were too small for the job. Some of the boxes, and of the folders within them, had descriptive titles by Krebs, and these have been retained and quoted in inverted commas in the relative entries, though their overflowing contents have often been redistributed

in smaller units for ease of handling and reference. There is a significant difference here from the 'Indexed Notes and Memoranda' in the inclusion of a higher proportion of laboratory results and data, instructions for experiments and discussions with collaborators such as L.V. Eggleston, R. Hems, M. Stubbs and many visiting scientists, and extensive drafts for lectures and publications. The study of the latter, incidentally, makes clear the way the research notes were used as quarries for published work, being discussed, re-drafted, superseded and eventually incorporated over a considerable timespan. There is also a much larger component of background material, some annotated by Krebs. The presentation adopted is chronological from the first date of the records found under the relevant topic heading (see the introductory note).

The <u>Miscellaneous Notes</u> (D.515-D.548), though no different in essence from the 'Indexed Notes', were either received in very crammed folders simply inscribed 'Memos', or found scattered elsewhere in the collection. Some quite clearly refer to specific research topics (mitochondria, isolated liver cells, etc.) while others are more general and less easy to assign. Some are undated and some are illegible. In many cases, it would seem largely a matter of chance that they had remained undistributed among the indexed folders or the research boxes.

ADDENDUM

Attention is drawn to D.9A the laboratory notebook of K Henseleit, August 1931–January 1933, covering the period of collaborative research on the ornithine cycle, which complements Krebs's own notebooks at D.9, D.10.

D.1 - D.45 LABORATORY NOTEBOOKS

These are all hardbacked notebooks presented in a chronological sequence, 1926 - 48, 1962 - 64, 1970 - 71. They cover Krebs's research at Berlin, Altona and Freiburg (in a set of standard format D.1 - D.10 (part)), Cambridge (D.10 (part) -D.13), Sheffield (D.14 - D.38) and Oxford (D.39 - D.45; a few books only, as Krebs had then adopted a different method of note-taking). A few books are by collaborators or assistants. With these few exceptions, all the books, in German and English, are in Krebs's hand, often with re-workings and corrections, and many with indexes at front, Several have letters or information pasted in and most have loose pages rear or both. of notes, diagrams, correspondence, etc. intercalated at various points; the more significant of these items have been removed for safety to separate folders adjoining the The pages of most are numbered and this, with Krebs's indexes, simplifies the location of particular experiments or results. The books are thus a rich source for the progress of Krebs's research, though it should also be stressed that the diaries and 'jotters' in Section A were very frequently used by Krebs, especially in later life, to record his thoughts on technical as well as general and personal matters.

Several of the books were received with numbered labels stuck on to the front cover, it is not known when or by whom. These labels, sometimes incorrect and in any case not extending to the full range of the material, have been ignored in the chronological presentation here adopted. Krebs's own contemporary numbered sequence for his Sheffield notebooks (Books 2 - 7 only) has, however, been preserved at D.14 - D.21.

Books D.1 - D.12 are all in German.

D.1

Notebook inscribed 'Krebs' on front cover. Pages numbered 1–192, with a thumb-index at rear which incorporates a few additional unnumbered pages. There is a selective list of contents on the last page (W-Z) of this thumb-index.

The work is mainly on the oxidation of fructose. Experiments run 7 May-28 October 1926. There are a few intercalated loose pages, and a copy of Krebs's paper on carbon monoxide and haem catalysis (Bibliog. 18. Rem. & Refl. p. 37). Includes notes and corrections in ink and pencil, charts and diagrams pasted in (and some loose), etc.

See D.4 for research related to above paper.

D.2

Notebook inscribed 'Dr. Krebs' on front cover. Pages numbered 1–192, with some intercalated loose pages of tabulated results.

The work is mainly on serum, 18 November 1926-2 March 1927. Includes experimental results, in ink and pencil, some marked in red pencil for use in publication. Also notes on the literature.

D.3

Notebook inscribed 'Dr. Krebs' on front cover. Pages numbered 1–384, with several intercalated loose pages at various points.

Continuing work on serum, 3 March-21 November 1927. Includes experimental notes, tabulated results in ink and pencil, some marked in red pencil for publication. Perhaps related to <u>Bibliog</u>. 14, and also to work on copper in blood (Bibliog. 15, 17).

Intercalated between pp.100 (13 April) and 101 (20 April) is a 1p. ms. note, 17 April [Easter Sunday] of ideas on blood, with a ms. 'Note added 31.12.70' discussing earlier research.

D.4

Notebook inscribed 'Krebs' on front cover, and with name and address of Kaiser Wilhelm Institute of Biology inside front cover. Pages numbered 1-384, with lists of contents at front and rear.

The work is mainly on oxidation and on trace elements, 12 December 1927-19 June 1928. Experimental results, many diagrams pasted in, markings in red pencil for publication, several referring to the paper on haem catalysis (Bibliog. 18, see also D.1).

D.5 Notebook inscribed 'Krebs' on front cover. Pages numbered 1-288, with a few loose pages, and a list of contents at rear.

Material runs 22 June 1928-19 January 1929. Experimental data, tabulated results, diagrams pasted in, work in ink and pencil.

N.B. This book has been incorrectly labelled '6' though the dates of the material follow in sequence from D.4.

D.6 Notebook inscribed 'Krebs' on front cover. Pages numbered
 1-288 with a few loose pages.

Continuing work on cysteine and other enzymes, 21 January 1929*-26 November 1929. Experiments, results, tabulated data, diagrams pasted in.

* Wrongly indicated 1928 for January entries.

N.B. This book has been incorrectly labelled '5' though the dates of the material follow in sequence from D.5.

D.7 Notebook inscribed 'Krebs' on front cover. Pages numbered 1-288, with a few loose pages. There is a selective list of contents on pp.279-280.

Work on various catalysing agents, 29 November 1929-17 August 1930. On p.165 is a note 'Ende in Dahlem' and p.170 is headed 'Altona'. Krebs was given notice to leave Warburg's laboratory by 31 March 1930, and accepted a post with Professor Leo Lichtwitz at the Municipal Hospital of Altona, beginning work there on 1 May 1930 (Rem. & Refl. pp.40-43).

D.8 Notebook inscribed 'Krebs' and 'Protokolle 1.9.30 bis 1.4.31' on front cover. Pages numbered 1-480. There is a list of contents on an unnumbered page at front, and summary of ideas and points of interest at rear of book. Several loose pages (mainly patients' records) are inside front cover, and there is also an offprint of Krebs's paper on proteolytic enzymes (Bibliog. 27. Rem. & Refl. p.44).

Work mainly on protein catalysis, 3 September 1930-25 March 1931. Experiments, calculations, tabulated results, notes on the literature, diagrams pasted in, several pages marked in red pencil for publication.

D.9A

Notebook of K. Henseleit

Henseleit was a medical research student at Freiburg and Krebs's collaborator on the research and publications on the ornithine cycle (Rem. & Refl., p.47).

The material is in the form of a photocopy made by Krebs from the original notebook in the possession of Henseleit's widow and given by him to Professor F.L. Holmes who has now (March 1986) made it available for the collection.

The original was a hardback octavo identical to Krebs's note-books at D.9, D.10. The content is also similar, including notes on the literature, tabulated observations and results. Occasionally Krebs's notebooks have a reference to 'Henseleit' and the ensemble is an interesting example of collaborative research.

The photocopy as received is in two parts:

Part I August 5, 1931 - January 22,1932, pp.1-177.

Part II January 23, 1932 - January 6, 1933, pp.178-380 +3pp. list of contents.

Notebook inscribed 'Krebs' and 'Protokolle' on front cover. D.9 Pages numbered 1–576, with a few loose pages and a list of contents at rear of book.

> This, together with part of D.10 below, covers Krebs's period as 'Assistant' in the Department of Medicine at Freiburg University, at the invitation of S. Thannhauser (Professor of Medicine). took up his post at Freiburg on 1 April 1931 and remained there until he left Germany in June 1933. It was during this period that he made his first major research discovery, of the ornithine cycle of urea synthesis (Rem. & Refl. pp.43-60).

Work mainly on urea synthesis, 12 May 1931-2 November 1932.

Notebook inscribed 'H.A. Krebs' and '1932-1934' on front cover. D.10 There are Pages numbered 1-576, with a few loose pages. several lists of contents, on pp.260, 270 and at rear.

> This is a particularly interesting volume, beginning with the continuation of work on the ornithine cycle, many pages being marked in red pencil for publication (pp. 1-241). Pasted into p. 244 is Krebs's hotel bill at the Black Forest resort of St. Peter and (intercalated) a later bill when he revisited the same pension P. 260 is headed 'Cambridge', the with his family in 1972. first entry being dated 4 July 1933 (Rem. & Refl. pp.62-63, 86-87).

Entries run 4 November 1932-11 April 1933 (from Freiburg), 4 July 1933-24 March 1934 (from Cambridge). All the entries are in German.

At rear of book is a note by Lady Krebs 'Vol. II missing', N.B. dated 29 July 1982. See C.324.

Pages numbered 1-300, with 'Minute Book' (in poor condition). D.11 detailed list of contents pp. 286-289.

> Work on amino acids, synthesis of glutamine. Experiments, tabulated results, notes on the literature, in ink with many annotations and re-workings in red ink, perhaps for publication. First entry is 9 April 1933 (in error for 1934)-14 January 1935.

All in German except for an account of 'Unit and determination' on pp.294-5.

D.12

'Minute Book' (in poor condition). Pages numbered in red pencil 1-266 but work continues to end of book.

Continuing work mainly on animo acids in mammalian tissues, 14 January-30ctober 1935. Experiments, diagrams pasted in, etc. in black and red ink as in D.11 above. All in German except for a few notes mainly at end of book (see entry for 20ctober on work with D.D. Woods).

There are a few loose pages of notes and calculations inside and at rear of book. More significant letters and items found loose in the book have been removed and now appear at D.13.

In addition, several items of interest are pasted into the book at various points. On p.25 is a notice of a Biochemical Society meeting, 15 February 1935, at which Krebs communicated two papers on 'Deamination of amino acids in mammalian tissues' and 'Synthesis of glutamine in mammalian tissues'. On p.199 is letter from Ella Sachs Plotz Foundation, 5 June 1935, awarding Krebs £150 for purchase of apparatus. On pp.230, 231 is correspondence, July 1935, re Krebs's application for post as Lecturer in Pharmacology, Sheffield, with letter from E.J. Wayne (Rem. & Refl. pp.93-94, see also D.13). Material at rear of book includes notice of a Biochemical Society meeting, 15 November 1935, at which Krebs presented a collaborative paper with N.L. Edson and A. Model on 'The synthesis of uric acid in birds'. (Biblicg. 52, 53, 57.)

D.13

Correspondence and papers originally found loose in D.12. Includes correspondence with Cambridge University <u>re</u> Krebs's employment of a personal assistant, further correspondence with E.J. Wayne on Krebs's appointment at Sheffield (October 1935), correspondence with colleagues on research and publications, 1935-36.

Also included are press-cuttings on the difficulties of learning the English language (Rem. & Refl. p.89).

D.14

Notebook inscribed 'Book 2' inside front cover. There is no 'Book 1' of this sequence surviving. Pages numbered 1-233 with detailed list of contents on pp. 232-33. Pages 162-63 are left blank, with a note 'Journey to Palestine' 21 March-21 April 1936 (Rem. & Refl. pp. 90-91).

Work on aspects of metabolism, 22 October 1935–8 June 1936. Experiments, results, notes on the literature, in ink and pencil, with several corrections and re-workings in red ink.

D.15

Notebook inscribed 'H.A. Krebs', 'Book 3' inside front cover. Pages numbered 1-232 with list of contents on pp.230-232 and a few loose pages.

Entries run 8 June-30 September 1936, covering experiments, tabulated results, comments, notes on the literature, etc. in ink and pencil, with several corrections and re-workings in red ink.

Pasted into pp.162, 163 are letters from colleagues forwarding specimens.

D.16

Notebook inscribed 'H.A. Krebs. The University Sheffield' and 'Book 4' inside front cover. Pages numbered 0-226 with detailed list of contents on pp.224-25 and some loose pages and items pasted in.

Entries run 2 October 1936-8 March 1937, covering experiments, tabulated results, diagrams pasted in, many annotations and re-workings in red ink, several pages annotated in red pencil for paper or publication.

On p.32 is pasted notice of a Biochemical Society meeting on 17 October 1936 at which Krebs gave a paper on 'The oxidation breakdown of carbohydrates'; between pp.96 and 97 is a notice of a Chemical Society meeting on 26 November 1936 at which Krebs spoke on 'The biological breakdown of carbohydrates'.

D.17

Notebook inscribed 'H.A. Krebs. The University Sheffield' and 'Book 5' inside front cover. Pages numbered 1-232, with list of contents on inside back cover and some loose pages and items pasted in. There is a cumulative 'Contents of last 3 books with reference to Coli' on pp.224-25.

Entries run 20 January-23 October 1937, covering experiments, tabulated results, charts and diagrams pasted in, many annotations and re-workings in red ink.

On p.42 and p.191 are pasted acknowledgements of papers submitted for publication in <u>Biochem</u> J.; on p.154 is pasted an acknowledgement of a paper submitted for publication in <u>Enzymologia</u> (<u>Bibliog</u>. 62). This was the crucial paper by Krebs and W.A. Johnson 'The role of citric acid in intermediate metabolism in animal tissue', offered to <u>Enzymologia</u> after its notorious rejection by Nature, never forgotten by Krebs (Rem. & Refl. pp.98-99).

D.18

Notebook inscribed 'H.A. Krebs' and 'Book 6' inside front cover. Pages numbered 1-228, with list of contents on p.228 and dated list of calibrations on inside back cover. Some loose pages and items pasted in. Additional correspondence and items originally kept loose in book have been removed and now appear at D.19.

Entries run 28 September 1937-11 July 1938 and include some of the definitive work on the citric acid cycle. Experiments, tabulated results, many annotations and re-workings in red ink.

On p.93 is pasted a notice of a Chemical Society meeting on 25 January 1938 at which Krebs spoke on 'The biochemical lesions in Vitamin B_1 deficiency'.

D.19

Correspondence and papers originally found loose in D.18. Includes notice of a Biochemical Society meeting on 9 October 1937 at which Krebs gave a collaborative paper with W.A. Johnson on 'Citric acid as an intermediate metabolite in the oxidative breakdown of carbohydrates'. Correspondence with colleagues and with firms, on metabolism research, 1938.

D.20

Notebook inscribed 'Book 7' inside front cover, on which also appears address of Å. and M. Orström, co-authors of three papers with Krebs in 1939 (Bibliog. 72, 73, 74). Pages numbered 1-314, with several lists of contents to particular series of experiments on pp.40-41, 312 and inside back cover. There are several loose pages and items pasted in. Additional correspondence and items kept loose in book have been removed and now appear at D.21.

Entries run 20 July 1938-30 March 1939, p.34 being left blank and headed 'Summer Holiday Congress Zürich' (Rem. & Refl. p.102). Experiments, charts and diagrams pasted in, summaries of results, notes on the literature, etc., many with annotations and re-workings in red ink.

On p.110 is pasted a note on results (in German), no author or date, but almost certainly from Å. Örström; on p.143 is pasted a letter from Örström, 5 January 1939; on p.145 is pasted a letter on analysis of results, 16 January 1939; on p.147 is pasted a notice of a Biochemical Society meeting on 13 January 1939 (at Leeds) at which Krebs spoke on 'Intermediary Metabolism of Proline' and introduced other papers by his collaborators; on p.244 is pasted acknowledgement of four papers submitted for publication in Biochem. J., 1 May 1939; on p.267 is pasted an acknowledgement of paper submitted for publication in Enzymologia (Bibliog. 77).

D.21

Correspondence and papers originally found loose in D.20. Includes letter from L. Farkas (ref. p.71), letters from colleagues, results and notes.

N.B. This marks the end of Krebs's own sequence of numbered notebooks 2-7 (no.1 is missing).

D.22

Notebook similar in format to the preceding sequence, but kept in other hands by collaborators or assistants. There are a few notes by Krebs, e.g. dated 16 March 1937. Pages not numbered; some loose pages intercalated and at rear of book.

Entries run 25 July 1936-16 March 1937, and 2 March-2 May 1938.

D.23 Red notebook inscribed 'H.A. Krebs. The University, Sheffield' inside front cover. This is Krebs's own notebook but does not form part of the numbered sequence with which it overlaps in date.

Pages not numbered; there is a list of contents on inside back covers. Some loose pages of notes, and a letter on vitamin B_1 results, at rear of book.

Entries run 25 January 1937-8 March 1938. Experiments, charts and diagrams pasted in, many annotations and re-workings in red ink. Includes work on insulin, vitamin B₁, citrate, etc.

D.24 Black soft-cover notebook, 6-20 April 1938.

Few pages used, mainly on depancreatised specimens. A few notes at rear of book, not all in Krebs's hand.

D.25 Black soft-cover notebook, small format, labelled on cover 'Note Book 1938. Amino Acid Determinations with Chloramine T'.

Earliest entry 31 August 1938. Entries 11-28 October are not in Krebs's hand but many have annotations by him.

A few notes on last page of book.

D.26

Hardbacked notebook, pages numbered 1-312 with 'Index and Summary' on p.311 and index of relevant experiments in earlier notebooks on p.4. There are several loose pages of notes and calculations, and some items pasted in. Additional correspondence and items originally kept loose in book have been removed and now appear at D.27.

Entries run 17 July 1939-26 April 1940; much of the work is on pigeon breast muscle. Acknowledgement for publication of Bibliog. 81, 82 is pasted in at p.165, and of Bibliog. 83 at p.213.

D.27 Correspondence and papers originally found loose in D.26. Many are notices of meetings and publications (including meeting of Biochemical Society at Sheffield, 17 February 1940, organised by Krebs), letter from B. Mendel and telegram from H. McIlwain about his move to Sheffield.

D.28 Hardbacked notebook, relating to work on risks of exposure to fluorides in industry, carried out on behalf of the Home Office (Rem. & Refl. p.124).

Both ends of book used. Entries run 23 November 1939-1 February 1940 (few pages used). See D.29 below.

- D.29 Loose pages of records on subjects examined, tabulation of data, originally kept in D.28 above. Also included here is a 1p. note on citric acid synthesis.
- D.30 Hardbacked notebook, pages numbered 1-232, with list of contents and note of spending from Rockefeller grant on inside back cover, list of experiments to be done on propionic acid on p.230. Several loose pages intercalated, and items pasted in.

Entries run 6 June 1940-28 January 1941. Experiments, tabulated results, references, notes on the literature, etc., with many annotations and re-workings in red ink.

Pasted on to p.31 is notice of a 'holiday school of Biochemistry' at which Krebs was to speak, arranged for July 1940, and a letter from F.C. Happold cancelling it; intercalated on pp.106-07 are acknowledgements of two papers submitted to Biochem. J. (Bibliog. 86, 88); pasted on to pp.119, 187 are notices of Biochemical Society meeting on 5 October and 7 December 1940, at which Krebs gave papers; pasted on to p.134 is correspondence on propionic acid culture.

D.31 Hardback notebook, pages numbered (on recto only) 1-115. There is a brief summary of contents on inside back cover and summaries of work on staphylococcus and on propionic acid bacterium on pp.35 (verso) and 37. A few loose pages of notes. More extensive notes and other items originally left at front and rear of book have been removed and now appear at D.32.

Entries run 27 January 1941-4 August 1942. Experiments, tabulated results, references, notes on the literature, in ink and pencil, with annotations and re-workings in red ink and a note on p.90 verso of material used in paper in Adv. Enzymol., 1943 (Bibliog. 98).

- D.32 Correspondence and papers originally found loose in D.31.
 Includes notices of meetings of Biochemical Society, 29 September 1941, 10 July 1942, at which Krebs gave papers, correspondence with colleagues and one personal letter, 1p. ms. note on proposed alterations to Department of Biochemistry at Sheffield, various experimental data and tabulated results.
- D.33 Hardback notebook, pages numbered 1-237 (only) though work continues to end of book. Several loose pages intercalated, and items pasted in. Additional loose items found at rear of book are now at D.34.

Entries run 5 August 1942–18 December 1944. Experiments, analyses, tabulated data, with some annotations and re-workings in red ink.

Pasted on to p.231 is a notice of a Biochemical Society meeting, 29 September 1944, at which Krebs gave papers on acetoacetic acid and patulin.

- D.34 Miscellaneous shorter notes and correspondence originally found at rear of D.33. Includes letter from Vice-Chancellor, Sheffield University, authorising Krebs to accept consultancy with I.C.I. to investigate sulphanilamides, 11 September 1943.
- D.35

 Brown hardback notebook, inscribed 'H.A. Krebs' inside front cover (in poor condition). Pages numbered 1-76 (only) though work continues to end of book. Some loose pages intercalated. Additional correspondence and material found as loose pages have been removed and now appear at D.36.

There is no index; the early entries deal with sulphonamides, the majority with metabolic factors.

Entries run 3 January 1945-6 November 1946. Experimental results, tabulated data, extensive notes on the literature at rear of book.

D.36

Correspondence and papers originally found loose in D.35.
on various topics. Includes material on Krebs's and Eggleston's paper on acetoacetic acid (Bibliog. 104), Krebs's and Speakman's paper on sulphonamides (Bibliog. 109) and letter (1p. only) from J. Tosić re collaborative paper (Bibliog. 110).

D.37

Brown ledger-type notebook inscribed 'H.A. Krebs. The University, Sheffield' inside front cover. Pages numbered 1-123 (only) though work continues beyond here and is resumed at rear of book. There is a 'Summary' on p. 37 (to June 1947). There are several intercalated pages of notes, and many items pasted in (diagrams, data, correspondence, etc.). Additional correspondence and material found as loose pages have been removed and now appear at D.38.

Entries run 7 November 1946-9 September 1948. Experiments, tabulated results, summaries and comments on results, in ink and pencil with annotations and re-workings in red ink. There is a note on p.115 of Krebs's attendance at 'Oxford International Physiological Congress, 21-25 July 1947'. At rear of book, several pages of references, notes on the literature, laboratory rules for Department of Biochemistry, notes on 'Interviewing young applicants', 'Examination questions for Cambridge Tripos', apparatus (one on a sample of Krebs's famous 'Unfit for Medical Research' writing-paper).

Pasted on to p.12 is correspondence with E.J. Morgan, 1946; on p.23 is notice of 'Joint meeting with Leeds biochemists', April 1947; on an unnumbered page is letter from C.R. Harington on synthetic compounds, September 1947; on an unnumbered page is a letter from T.S. Stevens, n.d.; on an unnumbered page is a letter from H. Lüthi, September 1947.

- D.38
- Correspondence and papers originally found as loose papers in D.37. Mainly on specimens and equipment; includes letters from S. Ochoa, C.R. Harington (1949).
- D.39

Small black notebook inscribed 'H.A. Krebs. Oxford' inside front cover. Few pages only used, at both ends of book. Work is on 'Control of Gluconeogenesis' and entries run 22 December 1962-3 April 1963.

See D.40.

D.40

Two sets of typescript and ms. notes of experiments to be conducted on gluconeogenesis, various dates 1961-62, and 1963. Originally folded in D.39.

Research

D.41-D.43		Three hardback notebooks kept by M.E. Woodford, 1962-64.		
	D.41	'Book I'	August-December 1963.	
	D.42	'Book II'	December 1963-18 April 1964 (wrongly inscribed	

'Book III' April-July 1964 (wrongly inscribed 1963 on D.43 cover).

April 1963 on cover).

All the work relates to research on Fructose 1, 6-diphosphate in striated Krebs and Woodford published a collaborative paper on the subject in 1965 (Bibliog. 230).

Two large ledger-type notebooks kept by R.A. Hawkins, 1970-71. D.44, D.45

Various dates, July 1970-July 1971. 'Determinations' D.44 Experiments for July 27 (no year given) has a ms. note by Krebs.

Data on brain metabolites. 'Results' D.45

> The work refers to the research for the collaborative paper by Krebs, Hawkins and Williamson on 'Ketone-body utilization by adult and suckling rat brain in vivo' (Bibliog. 299).

D.46 - D.100 INDEXED NOTES AND MEMORANDA

This designation has been adopted to cover heterogeneous material, mostly received in various folders and binders but some in plastic envelopes (D.94 - D.96) or as loose papers (D.59, D.84, D.89), the majority bearing a manuscript or typescript list of numbered items included therein. These items may comprise ms. notes or typedup narratives by Krebs on articles read, experiments performed by him, by colleagues in his research teams or notified to him by others; ideas for research projects, lectures or publications; correspondence enclosing or accompanying information, specimens, preparations or results; reprints or press-cuttings of matters of immediate relevance; summaries of discussions with colleagues in the laboratory, at conferences or on visits. Almost all the material is dated, though the contents of any folder may extend over several years and is not presented in chronological order. Some of the folders have on the spine or cover a note of the main topic, but this is not always the case, nor do the items necessarily conform to the title. It is clear however that the topics kept separately in these folders by Krebs are closely related to or identical with the 'Research Topics' at D.101 et seq., and should be regarded as complementary to them.

It has not been considered advisable to retain the material within Krebs's original folders and binders, which were fitted with various types of metal clamp fasteners liable to rust and in any case under strain with the quantity of papers crammed inside. The material is now presented in sequences of one or more folders following Krebs's order and preserving his index and title where these exist. In addition, the summary indications of the original lists have been expanded where appropriate to give a little more detail of the contents. The correspondents are indexed where possible.

D.46 'Pyruvate kinase'

Contents of a ring-back binder so inscribed.

Assay results, bibliographical references, Krebs's notes.

Various dates, 1957-68.

With typescript index (3 items).

D.47 'Drugs, substrates, antibodies'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes on the literature, on experiments, on the action of various substances, on enzyme induction by drugs. With some related printed material. Includes note by Krebs dated 24 June 1963 on 'The question of purposefulness'.

Various dates, 1962-65.

With typescript and ms. index (10 items, of which no.9 is missing).

D.48 'General notes on gluconeogenesis'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes on the literature, on experiments by others, Krebs's research ideas and drafts (includes work on Pasteur effect, gluconeogenesis in lactation, adrenals, etc.). There are also correspondence, related printed matter, experimental results by collaborator. Various dates, 1962-65.

With typescript index (24 items).

D.49-D.51 Contents of a bulky ring-back binder. No title, but no. 'I' on front cover and inside front cover. There is no volume II, but D.52-D.54 were in a binder of the same format.

Ms. and typescript notes and drafts on various topics in gluconeogenesis, enzyme activity, regulatory and feedback mechanisms. Also includes notes on the literature, and on colleagues' findings, experimental results by L.V. Eggleston and others, some related printed matter, correspondence, graphs, etc. Some of the drafts are substantial, e.g. on 'Fuel of respiration' (no.7 in sequence).

Various dates, 1960-65.

With typescript index (25 items, of which nos.17, 18 are missing).

D.49 Index, items 1-5

D.50 Items 6-12

D.51 Items 13-16, 19-25

D.52-D.54 Contents of a bulky ring-back binder. No title but same format as D.49-D.51

Ms. and typescript notes, mainly on aspects of gluconeogenesis and ketosis, metabolism of exercise, etc. Includes research ideas, comments on colleagues' results, related printed matter. Some of the drafts are substantial; item 8, 'Glucose requirements of the body', includes note of visit and discussion (18 January 1963) with E.J.H. Ford; item 16, 'Relations between gluconeogenesis and ketosis', contains notes over several years, 1961-64, includes 'comments by F. Lynen', and a sequence 'partly used at Harvard lecture'; item 23 is a substantial sequence, 1962-65, on 'alloxan diabetes'. Various dates, 1961-65.

With typescript index (31 items, of which nos.10 and 22 are missing).

D.52 Index, items 1-9

D.53 Items 11-21

D.54 Items 23-31

D.55 'Gluconeogenesis. Kidney 1'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes on renal metabolism, including results, ideas, colleagues' results, notes on the literature, bibliographical references, correspondence.

Various dates, 1961-65.

With typescript index (14 items, of which nos.1-5, 12 and 14 only are numbered. There is an additional item numbered 17).

D.56 'General glucone ogenesis. Emphasis on Energy 2' Contents of a ring-back binder so inscribed.

Ms. and typescript notes, ideas, notes on the literature and on colleagues' work, results by L.V. Eggleston, printed matter, correspondence, discussion notes. Various dates, 1962-65.

With typescript index (21 items, of which no.4 is deleted, nos.12 and 19 are missing).

D.57, D.58 'General gluconeogenesis. Enzymes 3'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes, ideas, notes on the literature and on colleagues' results, printed matter, correspondence, bibliographical references. Item 7 is a substantial series, 1963-65, on adenylate kinase; item 13, with correspondence, is on DPN. Various dates, 1962-64.

With typescript index (25 items, of which no.1 is missing).

D.57 Index, items 2-14

D.58 Items 15-25

D.59 Loose pages of ms. and typescript notes on various factors affecting gluconeogenesis.

Various dates, 1962-63.

No index, but material is numbered 1, 2, 7, 9 and perhaps originally formed part of '4' in this sequence.

D.60 'Subjects other than gluconeogenesis 5'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes, results, printed matter. Various dates, 1962-65.

With typescript index (13 items, of which nos. 2, 3, 5, 13 are missing).

D.61 'Liver: glycogen, physiology'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes, ideas, notes on the literature and on methods, bibliographical references, correspondence, discussions with colleagues. Various dates, 1952-65.

With typescript index (12 items, of which nos.9, 10 are missing).

D.62 'Notes on scientific visits'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes of conversations with colleagues, or of papers heard, at conferences and meetings; mainly research in progress or projected, but includes a little personal material.

Various dates, 1963, 1964.

With typescript index (6 items).

D.63 'Biochemistry notes'

Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes, notes on the literature, discussions with colleagues, notes on visit to USA March 1968, printed matter. Item 10 is a note by G.K. Radda on Warburg's theory of photosynthesis; item 17 is Krebs's notes of a meeting of the Biochemical Society, 1967. Various dates, 1961-68.

With typescript index (20 items, of which no.1 is missing).

D.64 'Ketosis'

Contents of a ring-back binder so inscribed.

Ms. and typescript notes, correspondence, printed matter, bibliographical references, experimental results by T. Gascoyne, etc. Various dates, 1964-65.

With typescript index (9 items).

D.65 'Free energy changes'

Contents of a ring-back binder so inscribed.

One item only, 1965.

D.66 'Redox states and mitochondria'

Contents of a ring-back binder so inscribed.

Ms. and typescript notes and drafts, correspondence. Item 9 is a substantial draft, 10pp., on 'Redox State of Tissues and Cells', 1965; item 11 is 'Article on Hepatic Coma for Besman's new journal', 1967. Various dates, 1965-67.

With typescript index (12 items, of which nos.1, 2, 3, 5, 6, 10 are missing).

D. 67 'Redox states'

Contents of a ring-back binder so inscribed.

Ms. and typescript notes and drafts, notes of discussions, on the literature, of further points for discussion, printed matter. Includes draft, 1966, for 'Modena lecture' on 'Some aspects of mitochondrial organisation'. Various dates, 1965-67.

No index, or numbering of items.

D.68 'Pyridine nucleotide interrelations'

Contents of a ring-back folder so inscribed.

Ms. and typescript notes, research ideas, drafts, a little related printed matter.

Various dates, 1966-68.

With typescript index (17 items, of which nos.1, 2, 4, 6, 9, 13, 15, 16 are missing).

D.69 'Pyridine nucleotide interrelations'
Contents of a ring-back binder so inscribed.

Ms. and typescript notes, research ideas, results and calculations, laboratory results by colleague. Item 2 is on rat diets (1968). Various dates, 1967-68.

With typescript index (10 items, of which nos.1, 3, 5, 8, 9, 10 are missing). There is a ms. note by Krebs 'taken to USA' against nos. 8, 9 and 10).

D.70, D.71 'Biochemistry'

Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes and drafts, ideas for future experiments, notes on the literature and on colleagues' results, correspondence, related printed matter. Item 10 is correspondence and drafts on early work by Rosenfeld on carbohydrates.

Various dates, 1966-73.

With typescript index (31 items, of which nos.2, 9, 25 are missing).

D.70 Index, items 1, 3-8, 10-15

D.71 Items 16-24, 26-31

D.72 Contents of a spring-clamp binder. No title.

Ms. and typescript notes and drafts, research ideas, discussions with colleagues, notes on the literature, experimental results by L.V. Eggleston (annotated by Krebs), related printed matter. Item 2 is 7pp. draft for proposed work on amino acid degradation; item 10 is a note of discussions on research, lectures, etc. during a visit to America, 0ctober 1971; item 6 is a note of a discussion with Britton Chance, March 1971.

Various dates, 1970-71.

With typescript index (24 items, of which no.3 is missing).

D.73 '1970-1971'

Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes and drafts, discussions with colleagues, notes on the literature, ideas for research, correspondence, related printed matter. Item 13 (on diabetes and degenerative eye disorders) is dated 1964.

Various dates, 1970-71 (and on item 1964).

With typescript index (16 items).

D.74 '1971'

Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes and drafts. Several items are notes of discussions with colleagues on research projects and methods, during a visit to America in July 1971. Item 6 is ms. and typescript versions of a note on 'Blood substitutes' (August 1971). Various dates, 1971.

With typescript index (7 items, of which no.4 is missing).

D.75, D.76 '1971'

Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes and drafts, research ideas, notes on the literature, discussions with colleagues, results, correspondence, related printed matter. Several of the items deal with work with J.B. Hoek and others on liver metabolism. Item 7 (on Rotenone) is dated 1968. Various dates, 1968, 1970-71.

With typescript index (14 items, of which no.12 ('Blood substitutes' - see D.74) is missing). There is an additional unlisted item.

D.75 Index, items 1-3

D.76 Items 4-11, 13-14

D.77-D.79 Contents of a spring-clamp binder. No title.

Ms. and typescript notes and ideas, discussions with colleagues, bibliographical references, correspondence, related printed matter, notes on the literature, laboratory results. Item 23 is a bundle of notes, results and printed matter on fructolysis (1975). Various dates, 1972-75.

With typescript index (33 items).

D.77 Index, items 1-17

D.78 Items 18-23

D.79 Items 24-33

D.80 Contents of a spring-clamp binder. No title.

Ms. and typescript notes and drafts, bibliographical references, research problems, discussions with colleagues, notes on Lipmann Symposium, July 1974 (Item 14), related printed matter, correspondence. Item 26 is a draft on equilibrium systems.

Various dates, 1972-75.

With typescript index (28 items).

D.81-D.83 '1973'

Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes and drafts, research ideas, notes on the literature, bibliographical references, comments on colleagues' results and ideas, related printed matter. Many items include correspondence or refer to discussions with colleagues (items 1, 3, 22-24, 32). Item 12 is 'Discussions at Copenhagen meeting 1973'. Item 20 is Krebs's introductory lecture at a meeting of the Society for Experimental Biology at Oxford, 1972, on 'Warburg on Measuring Rates'.

Various dates, 1970-73.

With typescript index (36 items).

D.81 Index, items 1-11

D.82 Items 12-20

D.83 Items 21-36

D.84 Loose papers of notes, drafts, research ideas, results by L.V. Eggleston, 1969.

Mainly 1973.

Found inside the binder, but not part of the contents as itemised in the index.

- D.85, D.86 'Liver cells'
 Contents of a spring-clamp binder so inscribed. This binder contained two sets of material each with a ms. index by Krebs, all relating to work on liver cells.
- D.35 Ms. and typescript notes, drafts, results, calculations by Krebs and collaborators, notes on the literature. Mainly on CO₂ buffers, and on lysine.

 Various dates, 1973.

With ms. index (15 items, of which nos.6, 7, 8, 9, 11, 13 are missing).

- D.86

 Ms. and typescript notes, drafts, results, correspondence, on isolated liver cells and on lysine.

 Various dates, 1973.

 With ms. index (11 items, of which nos.2, 3, 4, 5, 6, 8, 11 are missing).
- D.87 Contents of a spring-clamp binder. No title.

Ms. drafts, laboratory results and experiments, mainly by Krebs but some by collaborators, principally related to work on histidine, lysine and methionine. The dated notes are 1973-74.

With typescript index (6 items, not numbered).

D.88 Contents of a spring-clamp binder. No title.

Ms. and typescript notes and drafts, notes on the literature, discussions on research projects, results, correspondence, related printed matter. Includes material on histidine metabolism, Crassulacae, lysine, etc.

With typescript index (12 items).

- D.89 Loose pages of notes, drafts, printed matter, originally tucked into D.88 but not figuring in the index.

 Various dates, 1973-75.
- D.90 Contents of a spring-clamp binder. No title.

Ms. and typescript notes and drafts, notes on the literature. There are a few notes on proline dated 1970, but most of the material is dated 1974 and deals with equilibrium reactions. Some of it, headed 'Indianapolis' probably refers to Krebs's lecture in 1974 (Bibliog. 341).

There is no index.

D.91 Contents of a spring-clamp binder. No title.

Ms. and typescript notes and drafts, results, notes on books and articles, discussions with colleagues, correspondence, related printed matter, bibliographical references, research data from collaborators.

Various dates, 1974-77.

There is no index.

D.92, D.93 Contents of a spring-clamp binder. No title.

Ms. notes and drafts, bibliographical references, notes on 'Valencia meeting' (1975), correspondence, printed matter including some on sociobiological problems. Item 21 is a substantial assemblage of material on chirality.

Various dates, 1975.

With typescript index (22 items).

- D.92 Index, items 1-20
- D.93 Items 21, 22

D.94 Contents of a plastic envelope, perhaps intended to be incorporated in a binder.

Ms. notes and drafts, notes on books and articles, research ideas. Several items relate to evolution of metabolic cycles. Various dates, 1980-81, and some undated items.

With typescript index (18 items, of which nos. 1, 2, 4, 11, 12, 13, 14, 17 are missing).

D.95, D.96 Contents of a plastic envelope, perhaps intended to be incorporated in a binder.

Ms. and typescript drafts, comments on ideas of others, notes on books and articles, printed matter and press-cuttings. Much of the material relates to the Dunham lectures given at Harvard in 1981 and to work on evolutionary theory.

Various dates, 1980-81, and some undated items.

With typescript index (21 items, of which nos.11, 20 are missing).

D.95 Index, items 1-10, 12, 13

D.96 Items 14-19, 21

D.97-D.100 Contents of three spring-clamp binders kept by Krebs specifically as 'Research projects' or 'Biochemical problems'. The contents do not differ significantly from others in the sequence which he identified by topic or by year. See also D.207 for similar material kept with the research projects in hand.

D.97 'Research projects'
Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes and drafts, notes on the literature, experimental results, correspondence, related printed matter; mainly on aspects of ketosis, and calcium effect on gluconeogenesis. Various dates, 1962-69.

With typescript index (6 items).

Continued

D.98

'Biochemical problems'

Contents of a spring-clamp binder so inscribed.

Ms. and typescript notes and drafts, discussions with colleagues, research ideas and methods, notes on the literature, bibliographical references, results by L.V. Eggleston and others, correspondence, related printed matter. Item 3 (1968) 'General comment on redox work' is a draft for a talk or lecture.

Various dates, 1968–70, except for item 20 'Saline Media' (1963) and item 21 'Alcaligenes' (1961).

With typescript index (24 items).

D.99, D.100

'Biochemical Problems 1969-70'

Ms. and typescript notes and drafts, research ideas, discussions with colleagues, notes on the literature, experimental results, correspondence, related printed matter, bibliographical references. Item 5 (1969) is a draft on 'Changes in Redox State under Anaerobic Conditions'; item 22 (1970) is a note of discussions at 'Marburg Symposium'; item 25 (1970) is a substantial assemblage of material on 'microsomal mixed function oxidases'.

Various dates, 1967-70.

With typescript index (34 items, of which nos.10 and 27, both on proline, are missing.

D.99

Index, items 1-9, 11-20

D.100

Items 21-26, 28-34

D.101 - D.514 RESEARCH PROJECTS

This covers the bulk of Krebs's research activity 1951 - 81. It is presented as a chronological sequence of topics, each dated from the first surviving notes or records. Krebs's own designations, where they existed on the original folders and boxes, have been retained. Un-named material has been supplied with an appropriate descriptive title on advice from Krebs's colleagues.

Some of the topics are very substantial, extending over a long time-span and covering research ideas, laboratory work by Krebs and others, multiple drafts for lectures and publications, discussions with colleagues, scientific and editorial correspondence, background and bibliographical material. Others are brief, perhaps just a note for possible future research or a collection of annotated offprints on a topic to be explored later. Generally speaking, however, this can be said to form the basic material for Krebs's research, lectures and publications. Efforts have therefore been made to link the work with the published papers, references being given in the form (Bibliog....) and also appearing in the Conspectus. Correspondents are indexed and colleagues identified where possible.

LIST OF CONTENTS

D.1 0 1-D.111	TELEOLOGY	1951-54, 1961
D.112	BUFFER SOLUTIONS c	.1955
D.113-D.120	STEERING AND FEEDBACK MECHANISMS	1955-65
D.121-D.124	KETOGENESIS / PYRUVATE METABOLISM	1955-65
D.125-D.128	SPECIFIC DYNAMIC ACTION OF FOODSTUFFS	1957-63
D.129-D.131	ANTERIOR PITUITARY HORMONES IN KETOGENESIS	1959-62
D.132-D.138	KETOGENESIS / INSULIN	1959-65
D.139-D.157	REVERSAL OF OXIDATIVE PHOSPHORYLATION / ATP DEPENDENT REDUCTIONS / SECONDARY EFFECTS OF DINITROPHENOL	1960-64
D.158	OXALOACETATE AND SUCCINIC DEHYDRO- GENASE	1961-66
D.159, D.160	CO ₂ BUFFERS IN MANOMETRY	1961

D.161-D.164	GROWTH AND ENERGY	1962
D.165	CONTROL OF GLUCONEOGENESIS	1962-63
D.166	'CITRULLINE' SPOT	1962-63
D.167-D.174	MUSCLE METABOLISM	1962-64, 1967
D.175-D.177	PYRUVATE CARBOXYLASE	1962-66
D.178-D.180	KETONE BODIES	1963-65
D.181, D.182	ENZYME ASSAYS	1963-66
D.183-D.187	ISOTOPE EXCHANGES	1963-70
D.188-D.205	ISOLATED LIVER CELLS	1963-77
D.206	ASPARTATE	c.1964
D.207	RESEARCH PROBLEMS	1964-67
D.208	DRUG-INDUCED DIABETES	1965
D.209	CALORIC HOMEOSTASIS	1965
D.210-D.222	ALANINE	1965-73
D.223-D.238	REDOX STATE	1965-76
D.239, D.240	INTRACELLULAR pH	1966-71

D.241	ADIPOSE TISSUE	1967
D.242	ROTENONE AND KETOSIS	1967
D.243	NUTRIENTS	:.1967
D.244	CARNITINE	1967, 1969
D.245	HEPATOTOXIC AGENTS	1967-68
D.246	HUMAN LIVER DATA	1967-68
D.247-D.249	KETOGENESIS / REGULATION OF TCA CYCLE	1968
D.250	EXTRAHEPATIC KETOGENESIS	1968-69
D.251-D.253	ALCOHOL IN ANIMALS	1968-70
D.254	HOMEOSTASIS	1968-71
D.255-D.261	METABOLISM OF ACETALDEHYDE	1968-77
D.262-D.266	RATE CONTROL OF TCA CYCLE	1968-69
D.267-D.271	METABOLISM OF WORKING HEART	1969-72
D.272-D.274	MITOCHONDRIA	1969-71
D.275-D.288	INBORN ERRORS OF METABOLISM / HYPER- AMMONAEMIA / ORNITHINE TRANSCARBAMYL DEFICIENCY	ASE 1969-75

D.289	GLUCOSE FFA CYCLE	1970
D.290	HORMONES AND GLUCONEOGENESIS	1970
D.291	INTERMEDIATE LIVER METABOLISM	1970-72
D.292, D.293	PASTEUR EFFECT	1970-71
D.294-D.304	AMINOTRANSFERASES	1970-72
D.305-D.307	OXIDATIVE PHOSPHORYLATION	1971
D.308, D.309	KETONE BODY METABOLISM IN DIABETES	1971
D.310	ADIPOSE TISSUE	1971
D.311-D.313	REDOX STATE IN BACTERIA	1971-72
D.314-D.316	REVERSIBILITY OF RESPIRATORY CHAIN	1971-74
D.317	ALCOHOL METABOLISM IN LIVER	1971-74
D.318-D.329	RETINAL METABOLISM	1971-72
D.330	SALINE MEDIA	1971, 1976
D.331-D.341	CALORIMETRY	1971-77
D.342	ACETYLGLUTAMATE	1972
D.343	UREA CYCLE	1972

D.344-D.348	AMINO ACID ANALYSES IN LIVER CELLS	1972-74
D.349-D.358	GLUCONEOGENESIS AND UREA SYNTHESIS	1972-74
D.359-D.372	PENTOSE-PHOSPHATE CYCLE	1972-74
D.373-D.378	6-AMINO-NICOTINAMIDE	1972-77
D.379	COMPETITION BETWEEN SHORT- AND LONG- CHAIN FATTY ACIDS IN PERFUSED RAT LIVER	[1973]
D.380	SULPHONAMIDES	1973-74
D.381	FLUOROCARBONS	1973-74
D.382-D.395	OVER-MEDICATION	1973-78
D.396	CRASSULACEAE	1974
D.397	CARNOSINE	1974
D.398, D.399	SHUTTLES AND CARRIERS	1974
D.400-D.408	HYPERLACTATAEMIA AND LACTIC ACIDOSIS	1974
D.409-D.414	RENAL AMMONIA	1974
D.415-D.435	FOLATE $/ B_{12} / METHIONINE / HISTIDINE$	1974-78
D.436	PENTENOATE	1975
D.437	L-GLUTAMATE TRANSPORT IN HEPATOCYTES	1975

D.438, D.439	LACTATE	1975-76
D.440-D.444	METABOLISM OF BRANCHED-CHAIN AMINO ACIDS	1975-76
D.445	CHICK ENTEROCYTES	1977
D.446-D.449	PURINE SYNTHESIS	1977-81
D.450	GLUCAGON AND INSULIN IN BIRDS	1978
D.451-D.453	GLUTAMINE METABOLISM	1978-79
D.454	CALCIUM CONCENTRATION IN SALINE	1979
D.455-D.458	BENZOATE	1979-81
D.459-D.511	EVOLUTION OF METABOLIC PATHWAYS With an introductory note	1979-81
D.512	CITRATE CYCLE	1980
D.513, D.514	HEPATOCYTES	1981

D.101-D.111 TELEOLOGY

1951-54, 1961

Krebs assembled ideas and references on the subject during 1951-52. He gave lectures and may have contemplated a more extended work (see D.104). His main published contribution (Bibliog. 168) was part of the Herter lectures given at Johns Hopkins University; he also gave a joint talk on 'Frontiers in Biochemistry' with F. Lipmann at a 'Smoker' during a meeting of the American Society of Chemists at Atlantic City during his extended visit to America in 1954.

See also A.118, F.23-F.46.

D.101

Notes and quotations from Ernst Cassirer: The Problem of Knowledge, 1p. headed 'Teleology' has a ms. note 'Discussion with Cassirer 23/8/51'.

In Krebs's original folder, labelled 'Teleology'.

D.102

Correspondence, 1951-52.

Includes letter from F. Brücke on his great-grandfather, Ernst Brücke, whose work is widely quoted by Krebs in his lectures and writing.

D.103

'Teleological Considerations in Biology'

Two heavily-corrected ms. and typescript drafts, 10pp. and 13pp., the latter with a ms. headnote 'Lecture before Philosophical Society 22.2.52.*

D.104

'Postcript. The teleological viewpoint in biology'

3 heavily-corrected ms. and typescript drafts, and final 7pp. typescript version, all with this title, using similar material to D.103 above. The drafts begin 'In this book the assumption is made ...' and refer to 'this chapter', but there is no substantial work by Krebs on the subject listed in the Bibliography.

D.105

'Excursion into the borderland of biochemistry and philosophy'

Heavily-corrected typescript and ms. drafts for lecture (Bibliog. 168).

- D.106 Similar ms. and typescript drafts, no title or date but perhaps an earlier version of D.105.
- D.107-D.109 'Frontiers in biochemistry'

2 heavily-corrected ms. and typescript drafts, for talk with Lipmann at Atlantic City, with Krebs's carbon letter to Lipmann discussing arrangements. The talk has a ms. note by Krebs 'Good paper'.

- D.108 More fragmentary notes and drafts.
- D.109 Notes, references, background material.
- D.110, D.111 Later correspondence and papers, 1961.
- D.110 Correspondence with L. Rosenfeld on possible exchange of views on the subject. With a little background material.
- D.111 Krebs's notes and drafts on teleology, complementarity, etc., various dates May-September 1961. With a little background material.
- D.112 BUFFER SOLUTIONS

Brief notes, references, data. n.d., c.1955. With related background material, some annotated.

D.113-D.120	STEERING AND FEEDBACK MECHANISMS 1955-65
D.113	'Die Steuering der Stoffwechselvorgänge'
	Typescript draft, with a few ms. corrections and covering letter, October 1955.
	(<u>Bibliog</u> . 179)
D.114	'Regulation of Metabolism'
	17pp. typescript and ms. draft for lecture. With a ms. headnote 'Ann Arbor March 1960' and 'Jerusalem April 1936'.
D.115	14pp. typescript lecture or article on regulation of metabolism. No date or place.
	Included here are offprints of two of Krebs's publications on the subject (Bibliog. 178, 187).
D.116	Notes, drafts, discussions. Few dated. Includes note of discussion with H. Motz on origin of term 'feedback' 1955, and other notes, 1959, 1962.
D.117	Ms. and typescript bibliographical references.
D.118	Background material, some annotated.
D.119	Ms. notes on feedback mechanisms, 1963, 1965. With a ms. note by Krebs 'Regulation (earlier refs) collected for Physiol. Review (never written)'.
D.120	Background material, some annotated.

D.121-D.124	KETOGENESIS / PYRUVATE METABOLISM 1955-56
D.121	Typescript draft with a few ms. corrections, and tables for an untitled paper; the accompanying experimental results have various dates, 1955–57.
D.122	Miscellaneous references, some dated 1964, and headed 'Deuel Conference paper'.
D.123	Brief correspondence on bovine ketosis, 1962.
	Later notes and drafts, March-April 1965.
D.124	Offprints and background material, some annotated.
D.125-D.128	SPECIFIC DYNAMIC ACTION OF FOODSTUFFS 1957-63
	Only one publication on this topic is listed (<u>Bibliog</u> . 194), a paper given at the Rona Symposium.
D.125	Ms. and typescript notes and drafts, some dated 1957, 1958.
	Heavily-corrected ms. and typescript drafts, some dated 1959 and referring to work of K.L. Blaxter.
D.126	Undated ms. and typescript drafts, bibliography, references, with a short ms. list of contents.
D.127	Later ms. and typescript notes, drafts, experimental results (by Krebs and some by P. Lund). Includes figures for publication, and a copy of Bibliog. 194 with updated bibliography. Various dates, 1961, 1962.
D.128	Correspondence and discussion with colleagues on experiments, techniques, results, 1960-63. Includes a little related background material and notes by Krebs of discussions.

Research		
D.129-D.131	ANTERIOR PITUITARY HORMONES IN KETOGENESIS 1959-62	
D.129	Correspondence with colleagues, institutions and firms about specimens and supplies for proposed research, 1959-62.	
D.130	Research notes and data, suggestions for experiments, bibliographical references, by Krebs and collaborator. August 1960-September 1961 (and one page later data, August 1966).	
D.131	Background material.	
D.132-D.138	KETOGENESIS / INSULIN 1959-65	
D.132	Ms. and typescript notes and drafts, references, discussions with colleagues (some on writing-paper of HMS 'Queen Elizabeth') none dated, correspondence (1964).	
D.133	Bibliographical references.	
D.134	Draft paper by Krebs, contributing to discussion arising from a presentation by C.H. Best on 'Metabolic problems involving the pancreas, insulin and glucagon'. n.d., latest reference 1959.	
D.135	'Biochemical Aspects of Ketosis'	
	11pp. duplicated typescript, with ms. headnote 'Amended Copy'. Perhaps earlier version of Ernest Dixon Memorial Lecture of same title (Bibliog. 193).	
D.136	'The Biochemical lesion in ketosis'	
	3 drafts (all different) of paper given at Chicago, March 1960, and published 1961 (Bibliog. 198), in Krebs's original folder labelled 'Ketosis in Chicago'.	

D.137

Offprints of Krebs's published papers on the subject, kept with the material (Bibliog. 193, 198, 200, 236). Included here is his 'Inaugural Lecture: Some Aspects of Gluconeogenesis (The Relations between Gluconeogenesis and Ketogenesis), given at the Third Symposium, on Energy Metabolism, of the European Association for Animal Production, held at Troon, May 1964 and published in the Proceedings (Academic Press, 1965); this publication is not listed in the Bibliography.

D.138

Background material sent to or requested by Krebs, some annotated.

D.139-D.157

REVERSAL OF OXIDATIVE PHOSPHORYLATION /
ATP DEPENDENT REACTIONS / SECONDARY EFFECTS
OF DINITROPHENOL 1960-64

Contents of a box so labelled, comprising notes, drafts, correspondence, etc. relating to collaborative work principally with L.V. Eggleston (Bibliog. 199, 202, 208, 209). Krebs's original folders, some with descriptions, are at D.157. See also D.158 which is a continuation of similar work, also with Eggleston, but kept separately by Krebs.

D.139-D.141

Ms. and typescript notes and drafts, almost all by Krebs but a few by Eggleston. Not all dated. Many relate to Bibliog. 199. Three folders as follows:

D.139

November 1960-July 1961

D.140

September-November 1961 and undated 'Draft of LVE'

D.141

April-December 1963 and undated.

D.142-D.146

Experimental data, tabulated results, calculations, etc., chiefly by Eggleston but with many ms. notes, suggestions for further experiments, etc. by Krebs.

Five folders as follows:

D.142

Research		
D.143	November-December 1960	
D.144	January-October 1961	
D.145	1962	
D.146	August-November 1963, some headed '"Klingenberg" expts.'	
D.147-D.152	Publications and lectures	
D.147	Draft for slide lecture, 21pp. typescript.	
D.148	Part draft for slide lecture (different from above).	
D.149	Part draft for publication, with tables, on oxidation of succinate.	
D.150	Notes, drafts, references, some dated 1961.	
	All the above were in original folder labelled 'Welch Raw Material' and probably refer to Krebs's 1961 Welch lecture 'Biological reductions in complex systems' (Bibliog. 202).	
D.151	'The effect of dinitrophenol on the metabolism of oxaloacetate in animal tissues'	
	Heavily-corrected ms. and typescript drafts for a paper so titled, by Krebs and Eggleston, various dates, March 1962, October and December 1963, and undated.	
	No paper of this title is listed in the Bibliography, and it was probably not published (R. Hems, personal communication, 1984).	
D.152	Ms. notes for lecture on the subject given for 'Biochemistry Part II', 22 January 1964.	

D.153-D.155	Correspondence	
D.153	Bücher, T.	1960
	Chance, B.	1960
D.154	Ernster, L.	1960
	Klingenberg, M.	1960, 1963
D.155	Chance, B.	1964
	Krebs's carbon only, on further rese phosphorylation. With related pri	
D.156	Background material, some annotate	ed.
D.157	Krebs's original folders and box des	cription.
D.158	OXALOACETATE AND SUCCINIC	DEHYDROGENASE 1961-66
	Continuing work with L.V. Egglester and drafts, 1961-62, another draft of DNP (see D.151 above), continuing substantial 12pp. draft by Krebs and Oxaloacetate'.	of unlisted paper on effect of g drafts by Krebs 1963-66, and a

	Kesearch
D.159, D.160	CO ₂ BUFFERS IN MANOMETRY 1961
D.159	Notes, drafts, bibliographical references, notes on the literature, correspondence from suppliers of 'Warburg Flasks', June-September 1961.
D.160	Offprints of articles by O. Warburg on manometry, and of Krebs's earlier (1951) articles on the subject (Bibliog. 140, 147).
D.161-D.164	GROWTH AND ENERGY 1962
D.161	Ms. and typescript notes, drafts, calculations, research ideas, references. A few only dated, January, April 1962.
	In Krebs's original folder, labelled 'Growth and energy'.
D.162-D.164	Correspondence with colleagues, 1962
D.162	Elsden, S.R.
	Includes copies of Elsden's reports on growth and energy to the A.R.C. Correspondence June includes invitation to Krebs to chair a session of the Society for General Microbiology symposium on 'Comparative Aspects of Microbial Metabolism', in Sheffield, January 1963.
D.163	Stoward, P.J.
	Includes report by Stoward to D.S.I.R. on Thermodynamics of bacterial growth.
D.164	Zamecnik, P.

Zeuthen, E.

D.165

CONTROL OF GLUCONEOGENESIS

1962-63

24pp. ms. notes and drafts, in spiral-bound foolscap pad, various dates December 1962-January 1963.

Includes research ideas, experiments, discussions with colleagues, notes on the literature, etc. The work, though heterogeneous in nature, is dated continuously from 22 December to 5 January, including Christmas Day, and may represent Krebs's reading and thinking when the laboratory was closed for Christmas. Note for 3 January on 'Citrulline' appears in a typed version in D.166 below.

D.166

'CITRULLINE' SPOT

1962-63

Notes, drafts, correspondence, experimental results, by R. Hems and another, August 1962-January 1963. Includes copy of paper by Derks and Grisolia on 'Citrulline-like Material' and of Krebs's ms. and typescript notes on the subject.

In Krebs's original folder.

D.167-D.174

MUSCLE METABOLISM

1962-64, 1967

Drafts, notes, correspondence, mainly concerned with lactate in exercise.

D.167-D.169

Krebs's dated notes, drafts, research ideas and discussions, experimental results, bibliographical references. Three folders as follows:

D.167

1962

D.168

1963

D.169

Carbohydrate synthesis in striated muscle; correspondence, substantial drafts and narratives, May, September-October 1963.

D.170 Undated notes, bibliographical references; includes some data by L.V. Eggleston, October 1963.

D.171 Brief publications and papers by Krebs.

Includes contribution to discussion of the 'Oxygen Symposium' sponsored jointly by the International Unions of Biochemistry and Physiological Sciences at Oxford, September 1963, and notes for paper on 'Some aspects of the metabolism of muscular exercise' given at a seminar in the Department of Physiology, Oxford, June 1964 (arising in part from 1963 Symposium and subsequent research and correspondence with D. Cunningham, B.B. Lloyd - see D.172 below).

D.172 Correspondence, 1963-64

Cunningham, D.

Lloyd, B.B.

Masoro, E.J.

Olson, R.E.

D.173 Correspondence with R.E. Davies, 1967, on early work on muscle metabolism. Includes a draft of letter by Krebs to A.V. Hill on same subject.

D.174 Background material, some annotated.

D.175-D.177 PYRUVATE CARBOXYLASE 1962-66

D.175 Notes and drafts by Krebs. Various dates, 1962-66. Includes 4pp. draft by L.V. Eggleston 'Location of pyruvate carboxylase', 0ctober 1966.

In original folder labelled 'Pyruvate Carboxylase'.

- D.176 Experimental assays and results, mainly by Eggleston, with a few notes by Krebs, various dates, 1964-66.
- D.177 Drafts and notes by W. Gevers and Krebs for collaborative paper 'The regulation of phosphoenolpyruvate synthesis in pigeon liver', published 1967 (Bibliog. 244).
- D.178-D.180 KETONE BODIES

1962-65

Correspondence, drafts, data exchanged with L. Kastner, relating to her research and publications on ketone bodies in rat-liver preparations.

See also D.130.

- D.178 Notes, drafts, amendments by Krebs, some dated 1964.
- D.179 Correspondence, data and drafts from L. Kastner, 1963-65.
- D.180 Miscellaneous drafts, some with Krebs's amendments.

 Final 10pp. typescript version.
- D.181, D.182 ENZYME ASSAYS

1963-66

Contents of two folders so described, of notes, drafts, experimental data by Krebs and L.V. Eggleston.

D.181 Extensive notes and drafts, mainly by Krebs but some by Eggleston annotated by Krebs. Various dates, September 1963-March 1966.

Notes of September 1963 and July 1964 are general ideas on 'Significance of enzyme assays'; several notes are on 'Assay of pyruvate carboxylase'; note of July 1965 is a draft for a proposed paper by Eggleston and Krebs 'The capacity of enzymes related to gluconeogenesis in rat liver and rat kidney cortex'.

D.182 Ms. drafts for papers, experimental data, tables, results, etc. almost all by Eggleston, with a few ms. notes by Krebs.

July-October 1965.

D.183-D.187 ISOTOPE EXCHANGES 1963-70
 D.183 Notes, drafts, references, various dates 1963-65. Includes brief notes for 'Houston lecture' dated January 1965.
 D.184 Similar material, 1969 and undated.
 D.185 Notes for publication and paper. Includes ms. notes for 'Wirtheimer Paper' on isotope exchanges,

and typescript 'Discussion of paper by Robert Pitts', n.d.

Also included here are copies of Krebs's papers <u>Bibliog</u>. 229, 233.

In original folder labelled 'Wirtheimer'.

D.186 Correspondence with colleagues re research and analyses.

Ryman, B.E.

1969-70

Landau, B.R.

1959

In original folder labelled 'Isotope Exchanges'.

D.187 Background material.

D.195

Research

	Kesearch		
D.188-D.205	ISOLATED LIVER CELLS	1963-77	
	The earliest notes and drafts date from the 1960s (D.188, D.189) but the bulk of the material dates from 1970 onward. An important event was the Alfred Benzon Symposium VI on 'Regulation of nepatic metabolism' at which Krebs chaired a session and gave a paper. D.H. Williamson also gave a paper and two collaborative papers (Bibliog. 332, 333) were published in the Proceedings. Krebs continued to work on isolated liver cells until shortly before his death (see D.513, D.514). See also D.534-F.539.		
D.188	Notes, drafts, data, mainly by Krebs, a few by Egg 'Cellularity determination', 1963.	gleston, on	
D.189	Notes, drafts, research ideas and narratives on live various dates 1966-67. With original folder labe permeability'.		
D.190	Brief notes and references, 1970.		
D.191	Notes and drafts, 1972.		
D.192	Extensive notes and drafts, 1973. Includes brief coforwarding results.	orrespondence	
D.193-D.195	Experimental data, results, calculations, by Krebs mainly on the 'lysine effect', probably for paper at (Bibliog . 332).		
D.193	November-December 1972. In original folder labe exp. Nov-Dec 1972'.	lled 'Early lysine	
D.194	January 1973.		

April 1973. In original folder labelled 'Copenhagen Material'.

D.196-D.199	Material on the preparation and use of isolated liver cells as experimental material, probably for paper at Benzon Symposium (Bibliog. 333).
D.196	Krebs's notes and drafts, some dated January 1973.
D.197	Continuing notes and drafts, various dates March-September 1973. Includes sketches and diagrams for equipment, and photographs. In original folder labelled 'Isolated liver cells paper'.
D.198	Miscellaneous drafts, tables, figures, etc. for papers on isolated liver cells, n.d.
D.199	Photographs of liver cells, December 1973 and January 1974 (the latter with identifications and comments by Krebs on verso).
D.200	Continuing notes and drafts by Krebs, various dates, August 1975– April 1977. Draft of February 1977 is headed 'Material for Paris Talk'.
D.201-D.203	Correspondence with colleagues and information on isolated liver cells, 1972-73.
D.201, D.202	Berry, M.N. (a principal collaborator in the use and preparation of isolated liver cells). Includes some data and drafts. Two folders as follows:
D.201	October 1972-April 1973.
D.202	June-August 1973. Includes drafts for papers on preparation techniques, and comments by Berry on draft version of <u>Bibliog</u> 333, with Krebs's marginal comments.

D.203

Cohen, P.P.

1972

Francis, M.

1973

Jones, M.E.

1972

Ontko, J.A.

1973

Raijman, L.

1972

Krebs's carbon only

Schreiber, G.

1972

D.204

Programme and List of Participants for the Alfred Benzon Symposium VI on 'Regulation of Hepatic Metabolism', Copenhagen 20-24 May 1973.

Also included here are offprints of publications by Krebs <u>et al</u> (Bibliog. 321, 332, 333).

D.205

Background material, some annotated.

D.206

ASPARTATE

c.1964

Notes and tables on 'Some effects of aspartate ... on rat-brain cortex slices', prepared by G. Massieu during his period of work in Krebs's laboratory.

D.207

RESEARCH PROBLEMS

1964-67

Drafts and notes, most headed 'Experiments to be done', 'Problems for investigation', etc., and some with names or initials of research workers allocated to specific projects. Various dates, April 1964–July 1965.

The last note is headed 'Reg' (Hems) and includes, as well as experiments to be undertaken, the instruction 'Arrange for the transport of equipment from South Parks Road to the Radcliffe' (1967).

D.208

DRUG-INDUCED DIABETES

1965

Mainly correspondence with pharmaceutical firms and suppliers, and a little background material, on drug-induced diabetes with special reference to diuretics of the benzthiadiazine series.

D.209

CALORIC HOMEOSTASIS

1965

Brief ms. notes and annotated printed matter, kept in separate folder so inscribed by Krebs.

D.210-D.222

ALANINE

1965-73

The material relates to publications in 1966 with B.M. Notton and R. Hems (Bibliog. 235) and in 1973 with R. Hems and P. Lund (Bibliog. 322, 323). Most of the original folders were labelled 'Alanine' or 'Alanine dehydrogenase'.

D.210

Shorter notes and drafts, 1965, and undated, in various hands including Krebs, B.M. Notton and others. Also included is reprint of <u>Bibliog</u>. 235.

D.211

Notes and drafts 1967. Includes draft dated March 1967 for a proposed paper by Krebs, B.M. Notton and M. Stubbs on 'Stimulation of gluconeogenesis from alanine by phlorrhizin treatment in mouse kidney'. Not listed in the Bibliography.

D.212

Brief notes, tables for paper, 1968.

D.213

Notes, drafts, correspondence <u>re</u> supply and culture of <u>Bacillus cereus</u> and <u>Bacillus subtilis</u> for work on alanine dehydrogenase, April-July 1970. Includes reports on cultures processed at Imperial College, London, and at Microbial Research Establishment.

D.214	Continuing notes and drafts, May-December 1970.
D.215	Continuing notes and drafts, 'discussions with Reg (Hems) and Pat (Lund)'. Includes 10pp. heavily-corrected draft 'For Biochem. J.' dated 21 May. Various dates, January-October 1971.
D.216	Continuing notes and drafts, May-September 1972, and January 1973.
D.217	Undated ms. notes and drafts.
D.218	Results, tabulated data, etc., some by Hems and Lund, most annotated by Krebs.
D.219	'Accumulation of amino acids by the perfused rat liver in the presence of ethanol'.
	Heavily-corrected ms. and typescript draft with a ms. note 'Draft for final copy for B.J.' (Bibliog. 322).
D.220	'Regulatory mechanisms in the synthesis of urea'
	Heavily-corrected ms. and typescript draft for paper by Krebs, Hems and Lund (Bibliog. 323).
D.221	Miscellaneous drafts for lectures and papers, kept with above.
D.222	Background material, bibliographical references.

D.223-D.238 REDOX STATE

1965-76

Contents of a box labelled 'Redox State / Wilson et al. / Marion et al'. The reference is to <u>Bibliog</u>. 328, but Krebs lectured widely and published many collaborative papers on the redox state, several of which are referred to or included.

Notes and data

D.223-D.226 Notes, drafts, experimental results, etc. for work with T. Gascoyne on rat liver homogenates (Bibliog. 260), by Krebs and Gascoyne, 1966-67.

D.223 Notes, drafts, results, comments by Krebs. Various dates, April-October 1966.

D.224 Similar material, February-July 1967 and undated.

D.225 Experimental data by Gascoyne, most with comments by Krebs, January-April 1967.

D.226 'The redox state of the nicotinamide-adenine dinucleotides in rat liver homogenates'

Heavily-corrected ms. and typescript draft (Bibliog. 260).

D.227-D.229 Notes, drafts, correspondence, etc. relating to collaborative paper published in <u>Biochem. J.</u>, 1974 (<u>Bibliog</u>. 328).

Notes, drafts, ideas by Krebs.

Three folders as follows:

D.227 1965, 1966

D.228 1969-73

D.229 Undated

Correspondence with colleagues and collaborators,	1971-76
---	---------

D.230 Harris, E.J. 1971

Includes related draft papers and printed matter.

D.231 Erecińska, M. 1973-74

D.232 Tager, J.M. 1975

Wilson, D.F. 1975

Includes related printed matter.

D.233 Notes of discussions with collaborators, 1976. Note on 'Wilson's results'.

Publications

D.234 Multiple drafts (all with variants) and comments, for paper (Bibliog. 328) under its original title 'Thermodynamic Relationships between the Oxidation-Reduction reactions and the ATP synthesis in suspensions of isolated liver cells'.

In Krebs's folder labelled 'Dave, Maria et al'.

- D.235 Earlier drafts for sections of paper, figures, etc.
- D.236 Typescript draft for paper with M. Stubbs, titled 'Effect of uncouplers of oxidative phosphorylation on the redox-state of the hepatic nicotinamide adenine dinucleotides', with ms. note 'p.15-16 missing'. See D.307.
- D.237 Offprints of some of Krebs's publications on the topic (Bibliog. 260, 268, 284, 328), kept with material.
- D.238 Background material, some annotated.

D.239, D.240

INTRACELLULAR pH

1966-71

D.239

Notes, drafts, notes on the literature, of discussions. Various dates, 1966-71.

There is a fairly substantial draft, with tables and references, apparently for a proposed paper (3 November 1970) and also of 'Discussion with Roughton' (24 November 1970).

In Krebs's original folder.

D.240

Printed matter, bibliographical references, some annotated.

D.241

ADIPOSE TISSUE

1967

Drafts, notes, correspondence, experimental data by L.V. Eggleston. The work arises mainly from articles submitted to Krebs for comment by B.B.A., Biochem. J., and includes correspondence with authors. January-April 1967.

In Krebs's original folder.

D.242

ROTENONE AND KETOSIS

1967

Notes and drafts on the ketagenic effects of amytal and rotenone, with a ms. note 'Further Work on Rotenone and Ketosis'.

D.243

NUTRIENTS

c.1967

Miscellaneous typescript and ms. tables, drafts, etc. mainly on growth rates and nutrients.

Also includes note of 'Discussions with R.A. Freedland', July 1967, on his proposed research on urea synthesis under different nutritional conditions.

D.244

CARNITINE

1967, 1969

Notes and drafts on metabolic effects of carnitine.

D.245

HEPATOTOXIC AGENTS

1967-68

Notes, drafts, correspondence, and a little annotated printed matter, on the toxic effects of pyrrolizidine alkaloids.

In Krebs's original folder.

D.246

HUMAN LIVER DATA

1967-68

Data, notès, correspondence, related printed matter, on various enzyme levels in human liver. In Krebs's original folder.

D.247-D.249

KETOGENESIS REGULATION OF TCA CYCLE

1968

Contents of a folder so inscribed.

Notes, drafts, data, correspondence, relating to work with W. Feldheim at Oxford.

D.247

Notes, drafts, summary of Feldheim's research, notes for discussion

etc., by Krebs, 1968.

D.248

Notes, experimental results, tabulated data, by Feldheim, with

many annotations and revisions by Krebs.

In original folder.

D.249

Correspondence with Feldheim, draft of paper and tables.

D.250

EXTRAHEPATIC KETOGENESIS

1968-69

Notes, drafts, ideas for experiments, several in bundles addressed to 'Len' (Eggleston), and including results, tables and drafts by Eggleston on 'Ketone body synthesis in rat heart homogenate'.

In Krebs's original folder.

D.251-D.253

ALCOHOL IN ANIMALS

1968-70

Contents of a folder so inscribed, perhaps related to collaborative paper with J.R. Perkins (Bibliog. 287). Krebs also gave a short broadcast talk on the subject in December 1969.

D.251

Notes and drafts on 'Rumen', 'Alcohol production by fauna', etc., 'Table of Contents' for proposed paper, miscellaneous information, press-cuttings, etc.; various dates, 1968-70.

D.252

Draft material for 'unrehearsed interview' for broadcast on 'The Living World', December 1969. 6pp. See also H.280.

D.253

Correspondence, requests for information on intoxication in animals, 1969.

D.254

HOMEOSTASIS

1968-71

Notes and drafts, most headed 'Caloric homeostasis' and dated May 1968 but includes some experimental data by L.V. Eggleston 1971. Includes 9pp. draft summary of research on subject, 1p. list of 'Matters which should be included in the paper', and brief correspondence.

Krebs published a collaborative paper on the subject in 1971 (Bibliog. 305).

	Research
D.255-D.261	METABOLISM OF ACETALDEHYDE 1968-77
	Krebs's research notes and data begin in 1968, but the bulk of the material is correspondence and drafts exchanged with E. Fellenius who worked in Krebs's laboratory on the subject, April-August 1969 and for shorter periods subsequently.
D.255	Notes and drafts by Krebs, data and results by L.V. Eggleston and R. Hems, various dates 1968-69, 1977.
D.256	Correspondence with colleagues, 1968-69.
D.257	Correspondence <u>re</u> visit by Fellenius, 1969. Includes arrangements, statement of proposed research programme.
D.258	Fellenius's report on his work at Oxford, September 1969.
D.259	Correspondence with Fellenius, 1970.
	Includes results, discussions on research, etc.
D.260	Correspondence, 1971-72
	Includes arrangements for visit by Fellenius, etc. Krebs's note of 31 November explains why he felt unable to sign as co-author of paper by Fellenius and KH. Kiessling.
D.261	Draft paper, sent to Krebs by Fellenius, March 1971.
D.262-D.266	RATE CONTROL OF TCA CYCLE 1968-69
D.262	Notes and drafts, various dates November 1968-November 1969. Several are headed 'Indianapolis' and the work relates to the lecture Krebs gave on 'Rate control of the tricarboxylic acid cycle' (Bibliog. 286).

In Krebs's original folder.

D.263
Undated notes and drafts, some headed 'Indianapolis' or referring to preparations for the lecture. Includes draft 'Comments on Indianapolis lecture' and Krebs's correspondence requesting information.

D.264 Draft for lecture, 15pp. typescript and ms. (lacks p.1) with an extra ms. page of concluding notes ending 'thank you for your endurance after two very arduous working days'. No date or place.

D.265 17pp. typescript and ms. draft lecture, headed 'Bristol March 1969'.

D.266 Background material, some annotated.

D.267-D.271 METABOLISM OF WORKING HEART

1969-72

Notes, drafts, data, correspondence relating to collaborative work on the metabolism of working and non-working heart, with L.H. Opie, K.R.L. Mansford, P. Owen, R. Hems, M. Spry. The various types of material are so closely interlinked that they are presented as a simple chronological sequence with no attempt at separation.

D. 267 June-December 1969

D.268 1970

D.269 January-June 1971

D. 270 April-May 1972

D.271 Undated notes, background material, bibliographical references. Includes 4pp. typescript note on 'Rate control of tricarboxylic acid cycle' and a proof with ms. corrections of Krebs's paper on the subject (Bibliog. 286).

.D.272-D.274	MITOCHONDRIA		1969-71
	Research notes, correwith E.J. Harris.	espondence, drafts, etc.	., mainly exchanged
D.272	1969-71 Includes dated May 1962.	an early note by Krebs o	on 'Substrate competition'
D.273	1971		
D.274	Extensive background	d material, some annota	ted.

D.275-D.288

INBORN ERRORS OF METABOLISM / HYPERAMMONAEMIA / ORNITHINE TRANSCARBAMYLASE DEFICIENCY 1969-75.

Krebs lectured regularly on disorders or special aspects of metabolism to students in the Oxford Medical School. One of these lectures, on Sir Archibald Garrod, the history of the Whitley Professorship of Biochemistry, and the formation of the concept of inborn errors of metabolism, was published in 1970 (Bibliog. 291). Notes and drafts for these lectures are at D.275-D.279.

In 1970 a case was notified to Krebs of the specific metabolic disorders of hyperammonaemia and ornithine transcarbamylase deficiency. He studied the case in collaboration with medical colleagues on the staff of the United Oxford Hospitals (as they were then known) and prepared a paper for publication in Archives of Disease in Childhood. This material is at D.286. The paper was not published.

See also D.391.

Notes and drafts for lectures

D.275 Variously paginated notes and drafts, some dated 1969, 1970, for lecture on Garrod and the history of inborn errors of metabolism (Bibliog. 291).

D.276

Notes, drafts, time-tabling, material for three 'Bridge Course' lectures on 'Special Aspects of Diseases of Metabolism', 15-17

November 1971.

D.277 Notes and drafts for 'Bridge Course' lectures on inborn errors, March 1973.

D.278 Brief notes for 'Bridge Course' lectures, December 1973, and short introduction for December 1974 and February 1975.

D.279 Brief correspondence, lecture schedules and notes, 1972, 1975.

	Hyperammonaemia case
D.280	Correspondence with colleagues on diagnosis, treatment, arrangement to demonstrate, 1970-72.
D.281	Data and notes, by Krebs and others, 1970-71.
D.282	Krebs's notes and drafts. Mainly 1973-75, but includes some earlier notes (1963) on dietary treatment of ammonia intoxication.
D.283-D.286	Variously paginated notes and drafts for lectures and publication on the case.
D.283	Notes for lecture or demonstration, various dates January-February 1971 (in Krebs's order, not chronological). The note for 29 January describes his personal interest in the case as a link with his experience in 1931 'as a clinician at Freiburg University with full responsibility for patients'.
D.284	Miscellaneous notes, some dated July 1971 and headed 'Ciba'.
D.285	Shorter drafts, 1972, 1973, and undated.
D.286	Various drafts, in typescript and ms., some by Krebs or with ms. corrections by him and by others, some dated 1974, 1975; with brief correspondence re submission of paper to Arch. Dis. Childh.
D.287	Bibliographical references. In Krebs's folder inscribed 'Literature. Inborn Errors'.
D.288	Extensive background material, some annotated by Krebs.

D.289

GLUCOSE FFA CYCLE

1970

Brief notes, ideas for research and discussion on 'is there a glucose homeostasis separable from caloric homeostasis?', correspondence. Various dates, October-December 1970. In Krebs's original folder.

D.290

HORMONES AND GLUCONEOGENESIS

1970

Brief notes and drafts, December 1970. In Krebs's original folder.

D.291

INTERMEDIATE LIVER METABOLISM

1970-72

Notes, drafts, data and results by R. Hems, with Krebs's annotations, various dates, December 1970, July 1972. In Krebs's original folder inscribed 'Sauer', the work being developed from a paper by F. Sauer et al published in Eur. J. Biochem. 17, 1970, a copy of which is included.

D.292, D.293

PASTEUR EFFECT

1970-71

D.292

Notes and drafts, various dates, October 1970-December 1971. In Krebs's original folder inscribed 'Pasteur Draft' and perhaps related to the paper he published in 1972 on 'The Pasteur effect and the relations between respiration and fermentation' (Bibliog. 316, German version Bibliog. 312).

D.293

Background material, almost all annotated by Krebs.

	Research	
D.294-D.304	AMINOTRANSFERASES	1970-72
	The work was conducted in collaboration with L. Two draft papers were in preparation (D.302, D. also used the material for one of his lectures at I (D.298-D.301).	.303) and Krebs
	Research notes and drafts	
D.294	Discussion notes and correspondence with M.F. Included here are some earlier notes (October-N of discussions with Utter on pyruvate carboxylase	ovember 1968)
D.295	Drafts, data, results, narratives, mainly by Krel Eggleston, January-November 1970.	os but some by
D.296	Similar material, but including many results, drawing by Eggleston, and mainly on lysine metabolism, 1971, April 1972. In Krebs's original folder in Aminotransferases'.	January-September
D.297	Miscellaneous shorter undated notes and drafts.	
	Drafts for lectures and papers	
D.298-D.301	Ms. and typescript drafts for a paper, to be give	en at Indianapolis.
D.298	9pp. ms., headed 'Indianapolis. Amino acid'.	
D.299	6pp. typescript and ms. 'Regulation of the suppacids', dated 22 June 1970.	ly of essential amino
D.300	7pp. ms. 'Organ Distribution of Aminotransfera	ses', n.d.
D.301	20pp. typescript 'Regulatory Mechanisms in Ma Metabolism' (slide lecture).	mmalian Amino Acid

- Drafts for two papers by Eggleston and Krebs. D.302, D.303
- Induction and depression of rat liver aminotransferases', D.302 'Paper A. 12 April 1972.
- D.303 Comparative activity of aminotransferases in rat and human tissue', 19 April 1972.

Both in Krebs's original folder inscribed by him with Eggleston's initials and the titles of both papers. The papers were not published, but part of the work was used in Bibliog. 310.

D.304 Background material.

- 1971 OXIDATIVE PHOSPHORYLATION D.305-D.307
- Drafts and notes, mainly 1971. D.305
- Correspondence and results from R.L. Veech, 1971. D.306
- D.307 'Effect of uncouplers of oxidative phosphorylation on the redox-state of the hepatic nicotinamide adenine dinucleotides'.

Three drafts for a paper so titled, by Krebs and M. Stubbs, two with extensive ms. corrections mainly by Krebs, but some by M. Stubbs, and final typescript draft ready for submission. The paper was not published but some of the material was published in 1979 by M. Stubbs in Pharmac. Ther., 7, 329-350 under the title 'Inhibitors of the adenine nucleotide translocase'. See D.236.

D.308, D.309	KETONE BODY METABOLISM IN DIABETES 1971
	Notes, drafts, etc. arising from work on the subject by N.B. Ruderman.
D.308	Krebs's notes, points to be discussed with Ruderman, correspondence with Ruderman, 1971.
D.309	Notes, drafts, tables, with ms. corrections by Krebs and others.
D.310	ADIPOSE TISSUE 1971
	Notes, drafts, bibliographical references, some dated 1971; probably arising from papers submitted for publication in FEBS Letters, some of which are included in the folder.
D.311-D.313	REDOX STATE IN BACTERIA 1971-72
D.311	Notes and drafts, various dates, May-July 1971, and 1972. Includes brief correspondence with colleagues.
D.312	Krebs's previous publications on subject (Bibliog. 245, 276, 285).
D.313	Background material.
D.314-D.316	REVERSIBILITY OF RESPIRATORY CHAIN 1971-74
	Contents of a folder so inscribed.
D.314	Notes and drafts, some dated 1971, 1974.
D.315	Draft for paper 'Can the mitochondrial respiratory chain be considered as a system which approaches equilibrium', not by Krebs, but with ms. comments and corrections by him. pp.25-65 with two appendices. Some pages dated 1973. Perhaps related to Bibliog. 328.
D.316	Correspondence and data from colleagues.

R.L. Veech, 1971 D.F. Wilson, 1973

D.317	ALCOHOL METABOLISM IN LIVER	1971-74
	Shorter drafts and notes, some dated 1971, 1974.	
D.318-D.329	RETINAL METABOLISM	1971-72
	Notes and drafts	
D.318	Stapled folder of notes, bibliographical references, literature, 3pp. ms. outline for research project on bolism. Some by Krebs but mainly in another hand R.A. Hawkins.	retinal meta-
D.319	Notes, drafts, research data, tabulated results, by R. Hems, some dated August 1971-February 1972. inscribed 'Eye Material'.	
D.320	Similar material, for work on 'Avian (and other) Refor collaborators, draft tables, data and results by some dated October 1971-November 1972.	
D.321	Bibliographical references and notes on the literatu	re, by Krebs.
	Lectures and publications	
D.322	'The Energy Metabolism of the Retina'	
	Drafts for a paper by Krebs and R. Hems, with R.A appearing as a collaborator on later versions.	. Hawkins
	3 drafts, all with different ms. corrections and add 3pp. references, tables 1-12. p.l dated February inscribed 'Retina Draft'. The paper was not publis	1972. In folder
D.323	'Ultrastructure of the avian retina. An anatomica retina of the domestic pigeon' (Bibliog. 315).	I study of the
	3 drafts, all with different ms. corrections and add The second draft is dated February 1972; the third paper by Krebs, Hawkins and Hems, 1972 (D.322 a preparation'.	refers to the

D.324	Miscellaneous notes, slide-list, etc. for a lecture on retinal metabolism, given in various locations listed on folder (Hull, Southampton, Jerusalem, University College London, Rehovoth, Leicester, Oxford Eye Hospital).	
D.325 Miscellaneous pages for a lecture on the subject,		cture on the subject, in German.
	Correspondence and informat	ion from colleagues.
D.326	Berman, E.R.	1971
	Hawkins, R.A.	1972
D.327	Michaelson, I.C.	1971-72
		h notes and ideas, notes of discussions ous occasions in 1972, etc.
D.328	Vail, W.J.	1971
	Includes research notes,	references, related printed matter.
D.329	Background material, some a	nnotated by Krebs.
	*	
D.330	SALINE MEDIA	1971, 1976
	Ms. and typescript notes and	drafts, various dates, 1971, 1976.

D.331-D.341 CALORIMETRY

1971-78

Correspondence with colleagues and manufacturers, notes, drafts, results, etc. on the development of microcalorimetry for biological research. The material is presented as a chronological sequence, including research papers or reports sent to Krebs, in order to preserve the various contacts, visits and inter-related projects involved in the furtherance of the research.

T.H. Benzinger, correspondence with whom from 1971 contributed to Krebs's involvement in the work, had worked in Krebs's department 1955-57. His principal collaborators at that time had been R. Hems and Kitzinger, and three papers were published in 1956 and 1959 (2).

The chief correspondents in the present sequence are:

- G.T. Armstrong, National Bureau of Standards, Washington D.C.
- T.H. Benzinger, National Bureau of Standards, Maryland
- R.L. Berger, University of California
- H.U. Bergmeyer, C.F. Boeringer GmbH, Germany
- G.P. Burn, Department of Clinical Biochemistry, Radcliffe Infirmary, Oxford
- K. Burton, University of Newcastle
- E. J. Prosen, National Bureau of Standards, Washington D.C.
- D.331 March-May 1971
- D.332 June-October 1971
- D.333 1972

Includes arrangements for demonstrating Bureau of Standards calorimeter in Krebs's laboratory, arrangements for him to consult regularly on project at National Bureau of Standards, Washington, grant application, etc.

D.334 1973

Correspondence, results, discussion notes, list of participants at conference on Microcalorimetric Investigations, Lund, July.

D.335	March-June 1974
	Collaborative work, discussion of results and papers, with E.J. Prosen and K. Burton.
D.336	July-December 1974
	Correspondence, notes, related printed matter.
D.337	1975-76
	Mainly Krebs's notes and drafts, some results by G.P. Burn.
D.338	1977
	Includes miscellaneous drafts for paper by Prosen on microcalorimetric studies.
D.339	Reports on microcalorimetry by G.P. Burn, nos.4-9, 12-14, various dates, 1975-78.
D.340	Correspondence with suppliers, quotations, manufacturers' literature.
D.341	Background material.
D 040	ACETYLOUIT ALLATE
D.342	ACETYLGLUTAMATE 1972
	Shorter notes and drafts.

D.343 UREA CYCLE 1972

Miscellaneous notes and drafts, probably for lectures at Kansas City and Indianapolis; some pages dated 1972 (perhaps draft for Bibliog. 323).

	Research
D.344-D.348	AMINO ACID ANALYSES IN LIVER CELLS 1972-74
	Several of Krebs's original folders on this subject are headed 'Schimassek' and refer to research findings by H. Schimassek (q.v.) which Krebs developed.
D.344	Correspondence with colleagues, 1972-73.
D.345	Notes and research ideas, 1973.
D.346	Experimental data and results, mainly by R.C. Farrell, some by D. Wiggins, several annotated by Krebs or interleaved with his comments or suggestions, various dates, 1972.
D.347	Similar material by Farrell, Wiggins and Hems, interleaved with notes by Krebs, various dates, 1973, and a little material 1974. An extensive folder.
D.348	Background material.
D.349-D.358	GLUCONEOGENESIS AND UREA SYNTHESIS 1972-74
	Data and drafts by Krebs and collaborators (M. Stubbs, P. Lund, D. Wiggins) on various factors in urea synthesis, leading to the chapter contributed by Krebs, Lund and Stubbs on 'Interrelations between gluconeogenesis and urea synthesis' in Gluconeogenesis (ed. R.W. Hanson and M.A. Mehlman) 1976 (Bibliog. 347).
	Research data and results
D.349	'LIVER PERFUSIONS. UREA SYNTHESIS'
	Folder so inscribed (in the hand of M. Stubbs). Extensive data, graphs, results, in various hands, many with annotations by Krebs. Various dates, mainly 1972, but a few 1974.
D.350	'GLUCONEOGENESIS AND UREA SYNTHESIS. EGG WHITE DIET. MEAT DIET. NORMAL FED'
	Folder so inscribed (in the hand of M. Stubbs). Similar material, 1973 and 1974
D.351	Similar material, found as loose papers, various dates, 1973 and 1974.

Notes and drafts for paper (Bibliog. 347)

These are extensively revised and corrected, mainly by Krebs, but some by M. Stubbs, and may incorporate similar data to that above. Several have a ms. indication 'Lardy Festschrift', 'Lardy Volume', etc.

D.352 1972

D.353 1973

Notes for June-July incorporate correspondence and discussions with L. Raijman and M.E. Jones.

D.354 October 1974

D.355 November 1974

D.356 December 1974

D.357 Miscellaneous undated notes, drafts, tables, etc.

D.358 Background material.

D.359-D.372 PENTOSE-PHOSPHATE CYCLE

1972-74

Krebs's chief collaborator in this work was L.V. Eggleston, who died in January 1974 when their collaborative paper (Bibliog. 327) was in the press. Another collaborative paper (Bibliog. 329) was published in the same year. In addition, Krebs gave several lectures and papers on the subject in Britain and abroad (see D.369-D.371).

The main bulk of the research notes and drafts are 1972-74, but see D.359 for some of much earlier date.

Research notes, drafts, discussions

D.359 1949 (1p. only), 1967 (1p. only), August-December 1972

D.360 1973

D.361 1974

D.362 Undated, mainly by Krebs, a few by Eggleston.

D.363 Experimental results, data, tables, drafts, summaries, mainly by Eggleston, with comments or annotations by Krebs. Various dates, December 1972-September 1973. In Eggleston's original folder.

Lectures and publications

- D.364, D.365

 'Regulation of the pentose phosphate cycle' (Bibliog. 327)

 Extensive drafts by Eggleston and Krebs. In Eggleston's original folder.
- D.365 Comments on paper, editorial correspondence with Biochem. J. re referees' comments, offprint of published paper.
- D.366-D.368 'The regulation of the pentose phosphate cycle in rat liver' (Bibliog. 329).

Various drafts and versions for lecture at Indianapolis, subsequently published.

- D.366 Typescript and ms. draft by Krebs and Eggleston, with a ms. note 'File away 2.5.74.'
- D.367 Typescript with ms. corrections, with a ms. note 'Use this for lecture'.
- D.368 Typescript with ms. corrections, with a ms. note 'Corrected copy'; list of references; proof of publication, with corrections.

D.369 Symposium on Aspects of Metabolic Regulation, University of Bristol, 15 February 1974.

The Symposium was organised by P. J. Randle. Krebs gave the last paper (on 6-Phosphate Dehydrogenase) and 'concluding comments'. Folder includes correspondence with organiser, programmes, list of participants, 12pp. draft for lecture, ms. notes for concluding comments.

D.370	1p. ms. notes for lecture at Madrid, of Bristol lecture).	20 May 1974 (using material
	15pp. draft for lecture in German at (using material of <u>Bibliog</u> . 329),	t Düsseldorf, 24 May 1974
D.371	Notes for visit to Washington (not dated), including tables for lecture on pentose phosphate cycle.	
D.372	Background material, bibliographic	I references, some annotated.
D.373-D.378	6-AMINO-NICOTINAMIDE	1972-77
	Notes, drafts, data, discussions	
D.373	1972, 1974 (several arising from discussions with H. Herken).	
D. 374 1976-77. Includes data by D. Wiggins.		gins.
	Correspondence with colleagues	
D.375	Harris, R.A. Includes data, results, etc.	1975-77
D.376	Herken, H.	1972-76
D.377	McLean, P.	1977
D.378	Extensive background material, some	e annotated.
D.379	COMPETITION BETWEEN SHORT- AFATTY ACIDS IN PERFUSED RAT LIV	
	Report so titled, tables, etc. by J. Medina's title on the folder has been competition between acetate and old	n amended by Krebs to 'On

competition between acetate and oleate in perfused rat liver'. n.d., but Medina worked in Krebs's laboratory in summer 1973.

D.380

SULPHONAMIDES

1973-74

Drafts, notes, data on sulphonamides and sulphanilamide. Includes experimental results by D. Wiggins with comments by Krebs. Various dates, November 1973-January 1974.

D.381

FLUOROCARBONS

1973-74

Background material only, some annotated with reference to fluorocarbons as blood substitutes.

D.382-D.395

OVER-MEDICATION

1973-78

This topic became one of Krebs's principal concerns in later life. Most of his own notes, drafts and annotations are headed 'Overmedication' but later the more technical term 'latrogenic' was used, e.g. for the section which Krebs incorporated in the Dunham Lectures (D.459 et.seq.).

For additional material about Krebs's involvement see Special Commission on Internal Pollution in Section G and J.599, J.600.

Research notes and information

D.382

Notes and drafts by Krebs, various dates, 1974.

D.383

Undated notes, many with accompanying press-cuttings.

D.384

Specimens of multiple prescriptions, from Radcliffe Infirmary, Oxford.

D.385

Correspondence from colleagues forwarding information:

Clarke, C.A.

1975

Sicé, J.

1973

Smith, D.G.

1978

D.395

Research

Lectures and pu	blications
-----------------	------------

D.386 Drafts for article, variously titled 'The Dangers of Over-Medication' and 'On the Mis-Use of Drugs', and published as 'On the overuse and misuse of medication', in Executive Health, 1974 (Bibliog. 334). First draft dated 12 August, second dated 2 September 1974. D.387 Two other drafts, with different corrections and revisions. Folder also includes copy of paper as published. 'Abuse of Drugs (The Hidden Danger)' D.388 Brief drafts, December 1973-January 1974, with a note 'Possible lecture subject for Indianapolis 1974'. 'Material used at a lecture at Hanover on 27 April 1974' (text in D.389 German). D.390 Ms. and typescript drafts for a lecture in German on over-medication. This was in fact the second of two subjects on which Krebs announced his intention to lecture. The first topic was hyperammonaemia (see below). Ms. and typescript draft for lecture in German on hyperammonaemia. D.391 'Overmedication' D.392 19pp. typescript lecture, with a note 'Philadelphia Oct. 1974, Oxford Bridge Course Dec. 1974'. D.393 Drafts for talk at Oxford on overmedication, probably in Department of Clinical Pharmacology, April 1975. Miscellaneous drafts and notes for talk on carcinogenic agents, n.d. D.394

Extensive background material.

1 box.

D.396 CRASSULACEAE

1974

Discussion note on possible collaborative research project with F.R. Whatley, correspondence, background material, February-April 1974.

CARNOSINE D.397

1974

Brief notes and background material.

D.398, D.399 SHUTTLES AND CARRIERS 1974

D.398 Notes and drafts on various factors in metabolic transport (malate, pyruvate, alanine, lactate, etc.), mainly January-February 1974,

but includes letter from colleague on subject, 1972.

D.399 Background material.

HYPERLACTATAEMIA AND LACTIC ACIDOSIS D.400-D.408

1974

Notes and drafts mainly related to work on collaborative paper by Krebs, H.F. Woods and K.G.M.M. Alberti, published under this title in the first issue of Essays Med. Biochem., 1975 (Bibliog. 337).

Includes some earlier notes of the 1960s.

D.400 Shorter notes and drafts 1963, 1964, 1968.

D.401 Extensive drafts and notes for 'essay', by Krebs or by collaborators,

with extensive revisions by Krebs, January-February 1974.

D.402 Continuing drafts, March-April 1974.

Continuing drafts, July-September 1974. D.403

D.404 Undated notes and drafts.

D.405	Extensive bibliographical references.
D.406	Final draft for 'essay'. Typescript with very extensive ms. corrections.
D.407	Drafts for letter to <u>The Lancet</u> , July 1974, arising from a letter (June 1974) by R.A. Kreisberg (also referred to in 'essay'). The letter was not published (perhaps not sent).
D.408	Background material, some annotated.
D.409-D.414	RENAL AMMONIA 1974
	Notes, drafts, etc. mainly related to collaborative work with P. Vinay (q.v.) who worked in Krebs's laboratory 1973-75 (Bibliog. 338).
D.409	Notes and drafts, by Krebs and by Vinay, March-June 1974. Note of 24 June is headed 'Notes on Pitts conference'. Notes of 28 June are for 'Seminar - June 29' (probably at Oxford).
D.410	Continuing notes and drafts, July 1974.
D.411	Undated notes by Krebs and by Vinay.
D.412	Typescript and ms. draft for lecture on subject, referring to work with Vinay and also to work of R. Pitts and perhaps related to Pitts Symposium, June 1974. For Pitts symposium see F.259, F.260.
D.413	'Regulation of Renal Ammonia Production'. Typescript and ms. drafts for Bibliog. 338.
D.414	Background material. Includes copy of Bibliog. 233.

D.415-D.435 FOLATE / B₁₂ / METHIONINE / HISTIDINE 1974-78

Material on these inter-related topics was kept together by Krebs in one box so inscribed. He published several collaborative papers (Bibliog. 348, 350, 360) and the work is mentioned by Kornberg and Williamson as among the most important of his later research (Memoir, p. 377).

Notes and drafts

D.415 Indexed bundle of ms. and typescript notes and drafts, discussions with colleagues, research ideas and results, etc. Various dates, March-November 1975.

With typescript index (12 items, of which nos.6-10 are missing).

This is material similar to that kept as 'Indexed notes and memoranda' at D.46-D.100, but here kept with other loose pages of drafts and notes.

- D.416 Ms. and typescript notes and drafts, February 1974, January-June 1975.
- D.417 Continuing notes and drafts, July-December 1975.
- D.418 Continuing notes and drafts, 1976.
- D.419, D.420 Undated notes and drafts. Two folders.
- D.421, D.422 Notes and drafts, mainly on histidine, related to collaborative paper with R. Hems (Bibliog. 348).
- D.421 Experimenta! data and results, by Krebs and collaborators, various dates, January 1974.
- D.422 Extensive notes, drafts, tables, etc. by Krebs and Hems, some dated 1975, 1976, but also including earlier notes of discussions on histidine with N. Cornell, 1972 and 1974. Note of 23 January 1975 is on FIGLU as a substrate for glutamic dehydrogenase, later developed in Bibliog. 360.

Correspondence with colleagues

D.423 Scrutton, M.C.

1975, 1978

Correspondence 1978 includes arrangements and programme for Symposium and Workshop on 'Gluconeogenesis and Its Regulation', Oxford, September 1978. Krebs was Chairman, gave the 'Opening Remarks' and participated in the final general discussion. There are ms. and typescript drafts dated January 1978 headed 'Notes on the history of regulation of enzyme activity' perhaps intended for delivery at the Symposium (see also D.433).

Also included are drafts of papers by Scrutton on histidine, with comments by Krebs.

D.424

Sellinger, O.Z.

1976

Includes related printed matter.

D.425

Smith, R.M.

1975-76

Lectures and publications

D.426 'The Regulation of Folate and Methionine Metabolism', by Krebs, Hems and B. Tyler. Heavily-corrected typescript and ms. draft for Bibliog. 350 dated January 1976.

D.427 Offprints of Krebs's publications, <u>Bibliog</u>. 348, 350 (annotated and revised).

D.428 'Draft for the Lancet'

10pp. draft for article on cobalamine (vitamin B_{12}) deficiency. The article was not published and was perhaps not sent.

D.429 'Regulation of folate and methionine metabolism'. Ms. and typescript (incomplete) draft for lecture, 5 January 1976.

D.430 'Univ. College Chem. & Physical Soc'
4pp. ms. notes for lecture, 27 January 1976.

D.431 'Histidine metabolism and methionine'

Typescript and ms. draft with a ms. note 'Philadelphia', 14 September 1976.

- D.432 'History of the Study of Regulation of Metabolism'

 1p. ms. notes only, December 1977.
- D.433 Miscellaneous notes, April 1978, on control mechanisms at enzyme level, perhaps intended for symposium organised by M.C. Scrutton.
- D.434 Bibliographical references on folate and methionine.
- D.435 Background material, some annotated.
- D.436 PENTENOATE 1975

Notes and drafts by Krebs, experimental results and data by D. Wiggins on effects of pentenoate on urea synthesis; work arising from a paper by A.M. Glasgow and H.P. Chase, a copy of which is included. Various dates, March 1975 (some of Krebs's notes wrongly dated 1974).

D.437 L-GLUTAMATE TRANSPORT IN HEPATOCYTES 1975

Draft and diagrams for paper, by A. Kleinzeller annotated by Krebs, n.d.; bibliographical note by Krebs, October 1975.

- D.438, D.439 LACTATE 1975-76
- D.438 Notes and drafts on carbohydrate and lactate as fuels of respiration, September 1975.

Correspondence 1975, 1976 with A. Freminet including drafts of papers submitted for publication by Freminet.

D.439 Background material, some annotated.

D.440-D.444 METABOLISM OF BRANCHED-CHAIN AMINO ACIDS 1975-76

Drafts, notes, research material for lecture at Indianapolis and publication with P. Lund 'Aspects of the regulation of the metabolism of branched-chain amino acids' (Bibliog. 355). Most of the work is 1976 but see D.440 for earlier work by L.V. Eggleston.

D.440 Notes and results by Eggleston, 1970-71, with annotations and updating by Krebs.

D.441 Extensive notes and drafts, discussions with P. Lund, D.H. Williamson for Indianapolis lecture, July-November 1976.

D.442 Miscellaneous undated notes, drafts, tables, etc. for lecture and paper.

D.443 Bibliographical references, 1975-76.

D.444 Background material, some annotated.

D.445 CHICK ENTEROCYTES

1977

Experimental results and research reports by J.W. Porteous (with some annotations by Krebs), June 1977. Porteous worked in Krebs's laboratory January-September 1977.

D.446-D.449 PURINE SYNTHESIS

1977-81

Notes, drafts, research ideas, problems for collaborators, experimental results, etc., mainly by Krebs and D. Wiggins, but also by Hems and G. Livesy. Various dates, May 1977-October 1981 and undated; also some earlier material, 1969-70 (see D.446).

Related to Bibliog. 365, 393.

D.446 'The Physiological Role of Liver Alcohol Dehydrogenase'

Material used as a basis of lectures at various centres between September 1969 and May 1970; with a ms. note 'Uppsala, Indianapolis, Philadelphia, New York Columbia, Reading, Chelsea, University College, Washington DC, Manchester'.

(Kept with later material.)

D.447	1977-78	

D.448 1979-81

D.449 Background material and references, some annotated.

D.450 GLUCAGON AND INSULIN IN BIRDS 1978

Brief correspondence and notes, January-February 1978.

D.451-D.453 GLUTAMINE METABOLISM 1978-79

D.451 Ms. and typescript notes and drafts, diagrams, etc., a few only dated November 1978-October 1979, some probably intended for a lecture. Work related to Bibliog. 378, 381.

D.452 Bibliographical references.

D.453 Background material, including some draft papers by others, some annotated by Krebs.

D.454 CALCIUM CONCENTRATION IN SALINE 1979

Notes, drafts, background material, April 1979.

Also included are correspondence with H. Rasmussen, 1969, and papers by Rasmussen and Nagata, 1969-70, to which Krebs refers in his notes.

D.455-D.458	BENZOATE	1979-81
	The results of this collaborative work were n after Krebs's death, in <u>Biochem</u> . J., 1983 (E of his notes and drafts are of very late date.	Bibliog. 396). Many
D.455	Correspondence with A. Sols suggesting collethe topic, discussing results and drafts, etc. includes Krebs's letter to A.J. Sinskey requestarvard to discuss benzoate.	, 1979-81. Also
D.456	Drafts and notes, 1979-81. Krebs's latest do Work continues in the hand of D. Wiggins to	
D.457	Drafts and comments for published paper (Bib	oliog. 396).
D.458	Ms. and typescript draft for a slide lecture of Baltimore (ms. dated November 1979) and po- lecture, April 1981.	

D.459-D.511 EVOLUTION OF METABOLIC PATHWAYS

1979-81

The term 'evolution' is used ambiguously – as it was by Krebs – to cover the history or sequential tracing of metabolic pathways and more philosophical concepts of purpose and necessity; in this latter respect it forms a link with Krebs's ideas on 'Teleology' almost thirty years previously (D.101-D.111).

The immediate trigger for the work was an invitation in 1979 to give the Dunham Lectures at Harvard in April 1981. Krebs's original intention was to lecture on juvenile delinquency, but he was persuaded to choose a topic more closely related to his life's work in biochemistry. He turned his mind immediately to the ideas and material to be included (R. Hems, personal communication 1984) and envisaged the lectures as a summation of the thinking on metabolic processes which he had expressed in more piecemeal fashion in previous research projects and publications. His third lecture enabled him to include some discussion of social and moral evolution, or order in society, which had become of increasing concern to him.

During the lengthy gestation of the Dunham Lectures, Krebs took the opportunity to give several lectures, and to publish several papers on the subject. Among these was the collaborative article with J.E. Baldwin in Nature (Bibliog. 385);

Baldwin had suggested to Krebs in March 1980 an important reason why direct oxidation of acetate could not provide an alternative to the citric acid cycle, and Krebs acknowledged his help in other papers, as well as referring to it constantly in his notes, drafts and lectures. The Dunham Lectures themselves were not published, as Krebs died before he could complete the manuscript (see especially D.502-D.505).

The surviving material is very extensive and indicates the importance Krebs placed on the topic and his wish to explore it adequately. Many of the drafts overlap, were cannibalised for later work or extended to incorporate new ideas resulting from discussions, correspondence or reading. The allocation of material is therefore hazardous. It is presented here as follows:

D.459-D.473	Notes and drafts
D.474-D.490	Lectures, papers, publications
D.491-D.505	The Dunham Lectures
D.506-D.510	Correspondence
D.511	Background material

For further material on Krebs's visit to Harvard for the Dunham Lectures, see F.346-F.349.

For additional research notes and ideas, see 'D.94-D.96, and the 'jotters' for the relevant period.

Notes and drafts

In approximate chronological order; sequences kept together by Krebs on a particular topic have been retained (see, e.g., D.460, D.464, D.468, D.469). The importance to Krebs of his discussion with J.E. Baldwin on 30 March 1980 is very apparent from the notes.

- D.459 June, October 1979. Brief notes only. D.460 April 1980. Contents of a plastic envelope inscribed 'History', mainly notes and drafts arising from Krebs's discussion with J.E. Baldwin on 30 March. The two main topics are 'Comments on the oxidizability of acetic acid in living material' and 'The Evolution of the citric acid cycle and other metabolic cycles'; drafts for the latter are in a 'jotter' similar to those in Section A and there is also a ms. draft letter to Baldwin on the importance of his idea. D.461 April 18-30 1980. Includes 12pp. 'Comments on the evolution of metabolic cycles' as well as shorter notes. May 1980. Notes on 'Cycles' of 13 May incorporate earlier notes D.462 on 'Cyclic Processes' dated August 1971. D.463 June-August 1980.
- D.464 Contents of a plastic envelope inscribed 'Reaction Mechanisms'; various notes, drafts, calculations and diagrams, bibliographical references, a few dated April, October 1980.

D.465	September-December 1980. Includes notes arising from further discussions with Baldwin, comments on joint paper in Nature, etc.
D.466	January 1981
D.467	March-May 1981
D.468	Contents of a plastic envelope inscribed 'Evolution general. Creationism. Popper'; notes, drafts, background material, some dated May, June 1981.
D.469	Contents of a plastic envelope inscribed 'Multiple Use of Resources'; includes notes of discussion with G. Pontecorvo, June 1981.
D.470	June-August 1981
D.471	September, October 1981
D.472, D.473	Undated. 2 folders.

Lectures, papers, publications

D.474 'Cyclic Processes in Biology'

25pp. typescript draft, with a ms. note 'For Italian Encyclopaedia'; latest reference 1976. Not listed in Bibliography. See H.420.

D.475 'The Evolution of Metabolic Pathways'

Two typescript and ms. drafts, 19pp. with different annotations.

The talk was given as a slide lecture at Miami, November 1980; a set of slides, notice of lecture and letter of thanks from Freshman Student audience are included. One of the drafts is headed 'Edinburgh Reading', and the other 'Talk Edinburgh Meeting of Soc. Gen. Microbiol.' and has a ms. addendum. (The meeting was held in September 1981 and the paper was published in the Symposium Proceedings (Bibliog. 387).

Also included is a notice of two lectures given by Krebs in November 1980 at Medical College of Georgia, on 'The Evolution of Metabolic Cycles' and 'The History of the TCA Cycle'.

D.476-D.483	Lectures in German, on the evolution of the citric acid cycle and other metabolic cycles, given on various occasions November 1980-June 1981, at Halle, Göttingen, Düsseldorf, Lindau and possibly other locations. The texts are basically the same, but all have different ms. corrections, deletions, amendments, etc., and some have indications of where given. (SUPP. Bibliog. 62.)
D.476	'Halle 11.11.80'
	10pp. typescript and ms.
D.477	'Über die Evolution des Citronensäurecyklus und andere cyklischer Stoffwechselwege', with a note 'Halle script' and a 3pp. summary headed 'Lindau Halle Posted 1.5.81'
D.478	'Lecture Göttingen 27.5.80'
	Ms. and typescript drafts, and a letter, June.
D.479	17pp. typescript and ms. draft headed 'Dusseldorf Lindau'.
D.480	Another version, more heavily corrected.
D.481	12pp. typescript and ms. draft, heavily corrected, headed 'Lindau' and 'Use at München 1982'.
D.482	Typescript drafts of lectures on evolution of citric acid cycle (9pp.) and on evolution of citric acid and other metabolic cycles (12pp.). In German.
D.483	Miscellaneous shorter drafts for lectures in German, 1981.
D.484-D.486	Drafts and material for Nature article (Bibliog. 385).
D.484	Ms. and typescript version of article as first drafted by Krebs under his name only; sent to Baldwin with covering letter, October 1980.
D.485	Three versions of above, all with variations and alterations following discussions with or comments from Baldwin. Miscellaneous loose pages of amendments and corrections.
D.486	Draft with Baldwin's and Krebs's names. Reprint of paper as published, with copy of earlier paper (Bibliog. 387) marked with deletions and alterations to be used as basis for Nature article.

D.487 'Evolutionary concepts in biological thought'.

Originally given as a 'keynote' lecture and subsequently published (Bibliog. 386). Two versions, with different texts and corrections.

D.488 'The Evolution of Metabolic Pathways'.

Heavily-corrected draft of talk given at meeting of Soc. Gen. Microbiol., Edinburgh, 1981, prepared for publication (Bibliog. 387), 23pp.

Includes 3pp. summary sent to symposium organiser, October 1980, and brief note from J.R. Krebs commenting on the draft.

- D.489 Miscellaneous shorter drafts, notes, references.
- D.490 Reprints of Krebs's publications kept with material (<u>Bibliog</u>. 113, 293, 310, 351, 387).

The Dunham lectures. (Given at Harvard, 19, 21, 26 May 1981.)

The general title was 'Evolution and regulation of the metabolic pathways' and the topics covered were 'Why Cycles?, The Usefulness of the Evolutionary Process, Comprehension of Metabolic Organization'. The titles of the three chapters prepared for publication before Krebs's death were:

- The Evolution of the Citric Acid Cycle
- The Evolution of Other Metabolic Cycles
- 3. Linear Reaction Sequences
- D.491 Synopsis of all three lectures.

Miscellaneous drafts for introductory remarks.

D.492 'Lecture 1'

Multiple drafts, all with annotations, revisions, emendations, etc.

- D.493 Miscellaneous notes, drafts, tables, probably intended for first lecture. Includes 'Comment on biochemical evolution' in which Krebs discusses the use of the term, and his report on audience reactions to a previous lecture by him on the subject.
- D.494 'Lecture 2'

Miscellaneous ms. and typescript notes and drafts.

	Kesedicii	
D.495	'Lecture III'	
	Ms. and typescript notes and	drafts.
D.496-D.501	Notes and drafts intended for	Dunham lectures.
D.496	1980	
D.497	1981	
D.498	On iatrogenic medicine (refe	erred to in third Dunham lecture).
D.499	Unidentified.	
D.500	Slides, diagrams, comments of	on slides.
D.501	'Evolution, Harvard. Refs.'	
D.502-D.505	Drafts for proposed publication	on of Dunham lectures.
	See also D.507.	
D.502		narks, and first three chapters, sub- Press after Krebs's death, December 1981.
D.503	Draft figures and tables.	
D.504	Miscellaneous drafts as edite	d for book.
D.505	Editorial correspondence with The Sciences re proposed boo	n Harvard University Press and with k, 1981–82.
D.506-D.510	Correspondence	
	Including data, background r	naterial, notes of discussions in preparation
D.506	Blake, C.	n.d.
	Gest, H.	1979-81
D.507	King, P.	1980
	Newsholme, E.A.	n.d.
D.508	Paulus, H.	1981
		on evolution of the ornithine cycle n Krebs's book of the Dunham Lectures.

D.509

Quayle, J.R.

1980

Extensive notes, arrangements to meet, printed matter, etc.

D.510

Walsh, C.

1981

D.511

Background material

1 box.

D.512

CITRATE CYCLE

1980

Brief ms. notes only, mainly related to an article by P.J. Randle; a copy of the article (annotated by Krebs) with a covering letter from Randle, is included.

D.513, D.514

HEPATOCYTES

1981

Contents of folder inscribed 'Hepatocytes 1981'. The notes and drafts run June-October 1981 and represent some of Krebs's last work, on isolated liver cells and preparation techniques, based in part on an examination of methods described in papers by P.O. Seglen. A posthumous collaborative paper related to the work, 'The effect of cysteine oxidation on isolated liver cells', appeared in 1983 (Bibliog. 395).

D.513

Notes and drafts, June-October 1981 (last dated note is 26 October).

D.514

Undated ms. notes, folder of experimental data headed 'Seglen Comparison', 3pp. draft on 'Manipulation of isolated liver cells'. Also included are copies of earlier papers by Krebs on the subject, kept with the material (Bibliog. 347, 376).

D.515-D.548 MISCELLANEOUS NOTES

See the introductory note to Section D.

- D.515-D.529 A chronological sequence of dated material, 1950-81.
- D.530-D.546 An alphabetical sequence of material referring to specific research topics.
- D.547, D.548 Undated and unidentified notes.

Dated material (chronological)

D.515	1950, 1957	D.523	1975
D.516	1961, 1962, 1965, 1966	D.524	1976
D.517	1967-69	D.525	1977
D.518	1970	D.526	1978
D.519	1971	D.527	1979
D.520	1972-73	D.528	1930
D.521	1974	D.529	1981
D.522	1974-75 Miscellaneous tabulat by Krebs, D. Wiggins, R.C. M. Stubbs, R. Hems		

	Research topics (alphabetical)	
D.530	Acidosis	1975 and undated
	Aldolase	en.
D.531	ATP	
D. 532	Citrate Synthase	
D.533	Histidine and methionine	1974-77
D.534-D.539	Isolated liver cells	1974-78
	A substantial collection of material, related to or devergence from previous work on lysine but not kept with it.	veloping
D.534	Notes and drafts, by Krebs, D. Wiggins, M. Stubbs.	1974-75
D.535	Notes and drafts, mainly on staining methods with trypan blue.	1977-78
D.536	Drafts for paper given at Guildford (some pages dated June, July 1978). Two heavily-corrected typescript and ms. versions, one with title 'Criteria of metabolic competence of isolated hepatocytes' (Bibliog. 376).	
D.537	'An explanation for the inhibition of glucose synthesi by ethanol in isolated hepatocytes'	s from lactate
	Two drafts, one with extensive corrections in the hand for a paper so titled.	d of M. Spry,
D.538	Correspondence with T.F. Slater.	1976
D.539	Background material, some annotated.	
D.540	Ketone	1969-70 & undated
D.541	Krogh principle	1976
D.542	Mitochondria	1974 & undated
D.543	Mono-oxygenase	c.1980
D.544	Pentose phosphate	1972, 1977 & undated

D. 545 Shuttles and Carriers

4pp. ms. draft, dated 28 January 1973, and with a ms. note

attached 'For autograph hunters'.

D.546 Toxicity of glutamate

n.d. c.1978

D.547-D.548 Undated and unidentified notes

2 Folders, with Krebs's original designation 'Memos'.

D.549-D.569 BIBLIOGRAPHICAL REFERENCES

With the exception of the binder at D.549, these are loose octavo sheets of the standard format used for the Memoranda and, like them, are usually dated. A few have specific topic headings but most are an extensive unalphabetised series of references to work on all aspects of metabolism drawn from a wide range of journals. They are all additional to the bibliographies and background material kept elsewhere in Section D and especially with the 'Research Projects' at D.101-D.514, and testify to the importance attached by Krebs to maintaining a continuous overview of current research.

The material is presented in year order as far as this is ascertainable.

D.549	Spring-back binder, labelled 'Referent Mainly 1957-65.	nces' on spine.	
D.550	1960, 1961	D.555	1966
D.551	1962	D.556	1967
D.552	1963	D.557	1968
D.553	1964	D.558	1969
D.554	1965		
D.559	1970	D.564	1975
D.560	1971	D.565	1976
D.561	1972	D.566	1977
D.562	1973	D.567	1973
D.563	1974	D.568	1979, 1930

CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

Catalogue of the papers and correspondence of

SIR HANS ADOLF KREBS, FRS

(1900-1981)

Compiled by Jeannine Alton and Peter Harper

VOLUME III

Sections E - G

Deposited in the Library Sheffield University

CSAC 113/4/86

All rights reserved

SECTION E SCIENCE-RELATED INTERESTS E.1 - E.507

INTRODUCTION TO SECTION E

E.1-E.204	HISTORY AND PHILOSOPHY OF SCIENCE
E.1 -E.71	General
E.72 -E.195	Biographical writings
	With an introductory note
E.196-E.204	Requests for information
E.205-E.315	SOCIOLOGY OF RESEARCH
	With an introductory note
E.205-E.222	Notes and drafts
E.223-E.315	Lectures, publications and reports
E.316-E.492	SOCIOBIOLOGY
	With an introductory note
E.316-E.341	Notes and drafts
E.342-E.354	Research folders
E.355-E.453	Lectures and publications
E.454-E.492	Correspondence
E.493-E.501	SCIENCE AND RELIGION
E.502-E.507	BACKGROUND MATERIAL

Science-related interests

Although Krebs continued his research on metabolism to the end of his life, various factors encouraged his thinking on more general topics associated with his own life and work.

Among these were his early acquaintance with leading scientists of widely-differing personality such as Otto Warburg and Gowland Hopkins; his direct experience of the organisation of science and working methods in German and British laboratories; his work, in varying conditions, as assistant and later director of similar institutions; the circumstances of exile from, and return to, Germany; the progress of his own outstanding research culminating in the award of the Nobel Prize and its concomitant honours and obligations and, increasingly in his later years, concern about social problems such as crime and juvenile delinquency which he felt to have defeated non-scientific specialists who did not understand the connection between the ills of society and biological 'facts of life'.

Krebs devoted much time to writing and lecturing on these science-related interests and there survives a vast accumulation of material which has been divided into subsections on the history and philosophy of science, sociology of research and sociobiology. There is also a very small subsection on science and religion. The development of Krebs's ideas on particular topics can be traced in sequences of mostly dated typescript notes. There are also research folders comparable to those in Section D, longer drafts for lectures and publications and correspondence with individuals and organisations which shared Krebs's interests. A final subsection brings rogether a mass of background research material, much of it on crime and juvenile delinquency and much in the form of press-cuttings.

Krebs's science-related interests are dealt with only very briefly by Krebs in his autobiography Reminiscences and Reflections, pp.175-179, 227-228, and even more exiguously by Kornberg and Williamson on pp.37-38 of their memoir, Biographical Memoirs of Fellows of the Royal Society, 30, 1984. It is also characteristic of Section E that it contains much material for articles and lectures for which there is evidence of publication or an intention to publish, but which are not listed in the published bibliographies. Material of this kind can be found at E.11, E.15, E.72, E.131, E.136-E.142, E.158, E.174, E.223, E.244-E.247, E.248, E.249-E.255, E.261, E.288-E.290, E.291-E.297, E.306, E.363-E.365, E.366, E.374-E.377, E.381, E.395, E.415, E.427-E.433, E.444-E.446.

Science-related interests

	Science-related interests
E.1-E.204	HISTORY AND PHILOSOPHY OF SCIENCE
E.1-E.71	General
	A chronological sequence of articles, conferences, correspondence, lectures and notes on the history and philosophy of science, with special reference to Krebs's own biochemical research.
E.1	Molecular Biology
	Early history and origin of the term.
	Krebs's typescript notes, printed material and carbon letter from Krebs to Warren Weaver. Various dates, 1961-71.
	See also G.47.
E.2-E.4	'History of the Tricarboxylic Acid Cycle'
	Lecture given at Indianapolis and Pittsburg, October 1963, and Dallas, March 1968.
E.2	Typescript draft with ms. corrections, paginated 1-12, 14, 19-22.
E.3	22pp. typescript draft, with ms. corrections and 1p. list of slides.
E.4	Typescript and ms. notes found with the preceding drafts. Various dates, 1961-69. Also printed background material including 'The intermediate metabolism of carbohydrates'. (Bibliog. 63,)
E.5	'History of the Citric Acid Cycle'
	Krebs's notes on the relationship between his own work and that of Szent-Gybrgi and Martius and Knoop, 1964 and 1967.
E.6	'The Biologist's and the Chemist's Approach to Biochemical Problems', 1968. (Bibliog. 255.)
	Reprint only.
E.7	'History of the Tricarboxylic Acid Cycle'
	Correspondence re arrangements to lecture on this subject at Boston University, January 1969; press release, notice of lecture and photocopy of newspaper report headed 'Harvard's Watson challenged. Scientists grave motivation'. Related to Bibliog. 293. See E.16.

Scientists argue motivation'.

Related to Bibliog. 293. See E.16.

E.8, E.9	'Bioenergetics, Past and Present'
	After-dinner talk given at International Colloquium on Bioenergetics, Pugnochiuso, Italy, September 1970.
E.8	Letter of invitation, 25 November 1969.
	17pp. typescript draft of talk, with ms. corrections.
E.9	15pp. typescript draft of talk, with different ms. corrections.
	lp. ms. note and lp. list of references.
E.10-E.13	Correspondence with Marcel Florkin, 1970-79, re his History of Biochemistry, with Krebs's comments on various chapters.
E.10	September 1970-1972
E.11	1973-1975
	Folder also includes review by Krebs of a volume of the history, Nature, 1975.
E.12	1976-1977
E.13	1978–1979, and n.d.
E.14	History of Manometry
	Typescript notes dated in November 1970.
E.15	'Creative Attitudes', PHP, June 1971. (Not listed in Bibliog.)
	Published version only.
F 14	The little of the Triangle of the Artif Contri
E.16	'The History of the Tricarboxylic Acid Cycle'
	Lecture at the University of Miami, January 1972.
	Notice of lecture, 19pp. draft, with ms. corrections and 1p. ms. note.
¥	This version of the lecture which includes a section contrasting Krebs's attitude to scientific research with that of James Watson, was probably given for the first time in Boston, January 1969. See E.7.
	In a marginal comment on p.1 of this draft Krebs notes that it was the

basis of his article on the history of the tricarboxylic acid cycle in

For correspondence re arrangements for 1972 Miami visit, see F.226, F.227.

(Bibliog. 293.)

Perspectives in Biology and Medicine, 1970.

Lecture at Charterhouse School, 8 July 1972 (on the history of the E.17 tricarboxylic acid cycle). 11pp.typescript draft, with ms. additions and corrections and ms. introduction and conclusion. Letters of thanks. 'History of concepts of energy transformations in living matter' E.18 Various typescript and ms. drafts, various dates, August 1973. 'Medical Cambridge' E.19 27pp. duplicated typescript 'rough notes ... intended merely to entertain the medical historian as he walks round Cambridge'. The notes were presented to participants at Organ Preservation Meeting, Cambridge, 28 and 29 August 1973. lp. ms. note by Krebs. E.20-E.22 'The Discovery of the Ornithine Cycle of Urea Synthesis', Biochem. Ed., (Bibliog. 319.) Krebs prepared a lecture on the discovery of the ornithine cycle to be read (in his absence) at an ammonia symposium in Hungary, May 1972.

E.20 Correspondence with organiser of Hungarian symposium; publications correspondence, 1971-73.

E.21 Typescript copy of lecture read in Hungary.

E.22 Ms. and typescript notes and drafts; printed background marerial.

E.23 'Australia Antigen'

'First draft' of paper 'A Short History of Australia Antigen' by Baruch S. Blumberg, 'Comment' on the paper by A.T. Robb-Smith, and brief correspondence between Krebs and Blumberg, 1973-74.

E.24-E.35 Conference on the Historical Development of Bioenergetics, Boston, 11-13 October 1973.

In preparation for this conference Krebs put together a considerable collection of background material, including original correspondence. The published proceedings included his paper on 'The discovery of carbon dioxide fixation in mammalian tissues' (Bibliog. 335). See also correspondence with E.A. Evans, B. Vennesland and H.G. Wood in Section J.

E.24, E.25	Correspondence re arrangements, possible participants, histo	ary of
	biochemistry, etc.	

- E.24 1972
- E.25 1973
- E.26, E.27 Correspondence re publication of proceedings, 1973-74.
- E.26 December 1973-March 1974
- E.27 April-October 1974
- E.28 Conference programme, list of participants, photocopy of Krebs's conference paper on 'the discovery of carbon dioxide fixation in mammalian tissues', notes of discussion for publication.
- E.29 Krebs's typescript notes on the history of bioenergetics, gluconeogenesis, etc., 1973.
- E.30 Ms. draft of letter from Krebs to B. Vennesland and copies of letters from Vennesland and S.S. Cohen re history of biochemistry, 1973.
- E.31-E.33 Original correspondence extracted by Krebs from his files in preparation for the conference. For related correspondence, see B.30.
- E.31 H. J. Channon and J. Chadwick, 1940
- E.32 A.B. Hastings, 1940, 1941
- E.33 E.A. Evans Jr., 1942, 1943
- E.34, E.35 Background material.

E.36-E.42	'The Creative Process in Science and Medicine', 1975. (Bibliog. 343.)
	Krebs attended a Boehringer Symposium on the creative process in science and medicine, Kronberg, 16–17 May 1974. He chaired the conference, talked on creativity and edited the proceedings for publication (with J.H. Shelley). See also L.10.
E.36	Correspondence re arrangements.
E.37, E.38	Correspondence with joint editor and academic colleagues <u>re</u> publication. 2 folders.
E.39	Programme, lists of participants, points for discussion, Krebs's notes on creativity.
E.40	Notebook kept by Krebs during conference.
E.41	Drafts of Krebs's remarks as chairman, contributions to discussion, etc. for publication.
E.42	Printed material on creativity.
E.43	'History of the discovery of the ornithine cycle'
	Lecture given to medical students in Munich, November 1976.
	5pp. typescript in German, with offprint of Krebs's paper 'The Discovery of the Ornithine Cycle'. (Bibliog. 351.)
E.44, E.45	'History of the Discovery of the Tricarboxylic Acid Cycle'
	Krebs lectured on this topic at the Medical College of Ohio, Toledo and Michigan State University, East Lansing, May 1977. Krebs also lectured on the regulation of folate metabolism at East Lansing.
E.44	Correspondence \underline{re} arrangements for visit to Toledo, notice of lecture, press-cutting.
E.45	Correspondence re arrangements for visit to East Lansing, schedule of

For Krebs's 'Historical Perspectives' contribution to Wolfson College, Oxford, lecture series on the molecular basis of life, 1977, see H.248-H.251.

visit, notice of lectures, press-cutting.

E.46-E.50	'Errors, False Trails and Failures in Research', in Search and Discovery. A tribute to Albert Szent-Győrgyi, 1977. (Bibliog. 356.)
E.46	18pp. typescript draft including references; reprint of published paper.
E.47	20pp. typescript with ms. additions and corrections, of lecture given at Armidale, Australia, 1976; shorter notes and drafts dated in 1975 and 1976 found with this draft.
E.48	A sequence of dated types c ript notes, March-October 1975, <u>re</u> Szent-Győrgyi, failures and errors in research, etc.
E.49	Miscellaneous ms. and typescript notes and drafts.
E.50	Background material.
E.51	'Discovery of Transamination'
	Krebs's typescript notes, list of references, July, August 1977.
E.52	'The History of the Discovery of the Tricarboxylic Acid Cycle'
	Lecture at Heineman Medical Research Center, Charlotte, North Carolina, 20 January 1978.
	Programme and draft of material used.
E.53	'The History of the Tricarboxylic Acid Cycle'
	Krebs lectured on this topic at Northwestern University, Evanston, Illinois, April 1978. He also lectured on the regulation of metablic processes.
	Correspondence re arrangements for visit to Evanston.
E.54	'Reminiscences of Berlin-Dahlem 1928-1930'
	Lecture in honour of Karl Lohmann read in Krebs's absence by S. Rapoport Dresden, 3 July 1978.
	14pp. typescript copy of Krebs's lecture, 3pp. ms. and typescript draft, letter and photocopy of article on Lohmann by Rapoport.
	Folder also includes letter re Krebs's contribution to a Lipmann Symposium Berlin, 1974: 'Dahlem in the late nineteen twenties'. (Bibliog. 336.)

	Science-related inferests
E.55, E.56	'The History of the discovery of the Tricarboxylic Acid Cycle'
	Lecture given to Southampton University Physiology and Biochemistry Society, November 1978.
E.55	Brief correspondence re arrangements and draft of lecture (typescript, ms. and pasted-up pages, with heavy ms. correction, from Bibliog. 293).
E.56	Miscellaneous ms. and typescript notes and drafts including typescript copy of 1937 Nature letter. Folder also includes brief correspondence with E.N. Bergman re misprints in scientific paper ('trichloroacetic acid cycle' for 'tricarboxylic acid cycle').
E.57-E.64	'On asking the right kind of questions in biological research'
	Krebs lectured on the formulation of the right questions in biological research at Cambridge and Valencia in 1978 and at the University of Saarland and in Düsseldorf in 1979. These lectures formed the basis of published papers in Molecular Mechanisms of Biological Recognition (ed. M. Balaban), 1979 (Bibliog. 374) and in Vorträge N.300, published for the Rheinisch-Westfällische Akademie der Wissenschaften, 1981 (SUPP. Bibliog. 37).
E.57	Ms. and typescript notes and drafts. Many dated in June, August and October 1978.
E.58	Symposium 'Of Timeliness and Promise. Sterile and Fruitful Approaches in the Development of Biochemistry', Cambridge, 4 December 1978.
	Poster, programme and published account of symposium. See J.361, J.712.
E.59	17pp. typescript draft of lecture given at University of Valencia, [1978], with 1p. ms. introduction in Spanish and 1p. typescript 'Comments on slides'.
E.60	Correspondence with organisers re arrangements for visits to University of Saarland and Düsseldorf, March 1979.
E.61	Jotter with draft of lecture 'Richtige (und falsche) Fragestellungen in biologischen Forschung', dated at Bethesda, 14 October 1978.
	Jotter also contains notes for autobiography and 'On family life', 'Elite ignorance', etc.
E.62	Typescript draft of lecture paginated 1-22, with 1p. unpaginated. Dated 26 October 1978 with ms. heading 'Düsseldorf 7.3.79.'.
E.63	Krebs's publications on this topic, 1979 and 1981.

E.64	Background material including copy of Bibliog. 293.
E.65	'The history of the tricarboxylic acid cycle'
	Krebs lectured on this topic at the Medical College of Georgia, Augusta, 17 November 1980. He also lectured on the evolution of metabolic cycles.
	Correspondence re arrangements for visit to Augusta, notice of lectures and copy of college newspaper with report of Krebs's visit.
E.66, E.67	'The History of the Tricarboxylic Acid Cycle'
2.00, 2.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
E.66	35pp. typescript draft of lecture on this topic, with slides for lecture.
E.67	Ms. and typescript notes and drafts, some dated in 1979 and 1980, including note on the work of Carl Martius by F.L. Holmes; also copies of Bibliog. 184 and 293.
E.68, E.69	Draft articles sent to Krebs for comment, n.d.
E.68	'The Wieland-Thunberg-Knoop Theory of Oxidative Decomposition'
E.69	'Foundation of Intermediary Oxidative Metabolism'
E.70	Miscellaneous undated ms. and typescript notes.
E.71	Printed matter re history of biochemistry.
	Includes presentation copies; some of the material is annotated by Krebs.

E.72-E.195 Biographical writings

Krebs's interest in scientific biography related to his concern for the attainment of excellence in science and his belief in the importance of first-rate teachers in setting high standards for subsequent generations of research scientists. This is most clearly expressed in his writings on Otto Warburg whom he acknowledged in his autobiography as 'an outstanding teacher for four years at a critical stage of my development' (Rem. & Refl., p.175). After Warburg's death in 1970 Krebs wrote frequently and extensively about this distinguished German scientist. Short obituary tributes were followed by a more extended treatment for the Royal Society which was expanded into a full-scale biography for the German publisher Wissenschaftliche Verlagsgesellschaft mbH. There were also English and Japanese editions of the biography.

Krebs also wrote the Royal Society memoir of another German Nobel prize-winner, Feodor Lynen and shorter pieces on Wilhelm Conrad Röntgen and Otto Meyerhof.

The material, which is very substantial in respect of Lynen and Warburg, is presented in an alphabetical sequence.

For short biographies by Krebs of former members of the Orden Pour le Mérite ('Mediziner') for a 'Bildband über die Ordensmitglieder seit 1842', see G.149-G.152.

E.72 Claude Bernard

2pp. typescript note, 1978.

Daniel Gabriel Fahrenheit

2pp. typescript note, 1966, and 1p. typescript note, 1968.

David E. Green

2pp. typescript note, 1976, recalling contacts with Green after Krebs's arrival in Cambridge in 1933; brief related correspondence.

The note was Krebs's contribution to a series of colleagues' impressions of Green intended to introduce the published proceedings of a symposium held in his honour. (Not listed in <u>Bibliog</u>.)

E.73,	E.74	Werner Heisenberg	9
			-

Miscellaneous background material including duplicated typescript draft of N. Mott and R. Peierls's Royal Society memoir.

2 folders.

E.75 Richard Kuhn

2pp. note of discussion about Kuhn with Otro Westphal, Hamburg, July 1978.

E.76-E.118 Feodor Lynen

E.76 Memorial meeting in honour of Lynen, Munich, 29 February 1980.

Invitation, Krebs's acceptance, programme, etc.

E.77-E.118 'Feodor Lynen 1911-1979' (with K. Decker). Biog. Mem. Fellows Roy.

Soc., 28, 1982. (Bibliog. 394.)

Lynen's widow Eva recommended Decker to Krebs as a suitable

collaborator for the Royal Society memoir. See E.83.

E.77 Reprint of memoir.

E.78-E.84 Correspondence re Lynen memoir presented alphabetically by person

or organisation, 1979-82.

E.78 Beaucamp, K.

E.79-E.81 Decker, K.

E.79 1979-80

E.80 1981

E.81 1982

E.82 Euler, F. W.

Hopfer, M.

E.83 Lynen, Eva

Pfeiffer, H.

E.84 Royal Society

E.85-E.116	Notes and drafts
E.85	Jotter 'F. Lynen Draft'. Used March-April 1980.
E.86	Jotter 'Lynen Decker'. Used October 1980.
E.87	Ms. draft, August 1980, re Lynen's outlook on research, teaching and personality, German biochemistry after Hitler, etc.
E.88-E.97	Accounts of Lynen's scientific work sent to Krebs by his German collaborator.
E.88, E.89	'Notizen zu Lynen's wissenschaftlichem Werk'
E.88	Typescript draft paginated [1]-25, 36-47, with ms. note 'First Version October 1980'.
E.89	Typescript draft paginated pp.26-35, with ms. note 'Early version'.
E.90-E.97	'F. LYNENs wissenschaftliches Werk'
E.90	Typescript draft paginated [1]-6, with ms. note 'New Version'.
E.91	Typescript draft paginated 7-26, with ms. note 'Second version adding references and some text changes'. Intercalated pages.
E.92	Typescript draft paginated 33-43, with ms. notes 'Received 9.2.81' and 'First Translation 29.7.81'.
E.93	Typescript draft paginated 44-47, with ms. date '18.2.81'
E.94	Typescript draft paginated 48-56 and 1p. ms.
E.95	Typescript draft paginated 48-52 with ms. note 'Final version'.
E.96	Typescript draft paginated 57-65.
E.97	Typescript draft paginated 66-70 with ms. note 'new material'.
E.98, E.99	Typescript drafts, with heavy ms. correction, of sections of memoir on Lynen's family background and academic career.
	2 folders.
E.100, E.101	Typescript drafts, with heavy ms. correction, of section of memoir on Lynen's personal characteristics.
	2 folders.
E.102	Typescript drafts of section of memoir on Lynen's outlook on research.

E.103	Typescript drafts of section of memoir on Lynen's work on the Pasteur Effect.
E.104	Typescript drafts of section of memoir on Lynen's work on 'active acetate'
E.105	Typescript drafts of section of memoir on Lynen's work on $m{\beta}$ -Oxidation of fatty acids.
E.106	Typescript drafts of section of memoir on Lynen's work on ketogenesis.
E.107	Typescript drafts of section of memoir on Lynen's work on fatty acid synthesis.
E.108	Typescript drafts of section of memoir on Lynen's work on polyacetate condensations.
E.109	Typescript drafts of section of memoir on Lynen's work on biosynthesis of terpenes.
E.110	Typescript drafts of section of memoir on Lynen's work on 'Active CO_2 '.
E.111	Typescript drafts of section of memoir on Eva Lynen and concluding remarks.
E.112, E.113	Photocopies of drafts of sections of memoir on Lynen's scientific work with ms. note (not by Krebs) 'copies of these chapters sent to K. Decker 25/11/81.'
	2 folders.
E.114	Sequence of dated typescript notes, 1980-81.
	Includes notes of discussions with Eva Lynen and K. Decker.
E.115	Shorter notes and drafts.
E.116	Miscellaneous ms. notes.
E.117	'500 Jahre Lynen'
	Genealogical study of the Lynen family by F.W. Euler.
	Loose page of notes by Krebs.
E.118	Background material.
	1 box.

E.119-E.128	Otto Meyerhof

'Otto Meyerhof's ancestry'. In Molecular Bioenergetics and Macromolecular Biochemistry (ed. H.H. Weber), 1972. (Bibliog. 311.)

Krebs gave a talk on Meyerhof's ancestry at a symposium in honour of Meyerhof, Heidelburg, July 1970. This talk was later published with the symposium proceedings. See also F.205.

- E.119 Correspondence re arrangements for symposium, publication of proceedings, 1969-72.
- E.120 Correspondence re Meyerhof and family, 1969-70.
- E.121 Typescript drafts of Krebs's talk, in English and German.
- E.122 Miscellaneous ms. notes.
- E.123, E.124 Material <u>re</u> Meyerhof genealogy.

2 folders.

E.125-E.127 61pp. duplicated typescript draft of biography of Meyerhof by D. Nachmansohn, 1977.

3 folders.

E.128 Background material.

E.129 Isaac Newton

Note (on scientific method) based on a letter from Newton to Oldenburg, 1672.

E.130 Wilhelm Conrad Röntgen

'Two letters by Wilhelm Conrad Röntgen', Notes Rec. Roy. Soc. Lond., 1973. (Bibliog. 324.)

Photocopies of letter from Emil Warburg to Röntgen and two letters from Röntgen to Warburg, 1896–97.

Correspondence with the editors of Notes and Records (W.D.M. Paton and R.V. Jones) and others re the Röntgen letters, 1971, 1973. Paton's letter of 2 September 1971 also relates to his own work as chairman of a new MRC committee on drug dependence.

Reprint of Notes and Records article.

E.130A

Jacobus Henricus van't Hoff

1961 reprint of van't Hoff's 'Die Phantasie in der Wissenschaft', with ms. annotations by Krebs and typescript note dated 17.9.62. pasted inside back cover.

Brief correspondence <u>re</u> paper by Cuvier quoted by van't Hoff, 1963.

E.131-E.190

Otto Heinrich Warburg

E.131-E.174	Publications and lectures
E.175-E.183	Requests for information
E.184, E.185	Correspondence arising from Krebs's Warburg publications
E.186, E.187	Reviews
E.188-E.190	Miscellaneous

Publications and lectures

E.131

'Professor Otto Warburg 80. Geburtstag', Chemiker-Ztg., 1963. (Not listed in Bibliog.)

Published article only.

'Warburg - architect of modern biology', New Scientist, 1970. (Bibliog. 294.)

Photocopy of published article.

E.132

'Professor Otto Warburg, Naturw. Rdsch, 1971. (Bibliog. 297.)

Published article only. In English.

E.133

Correspondence re translation of the Naturwissenschaftliche Rundschau article which appeared in the Neue Züricher Zeitung, 28 July 1971.

E.134

'Otto Heinrich Warburg 1883-1970', Biog. Mem. Fellows Roy. Soc.,

18, 1972. (Bibliog. 317.)

Brief correspondence and reprint.

	Science related interests
E.135	'Otto Warburg – the man and the scientist'
	23pp. typescript draft, with ms. corrections and additions, of lecture given at Indianapolis, October 1972.
E.136-E.142	'Otto Warburg, Biochemiker, Zellphysiologe, Mediziner'
	Krebs lectured on this topic at the inauguration of the library and archives for the history of the Max-Planck-Gesellschaft (Otto-Warburg-Haus), 8 March 1978. The lecture was published in the 1978 Year-book of the Max-Planck-Gesellschaft and a shortened version appeared in the September number of the Naturwissenschaftliche Rundschau. (Not listed in Bibliog.)
E.136	Correspondence with organisers re arrangements for lecture, with Der Tagespiegel about its reporting of the lecture, and with academic colleague arising from publication of lecture.
E.137, E.138	Typescript draft of lecture, with ms. additions and corrections, intro- ductory remarks, list of slides.
	2 folders.
E.139	Ms. drafts for lecture. Original folder (not preserved) had ms. note 'Warburg Script from which final copy was typed'.
E.140	Slides and negatives of original Warburg documents.
E.141	31pp. typescript draft of lecture 'written for publication in the Jahresbericht der Max-Planck-Gesellschaft', with covering letter to H. Rotta of the Wissenschaftliche Verlagsgesellschaft mbH, 22 March 1978.
E.142	Reprint of shortened version of lecture which appeared in the Naturwissenschaftliche Rundschau, 1978.

E.143-E.172 'Otto Warburg: Zellphysiologe, Biochemiker, Mediziner', 1979.
 (Bibliog. 375.)
 An English translation was published in 1981 by the Oxford University Press. (Bibliog. 384.)

E.143-E.148	Correspondence with H. Rotta and others of the Wissenschaftliche Verlagsgesellschaft mbH re the publication of the Warburg biography.
E.143	1972-74
	Includes correspondence re publication of Krebs's 1972 Lindau lecture (not on Warburg) in Naturwissenschaftliche Rundschau. (Bibliog. 312.)
E.144	1976-77
E.145	April-August 1978
	Includes copy of Krebs's contract with German publisher.
E.146	October-December 1978
E.147	January-March 1979
E.148	May-November 1979, 1980 (one letter)
E.149-E.153	Correspondence with R. Schmid, Krebs's collaborator on the Warburg biography .
E.149	1970-72
	Relates to Krebs's article on Warburg for the <u>Naturwissenschaftliche</u> Rundschau (<u>Bibliog</u> . 297) and his 1972 Lindau address (not on Warburg).
E.150	1973
E.151	1974
E.152	1975-76
E.153	1978, 1980-81 and n.d.

Correspondence with Oxford University Press re English edition of E.154-E.157 Warburg biography, 1979-81. Includes copies of correspondence between the OUP and publisher of the German edition. 1979 E.154 Includes copy of the contract between publisher of the German edition and OUP. 1980 E.155 E.156 1981 Copy of proposed title page for English edition of Warburg biography, E.157 draft for publisher's blurb, photocopies of illustrations used. Correspondence re Japanese edition of Warburg biography, 1981. E.158 Includes draft (in German) of Krebs's foreword. Photocopy of proposed dust-jacket design, drafts of title page and E.159 foreword for German version of Warburg biography. Also presscutting found with foreword. Contents of folder, not preserved, inscribed 'Final Draft Copy'. The E.160-E.163

material is presented in four folders for ease of reference.

89pp. draft, with intercalated pages, of English version of Warburg biography. Very heavily corrected. Many pages are pasted-up cut-outs from the Royal Society memoir. Typescript pages are dated in 1970, 1971 and especially the second half of 1979.

Copy of Royal Society memoir of Warburg, with ms. amendments. E.164 Found between pages 38 and 39 of preceding draft.

128pp. draft, with intercalated pages, of English version of Warburg E.165-E.169 biography. Incorporates notes, captions for illustrations, references, etc. missing from earlier draft. E.169 includes Warburg photographs, same used as illustrations in book.

5 folders.

- E.170-E.172 Miscellaneous notes and drafts for Warburg biography.

 3 folders.
- E.173 13pp. ms. draft of lecture on Warburg, n.d. In German.
- E.174 Requests for Krebs to write on Warburg, 1969, 1970.

Requests for information

- E.175 B E
 - Includes copy of 8pp. letter 'from Eric Ball in Berlin with Otto Warburg Dec 11, 1937'.
- E.176 F-G
- E.177 Heiss, J.

Warburg's longstanding companion.

E.178 Hen - Ho

Includes correspondence with P. Henrici, Warburg's great-nephew.

- E.179 J-M
- E.180 Max-Planck-Gesellschaft

Includes correspondence <u>re</u> deposit of Krebs's Warburg material in the Gesellschaft's archives.

- E.181 R T
- E.182 Warburg, Eric M.

German cousin of Otto Warburg.

E.183

Warburg, R. J.

Distant English relation of Otto Warburg.

Wigglesworth, V. B.

Correspondence arising from Krebs's Warburg publications

E.184

1971, 1974-75

E.185

1978-81

Includes draft review of the Warburg biography sent to Krebs by J.S. Fruton and Krebs's 'Comments on Review'. For the review as published, see E.186.

Reviews

E.186

A4 size exercise book into which have been pasted reviews of the Warburg biography, and one letter (from J.T. Edsall).

E.187

Reviews of German edition of Warburg biography.

Miscellaneous

E.188

Diagrams of Warburg apparatus. One diagram, of reaction flasks, is dated 12 January 1953.

E.189, E.190

Background material.

2 folders.

E.191-E.195 James D. Watson

A collection of reviews and related articles re Watson's book The Double Helix and the discovery of the structure of DNA.

5 folders.

In his writing and lecturing on the history of the tricarboxylic acid cycle, Krebs contrasted Watson's attitude to research with his own. See E.7, E.16.

E.196-E.204 Requests for information

Requests for information made by and to Krebs, presented in chronological order. Various dates, 1951-81.

E.196 1951, 1955

E. von Brücke and teleology.

August Krogh Principle.

E.197 1961, 1965

Includes 4pp. letter from Krebs on the evolution of cyclic reactions sequences in living cells.

E.198 1967, 1968

Early history of the Oxford Biochemistry Department.

Importance of close association with a master in the development of outstanding scientists.

E.199 1970

E.200 1973, 1974

Includes reminiscences of L.S. Penrose.

E.201 1976, 1977

E.202 1978

Includes correspondence <u>re</u> Sir Archibald Garrod, a history of the Rockefeller Foundation's support for science and G. Macfarlane's

biography of Florey.

E.203 1980, January-May

E.204 1980, August, December; 1981

E.205-E.315 SOCIOLOGY OF RESEARCH

Krebs's interest in the sociological aspects of scientific research related to his concern for the attainment of scientific excellence. Krebs understood those background aspects of research which might properly be considered sociological to include scientific policy-making, administration and finance, scientific communication and the recognition of merit, team work in research and the importance of leadership, the 'Ortega Hypothesis' (the view that real progress in science is brought about by a very small proportion of the large scientific community), the quality and relevance of scientific research, professional obsolescence and sources of motivation. See especially E.256.

The material includes an extended sequence of notes and drafts, as well as the occasional lectures and articles which Krebs prepared on these themes, including his famous article on the making of a scientist (E.224-E.243), and a number of lectures and articles, some invited or commissioned, which reflected on scientific research and higher education in Germany before and after the Second World War (E.263-E.315).

E.205-E.222	Notes and drafts
	Ms. and typescript notes principally on the sociological aspects of scientific research. Includes a little material on more general scientific, educational and university questions.
E.205	Miscellaneous notes, quotations, anecdotes, etc. on medical education, the achievements of science, culture, the functions of a university, etc. Various dates, 1940s-1956.
E.206-E.208	Ms. and typescript notes, narratives and speeches, printed matter, various dates, 1947-57.
	Mainly on the duties of the scientist in the laboratory and in society, on leadership, hard work and making proper use of one's time.
	3 folders.

A sequence of dated typescript notes, 1958, 1962-81. E.209-E.218 1958 E.209 Krebs's reflections on the working of a science department. 1962-69 E.210 Includes notes on pure and applied science and the prevention of professional obsolescence; brief correspondence re state of biochemistry teaching in Denmark. E.211 1970 Includes notes on making mistakes, and scientific progress. E.212 1971 Includes notes on the personality of research scientists, the response to new discoveries, how to do research and research as an education. February-May 1972 E.213 Includes notes on the penicillin research, excellence in scientific research and the relevance of scientific research to society. July-October 1972 E.214 Includes notes on the inequality of man, accessibility and the 'Ortega Hypothesis'. 1973 - 1975 E.215 Includes notes on the reasons for low grade research, decline in performance with age, etc.; exchange of correspondence with K. Mellanby re quality of scientific research. E.216 1976 Includes notes on the quality and relevance of scientific research, Nobel research and the importance of a continuous influx of able young scientists into research laboratories. 1977-78 E.217 Includes notes on how to survive a committee, dogmatic and nondogmatic approaches, etc.; also brief correspondence (1978) re the problem of research scientists made redundant 'by the financial situation'. 1979-81 E.218 Includes notes on elite, success in science, frequency of citation, etc;

also letter (1979) on organisation of German medical faculties.

E.219

'Style in Polemic'

Contents of a file so inscribed.

Ms. notes by Krebs including bibliographical references; examples

of polemical writing in Chemistry in Britain, 1969.

E.220, E.221

Undated typescript notes.

2 folders.

E.222

Miscellaneous ms. notes.

F.223-E.315

Lectures, publications and reports

E.223-E.262

General

E.223

'Funds for research. Not a luxury, but a dire necessity'. New Scientist, 1961. (Not listed in Bibliog.)

5pp. typescript draft with title 'Quinquennial Concern' and proof copy; also correspondence and notes of telephone conversations.

E.224-E.243

(Bibliog. 247.) 'The making of a scientist', Nature, 1967.

Krebs's consideration of the making of a scientist was prompted by the questioning of students who wished to know: 'How does one become a Nobel laureate?' Krebs gave his first lecture on the topic on the occasion of the formal opening of the new Department of Biochemistry, University of Newcastle-upon-Tyne, 5 May 1967. He repeated it, with minor modifications, as his last lecture as Whitley Professor of Biochemistry at Oxford, 10 June 1967. Although Krebs had not intended it for publication, members of both audiences suggested that this would be worthwhile and Nature published it within two weeks of receiving the manuscript. The article aroused a great deal of interest and was reprinted in a number of countries. A shortened version was broadcast by the BBC.

Krebs returned to the theme for the Redfearn Memorial Lecture which 1977.

- he gave at Leicester, 1 May 1972, and a seminar at Oxford, February E.224 Copy of published article with Krebs's typescript note on its origins. E.225 Correspondence with Newcastle re arrangements for opening day, Krebs's lecture; brochure describing new Biochemistry Department. 23pp. typescript draft of Newcastle lecture with 1p. ms. introduction E.226 dated 21 April 1967. 12pp. typescript draft of Newcastle lecture. This is probably a trans-E.227 cription from tape or cassette. 24pp. typescript draft of Newcastle lecture with figures and table. E.228 21pp. typescript draft of Newcastle lecture, with figures, table and E . 229 list of references. Draft of Newcastle lecture with additions and deletions for Krebs's E.230 last lecture at Oxford as Whitley Professor of Biochemistry. Miscellaneous dated notes and shorter drafts, 1966-68. E.231, E.232 1966 E.231 1967-68 E.232 Miscellaneous undated notes. E.233 E.234 to professorships), the Medical Research Council (on the movement of
- Information supplied to Krebs by J. Mandelstam (on NIMR staff appointed MRC staff to universities) and Oxford University Department of Education (on the postgraduate intentions of science students). March-April 1967.
- E.235 Background material.
- Correspondence with Nature re publication of lecture. E.236
- Correspondence arising from publication. E.237
- Brief correspondence with BBC re broadcast, and shortened version of E.238 'The Making of a Scientist', probably prepared to serve as script for broadcast.

E.239, E.240	Redfearn Memorial Lecture, Leicester, 1 May 1972.
E.239	Invitation card and draft of Krebs's lecture.
E.240	Ms. notes (on pages torn from jotter) for Leicester lecture.
E.241-E.243	Seminar on the making of a scientist, Oxford, February 1977. The seminar was organised by M.M. Gowing; the other contributor
	was N. Kurti.
E.241	Correspondence re arrangements, 1976-77.
E.242	7pp. typescript draft of Krebs's contribution, with diagram and table.
E.243	Miscellaneous notes, bibliographical references, background material.
E.244-E.247	'Comment on leading article in <u>Nature</u> , <u>215</u> , 567, 1967'. (Not listed in <u>Bibliog</u> .)
E.244	Draft comments by Krebs on a leading article in <u>Nature</u> critical of the policy of the Medical Research Council.
E.245	Correspondence with the MRC and others re a reply to the editorial in Nature.
E.246, E.247	Background material.
	2 folders.
E.248	'The Goals of Science', <u>Proceedings of the American Philosophical Society</u> , 1971. (Not listed in <u>Bibliog</u> .)
	Published article only.
E.249-E.255	'Symposia in General', Nature, 1971. (Not listed in Bibliog.)
E.249-E.250	Drafts for article by Krebs on organising symposia and copy of published article. The earliest draft is dated July 1967.
	2 folders.
E.251	Miscellaneous notes and drafts. A few dated, 1966-68.
	Includes dialogue 'Earnest and the Old Hand - Or How Not To Run a Symposium' (5pp., typescript).

a Symposium' (5pp. typescript).

E.252	Correspondence, various dates, 1967-76.
E.253-E.255	Background material on lecturing, writing papers, organising symposia. 3 folders.
E.256	'Charing Cross' lecture on sociology of research, 1973. 24pp. typescript draft, with ms. corrections (incomplete). Variously paginated and dated. See also J.632.
E.257-E.260	'Soziologische Frage der wissenschaftlichen Forschung', 1974. (Bibliog. 352.) Krebs lectured on the sociological aspects of scientific research at Freiburg, 22 November 1973, and Berlin, 12 June 1974.
E.257	Correspondence re arrangements for Freiburg visit, Krebs's schedule.
E.258	Jotter 'Sociology of scientific research 25.3.73.' with 1p. typescript note, as loose page, 'Possible Material for Freiburg Lecture. 26.3.73.'
E.259	24pp. typescript draft, with ms. corrections, of Freiburg lecture. In German.
E.260	Printed notice of Berlin lecture, typescript draft of Freiburg lecture with ms. amendments for Berlin, ms. introduction and conclusion for Berlin.
E.261	'The Quality of Scientific Research', <u>Times Higher Educational</u> Supplement, 1974. (Not listed in <u>Bibliog</u> .)
	Brief correspondence only.
E .262	'Comments on the Productivity of Scientists', in Reflections on Biochemistry

(ed. A Kornberg et al), 1976. (Bibliog. 353).

Reprint only.

E.263-E.315	Scientific Research and Higher Education in Germany
E.263, E.264	'German science between the wars' Lecture to the German Society, Oxford, 28 November 1962.
	Krebs considered the 'circumstances and factors' that 'contributed to the high quality of some German science' between the wars.
E.263	Correspondence with the President of the Society <u>re</u> arrangements.
E.264	33pp. ms. and typescript draft of lecture; ms. and typescript notes.
E.265-E.285	'Wissenschaftlicher Forschung in der heutigen Medizin', Verh. Dt. Ges. inn. Med., 78, 1972. (Bibliog. 314.)
	Lecture at the 78th Congress of the German Society for Internal Medicine, Wiesbaden, 9 April 1972.
	Krebs was asked to give an introductory lecture on the importance of basic research for internal medicine. He was encouraged by the organisers to consider the social and political aspects of research in Germany.
E.265-E.267	Correspondence re arrangements for lecture; correspondence arising from lecture, 1971-72.
E.265	1971
E.266	February-April 1972
E.267	May-July, November 1972.
E.268	15pp. typescript carbon of lecture under original title 'Die neue Einstellung zur Forschung'.
E.269	15pp. photocopy of the same, with a little ms. annotation.
E.270	15pp. typescript draft of lecture under final title, with ms. corrections.
E.271	15pp. typescript carbon of the same, with ms. corrections in another hand.
E.272	'Basic Science in the Hospital'
	16pp. typescript, with ms. note 'draft January 1970'.

E.273	13pp. duplicated typescript copy of Krebs's lecture at the opening of a new Diabetes Research Institute, Munich, November 1970.
E.274, E.275	Shorter ms. and typescript drafts.
	2 folders.
E.276	Programmes, invitation cards; some annotated by Krebs.
E.277	Press-cuttings of the congress.
E.278-E.282	German printed matter, including press-cuttings, sent to Krebs to help in the preparation of the lecture.
	5 folders.
E.283, E.284	English-language printed matter collected by Krebs for lecture.
	2 folders.
E.285	Duplicated typescript copies of lectures, radio script by others.
E.286, E.287	'Chancen für Morgen'
	Lecture on the future of the German university, Hildesheim, 19 February 1975.
E.286	Correspondence with organiser <u>re</u> arrangements; press-cuttings <u>re</u> lecture sent to Krebs.
E.287	Typescript draft of lecture with ms. corrections, ms. notes torn from jotter, background material <u>re</u> relevance of basic science.

For proposed contribution (on German medicine in the 1920s and 1930s) to Oxford History of Medicine Seminars, November 1975, see J.808

E.288-E.290	'Gedanken über die Zukunft der Universitäten'	
	Lecture to the Berliner Wissenschaftliche Gesellschaft, 16 February 1976.	
E.288	Correspondence \underline{re} arrangements for lecture and arising from lecture; invitation card.	
E.289	23pp. typescript draft of lecture; miscellaneous shorter drafts.	
E.290	Photocopy of 14pp. typescript of lecture, apparently prepared for publication in Hamanismus und Technik. (Not listed in Bibliog.)	

Science-related interests		
E.291-E.297	'Deutsche Universitätsreform in internationaler Sicht'	
	Lecture at the University of Marburg, 25 June 1977.	
E.291	Correspondence with organiser re arrangements for lecture at Marburg, publication of lecture (not listed in <u>Bibliog</u> .); lecture programme.	
E.292	16pp. typescript copy of Krebs's Marburg lecture, with ms. note 'Posted 5/9/77.'	
	This appears to be the version prepared for publication.	
E.293-E.296	Miscellaneous typescript and ms. notes and drafts, variously dated and paginated.	
	4 folders.	
E.297	Background material.	
E.298-E.305	'Über Faktoren, die hohen Standard in wissenschaftlicher Forschung begünstigen'. Report for the Fritz Thyssen Foundation, 1979.	
	Krebs was asked by the Foundation to comment on differences between Britain and Germany in their organisation of scientific research, in respect of the Foundation's efforts to improve the standard of clinical medical research in Germany.	
E.298, E.299	Correspondence, notes of discussions, with the Foundation and scientific colleagues.	
E.298	1978	
E.299	1979, 1981, n.d.	
E.300	18pp. carbon of the report (without its appendices) sent to the Thyssen Foundation, 8 February 1979.	
E. 301	Exercise book with early German ms. draft of report.	
	The index on the inside front cover appears to relate to material torn from the exercise book.	
E.302-E.304	3 typescript drafts of Krebs's report with different ms. additions and corrections.	
	3 folders.	
E.305	The five appendices for Krebs's report.	

Anhang 1 is Krebs's article 'Der Werdegang eines Wissenschaftlers'.

(Bibliog. 254.)

E.306

Proposed paper defining the conditions necessary for producing scientific excellence.

The project arose from discussions with American scientists about the conditions which prevailed at the Kaiser Wilhelm Institute during a period when five Nobel prizewinners, including Krebs, were trained.

Krebs thought that a consideration of this question 'would require approximately 6-12 months of accumulating pertinent documents and writing a thoughtful piece on the subject' and a successful application was made on Krebs's behalf to the Mobil Oil Corporation for the financing of typing and editorial assistance for one year.

Correspondence re the funding of the project, 1978-79.

E.307-E.315

Notes, drafts and printed matter \underline{re} German science and scientific excellence.

Most of the material, which was found in considerable disarray, is dated 1977-80. Because of the similarity of the subject-matter it was not possible to distinguish systematically between 'Thyssen' and 'Mobil' material.

E.307-E.309

Dated ms. and typescript notes.

E.307

1970, 1977, 1978

E.308

January-July 1979

E.309

September-December 1979, January 1980.

E.310

Typescript drafts and narratives, probably for the 'Mobil' project.

E.311

Miscellaneous ms. notes and drafts. A few are headed 'Thyssen'.

E.312-E.315

Background material.

4 folders.

E.316-E.492 SOCIOBIOLOGY

In the last decade of his life Krebs became interested in sociobiology and its relationship to criminality. He was especially concerned by the problem of juvenile delinquency - 'the ever-increasing rise in juvenile delinquency which stares us in the face day by day' (Rem. & Refl., p.227). He believed that those responsible for controlling the problem, whom he identified as the legislature, judiciary and academic sociologists, paid insufficient attention to biological and medical aspects of human nature. Krebs frequently expressed his scepticism about sociological subjects, stating quite bluntly that the ailments of society were too difficult for sociologists who were 'appallingly ignorant' of the biology of man and lacked training in scientific method (E.322, E.324). Politicians and economists were in his view as incompetent as sociologists in their handling of social problems (E.411).

By contrast Krebs took very seriously the scientist's broader responsibilities to society, which he interpreted as meaning that the scientist must bring his scientific knowledge to bear on social problems. He believed that scientists, especially senior ones, could contribute a great deal towards the solution of all the great problems of the day, including poverty, unemployment, pollution, and the wasteful exploitation of resources. In respect of his own particular interests, scientists could do much for better social relations 'by helping people towards a normal healthy development of body and mind, and by contributing their scientific views on education and the treatment of offenders' (E.411). Krebs noted that 'many of us scientists can at some stage of their career help society, not merely by doing our job properly - the first step in social responsibility - but also by taking part in public affairs as scientifically trained persons'. He thought that 'the obligation increases with the increasing status of the individual scientist because the higher the standing and reputation, the more likely the scientist is listened to. This idea has been expressed ... by paraphrasing the old saying "Noblesse oblige" ... to Nobel oblige' (E.411).

In fulfilment of his general views on the social responsibility of the scientist to society and his particular interests in criminality and juvenile delinquency, Krebs lectured and published very widely 'on the biological and medical aspects of asocial conduct, on ... root causes of modern juvenile delinquency and on what kinds of preventive action might be taken' (Rem. & Refl., p.228). He made contact with individuals and organisations with

similar views and interests and his hopes of prompting government into effective action is reflected by contacts with the Cabinet Office's Central Policy Review Staff (E.329, E.330, E.459-E.467).

In addition to the many lectures Krebs delivered on juvenile delinquency, he also sought to lecture on this topic but was dissuaded from doing so during the symposium held in his honour at Dallas in 1980 and at Harvard (The Dunham Lectures) in 1981. In 1980 Krebs was one of a number of Nobel prizewinners invited to meet Pope John Paul II, and although he does not appear to have talked about juvenile delinquency on that occasion he did suggest it as a suitable topic for a subsequent meeting (E.438-E.441).

For further material on this topic see A.912-A.916, G.73, G.74, G.106-G.120, G.132.

The material is presented as follows:

E.316-E.341	Notes and drafts
E.342-E.354	Research folders
E.355-E.453	Lectures and publications
F 454-F 492	Correspondence

E.316-E.341	Notes and drafts
	A sequence of ms. and typescript notes and drafts on sociobiological themes especially crime and juvenile delinquency, 1959, 1961-62, 1967-68, 1971, 1973, 1975-81.
E.316	1959, 1961-62
E.317	1967-68, 1971
	Includes notes on the conclusions to be drawn from chromosome abnormalities, applying science to social problems, eugenics and the biological aspects of criminality.
E.318	1972
	Notes (and related printed matter) on the 'report of the national child's development study (from birth to 7)'.
E.319	1973 February, April, May
	Includes notes on dishonesty among students, imprinting and the status of sociological subjects.
E.320	1973 June-August and n.d.
	Includes notes on film and television violence and carparking offences by embassies; also notes of discussions with B. Blumberg and W. Bodmer.
E.321	1975; 1976 June, September, November
	Includes notes on the limitation of social subjects and the welfare state.
E.322	1976 December (1)
	Includes notes on psychoanalysis, treatment of prisoners and vandalism; also 1p. note, 'My reason for an interest in societal questions'.
E.323	1976 December (2)
	Includes notes on 'Early scepticism of sociology', the rehabilitation of criminals, the effects of separation of young off-spring from parents and the importance of deprivation.
E.324	1977 January-March
	Includes notes on Women's Lib, 'Con-men and bother boys', science and politics and social changes during the last three decades; also 2pp. note 'Why I concern myself with "Sociological" problems'.

	- Colonia Tarana III. Colonia
E.325	1977 April, June
	Includes notes on the inequality of man, the deterioration of the standards of service.
E.326	1977 July, September, October
	Includes notes on the causes and prevention of crime, vandalism and its treatment, married female population.
E.327	1977 November, December
	Includes notes on the importance of the concept of evolution, relevance of Darwinian principles to educational policy.
E.328	Undated ms. and typescript notes found with 1977 material.
	Includes note on carrying out tests of hypotheses.
E.329	1978 January, February
	Includes notes re the work of the Central Policy Review Staff (Think Tank). See also E.330, E.459-E.467.
E.330	1978 March-May
	Includes notes re work of Think Tank, notes on treatment of adolescent offenders, religious education.
E.331	1978 August, December
	Includes note on differences in economic developments in the various industrialised countries.
E.332	Undated ms. and typescript notes found with 1978 material.
	Includes notes on vandalism and orderliness.
E.333	1979
	Includes notes on Gibbon's 'Decline and Fall', Goethe's 'Faust', the work ethic, etc.
E.334	1980 January, February
	Includes notes on juvenile delinquency in Eastern Europe, limitations of sociology.
E.335	1980 March, April
	Includes note on imprinting and habit-forming.
E.336	1980 June-August and n.d.
	Includes notes on the decreasing influence of the churches and the government and scientific advisory committees.

E.337 1981

Includes note on the literature on delinquency

Undated notes and drafts

E.338 Includes note on juvenile crime in the East.

E.339 Includes notes on libertarians and the application of biological

considerations to economic problems.

E.340 Includes note on juvenile delinquency in the past.

E.341 Jotter, 1977 or later

Some notes on social themes, especially elite ignorance. Other

material relates to Krebs's scientific research.

Very many pages torn out.

E.342-E.354 Research folders

Folders of research material on sociobiological themes assembled by Krebs in the mid-1970s. They include extracts from journals, newspaper-cuttings, Krebs's typescript notes and a little correspondence. The subject-matter is similar to that of the sequence of ms. and typescript notes above but, in addition, includes material on the scientific standing of sociobiology itself.

Krebs put together similar folders in respect of his scientific research, see Section D.

E.342 Folder of material arranged and indexed by Krebs, 1974 and 1976.

4 items.

E.343-E.346 Folder of material arranged and indexed by Krebs, 1975-76. Divided

into four folders for ease of reference.

28 items, of which no. 22 is missing.

E.343 Index and items 1-7

E.344 Items 8-14

E.345 Items 15-21

E.346 Items 23-28

E.357

Science-related interests

Science-related interests		
E.347-E.351	Folder of material arranged and indexed by Krebs, 1974-76. Divided into five folders for ease of reference.	
	30 items.	
E.347	Index and items 1-6	
E.348	Items 7-12	
E.349	Items 13-18	
E.350	Items 19-24	
E.351	Items 25-30	
E.352-E.354	Folder of material arranged and indexed by Krebs, 1975-76. Divided into three folders for ease of reference.	
	22 items	
E.352	Index and items 1-5	
E.353	Items 6-8	
E.354	Items 9-22	
E.355-E.453	Lectures and publications	
E.355-E.362	'Some Facts of Life - Biology and Politics' (Bibliog. 300, 313.)	
	Lecture at the Royal Institution, 5 February 1971.	
	See also E.503.	
E.355	Correspondence, etc. re arrangements for lecture, synopsis of lecture.	
	Folder also includes related correspondence with J. Barker.	
E.356	9pp. typescript draft 'Some facts of life', with ms. corrections, 24 and 25 February 1969.	

7pp. clean copy of preceding with ms. note 'Draft sent to Porter'

28pp. typescript draft of lecture, with ms. corrections, 4 January 1971.

(Director, Royal Institution).

E.358 Correspondence arising from publication of lecture, 1971-72.

D. Gabor

Includes preprint of ch.1 of Gabor's 'The Mature Society' and Krebs's letter of congratulation on the occasion of the award of Gabor's Nobel prize.

S.E. Luria

Writes to express his deep concern about some of the positions Krebs took in his article, especially on the relation between biology and society.

- Published versions of lecture in Royal Institution <u>Proceedings</u> (<u>Bibliog</u>. 300) and <u>Perspectives in Biology and Medicine</u> (<u>Bibliog</u>. 313).

 Perspective's reprint has ms. amendments perhaps for subsequent lecture on same subject.
- E.360, E.361 Ms. and typescript notes found with 'Facts of Life' material.

 2 folders.
- E.362 Correspondence re third international meeting of the Italian Biologists Association, Milan, 21-24 June 1973.

 Krebs was invited to give the opening lecture and suggested as his topic the theme of his paper 'Some facts of life, Biology and Politics'.
- E.363-E.365 'The Biological Approach to Social Problems'. (Not listed in <u>Bibliog</u>.)
- E.363 18pp. typescript draft with ms. corrections and incorporating pasted-up cut-outs from Bibliog. 300, May 1973.
- E.364 20pp. typescript draft (including bibliography), with ms. note 'used for Newman lecture'.
- E.365

 20pp. typescript draft (including bibliography), with slight ms. correction and note 'Paper in Press'.

 Draft letter 'not sent', 21 June 1973, re copyright, alterations to manuscript.
- E.366 'The dark side of man', <u>Prism</u>, February 1974. (Not listed in <u>Bibliog</u>.)

 Copy of published article; correspondence arising.

E.376, E.377

Science-related interests

E.367-E.372	Global Television Network's: 'The Great Debate' programme, Toronto, 9 January 1975.
	Krebs was invited to support the resolution that having children today should be controlled by law.
	He thought that overpopulation was one of the greatest dangers threatening humanity and that it was important 'to stop the wrong kind of people from populating the globe'.
	For Krebs's views on the outcome of the debate see F.268.
E.367	Correspondence, etc. re arrangements; press-cuttings.
E.368	Jotter with notes for Toronto debate.
E.369	Typescript notes and drafts for Toronto debate.
E.370	Miscellaneous ms. notes <u>re</u> Toronto.
E.371, E.372	Background material re overpopulation, food reserves, birth defects, 'XYY males', etc.
E.373	'A Biologist's Comments on Current Social Problems'
	Lecture given to the Liddon Society of St. Edmund Hall, Oxford, 14 February 1975.
	This is Krebs's <u>Prism</u> article with ms. introductory and concluding sentences, newspaper-cuttings re crime rise, etc.
E.374-E.377	Article on human rights for Eine Welt der Vereinten Nationen. (Not listed in Bibliog.)
	Krebs's theme was to be the linking of rights with responsibilities since he felt that there was too much emphasis on human rights and too little on human responsibilities.
E.374	Correspondence with publisher, 1975.
E.375	Ms. and typescript notes and drafts for article on human rights.

Background material on human rights.

	Science-related interests
E.378-E.380	'Biologische Regulationsmechanismen und ihre Bedeutung für soziale Probleme'
	Lecture at the University of Konstanz, 9 June 1976.
E.378	Ms. draft paginated 12-44 and 29pp. typescript draft with ms. additions and corrections (both in German); shorter ms. and typescript drafts.
E.379, E.380	Miscellaneous ms. and typescript notes and drafts used in preparation of Konstanz lecture.
	2 folders.
E.381	'Some Diseases of Society and Their Treatment'
	Variously paginated typescript draft, with ms. corrections, dated in 1976 and 1977. Possibly written for Executive Health. See also E.395.
	Folder also contains lists of reference material.
E.382-E.385	'Problems of society. A biologist's viewpoint'
	Lecture at the Baylor College of Medicine, Houston, Texas, 13 January 1977.
	Krebs also lectured on this topic at the Sigma XI Lectures, Miami, 11 January 1978.
E.382	Correspondence <u>re</u> arrangements and arising from visit to Baylor; lecture programme.
E.383	22pp. typescript draft, list of references, etc., for Baylor lecture.
E.384	Ms. and typescript notes, newspaper-cutting, letter (from K. Dalziel) commenting on Baylor script.
E.385	Typescript draft of Baylor lecture with ms. and typescript additions for Miami, January 1978.
E.386	'Diseases of Society'
	Informal talk to the Middle Common Room, New College, Oxford, 23 February 1977.
	Correspondence re arrangements only.

Krebs intended to use the Baylor script as the basis of his talk.

E.397

Science-related interests

	Science related interests
E.387, E.388	'Getting to the root cause of delinquency', The Times, 26 April 1977. (Bibliog. 357.)
E.387	Covering letter to Editor of <u>The Times</u> ; copies of published article; typescript drafts, with ms. corrections.
E.388	Miscellaneous shorter notes and drafts; related newspaper-cuttings.
E.389-E.392	Dahlem Workshop on Biology and Morals, Berlin, 28 November-2 December 1977.
	An additional session on juvenile delinquency was arranged to fit in with Krebs's interests, 3 December.
E.389	Correspondence with organiser and participants, 1977-78.
E.390	Workshop programme and list of participants.
E.391	Duplicated material prepared by Krebs as a starting point for discussion and Krebs's typescript notes of the points raised in discussion.
E.392	Ms. and typescript drafts of the material Krebs prepared for the discussion.
E.393, E.394	'Aspekte der Enstehung der Jugendkriminalität'
	Lecture at meeting of Munich working group of Deutsche Psychoanalytische Gesellschaft, 9 March 1978.
E.393	Brief correspondence re arrangements.
E. 3 94	21pp. typescript draft of lecture, with ms. corrections and additions.
E.395	'On the dark side of man', Executive Health, July 1979. (Not listed in Bibliog.)
	Copy of published article only. Incomplete.
E.396-E.410	'Zur Biologie der Jugendkriminalität' (Bibliog 373).
	Lecture at meeting of Nobel prizewinners, Lindau, 28 June 1978.
E.396	Brief correspondence re arrangements.

Correspondence re publication of the lecture by the University of Cologne's Institut für Wirtschaftspolitik.

E.398	Miscellaneous correspondence arising from the lecture.
E.399	Ms. drafts for Lindau lecture. In German.
E.400	27pp. typescript draft of lecture, with ms. corrections. In German.
E.401	2pp. summary of Lindau lecture. In German. 2 copies, different formats.
	Folder also includes newspaper-cuttings re Krebs's Lindau lecture.
E.402	27pp. typescript draft, with ms. corrections, of English translation of Lindau lecture, August 1978.
E.403	Typescript draft of English version of lecture, with ms. list of corrections (3pp.) not by Krebs.
E.404	Photocopy of English version of lecture, with ms. comments not by Krebs.
E.405	Second photocopy of English version, with a few ms. corrections.
E.406	Various ms. and typescript English-language versions or summaries of Krebs's Lindau lecture; also German and English versions of statement of nine errors in modern educational practice.
E.407	Typescript draft of German version of lecture, with typescript comments by C. Sies; letter from C. Sies, n.d.
E.408	Photocopy of German version of Lindau lecture with ms. note 'Copy post Munich 19.4.79.'
	1p. ms. note headed 'Jugendkriminalität von biologische medizinischen Gesichtspunkt'.
E.409	Miscellaneous shorter notes and drafts found with Lindau papers.
E.410	Published article (Bibliog. 373).
E.411	'Science can help?'
	4pp. typescript draft, 23 August 1978, in which Krebs explains why he has concerned himself with 'societal' problems such as juvenile criminality.

	The state of the s
E.412-E.418	'Biological Aspects of Juvenile Delinquency'
	Lecture at the Second International Symposium on the Management of Stress, Monte-Carlo, 19 November 1979. (SUPP. Bibliog. 33.) See also J.649.
E.412	Correspondence with organisers, including preliminary programme; correspondence arising from conference.
E.413	'Comments on the Biology of Juvenile Delinquency'
	Carbon copy of Krebs's June 1978 Lindau lecture with deletions and ms. additions and corrections. Found with Monte-Carlo material.
E.414	Draft of Krebs's contribution to Monte-Carlo meeting. Largely drawn from Krebs's earlier published work on juvenile delinquency.
	Draft abstract of Krebs's contribution.
E.415	'Notes for a letter to the Lancet', 31 October
	This is Krebs's draft reply to 'scurrilous references to the Monte-Carlo Meeting' which had appeared in the Lancet.
	Folder also includes press-cutting on the 'national filth'.
E.416	Comments by others on Krebs's paper on juvenile delinquency.
E.417	Ms. and typescript notes by Krebs; background material.
E.418	Programme of conference, list of lecturers, background material <u>re</u> Hans Selye and the International Institute of Stress.
E.419-E.426	'How does material well-being affect "happiness"
	Lecture at the International Conference on the Unity of the Sciences, Los Angeles, 22-25 November 1979.
	For further material <u>re</u> ICUS see G.106-G.120.
E.419	Typescript draft of Krebs's contribution, with slight ms. emphasis.
	Duplicated copy of the same in the form distributed to participants.
E.420	Variously paginated drafts of Krebs's contribution; shorter ms. and typescript drafts.
E.421	Duplicated material distributed by organisers to participants.
	In original folder.

E.422	Letter of thanks from Krebs 'for letting us participate at the 8th ICUS conference'.
E.423	Background material \underline{re} ICUS and the Eighth International Conference.
E.424-E.426	Photocopies of published papers on the Unification Church, by Eileen Barker.
	3 folders.
E.427-E.433	'Biological and Medical Aspects of Juvenile Delinquency'
	Lecture for UNESCO in Paris, 21 February 1980, and at a symposium on the young and the family in society, Madrid, 30 June 1980.
	The lecture was published by UNESCO in New Horizons of Human Knowledge, 1981 (Bibliog. 390) and in Spanish (not listed in Bibliog.).
E.427	Correspondence re arrangements for UNESCO lecture, publication, etc., 1979-81.
E.428	Duplicated typescript copy of Krebs's UNESCO lecture; reprint of published lecture.
	Folder includes poster for Krebs's lecture.
E.429	Correspondence with J. Viña about juvenile delinquency in Britain and Spain. A little scientific correspondence.
E.430	Correspondence with J. Arana <u>re</u> arrangements for Krebs's Madrid lecture.
E.431	22pp. typescript draft of lecture on biological and medical aspects of juvenile delinquency, with ms. corrections and additions.
E.432	20pp. typescript draft of the lecture, headed 'Madrid July 1980'.
E.433	Shorter ms. and typescript notes and drafts.
	Includes Krebs's notes on Spain's 'great social experiment in the management of personal liberty'.

E.434-E.437	'Jugendkriminalität vom biologischen und medizinischen Gesichtspunkt'
	Lectures at a medical research conference in Berlin, 27 May 1980 and at the annual conference of the Deutschen Gesellschaft für Sozialpädriatie, Munich, 1980. (SUPP. Bibliog. 21, 22).
	302 largest latter, 1700. (3011. 213110g. 21, 22).
E.434	Brief correspondence re Berlin lecture, including publication; press-cutting re Berlin lecture.
E.435	19pp. draft of Krebs's German lecture, April 1980. Incorporates earlier published material.
E.436	Ms. draft for lectures at Berlin and Munich, 1980. In German.
	Folder also includes ms. note dated 15 January 1980 on the prevalence in recent decades of neuroses, psychosomatic illnesses and asocial conduct.
E.437	Programme of Munich conference; brief correspondence arising from Krebs's lecture.

E.438-E.442 Meeting of Nobel Prize Winners with Pope John Paul II, Rome, 21-22 December 1980.

The meeting was organised by Nova Spes which describes itself as an 'international movement for the promotion of human values and development'.

Krebs suggested a contribution on juvenile delinquency but appears to have talked more generally on the 'highly creative and ethical activity' of scientists 'in their efforts to understand the natural world, including ourselves'. He later suggested as subject-matter for a further meeting 'the widespread gross deterioration in the standards of personal responsibility towards society which showed itself ... in the ever-increasing frequency of juvenile delinquency'.

- E.438 Correspondence <u>re</u> arrangements for the meeting, the value of further meetings.
- E.439 Background information about the meeting, participants, etc.
- E.440 Krebs's contribution (3pp. duplicated typescript); draft of the same, with ms. corrections; ms. notes.
- E.441 Copies of letters and papers sent by other Nobel prizewinners in response to invitations to attend meeting and distributed to participants by organisers.
- E.442 Newspaper-cuttings re meeting of Pope and Nobel prizewinners.
- 'On the biology of juvenile delinquency: comments on the essay by Felton Earls, "The social reconstruction of adolescence: toward an explanation for increasing rates of violence in youth", Perspectives in Biology and Medicine, 1980. (Bibliog. 383.)

Reprint of published article; newspaper-cuttings and ms. notes found clipped together, including draft letter to Earls.

E.444-E.446 'Biological and Medical Aspects of Juvenile Delinquency'

Krebs lectured on this topic at a conference, on the nature of violence with special reference to the causes and prevention of a third world war, organised by the Dag Hammarskjold Information Centre on the Study of Violence and Peace, 12 and 13 January 1981.

Krebs's paper was based on his UNESCO lecture. See E.420.

E.444 Correspondence <u>re</u> arrangements, publication of conference proceedings; newspaper reports of Krebs's contribution and correspondence arising.

E.445	Advance information <u>re</u> conference, background material <u>re</u> Dag Hammarskjold Centre, etc.
E.446	Duplicated typescript copy of Krebs's paper, reading list, ms. notes.
E.447	'Risikofaktoren in der Entwicklung Jugendlicher'
	Lecture at a colloquium on 'Gesundheitserziehung und Verhaltensprobleme bei Jugendlichen', Bonn, 15-17 October 1981. See also E.489.
	Correspondence re arrangements, letters of thanks, etc.
E.448	Meeting of the Deutsche Liga für das Kind in Familie und Gesellschaft, Bonn, 27 November 1981.
	Krebs died on 22 November 1981 and his lecture was read by the organiser, H. Schaefer.
	Brief correspondence only.
E.449	'Clouds Gathering Over Society. The problem - ever-increasing criminality and asocial behaviour', n.d.
	21pp. typescript carbon of lecture or article.
E.450, E.451	'Juvenile Delinquency from the Biological and Medical Point of View', n.d.
E.450	35pp. typescript draft including appendix on 'Limitations of Sociology' and 'Difficulties of Economics'.
E.451	35pp. typescript draft with list of references and collection of related newspaper-cuttings.
E.452, E.453	Miscellaneous shorter ms. and typescript drafts for lectures or articles.

2 folders.

	Science-related interests
E.454-E.492	Correspondence
	Correspondence with individuals and organisations interested in crime, juvenile delinquency, parent education, child care, etc., presented in an alphabetical sequence. Includes some ms. and typescript notes, printed matter.
E.454	Ва - Ве
E.455-E.457	Big Brothers / Big Sisters of America
	Big Brothers was an American organisation which supported a programme in which volunteer men (Big Brothers) were matched with fatherless boys (Little Brothers) 'on an individual and personal one to one basis'. Likewise Big Sisters.
E.455	Correspondence, various dates, 1975-81.
E.456, E.457	Background material.
	2 folders.
E.458	ВІ
E.459-E.467	Central Policy Review Staff ('Think Tank')
	Krebs wanted the 'Think Tank' to study the causes of juvenile criminalit and delinquency.
E.459	Correspondence, 1977
E.460	Correspondence, 1978 and n.d.
E.461	Notes and drafts, August 1977
E.462	'Material collected for Think Tank, 5.12.77.'
E.463	'Meeting with CPRS, 17 March 1978'
E.464, E.465	Material <u>re</u> the problem of 'elite ignorance' found with 'Think Tank' papers: printed matter, ms. and typescript notes, correspondence.
	2 folders.
E.466, E.467	Miscellaneous ms. and typescript notes \underline{re} 'Think Tank' or found with 'Think Tank' papers.

2 folders.

E.468	Co - Fam
E.469, E.470	Farmington Institute for Christian Studies.
	A small research centre in Oxford concerned with promoting 'an understanding of a Christian <u>involvement</u> in education'.
E.469	Brief correspondence, 1979-80; Krebs's typescript notes.
E.470	Background material.
E.471	Fr - H
E.472	K - L
E.473	Ma - Me
	Includes correspondence with and information from Metropolitan Police re 'ever-increasing extent of juvenile delinquency', 1978.
E.474	Morgan, P.
	Correspondence, typescript notes, etc. re Morgan's books 'Child Care: Sense and Fable' and 'Delinquent Fantasies', 1980.
E.475	NACRO (National Association for the Care and Resettlement of Offenders)
	Correspondence and papers on vandalism, truancy and delinquency, 1977. The contact was made as a result of Krebs's <u>Times</u> article. (Bibliog. 357.)
E.476	National R - Oc
E.477	Oxfordshire Probation and After-Care Service
	Correspondence, typescript note of discussion, background material, 1978.
E.478	P
E.479	Re - Ri
E.480	Robertson Centre
	London-based educational charity 'established to promote understanding of the emotional needs of infants and young children'.
	Brief correspondence and background material, 1981.

E.481	Rog - Tha
E.482-E.489	'Thomas Jefferson Research Center'
	A California-based organisation which describes itself as a 'non-profit corporation for research and education in leadership and motivation'.
E.482	Correspondence with directors of the Center et al., 1979-80.
E.483-E.487	Copies of the Center's monthly research letter.
E.483	September 1976, May, October and December 1978
E.484	November 1979, January-March 1980
E.485	April-July 1980
E.486	August-November 1980
E.487	December 1980, February, April-July 1981
E.488	Miscellaneous background material.
E.489	Ms. and typescript lists of the risk factors involved in juvenile criminality and heart disease. In German. Found with Thomas Jefferson Research Center papers but may relate to a lecture Krebs gave in Bonn, October 1981. See E.447.
E.490	Tizard, J.P.M.
E.491	Tr - Wa
E.492	Wu - Z

E.493-E.501	SCIENCE AND RELIGION
E.493-E.500	'Science and Religion. A Natural Scientist's Point of View'
	Seminar given by Krebs in a series organised by the Department of Ethnology and Prehistory, Oxford, 4 February 1976.
E.493	Letter from organiser with seminar programme; correspondence arising from Krebs's seminar.
E.494, E.495	Ms. and typescript drafts, with ms. corrections, for Krebs's seminar. Various dates, December 1975-February 1976.
	2 folders.
E.496	21pp. carbon of Krebs's seminar paper including list of references.
E.497	'Additional notes. Religiousness'
	4pp. typescript draft, with ms. corrections, 15 January 1976, and 9pp. typescript draft paginated 1-8, 21, with ms. note 'Pages 9-20 taken to Australia'.
E.498	'Is Knowledge "Good"?' and 'Knowledge and ignorance'
	Typescript drafts with ms. additions and corrections. Various dates, October 1975-March 1976.
E.499	Shorter ms. and typescript notes and drafts. Various dates, 1970-79.
E.500	Background material.
E.501	Requests for Krebs's assistance with research on the religious and ethical values of scientists, 1972 and 1981.

E.502-E.507	BACKGROUND MATERIAL	
E.502	Printed matter <u>re</u> history and philosophy of science, sociology of research.	
	1 Box.	
E.503-E.507	Printed matter <u>re</u> sociobiology especially crime and juvenile delinquences 5 Boxes.	y.
E.503	Background material for Krebs's 'Facts of Life' lecture at the Royal Institution, 1971. See E.355-E.362.	
E.504, E.505	Newspaper-cuttings 2 folders.	
E.506	Booklets, brochures, off-prints, etc. In English.	
E.507	Similar material. In German.	

SECTION F

VISITS AND CONFERENCES F.1 - F.360

INTRODUCTION TO SECTION F

This very substantial section deals with visits, lecture-tours, scientific congresses and symposia for a period of fifty years from 1933. Krebs was in great demand and received many invitations to attend, present papers, chair sessions, provide introductory or concluding remarks, or to participate in the organisation of conferences as a committee or panel member or as an editor of the published proceedings. As an active research scientist throughout his career he placed great value on the contacts and exchanges with colleagues which symposia or visits to research institutions or laboratories offered; he was also generous with his time in respect of public lectures on more general scientific or science-related topics.

The material is consequently heterogeneous, and may vary from a single letter of invitation to a full account including preliminary arrangements, invitations sent out to speakers, drafts for speeches or major papers by Krebs, letters of thanks or congratulation or the like, extending over several years. The presentation is chronological as far as possible. The many invitations declined by Krebs (with the exception of those associated with the more substantial American visits) are grouped together at the end of each year.

In this large and complex collection material re visits and conferences is to be found in a number of other sections. In Section A there are scrap-books relating to specific visits and a sequence of jotters, 1949-81, which are essentially travel diaries. Visits of exceptional biographical importance are also to be found in the chronological presentation of Krebs's career and honours in Section A. Included there, for example, are the 1936 visit to Palestine with D. Nachmansohn (Rem. & Refl., p.91), the 1951 visit to Harvard re a projected Professorship for Krebs (Rem. & Refl., pp.180-184) and the 1953 visit to Stockholm for the award of the Nobel Prize (Rem. & Refl., ch.15). Material re Krebs's renewal of contacts with German scientists after the Second World War (Rem. & Refl., ch.13) is also to be found in the chronological presentation of career and honours and includes a 1948 invitation from the German Biochemical Society for Krebs to attend their annual conference at Frankfurt, correspondence re admission of German scientists to the First International Congress of Biochemistry at Cambridge in 1949 and Krebs's attendance at the annual meeting of German physiologists and biochemists at Göttingen in the same year. A record

of some of Krebs's post-war visits to Hildesheim, including the 750th anniversary celebrations of the Gymnasium Andreanum in 1975, is also to be found in Section A.

Section B includes material <u>re</u> Krebs's visits to Sheffield after 1954, including the 1980 Biochemical Society meeting to honour his 80th birthday (B.98-B.100).

Material <u>re</u> Krebs's visits and conferences in respect of his science-related interests, such as history and philosophy of science, sociology of research and sociobiology have been brought together in Section E.

The texts of many of the papers delivered by Krebs during his visits are to be found in Section H, and some of the related research material is in Section D.

Correspondence with colleagues in Section J may include references to conferences and visits, and subsequent publications.

Section L (non-print material) includes photographs of Krebs and colleagues at conferences and symposia, cassettes and videotapes of lectures by Krebs and a film of the Nobel prize ceremonies.

1933

F.1 Third International Congress for Experimental Cytology, Cambridge, 21-26 August.

Programme only.

1938

F.2, F.3 Visit to Canada and USA.

At the invitation of F.G. Banting Krebs spent three weeks working at the Banting Institute, University of Toronto, March-April.

Krebs was also invited to visit Princeton, Iowa State College, George Washington University, University of Pennsylvania and St. Louis.

F.2 Correspondence with Banting re arrangements for Toronto visit; Krebs's invitation for Banting to visit Sheffield; later (1980) correspondence explaining how collaboration with Banting came about.

F.3 Correspondence re American visits.

Invitations for 1945, 1946

F.4 Conference on Intracellular Enzymes in Normal and Malignant Tissues, Hershey, Pennsylvania, October 1945.

Conference in honour of Pasteur on the fifthieth anniversary of his death, Paris, 1946.

1947

F.5 International Physiological Congress, Oxford.

Includes abstract of the paper on 'Synthesis of Glutamic Acid in Animal Tissues', which Krebs proposed to read at the Congress. (Bibliog. 121.)

1948

F.6 Meetings of the Physiological and Biochemical Societies, Dublin.

Brief correspondence only.

Invitation for 1948

F.7 VIII Congrès de Chimie Biologique, Paris, October.

1949

F.8-F.16 Visit to USA, March-May.

Krebs was invited to deliver a lecture before the Harvey Society of New York. The question of travelling expenses led to an offer of a Rockefeller Foundation Special Fellowship which not only covered the cost of the trip to New York but also enabled Krebs to extend his stay to two months and visit research centres across America.

Krebs arrived in New York on 7 March and, in addition to the Harvey Lecture on the 17th, fulfilled a number of engagements in New York, New Haven and Philadelphia before crossing the continent to California. Krebs spent two weeks visiting research centres at UCLA, Berkeley and Stanford before undertaking an extensive tour of the Middle West. A brief visit to Boston preceded his return to New York in early May.

The Harvey Lecture was published in 1950 (Bibliog. 133).

- F.8 Itinerary, correspondence with officers of Rockefeller Foundation <u>re</u> arrangements, May-October 1948; correspondence with Secretary of MRC and Vice-Chancellor, Sheffield University, <u>re</u> leave of absence, September 1948.
- F.9 Continuing correspondence with officers of Rockefeller Foundation, Secretary of Harvey Society, November 1948-March 1949; letters from Sheffield during Krebs's absence (see also B.16).
- F.10-F.12 Correspondence <u>re</u> arrangements for visits, lectures (apart from Harvey Lecture) in New York and the North-East.
- F.10 Principally Columbia University. Correspondence with D. Nachmansohn touches on question of a Meyerhof Festschrift and whether Warburg should be invited to contribute to it.
- F.11 New York University and Polytechnic Institute of Brooklyn.
- F.12 University of Pennsylvania and Yale University.

- F.13 Correspondence <u>re</u> arrangements for visits in California. Krebs was unable to accept an invitation to give a course on intermediate metabolism in the summer sessions of the University of California.
- F.14 Correspondence re arrangements for Krebs's Midwestern tour. He visited research centres in St. Louis, Chicago, Madison and Cleveland, attended the Federated Biological Sciences meeting at Detroit and made a private visit to Toronto.
- F.15

 Correspondence re arrangements for visits to Boston and Cornell at the end of Krebs's time in America; also invitations to visit National Institute of Health, Bethesda, and Johns Hopkins, Baltimore.
- F.16 Miscellaneous material <u>re</u> travel, financial arrangements, etc.; presscuttings.

A scrapbook of documents, correspondence, souvenirs and memorabilia relating to this visit is preserved at A. 33.

F.17 First International Congress of Biochemistry, Cambridge, 19-25 August.

Brief correspondence with D. Needham <u>re</u> programme; invitation cards; dinner menu; plan of tables.

Invitations for 1950, 1951

F.18 Annual meeting of the Italian Society for Experimental Biology, Bari, 28–30 March 1950.

Eighth Triennial Council of the Institut International de Chimie Solvay, Brussels, 10–16 September 1950.

1952

F.19

Congress of the German Society for Internal Medicine, Wiesbaden,

Brief correspondence only.

F.20

Visit to Oslo, May.

Krebs lectured to the Physiological Society on "Active" transport of electrolytes in animal tissues' and to students on the tricarboxylic acid cycle and on oxidative phosphorylation.

Correspondence re arrangements; letters of thanks.

A scrapbook of documents, correspondence, a ms. diary, souvenirs and memorabilia relating to this visit is preserved at A. 34.

F.21

International Biochemical Congress, Paris, July.

Brief correspondence only with C. Fromageot; also included here is brief correspondence with Fromageot, March 1953, which may relate to a subsequent visit to Paris.

1953

F.22

Visit to West Germany and Switzerland, June.

Krebs lectured on 'Biologische Energieumwandlungen' at the Pharmacology Institute, Heidelberg, and on 'Oxidative Phosphorylierung' to the Basle Chemical Society.

Correspondence, etc. <u>re</u> arrangements; related personal correspondence; 1p. typescript draft on biochemistry teaching at Sheffield.

1954

F.23-F.46 Visit to USA, February-May.

Krebs was invited by the University of Chicago to receive an honorary degree on 19 March. Following on from this were many other invitations to visit and lecture in the United States and Krebs arranged to be based in four centres - Baltimore (Herter Lectures at Johns Hopkins), Chicago (where, in addition to the conferral of the honorary degree, he was Visiting Professor), Madison, Wisconsin (Visiting Professor) and Atlantic City (Federation of American Biological Chemists meeting). Krebs also visited many other universities and research centres.

- F.23 Correspondence, etc. re travel arrangements, including visa; list of forwarding addresses; Cunard passenger lists; railroad timetable.
- F.24 Krebs's request for leave of absence from Sheffield, correspondence with Sheffield Biochemical Department during visit.
- F.25 Typescript diary for part of visit, 23 February (date of arrival) 6 March.
- F.26 Correspondence re arrangements for Herter Lectures at Johns Hopkins on 24, 25 and 26 February; lecture programmes. (Bibliog. 166, 167, 168.
- F.27 Published copy of Herter Lectures.
- F.28 Correspondence <u>re</u> National Academy of Sciences lecture, Washington, D.C., on 2 March.
- F.29 Correspondence <u>re</u> Naval Medical Research Institute lecture, Bethesda, on 3 March.
- F.30 Correspondence <u>re</u> lecture at Rockefeller Institute for Medical Research,
 New York, and programme for New York Academy of Medicine symposium
 on metabolism and infections, 5 March.
- F.31 Correspondence <u>re</u> honorary degree and Visiting Professorship at University of Chicago; instructions to participants in convocation exercises.

 Krebs lectured at Chicago on 10, 17 and 31 March.
- F.32, F.33

 Correspondence re other engagements fulfilled by Krebs during tenure of Chicago Visiting Professorship.

 These engagements were at the University of Illinois College of Medicine

(Chicago), University of Illinois Urbana, Argonne National Laboratory and State University of Iowa.

2 folders.

F.34	Correspondence <u>re</u> Visiting Professorship at University of Wisconsin, Madison, in April.
	Krebs's stay at Madison was interrupted for the meeting of the Federation of American Biological Chemists.
F.35	Correspondence re Federation meeting, Atlantic City, 11-16 April.
	Krebs and F. Lipmann gave an informal symposium on frontiers in biochemistry. See D.101-D.111.
F.36	Correspondence <u>re</u> lecture at University of Minnesota, 27 April; signed lecture poster.
F.37	Correspondence <u>re</u> lecture at Lilly Research Laboratories, Indianapolis, 28 April.
F.38	Correspondence <u>re</u> lecture at Western Reserve University, Cleveland, 30 April.
F.39	Correspondence re engagements at Chas. Pfizer & Co. Inc., New York, 3 May, and Merck Institute, Rahway, New Jersey and Cornell Universit 4 May.
F.40-F.42	Invitations declined by Krebs, presented alphabetically by institution.
	F.40 C-I F.41 K, M F.42 O-W
F.43	Miscellaneous social and personal correspondence.
F.44	Miscellaneous material re financial arrangements, fees, bills, etc.
F.45	Press-cuttings.
word of the Co	
F.46	'Souvenirs'. Contents of a folder so inscribed.

A scrapbook of documents, correspondence, souvenirs and memorabilia relating to this visit is preserved at A. 35.

Invitations for 1954

F.47

International Symposium on Neurochemistry, April.

Symposium on the 'Pathophysiologie und Klinik der Nieren', Freiburg, July.

To visit Australia 'on my way back from Chicago to England'.

1955

F.48-F.56

Visit to West Germany, July.

Krebs received invitations to visit Freiburg and Würzburg as part of a foreign university interchange scheme organised by the British Council. Krebs also accepted an invitation to visit the Free University of Berlin which he later had to cancel.

At Freiburg Krebs gave the Aschoff Memorial Lecture on 'Die Steurung der Stoffwechselvorgänge' (Bibliog. 179). The university bestowed upon him 'without warning' an honorary degree.

- F.48
- Correspondence with British Council <u>re</u> arrangements for visit; Krebs's short report on visit.
- F.49
- Correspondence with organisers of visit at Freiburg. Includes carbon of Krebs's letter to fellow refugee S.J. Thannhauser. He explains 'the very special circumstances' which prompted him to accept the invitation to give the Aschoff Memorial Lecture.
- F.50
- Correspondence with organisers of visit at Würzburg.
- F.51
- Correspondence re proposed Berlin visit.
- F.52
- Family and personal correspondence.
- F.53

Address of welcome by Dean of Medical Faculty (2 copies); drafts of Krebs's introduction to his Aschoff Memorial Lecture (personal memoir of Aschoff family); draft of the lecture. Found with this material and included here is photocopy of letter by Theodor Fontane <u>re</u> Aschoff family, from a published source.

- F.54
- Invitation cards, photographs of Krebs and colleagues, etc.
- F.55, F.56

Miscellaneous press-cuttings of interest to Krebs.

2 folders.

Invitations for 1955

F.57 German Pharmacological Society meeting, Graz, September.

Eli Lilly insulin conference, Indianapolis.

1956

F.58-F.62 Visit to West Germany and Italy, September-October.

Krebs attended a meeting of the Gesellschaft deutscher Naturforscher und Ärtze, Hamburg, 23–26 September, and visited the Istituto Superiore di Sanità, Rome, 27 September–3 October.

He lectured on 'Die energieliefernden Reaktionen des Stoffswechsels' (Bibliog. 186) in Hamburg and on 'Il Controllo dei Processi Metabolici' in Rome.

- F.58 Correspondence <u>re</u> arrangements for Hamburg visit; personal correspondence.
- F.59 Typescript copy of Krebs's lecture, with covering letter.
- F.60 Invitation, programmes, lecture tickets, published accounts of Hamburg meeting.
- F.61 Correspondence with E.B. Chain <u>re</u> Rome visit; greetings card from Chain's Institute, lecture ticket, menu cards.
- F.62 Chain's introductory remarks at Krebs's lecture; Krebs's own introductory remarks; miscellaneous notes. In Italian.

Invitations for 1956

F.63 Invitations to lecture at the Free University of Berlin and at the University of Saarland.

1957

F.64 International Symposium on the Biochemistry of Cancer, London, May.

Correspondence re arrangements; programme annotated by Krebs.

1958

F.65-F.67 Visit to the Netherlands, March

of the society.

Krebs visited the Amsterdam Municipal University as part of an exchange scheme of university teachers between Britain and the Netherlands.

He lectured to the Genootschap ter Bevordering van natuur-, genees- en heelkunde te Amsterdam on 'Synthesis of cell constituents from 2-carbon compounds in micro-organisms' and received the gold medal

- F.65 Correspondence <u>re</u> arrangements including short report on visit for British Council.
- F.66 Itinerary; lecture ticket; press-cutting, etc.
- F.67 Ms. and typescript notes and draft for lecture.
- F.68

 Day of science organised by J.R. Geigy A.G. to celebrate their bicentenary, Basel, 3 June. See also A.32.

 Krebs lectured on 'Energieumwandlungen in der Biologie'

 Published account of proceedings including Krebs's lecture (not in Bibliog.).
- F.69 Fourth International Congress of Biochemistry, Vienna, 1-6 September.
 Invitation cards; menu; press-cuttings, etc.
- F.70 Visit to USA, September-October.

Symposium on 'Molecular Biology: Elementary Processes of Nerve Conduction and Muscle Contraction', New York, 25-30 September.

Correspondence with D. Nachmansohn re arrangements.

University of Texas - Medical Branch, Galveston, October.

Brief correspondence only.

Invitations fo	or 1958
----------------	---------

F.71 Biophysics and Biophysical Chemistry Study Section, Study Program in Biophysical Science, Boulder, Colorado, 20 July-16 August.

Third Congress of the International Diabetes Federation, Düsseldorf, 21-25 July.

F.72 Third International Neurochemical Symposium, Strasbourg, 25-29 August.

Meetings of Australian and New Zealand Association for the Advancement of Science and Australian Biochemical Society, August.

Visit to Swedish Universities.

1959

F.73 Visit to Paris, March.

Krebs lectured on 'Synthesis of cell constituents from two-carbon compounds' in the 'Exposés Annuels de Biochimie Medicale' series. Correspondence with organisers and colleagues; ms. and typescript

notes.

F.74-F.78 Visit to Switzerland, West Germany and France, June-July.

Krebs lectured at the Universities of Basle, Geneva and Berne and the Swiss Federal Institute of Technology, Zurich, the University of the Saar and the Société de Chimie Biologique, Paris, on 'Biochemical Aspects of Ketosis' (Bibliog. 193).

F.74-F.76 Correspondence re arrangements for Swiss visit.

3 folders.

F.77 Correspondence <u>re</u> arrangements for visit to University of the Saar; press-cuttings.

F.78 Correspondence re lecture to the Société de Chimie Biologique.

Invitations for 1959

F.79 Hebrew University of Jerusalem, March.

International colloquium on 'Comparative biochemistry of basic acids', Concarneau, 1-5 July.

1960

F.80-F.92 Visit to USA, February-March.

Krebs was asked to be guest of honour and deliver the Joseph P. Ross Lecture at a symposium on ketosis at Presbyterian-St. Luke's Hospital, Chicago. The organisers assisted Krebs in making arrangements for him to visit other research centres during his stay.

F.80 . Schedules of Krebs's visit; travel correspondence and information.

F.81, F.82 First Ames Symposium on Ketosis, Presbyterian-St. Luke's Hospital, Chicago, 2-3 March.

Krebs lectured on 'The biochemical lesion in ketosis' (Bibliog. 198).

F.81 Correspondence with organisers of symposium.

F.82 Programmes; invitation cards; lecture poster; Krebs's introductory remarks at opening of symposium; press-cutting.

F.83 Correspondence with organisers and colleagues re other Chicago engagement:

F.84 Ames Company Laboratories, Elkhart, Indiana, 4 March.

Krebs lectured on 'The cause of the "specific dynamic action" of food-stuffs' (Bibliog. 194).

Correspondence <u>re</u> arrangements, list of those attending discussion with Krebs, information <u>re</u> Ames personnel, questions asked by Ames biochemists.

F.85 Wayne State University, Detroit, Michigan, 5 March.

Krebs repeated his Elkhart Lecture.

Correspondence re arrangements; correspondence arising from visit.

Visits and conferences
University of Michigan, Ann Arbor, 6-8 March.
Krebs lectured on 'The control of cellular metabolism' (<u>Bibliog</u> . 204) and repeated his Elkhart Lecture.
Correspondence re arrangements.
Western Reserve University, Cleveland, Ohio, 9 March.
Krebs lectured on 'The Metabolism of Ketone Bodies'.
Correspondence \underline{re} arrangements; memorandum announcing Krebs's visit.
Harvard University, Cambridge, Massachusetts, 10-12 March.
Krebs repeated his Elkhart Lecture and visited Brandeis University.
Correspondence with organisers and colleagues; schedule; personal correspondence.
Mount Sinai Hospital, New York, 14 March.
Krebs gave the annual Janeway Lecture on the cause of specific dynamic action of foodstuffs.
Correspondence with organisers and colleagues; some family correspondence.
Ciba Laboratories, Summit, New Jersey, 15 March.
Correspondence re arrangements for visit.
Invitations declined by Krebs.
2 folders.

F.93-F.95

Visit to Israel, March-April.

Krebs accepted an invitation to visit the Hebrew University of Jerusalem which awarded him an honorary degree. During his stay in Israel he lectured at the Weizmann Institute, the Government Biological Institute, Ness-Ziona and the Hebrew University-Hadassah Medical School. Krebs's lecture topics were 'The cause of the "specific dynamic action" of foodstuffs' (Bibliog. 194), 'Biochemical aspects of ketosis' (Bibliog. 193) and 'Regulation of Metabolism' (? Bibliog. 210).

F.93, F.94

Correspondence with organisers and colleagues.

2 folders.

F.95

Schedules for Krebs's visit; 5pp. draft for lecture; newspaper cuttings,

etc.

F.96

Lindau meeting of Nobel prizewinners, July.

1 letter only. See also H.41, H.148.

1961

F.97

Visit to Berlin, May.

Krebs lectured to the Berlin Physiological Society, 23 May, on 'Über den Stoffwechsel der Ketonkörper' and visited the Free University of Berlin

Correspondence with organisers re arrangements.

F.98

Visit to Freiburg, July.

Krebs lectured to the Freiburg Medical Society on 'Über den Stoffwechsel der Ketonkörper', 4 July.

Lecture ticket only.

F.99, F.100

Visit to USA and Mexico, December. See also H.152, H.153.

F.99

Brief correspondence re visit to University of Texas Medical School,

Galveston.

Krebs visited Galveston after attending a Welch Foundation conference in Houston in early December.

Brief correspondence arising from December visit to Berkeley.

F.100

Correspondence re proposed visit to Mexico in October 1961.

Krebs had to cancel his October visit but apparently was able to fit

in a visit to Mexico in December.

A substantial scrapbook of documents, correspondence, schedule of visit, souvenirs and memorabilia relating to this visit is preserved at A.36.

Invitation for 1961

F.101

A.E.R.E. Isotope Research Division, Wantage.

1962

F.102

Colloquium on biochemical aspects of the regulation of metabolism, Louvain, 8 and 9 June.

Krebs gave the introductory talk.

Correspondence with organiser <u>re</u> arrangements; 1p. summary of Krebs's talk; programme.

F.103-F.106

Visit to USA, October.

Symposium on 'Regulation of Liver Enzyme Activity and Synthesis', Indiana University Medical School, Indianapolis, 1 and 2 October.

Krebs lectured at the symposium on renal gluconeogenesis (<u>Bibliog</u>. 219). This symposium was the first of a series of annual international conferences on advances in enzyme regulation organised at Indianapolis by G. Weber. Krebs attended these conferences, with one exception, until 1977. In 1980 the University of Indiana awarded Krebs an honorary degree noting his services to the University thus:

Sir Hans Krebs, since he was first appointed a Distinguished Visiting Professor at Indiana University in 1963, has always proved a consistently strong friend and supporter of the Uni-His association with Indiana University is special since this is the only university at which Sir Hans has accepted an appointment as a regular Visiting Professor. Over the decade and a half of association with Indiana University, Sir Hans has made invaluable contributions to the School of Medicine. Worthy of special mention are the annual international symposia on the regulation of enzyme activity and synthesis in normal and neoplastic tissues in which Sir Hans has participated. He has also been instrumental in helping establish the Indiana University Laboratory for experimental oncology. In recognition of his services to Indiana University, Sir Hans was made a Sagamore of the Wabash.

The importance of these conferences, and of the subsequent publication of Krebs's contributions in Advances in Enzyme Regulation, is referred to by H.L. Kornberg and D.H. Williamson in their Memoir (Biographical Memoirs of Fellows of the Royal Society, 30, 1984, p.377).

During this American visit Krebs also lectured to Indiana University medical faculty and visited the Universities of Pittsburg and Pennsylvania where he also lectured on gluconeogenesis.

F.103	Correspondence with G. Weber <u>re</u> arrangements for Indianapolis symposium; abstract of Krebs's contribution; invitation card; presscuttings.
F.104	Correspondence <u>re</u> publication of symposium proceedings. (Covering letter from Weber to Krebs and copies of correspondence between Weber and Pergamon Press.)
F.105	Correspondence \underline{re} arrangements for visits to Pittsburg and Philadelphia; press-cuttings.
F.106	Invitations declined.
F.107, F.108	Visit to Scandinavia, December.

F.107 Correspondence with organisers; personal correspondence.

F.108 Itinerary; material re Nobel festivities; press-cuttings.

Invitations for 1962

festivities in Stockholm.

F.109 Opening ceremony of Physiologisch-Chemisches Institut, Martin-Luther-Universität, Halle-Wittenberg, 18 October.

Brief correspondence also refers to the difficulties of East German scientists in getting British visas.

Krebs lectured on 'Gluconeogenesis' in Helsinki, Uppsala, Stockholm, Gothenburg and Copenhagen. He also took part in some of the Nobel

Medical faculty, Würzburg.

1963

F.110-F.113

Visit to USA, March

F.110

Dartmouth Medical School, 11-14 March.

Krebs gave the Annual Dartmouth Medical Lecture on 'Some Aspects of Gluconeogenesis' and an informal talk in the graduate programme on 'Control of Metabolic Processes by Feed-back Mechanisms'.

Correspondence <u>re</u> arrangements; schedule for Krebs's visit; lecture invitation, etc.

F.111

Amherst College, 15 March.

Krebs lectured on 'Gluconeogenesis'.

Correspondence re arrangements only.

F.112

University of Kansas Medical Center, 17-22 March.

Krebs lectured on 'Gluconeogenesis' and gave a seminar on 'Feedback Mechanisms in the Regulation of Metabolism'.

Correspondence re arrangements; personal correspondence; schedule for Krebs's visit; press-cuttings, etc.

F.113

Brookhaven National Laboratory, New York.

Brief correspondence only.

F.114

Symposium on 'Mechanisms of cellular regulations in bacteria', Marseilles, 24-30 July.

Correspondence re arrangements; letters of thanks.

F.115-F.117

Visit to USA, September-October.

Second Enzyme Regulation Conference, Indianapolis, 30 September-1 October.

Krebs was asked to chair the first session and to introduce the general topic of enzyme regulation and gluconeogenesis. He proposed the history of the tricarboxylic acid cycle as a suitable subject for a general faculty lecture.

F.115

Correspondence with G. Weber re arrangements.

F.116

Correspondence re publication of proceedings (Bibliog. 222). Includes

copies of correspondence between Weber and Pergamon Press.

F.117

Vanderbilt University, 3 October.

Correspondence re arrangements for lecture on 'Glucneogenesis'.

University of Pittsburg, 4 October.

1 letter only.

1964

F.118

Deuel conference on the regulation of energy metabolism, Carmel, California, 19–22 February.

Krebs gave a paper on the biological selection of metabolic fuels.

Correspondence re arrangements; programme.

F.119, F.120

Visit to Spain, March.

Krebs was asked to visit the universities of Madrid, Toledo, Granada and Malaga. In Madrid Krebs was made an Honorary Councillor for the Spanish Higher Council of Scientific Research and at Malaga he received an honorary degree. Krebs lectured at Madrid and Granada Universities on 'Experiments concerning Gluconeogenesis' and before the Spanish Biochemical Society on 'Feedback Mechanisms in the Regulation of Metabolism'.

F.119

Correspondence re arrangements, with Krebs's curriculum vitae and summaries of the two lectures.

F.120

Schedules of visit; invitation cards; press-cuttings, etc.

F.121

Sixth International Congress of Biochemistry, New York, 26 July-1 August.

Brief correspondence <u>re</u> arrangements; note of Krebs's engagements; invitation cards.

F.122 'Journée Commemorative du Xème Anniversaire de la Mort de Michel Polonovski', Paris, 4 November.

Krebs lectured on gluconeogenesis.

Correspondence with organisers <u>re</u> arrangements; programme; invitation cards, etc.

F.123-F.125 Visit to Texas, November.

Krebs attended the Robert A. Welch Foundation Conference on Chemical Research, Houston, 16–18 November, where he lectured on 'Metabolic Interrelations in Animal Tissues' (Bibliog. 229) and visited the Texas Christian University, Fort Worth, 18–19 November.

F.123 Correspondence re arrangements for visits to Houston and Fort Worth.

F.124 Correspondence arising from visit to Fort Worth. Relates to offer of a post for Krebs upon his retirement from Oxford. See also F.137.

F.125 Invitations received by Krebs in connection with his visit to Texas (declined).

Invitations for 1964

F.126 Visit to Israel, October.

F.127 Third Enzyme Regulation Conference, Indianapolis, October.

1965

F.128 Second meeting of the Federation of European Biochemical Societies, Vienna, 21-24 April.

Krebs lectured on 'Control Mechanisms of Carbohydrate Metabolism'.

Brief correspondence \underline{re} arrangements; note of Krebs's travel plans; miscellaneous invitations.

F.129-F.139 Visit to USA, May-June.

Krebs was invited to chair a conference on 'Control of Energy Metabolism' at the University of Pennsylvania, 21 May, as part of the university's observance of the bicentennial of medical education in the United States, and to attend the Annual Public Commencement of the University, 24 May, at which he was awarded an honorary degree. A research colloquium on 'Recent Experiments on Metabolic Control' was also organised in Philadelphia by the Johnson Research Foundation, 20 May.

Krebs also accepted invitations to visit the University of Maryland, State University of New York, University of Chicago, University of Wisconsin and Duke University.

- F.129 Correspondence re arrangements for visit to Philadelphia, March-November 1964.
- F.130 Continuing correspondence re arrangements, March-May 1965.
- F.131 Correspondence arising from Philadelphia visit.
- F.132 Drafts of Krebs's introductory remarks at symposia; annotated conference programme.
- F.133 Miscellaneous invitations and memorabilia re Philadelphia visit.
- F.134 The Alpha Omega Alpha Lecture on 'The Biochemistry of Ketosis', University of Maryland Medical School, Baltimore, 19 May.

 Correspondence re arrangements for visit to Baltimore.
- F.135 Annual Lecture of the Research Society of the State University of New York on 'Gluconeogenesis and Ketosis', New York, 26 May.

 Correspondence re arrangements for visit to New York.
- F.136 University of Chicago, 27-28 May.

 Krebs accepted an invitation to visit Chicago and contribute to the teaching of their most advanced biochemistry course. The general title of Krebs's contribution was 'Regulation of Gluconeogenesis'.

 Correspondence re arrangements for visit, etc.

F.137	University of Wisconsin, Madison, 29-31 May.
	Correspondence <u>re</u> arrangements for an informal visit, offer of a post- retirement Professorship at Texas Christian University, Fort Worth. See F.124.
F.138	Duke University, Durham, North Carolina, 2 June.
	Correspondence <u>re</u> seminar on hepatic control mechanisms, Krebs's post-retirement prospects in the USA.
F.139	Invitations received by Krebs in connection with Philadelphia visit (declined).

F.140-F.142	Visit to Italy, September.
F. 140, F.141	Joint meeting of the British and Italian Biochemical Societies on 'Control of Metabolism at the Level of Hexose Phosphates', Santa Margherita, 7 and 8 September.
	Krebs and W. Gevers presented a paper on the role of adenosine monophosphate in the regulation of carbohydrate metabolism in pigeon-liver homogenates (? <u>Bibliog</u> . 232).
F.140	Correspondence re arrangements for joint meeting; abstract of Krebs's contribution.

F.141 Programme; travel itineraries; press-cutting, etc.

F.142 International Organization for Pure and Applied Biophysics Symposium, Naples, 8-11 September.

Correspondence with organiser re arrangements, etc.

F.143, F.144 Symposium on 'Aspects of Yeast Metabolism', Research Laboratory, Arthur Guinness Son & Company, Dublin, 15-17 September.

Krebs introduced the symposium and acted as Consultant Editor of the published proceedings.

F.143 Correspondence re arrangements, February-October 1964.

F.144 Programme, continuing correspondence re arrangements, publications correspondence, February-October 1965, January-May 1966.

F.145 Eighth Latin Biochemical Meeting, Lisbon, 20-24 September.

Krebs lectured on 'The regulation of the release of ketone bodies'
(Bibliog. 236).

Correspondence re arrangements; miscellaneous invitations, etc.

F.146 Fourth Conference on Enzyme Regulation, Indianapolis, 4-5 October.

Krebs lectured on 'The regulation of the release of ketone bodies by the liver' (Bibliog. 236).

Correspondence \underline{re} organisation of conference, travel, etc.; some related scientific correspondence.

Welch Foundation Symposium, Houston, November.

Newspaper reports only.

Invitations for 1965

F.147 Baylor University, Waco, Texas.

Fordham University, New York.

1966

F.148 Third Meeting of the Federation of Biochemical Societies, Warsaw, 4–7 April.

At a colloquium on the biochemistry of mitochondria Krebs presented the results of current research on the generation of reducing power by mitochondria (Bibliog. 248).

Correspondence \underline{re} arrangements; abstract of proposed presentation; itinerary.

Lindau meeting of Nobel prizewinners for medicine, 27 June-1 July. F.149 Krebs lectured on 'Die Ursachen der Ketonkörperanhaufung in tierischen Organismus' (Bibliog. 240). Correspondence re arrangements; correspondence arising from meeting. F.150, F.151 Visit to USA, October. Fifth Enzyme Regulation Conference, Indianapolis, 3-4 October. F.150 Krebs lectured on 'The redox state of diphosphopyridine nucleotide in mitochondria and cytoplasm. Its measurement and its role in the regulation of metabolic process' (Bibliog. 252). Correspondence re arrangements; abstract; schedules; press-cutting. Indiana University, Bloomington, 5 October. F.151 Krebs lectured on 'The redox state of the pyridine nucleotides in liver cell compartments'. Correspondence with organisers re arrangements. Visit to USA and Mexico, November-December. F.152-F.156 John P. Peters Memorial Lecture, Yale Medical School, 4 November. F.152 Krebs lectured on 'The redox state of pyridine nucleotides in the liver cell and its role in the control of metabolic processes' (Bibliog. 237). Correspondence with organiser re arrangements. Distinguished Visiting Resident Professor, University of Texas-Medical F.153, F.154 Branch, Galveston, 5 November-15 December.

Krebs gave four lectures: 'Theoretical concepts in biological sciences' (Bibliog. 239); 'The biochemical lesion in ketosis'; 'Metabolic functions of the kidney' and 'The redox state of cell compartments'.

F.153 Correspondence with organisers, colleagues; personal correspondence.

F.154 Official documentation re Krebs's appointment; programme of lectures; newspaper cuttings reporting Krebs's comments on duplicated research and socialised medicine.

F.158, F.159 University of Bari, March. Krebs contributed to a cycle of lectures on the control of redox state of subcellular fractions and glutamate metabolism. F.158 Correspondence with organisers re arrangements; newspaper report. F.159 Invitation to combine visit to Bari with one to Naples (declined). F.160 Sixth Enzyme Regulation Conference, Indianapolis, ? October. Schedule of session on regulation of carbohydrate and lipid metabolism chaired by Krebs; correspondence arising from conference: thanks, expenses, publication, exchange of news on research problems, etc.

Sigrid Juselius Foundation Symposium on 'Regulatory Functions of Biological Membranes', Helsinki, 5–9 November.

Krebs lectured on the effects of ethanol on liver metabolism (Bibliog. 261)

Visit to Scandinavia, November.

F.161-F.163

F.161 Correspondence re arrangements for symposium; provisional programme; invitation to visit Research Laboratories of the State Alcohol Monopoly.

F.162	Typescript draft of speech welcoming symposium members and ms. draft
	of Krebs's speech replying to the welcome; invitation cards; press-
	cuttings.

F.163 Invitation to visit Uppsala and give a lecture to the Society of Environmental Biology.

Invitations for 1967

F.164 Distinguished Visiting Professorship, State University of New York at Buffalo.

Australian National University, Canberra.

1968

F.165-F.169 Visit to USA

F.165 University Science Lecturer, University of California, Riverside, 24 February-4 March.

Krebs gave three lectures on pyridine nucleotide interrelations.

Correspondence re arrangements; letters of thanks; tax problems; itinerary of American visit.

F.166 Seminar on 'The effects of alcohol on liver', UCLA, 29 February.

Brief correspondence re arrangements.

Invitation to visit, University of California, San Diego.

F.167 Mount Zion Hospital and Medical Center, San Francisco, 4–5 March.

Krebs gave the Franklin I. Harris Memorial Lecture on the 'Effect of Alcohol on Liver Metabolism' and the Phi Delta Epsilon Medical

Fraternity Lecture on the 'Permeability of the Liver Cell'.

Correspondence re arrangements; letters of thanks; lecture cards;

Correspondence <u>re</u> arrangements; letters of thanks; lecture cards; commemorative certificate.

F.168

Newspaper cutting from Los Angeles Times; examples of alternative press collected by Krebs in California: Berkeley Barb, March 1-7 and City of San Francisco Oracle, vol.1, no.12.

F.169 Visiting Professorship, Dallas, March.

Krebs lectured on 'Pyridine Nucleotide Interrelations in the Liver', 'Effect of Alcohol on Liver Metabolism' and 'Permeability of the Liver Cel

Correspondence re arrangements; lecture poster; press-cutting, etc.

F.170, F.171	University of Bari, Round Table Discussion on the Energy Level and Metabolic Control in Mitochondria, Polignano a Mare, 13–16 May.
	Krebs chaired a session on mitochondrial generation of reducing power and talked on pyridine nucleotide interrelations (Bibliog. 268).
F.170	Statement of organisers; annotated programme; ms. note headed 'Discussion', etc.
F.171	Correspondence re publication of proceedings, cost of reprints.
F.172	International Symposium on Renal Metabolism and Transport Processes, Feldafing, 21–23 June.
	Krebs lectured on 'Carbohydrate and fatty acid metabolism' (Bibliog. 267).
	Correspondence re arrangements; drafts of parts of discussion in which Krebs participated; programme; press-cutting.
F.173	Fifth Meeting of Federation of European Biochemical Societies, Prague, 15–20 July.
	During Krebs's stay in Prague he received the Purkinje Gold Medal of the Czechoslovak Academy of Sciences.
	Brief correspondence <u>re</u> arrangements.
F.174-F.177	Visit to USA, August.
F.174	Visiting Scientist, Mount Desert Island Biological Laboratory, Bar Harbour, Maine, 10–20 August.
	Correspondence re arrangements; personal correspondence.
F.175, F.176	XXIV International Congress of Physiological Sciences, Washington, D.C. 25–31 August.
	Krebs acted as co-chairman (with R.F. Pitts) of the Symposium on Renal Metabolism. He presented a paper on Renal Carbohydrate Metabolism.
F.175	Correspondence with colleagues re arrangements; abstract.
F.176	Schedule of scientific sessions; 5pp. typescript draft for a lecture; personal and social correspondence.

F.177

Seventh Enzyme Regulation Symposium, Indianapolis, 30 September-1 October.

Krebs was also invited to visit Indiana School of Medicine for two weeks as a Distinguished Visiting Professor.

Correspondence <u>re</u> arrangements, research problems, publication of Krebs's symposium paper (Bibliog. 278).

Invitations for 1968

F.178

Albert Einstein College of Medicine, Yeshiva University, New York, January.

International Colloquy on Urea and the Kidney, Sarasota, Florida, 9–12 September.

The Bayer Products Company Symposium on Phenformin (Dibotin), London, 8 November.

Iranian Biochemical Society.

Williams College, Massachusetts.

1969

F.179, F.180

Meeting of the Gesellschaft für Biologische Chemie, Freiburg, 7-9 January.

Krebs was awarded the Otto Warburg Medal and lectured on 'Die Glukoneogenese und ihre Regulierung'.

F.179

Invitation; correspondence re arrangements; abstract.

F.180

Newspaper cuttings.

F.181-F.183

Symposium on the 'Control Mechanisms in Intermediary Metabolism', Miami, 20-21 January.

Krebs presented a symposium paper on 'The role of equilibria in the regulation of metabolism' (Bibliog. 280). He also gave the Second Verne R. Mason Memorial Lecture, 22 January, on 'The history of the tricarboxylic acid cycle'.

F.181

Correspondence <u>re</u> arrangements, announcement of symposium and lecture, lecture programme, etc.

	Visits and conferences
F.182, F.183	Invitations received in connection with Miami visit (declined).
	2 folders.
F.184-F.186	Sixth Meeting of Federation of European Biochemical Societies, Madrid, 7-11 April.
	Krebs was invited to assist in the organisation of a symposium on metabolic regulation, and to chair a session.
F.184	Correspondence \underline{re} arrangements for symposium, publication of proceedings.
F.185	Correspondence re social engagements; photocopy of signature of guests at a dinner given by S. Ochoa, with typescript key.
F.186	Newspaper reports of meeting.
F.187	Lindau meeting of Nobel Prizewinners, 30 June-4 July.
	Programme; published accounts of meeting; material <u>re</u> visits to biochemica laboratories of J.R. Geigy A.G., Basle, before the Lindau meeting, and to the University of the Saar after Lindau.
F.188, F.189	Nobel Symposium on the 'Pathogenesis of Diabetes Mellitus', Stockholm, 3-6 September.
	Krebs also visited Uppsala where he lectured on 'The physiological significance of liver alcohol dehydrogenase' (Bibliog. 287) and paid an informal visit to the University of Stockholm Institute of Biochemistry.
F.188	Correspondence re arrangements for Nobel symposium, programme, list of participants, etc.
F.189	Correspondence re Krebs's other Swedish engagements.
F.190-F.192	NATO Symposium on 'Pyridine Nucleotide-Dependent Dehydrogenases', University of Konstanz, 14-20 September.
	Krebs acted as chairman of the first session and presented a paper (with R.L. Veech) on 'Regulation of the Redox State of the Pyridine Nucleotides in Rat Liver' (Bibliog. 284).
F.190	Correspondence with organiser re arrangements.
F.191	Correspondence re publication of proceedings; drafts of discussion remarks.
F.192	Programmes; Krebs's introductory remarks as chairman; statement of Students' Executive Committee of the University of Kontanz re symposium's

NATO connection; newspaper cutting.

	713113 dild 331113131
F.193-F.196	Visit to USA, September-October.
F.193	Eighth Enzyme Regulation Symposium, Indianapolis, 29–30 September.
	Brief correspondence arising; newspaper cutting.
F.194	University of Pennsylvania, Philadelphia, 4-11 October.
	Krebs delivered a Penn Lecture on 'The Physiological Significance of Liver Alcohol Dehydrogenase' (Bibliog. 287).
	Brief correspondence re arrangements.
F.195	Columbia University Medical School, New York, 7 October.
	Krebs lectured on 'The Physiological Role of Liver Alcohol Dehydrogenase'.
	Brief correspondence re arrangements.
F.196	Invitations made in respect of this visit (declined).
	Invitations for 1969
F.197	Penrose Lecture of the American Philosophical Society, 24 April.
	Round Table Discussion on Electric Transport and Energy Conservation, Bari, 12–15 May.
	Iranian Biochemical Society Symposium on biochemistry and nutrition, 19-22 May.
F.198	Symposium on 'Gums and Thickeners' organised by the Society of Cosmetic Chemists of Great Britain, Oxford, 13-15 October.
	Symposium on 'The Sex Steroids: Molecular Mechanisms', Florida, 2-6 November.
F.199	Johns Hopkins University, Baltimore.
	Mount Sinai School of Medicine, City University of New York.
	Monash University, Australia.
	University of Naples.

	Visits and conferences
	1970
F.200	German Society for Biological Chemistry conference on 'Regulation of Gluconeogenesis', Göttingen, 25-27 February.
	Correspondence re arrangements; abstracts of Krebs's contribution 'Gluconeogenesis and the Redox State' (Bibliog. 302).
F.201	'Alcohol meeting', Marburg.
	Brief correspondence arising. See also D.100.
F.202	University of Amsterdam, 22 May.
	Krebs gave a colloquium on 'Equilibrium relations between pyridine nucleotides in the liver and their regulation'.
	Correspondence re arrangements for colloquium and for Dutch biochemist to work in Krebs's laboratory.
F.203	Norwegian Biochemical Society, Oslo, 25 May.
	Krebs lectured on the same subject as his Amsterdam colloquium. See F.202.
	Correspondence re arrangements; letters of thanks, etc.
F.204, F.205	Visit to West Germany, July.
F.204	University of the Saar, 3 July.
	Krebs lectured on 'Organ Perfusion in Small Animals'.
	Correspondence with organiser re arrangements.
F.205	Symposium on 'Molekulare Bioenergetic und makromolekulare Biochemie' (Meyerhof Symposium), Heidelburg, 5–8 July.
	Krebs gave a short talk on 'Die Vorfahren von Otto Meyerhof' (<u>Bibliog</u> . 311).

Correspondence re arrangements; annotated programme; invitation See also E.119-E.128. cards.

Eighth International Congress of Biochemistry, Switzerland, 3-9 September. F.206 Correspondence re arrangements; provisional list of symposia, etc.

F.215

Visits and conferences

	Visits and conferences
F.207-F.209	International Colloquium on Bioenergetics: Energy Transduction in Respiration and Photosynthesis, Pugnochiuso, Italy, 11-14 September.
	See also E.8, E.9.
F.207, F.208	Correspondence re arrangements.
	2 folders.
F.209	Programme, list of participants, etc.
F.210, F.211	Ninth Enzyme Regulation Symposium, Indianapolis, 5-6 October.
	Krebs chaired the opening session and gave the special symposium lecture. He remained in Indianapolis for a few days for consultations with Indiana University staff and to give a general lecture in the Medical School.
F.210	Correspondence <u>re</u> arrangements, publication of symposium lecture (<u>Bibliog</u> . 305); Krebs's personal schedule for visit and scientific correspondence arising; reprint of Krebs's introductory remarks for a paper by F. Lipmann.
F.211	Invitation to visit University of North Carolina, Chapel Hill, in conjunction with Indianapolis visit.
F.212, F.213	Deutsche Akademie der Naturforscher Leopoldina, Halle, 6 November.
	Krebs accepted an invitation to give a special lecture 'as a tribute to, and an expression of admiration for, Professor Mothes'. He lectured on 'Regulierungsmechanismen in tierischen Aminosaurestoffwechsel'.
F.212	Correspondence with organisers re arrangements.
F.213	Programme, lecture tickets, etc.
F.214, F.215	Institute for Diabetes Research, Munich, 27 November.
	Krebs accepted an invitation to take part in the opening ceremony of a new institute for diabetes research and give a 'Festvortrag'. He lectured on 'Die Bedeutung der Grundlagenforschung für die Medizin' (Bibliog. 304).
F.214	Correspondence with organisers re arrangements.

Programme; invitations; press-cuttings.

Invitations for 1970

F.216

International Symposium on Lactation, Loughborough.

Visiting Professorship, University of Adelaide.

1971

F.217-F.223

Visit to USA and Canada, April-May.

This visit was originally part of a much more extensive trip which also took in Japan. The visit to Japan was cancelled and the rest of the trip rearranged after Krebs sustained a 'relatively minor' hand injury which required a skin graft.

F.217

Symposium on Diabetes, University of Texas Southwestern Medical School, Dallas, 19–20 April.

Krebs chaired the first session of the symposium and gave a special faculty lecture on 'Regulatory Mechanisms in Amino Acid Metabolism', 22 April.

Correspondence re arrangements; programmes; press-cutting: 'Sir Hans Krebs Debunks Pauling's Cold Cure'.

F.218

University of Colorado Medical Center, Denver.

Letter of thanks only. See also J. 685.

University of California, Berkeley.

Brief correspondence re proposed visit.

F.219

University of Guelph, Ontario, 25-27 April.

Krebs repeated his Dallas lecture. See F.217.

Correspondence re arrangements; invitation card.

F.220

University of Toronto, 27-29 April.

Krebs repeated his Dallas lecture.

· Hydrate and the sales of the

Correspondence <u>re</u> arrangements; related scientific correspondence; Krebs's itinerary.

Visits and conferences Queen's University, Kingston, Ontario, 29 April-1 May. F. 221 Krebs repeated his Dallas lecture. Correspondence re arrangements. Canada Department of Agriculture, Research Branch, Ottowa, 2-6 May. F.222 Krebs gave a seminar on 'The Role of Ketone Bodies in Caloric Homeostasis'. Correspondence re arrangements, gift of a Canadian maple tree; schedule of Krebs's visit, etc. Invitation to visit Simon Fraser University (declined). F.223 Further miscellaneous correspondence re scientific matters, travel arrangements. Tenth Enzyme Regulation Symposium, Indianapolis, October. F. 224 Brief correspondence re arrangements, publication of Krebs's paper (Bibliog. 310). [? Bethesda, Maryland], 8-10 October. Schedule of visit only. Visit to USA, December 1971-January 1972. F. 225-F. 227 Indiana University Medical Center, Indianapolis, 28-29 December. F.225 Krebs visited Indianapolis for consultations with G. Weber. Correspondence re arrangements; programme for Krebs's visit. Pan-American Association of Biochemical Societies Winter School, F.226, F.227 Miami, 3-7 January. Krebs chaired and contributed to Winter School sessions on the organisation of redox processes at the pyridine nucleotide level. He also lectured to University of Miami medical students on the history of the Tricarboxylic Acid Cycle (see E.16).

F.226 Correspondence with organisers re arrangements.

F.227 Announcement of symposia and Krebs's TCA lecture; programme with abstracts of contributors, etc.

Invitations for 1971

F.228 Tokushima University, Japan.

F.229 Second Symposium on Biochemistry of Exercise, Brussels, 6-10 June.

F.230 Meeting of Italian Bionergetics Group on 'Biochemistry and Biophysics of the Mitochondrial Membrane' (tentative title), June.

'First European Meeting on the Technique of Perfusion of Isolated Liver and its Applications', Milan, July.

F.231 Symposium on [? Inborn Errors of Metabolism], ?Groningen.

Congrès de la Société de Nutrition et de Diététique de Langue Française on 'Energy balance in man', 17-19 September.

Symposium on 'Limiting Factors of Physical Performance', Gravenbruch/ Frankfurt, 30 September-3 October.

F.232 Dedication of new 'laboratory facility', Ben May Laboratory for Cancer Research, Chicago, 5 November.

Visiting Professorship, University of Adelaide.

Prestige Fellow, New Zealand.

1972

F.233-F.235 Visit to Israel, March-April.

Krebs attended a Board of Governors meeting at the Hebrew University of Jerusalem. He also accepted an invitation to lecture at the Weizmann Institute who elected him a member of the Board of Governors and awarded him an Honorary Fellowship. The title of Krebs's lecture was 'The Pasteur Effect and the Relation between Cell Respiration and Fermentation' (Bibliog. 316).

F.233 Correspondence re travel to Israel, expenses.

F.234	Correspondence <u>re</u> arrangements for visit to Weizmann Institute, article for Institute's magazine; ms. introductory remarks for Krebs's lecture which refer to his 1936 visit to Israel with D. Nachmansohn.
F.235	Invitation to visit Israel Institute of Technology, Haifa (declined).
F.236	Second International Kissinger Colloquium on 'Aktuelle Probleme der Pathogenese und Therapie der Leberinsuffizienz', Bad Kissingen, 7 and 8 April.
	Krebs agreed to present a paper on 'Biochemische Grundlagen der Leberinsuffizienz mit besonderer Berücksichtigung der Hyperammoniaemie
	Correspondence re arrangements including publication of Krebs's paper (not listed in Bibliog.); programme; published version of paper.
F.237	Lindau meeting of Nobel prizewinners, 26-30 June.
	Krebs lectured on 'Der Pasteur Effekt und die Beziehungen zwischen Atmung und Gärung in lebenden Zellen' (Bibliog. 312).
	Invitation and programme; list of participants; newspaper cuttings; brief correspondence arising.
F.238-F.240	Visit to USA, September-October.
F.238	University of Kansas Medical Center, Kansas City, Kansas, 26-29 September.
	Krebs lectured on 'Regulatory Mechanisms in the Synthesis of Urea'.
	Correspondence re arrangements, schedules of visit, press-cutting, etc.
F.239	Eleventh Enzyme Regulation Conference, Indianapolis, 2 and 3 October.
	Correspondence re arrangements.
F.240	Invitation to visit Saint Louis University.

Invitations for 1972

F.241 Meeting of the National Heart and Lung Institute Task Force on Respiratory Diseases, Washington, D.C., February.

South African Society for Experimental Biology Symposium on Control Mechanisms in Biological Systems.

F.242 National Bureau of Standards, Washington, D.C.

Invitation from Exeter University for Krebs to take part in Réview Symposium.

Ninth International Congress of Biochemistry.

University of Texas Southwestern Medical School, Dallas.

1973

F. 243 Alfred Benzon Symposium, Copenhagen, May.

Brief correspondence only. See D.188-D.205, H.208, for research, correspondence and other material relating to this important meeting.

F.244 Transplantation Society conference on organ preservation, St. John's College, Cambridge, 29 and 30 August.

Correspondence <u>re</u> <u>arrangements</u>, publication of papers (<u>Bibliog</u>. 331). See also E.19.

F.245-F.247 Visit to USA, September-October.

F.245 Fogarty International Center, National Institute of Health, Bethesda, Maryland, 20 September-3 October.

Brief incidental correspondence; printed matter.

F.246 Saint Louis University, 3-4 October.

Krebs lectured on the 'Control of the Pentose Phosphate Cycle' (Bibliog.

327).

Brief correspondence <u>re</u> arrangements; schedule of visit; scientific correspondence arising.

F.247

F.252

F.253

F.254

Twelfth Enzyme Regulation Symposium, Indianapolis, 8-9 October.

Krebs's symposium lecture was entitled 'Regulation of the pentose phosphate cycle in rat liver' (Bibliog. 329). He also gave a public lecture on 'Sociological aspects of scientific research'.

Correspondence with organiser re arrangements.

For conference on the Historical Development of Bioenergetics, Boston, 11-13 October, see E.24-E.35.

F.248-F.254	Visit to USA, October-November.
F.248, F.249	West Central States Biochemistry Conference, University of Missouri- Columbia, 26-27 October.
	Krebs gave the conference address on 'Isolated Liver Cells as Tools for the Study of Liver Metabolism'.
F.248	Correspondence re arrangements; schedule of visit.
F.249	Conference programmes, lecture poster, etc.
F.250	University of Iowa, Iowa City, Iowa, 28-29 October.
	Krebs gave a seminar on 'The Regulation of the Pentose Phosphate Cycle' and talked to medical students on the history of the Tricarboxylic Acid Cycle.
	Correspondence re arrangements; schedule of visit.
F.251-F.253	Twenty-Fourth Annual Meeting of the American Association for the Study of Liver Diseases, 31 October-1 November.
	Krebs gave the Searle Lecture on 'The Liver in Carbohydrate Metabolism' and contributed a paper on 'The Hepatotrophic Concept from a Biochemist' Point of View' to the Roche Symposium on Portal Hepatotrophic Factors.
F.251	Programme; correspondence <u>re</u> arrangements.

Ms. and typescript drafts for Krebs's symposium paper.

Invitations (declined) to visit other institutions during American trip.

Printed and duplicated background material.

Invitations for 1973

F.255

Conference on 'Techniques of Microcalorimetric Investigations on Cellular Systems with Special Reference to the Clinical Field', University of Lund, Sweden, July.

International Organisation fot the Study of Human Development Second International Congress on Milk and Lactation, Campione, Italy, 9-12 September.

Symposium on 'Energy Metabolism in Long Lasting Exercise', Magglingen, Switzerland, 17-22 September.

F.256

East Virginia Medical School, Norfolk.

South African Society for Experimental Biology Symposium on 'Structure and Function in Metabolism'.

1974

F.257

Symposium on Friedreich's Ataxia, Oxford, 10 January.

Programme; correspondence re arrangements; background material.

F.258

EMBO workshop on 'Molecular aspects of hormone action', Sheffield, 3-5 April.

Krebs talked on 'Rate limiting factors in gluconeogenesis'.

Correspondence <u>re</u> arrangements; duplicated sheet of information; programme.

F.259, F.260

Symposium on Renal Metabolism in honour of Robert F. Pitts, New York, 20-21 June.

Krebs opened the symposium with remarks intended to put 'the contents of the Symposium into the right perspective, in terms of biochemistry and regulatory function'. He also chaired the session on 'Energy Transformations in the Kidney' and presented work under the title, 'Some Aspects of the Regulation of Ammonia Release by the Kidney' (Bibliog. 338).

F.259

Correspondence re arrangements, publication of proceedings.

F.260

Ms. and typescript notes and drafts for Krebs's contributions; background material.

For Lipmann Symposium, Berlin-Dahlem, July, see J.400.

	Visits and conferences
F.261, F.262	Visit to USA, October.
F.261	Thirteenth Symposium on Enzyme Regulation, Indianapolis, 7-8 October.
	Krebs gave a special symposium lecture on 'The role of chemical equilibria in organ function' (Bibliog. 341) and on open lecture to students on the misuse and overuse of drugs (Bibliog. 334).
	Correspondence with organisers re arrangements.
F.262	University of Pennsylvania, Philadelphia, 14-15 October.
	Krebs repeated his Indianapolis special symposium lecture (<u>Bibliog</u> . 341) in the Penn Lecture series and lectured clinical students on overmedication (<u>Bibliog</u> . 334).
	Correspondence with organisers re arrangements.
F.263-F.268	Visit to USA, December 1974-January 1975.
F.263-F.266	American Society of Zoologists Symposium on 'New Directions in Comparative Physiology and Biochemistry', Tucson, Arizona, 27-29 December.
	The title of Krebs's contribution was 'The August Krogh Principle: "For many problems there is an animal on which it can be most conveniently studied".' (Bibliog. 345).
F.263	Schedule of American visit; correspondence re arrangements for Tucson symposium; newspaper cutting; personal correspondence.
F.264, F.265	Ms. and typescript notes and drafts for Krebs's contribution.
	2 folders.
F.266	Background material including correspondence with J.W.S. Pringle (1965) <u>re</u> Krogh Principle.
F.267	University of Texas, Southwestern Medical School, Dallas, 30 December-7 January.
	Krebs gave a seminar on 'The role of chemical equilibria in organ function' (Bibliog. 341) and lectured on overmedication (Bibliog. 334).
	Correspondence re arrangements; schedule of Krebs's visit.
F.268	Case Western Reserve University, Cleveland, 7-9 January.

Krebs gave the Frontiers in Biological Sciences lecture (Bibliog. 341).

Correspondence \underline{re} arrangements for visit, research problem.

F.276

Visits and conferences

	Visits and conferences
	Invitations for 1974
F.269	International Creative Center conference, San Remo, 28 June-2 July.
	Joint Meeting of Biochemical Societies of Belgium, Netherlands and West Germany, Düsseldorf, 2–5 October.
	International Council on Alcohol and Addictions Symposium on Alcoholism Research in Industrialised Countries, Lausanne, 2-6 December.
F.270	Free University of Berlin.
	Meeting of Gesellschaft Deutscher Naturforscher und Ärzte.
	University of Helsinki.
	New Zealand (Commonwealth Prestige Fellow).
	1975
F.271-F.273	Symposium in honour of Krebs, University of Valencia, May.
	Krebs presented a paper on the discovery of the ornithine cycle (Bibliog. 351) and was awarded an honorary degree.
F.271, F.272	Correspondence \underline{re} arrangements for symposium, publication of proceedings, etc; oration by \overline{J} . Viña at honorary degree ceremony.
	2 folders.
F.273	Newspaper accounts, etc.
F.274, F.275	Symposium on 'Mitochondrial-Cytosolic Interrelationships' and FEBS Advanced Course on 'Use of Isolated Liver Cells and Kidney Tubules in Metabolic Studies', Paris and Luzarches, 26-28 July.
F.274	Correspondence \underline{re} arrangements; copies of letters of thanks from participants to J.M. Tager.
F.275	Correspondence re publication of proceedings (Bibliog. 349).

International Symposium on Enzymatic Mechanisms in Biosynthesis and

Cell Function (Ochoa Symposium), Madrid, September.

Biographical sketches of participants (printed booklet).

F.277, F.278 Visit to USA, October.

F.277 Fourteenth Symposium on Enzyme Regulation, Indianapolis, 6-7 October.

Krebs gave a symposium lecture on 'Factors Regulating the Hepatic Degradation of Histidine' (Bibliog. 348) and a public lecture on 'The Discovery and Clinical Relevance of the Ornithine Cycle of Urea Synthesis'.

Correspondence <u>re</u> arrangements, recommendation of Krebs for an honorary degree; abstract of symposium lecture.

F.278 Symposium in honour of Albert Szent-Győrgi, Boston, 16-17 October.

Krebs lectured on 'Errors, False Trails and Failures in Scientific Research'

(<u>Bibliog</u>. 356).

Correspondence <u>re</u> arrangements, publication of proceedings, Szent-Győrgi's 'bioelectronic ideas'.

F.279

National Swedish Board for Technical Development Seminar on 'Future Possibilities for Chemical Characteristization of Biological Systems, with Special Regard to the Demands of Medical Care', Wenner-Gren Centre, Stockholm, 9 December.

Krebs agreed to talk on inherited and other metabolic errors.

Correspondence from organisers.

Invitations for 1975

F.280 Biochemical Symposium in honour of Earl A. Evans Jr., University of Chicago, 23 May.

Symposium on Nutrition and Cancer, Florida, May 1975.

Japan.

1976

F.281 Institut de la Vie Conference, Wolfson College, Oxford, 13 April.

Note of discussion and brief correspondence re arrangements.

F. 282-F. 286 Visit to Australia, April-May.

Krebs's journey was sponsored jointly by the Biochemical Society and the Australian Biochemical Society. He visited research centres in Perth, Adelaide, Melbourne and Canberra and attended the annual meeting of the ABS at the University of New England, Armidale.

Correspondence with organisers re arrangements:

F.282 The Biochemical Society.

F.283 F.J. Ballard.

F.284 G.M. Kellerman.

F. 285 Various Australian colleagues. In alphabetical order.

F.286 List of contacts for Australian visit, itineraries, invitation and greetings

cards, etc.

F. 287, F. 288 Tenth Anniversary Celebrations of the University of Konstanz, 8-16 June.

Krebs lectured on 'Biologische Regulationsmechanismen: und ihre Bedentung für Soziale Probleme' and 'Regulationsmechanismen in Stoffwechsel

der Aminosduren'.

Some of the ceremonies were disturbed by student demonstrations.

F:287 Correspondence re arrangements, student demonstrations.

Includes letter, with list of signatories, expressing regret at the indignities to which Krebs, with other guests of the university, was subjected, and Krebs's draft letter expressing concern at excessive permissiveness and pointing out the unsatisfactory features of the old German university system. The discussion of the old German university system was omitted

from the letter as sent, a copy of which is also in the folder.

F.288 Programme, duplicated sheets produced by student protesters, newspaper

cuttings, Krebs's ms. and typescript notes.

F.289-F.292	Symposium on 'Biologically Active Substances - exploration and exploitation' in honour of the 70th birthday of Sir Ernst Chain, Royal Society, 15–16 June.
	Krebs agreed to sum up the proceedings with a few concluding remarks. He was also asked to use the occasion of the symposium to publish an article in Nature on the dominance of biochemistry by molecular biology.
F.289	Correspondence re arrangements, proposed article.
F.290	Programmes; list of participants.
F.291	Drafts, transcript of Krebs's concluding remarks; draft report on symposium
F.292	Ms. and typescript notes <u>re</u> Chain's personality and scientific work; printed material including programme of Wigmore Hall concert given by Chain and his son.
F.293	The American Instrument Company (Aminco) seminar on 'Biological Research and Instrumentation', Radcliffe Infirmary, Oxford, 21 July.
	Correspondence <u>re</u> arrangements, programme, list of participants, draft of Krebs's introductory remarks.
F.294, F.295	Visit to USA, September-October.
F.294	Fifteenth Enzyme Regulation Conference, Indianapolis.
	Brief correspondence rearrangements and sending copy of abstract (not now with the correspondence).
F.295	University of Texas Health Science Center, Dallas, 1 October.
	Brief correspondence re arrangements.
F.296	Munich, 25 and 26 November.
	Krebs lectured on 'Die Regulierung des Folsdurestoffwechsels' and 'Die Entdeckung des Harnstoffcyklus'.
	Brief correspondence, announcement of lectures, newspaper cutting.
	Invitations for 1976

Invitations for 1976

F. 297

German Diabetes Association conference on 'Biochemical and Clinical Aspects of Ketone Body Metabolism', Göttingen, 25 and 26 May.

Symposium on 'Essential Amino Acids and their Analogues', Erlangen, 17 June.

	Visits and conferences
F.298	Third International Symposium on the Biochemistry of Exercise, Quebec, 12-15 July.
	Free University of Berlin, Summer semester.
F.299	Ditchley Foundation Conference on 'The Health of the Public', 19–22 November.
	1977
F.300	Tenth Anniversary Celebrations of the University of Ulm, February.
	Krebs accepted an invitation to give the Ludwig-Heilmeyer-Geddchtnis- vorlesung. His title was 'Regulierung des Folsdurestoffwechsels'.
	Correspondence re arrangements; programme; newspaper cutting.
F.301, F.302	Informal workshop to clarify possible rates of energy-linked trans- hydrogenases, Oxford, 4 April.
F.301	Correspondence re arrangements.
F.302	Krebs's ms. and typescript notes.
F.303	International Symposium on Parenteral Nutrition, Bermuda, 16-19 May.
	Krebs gave a keynote address on 'Carbohydrates' (Bibliog. 364). The symposium was funded by Travenol.
	Brief correspondence; programmes.
	See also C.140
	XXVII International Congress of Physiological Sciences, Paris, 18-23 July
	One letter only. See H.252.
F.304-F.306	Visit to USA, September-October.
F.304	Temple University School of Medicine, Philadelphia, 28-30 September.
	Krebs gave the second Smith, Kline and French Lecture on 'The History of the Tricarboxylic Acid Cycle'.
	Correspondence re arrangements; later scientific correspondence.

Veterans Administration Department of Medicine and Surgery, Washington, F.305 D.C., 1 October.

Brief correspondence only.

F.306 Sixteenth Symposium on Enzyme Regulation, Indianapolis, October.

Krebs presented his symposium lecture on 'Some Aspects of the Regulation of Purine Biosynthesis' (Bibliog. 365) and gave a public lecture on 'Metabolic Functions of the Intestinal Mucosa'.

Brief correspondence re arrangements; abstract of symposium lecture.

Invitations for 1977

F.307 Third International Ammonia Symposium, Vienna, 12-14 May.

Physische, psychische und soziale Schäden durch Genussmittel, Unweltstoffe und den Missbrauch von Arzneimitteln', Tübingen, 6 October.

1978

F.308-F.315 Visit to USA, January.

Symposium on 'The Role of Compartmentation in Metabolic Regulation: Microenvironmental Aspects', University of Texas Health Science Center, Dallas, 16 and 17 January.

Krebs presented a paper on 'The Regulation of the Concentration of Low Molecular Constituents in Compartments' (Bibliog. 367).

F.308 Programme; correspondence re arrangements, publication of proceedings.

F.309, F.310 Variously paginated ms. and typescript drafts. 2 folders:

F.309 1975, 1977 F.310 1978 and n.d.

F.311-F.313 Background material including ms. and typescript notes, correspondence and printed matter.

3 folders.

F.314 Heineman Medical Research Center, Charlotte, North Carolina, 18 and 19 January.

Krebs lectured on the history of the tricarboxylic acid cycle.

Correspondence re arrangements, etc.

Invitation to visit University of Arizona, Tucson.

F.315

Newspaper cuttings of Krebs in America.

Includes Krebs's comments on the ills of British society for the benefit

of an American audience.

A scrapbook of documents, correspondence, draft speech of welcome to Krebs, photographs, souvenirs and memorabilia relating to visit to Charlotte (F.314) is preserved at A.37.

F.316-F.322	Workshop on Renal Metabolism held during the 7th International Congress of Nephrology, Montreal, 18–23 June.
	Krebs was chairman of the workshop and made the introductory remarks.
F.316	Programme; drafts of Krebs's introductory remarks.
F.317-F.322	'Renal Metabolism Montreal 1978'
	Contents of a folder so inscribed divided into six folders for ease of reference. The original folder has not been preserved.
	Krebs's dated typescript notes
F.317	1977, February 1978
F.318	4-12 May 1978
F.319	16–24 May, June 1978
F.320	Undated ms. and typescript notes
F.321, F.322	Printed matter.

2 folders.

F.330

	Visits and conferences
F.323, F.324	6th International Subcellular Methodology Forum, University of Surrey, Guildford, 25–28 July.
	Krebs talked on 'Criteria of metabolic competence of isolated hepatocytes' (Bibliog. 376).
F.323	Correspondence re arrangements; programmes; abstracts, etc.
F.324	Typescript draft, with ms. corrections, of Bibliog. 376.
F.325	University of Wisconsin-Madison, 19 and 20 October.
	Krebs gave the Harry Steenbock Lectures in Biochemistry on 'Regulation of Folate Metabolism' and 'On asking the right kind of question in biological research' (Bibliog. 374).
	Brief correspondence re arrangements; newspaper-cutting, etc.
F.326	University of Bayreuth, 26 November.
	Krebs lectured on the occasion of the establishment of the Emil Warburg- Stiftung.
	Correspondence re arrangements; invitation; press-cutting.
	Invitations for 1978
F.327	Kroc Foundation Symposium on Physiology and Biochemistry of Muscle Tissue, Santa Barbara, California, 13–17 March.
	17th Enzyme Regulation Symposium, Indianapolis, October.
	International Symposium on Gluconeogenesis, Calcutta, 3–5 December.
	1979
F.328-F.330	Symposium on 'Addiction: Biochemical Aspects of Dependence and Brain Damage', Oxford, 13-14 September.
	Krebs talked on the general principles of ethanol's effect on metabolic processes. (Not listed in <u>Bibliog</u> .)
F.328	Programmes; correspondence <u>re</u> arrangements with organisers including the Helping Hand Organisation and the Alcohol Education Centre; correspondence <u>re</u> publication of proceedings.
F.329	Drafts of Krebs's contribution.

Ms. and typescript notes; typescript draft of Bibliog. 346.

F.331, F.332 5th International Symposium on Biochemical Aspects of Kidney Function, Oxford, 16-19 September.

Krebs's paper was entitled 'Bicarbonate and Glutamate Metabolism' (Bibliog. 378).

F.331 Programmes; abstracts.

F.332 Drafts of Krebs's contribution.

F.333 Symposium on 'Glutamine: Metabolism, Enzymology and Regulation', Mexico, November.

Krebs lectured on 'Glutamine Metabolism in the Animal Body' (Bibliog. 381).

Correspondence re arrangements.

F.334 Johns Hopkins University, Baltimore, 3-4 December.

Krebs lectured on 'The History of the Discovery of the Tricarboxylic Acid Cycle' and gave a seminar on 'The Action of Benzoate on Metabolic Processes in Animal Tissues and Microorganisms'.

Correspondence re arrangements; schedule of Krebs's visit.

National Congress of the Spanish Society for Physiological Sciences, December.

Press-cutting only.

Invitations for 1979

F.335 Berlin, 5 June.

Research Group on Biochemistry of Exercise International Symposium on 'Exercise and Hormone Regulations', Free University of Brussels, 19-22 June.

World Congress on Alternatives and Environment, 29-31 October.

Japan (Tsukuba University).

1	980	

F.336-F.340 'Biological Cycles' Symposium in honour of Krebs's 80th birthday, University of Texas Health Science Center, Dallas, 17-19 March.

Krebs concluded the symposium with informal remarks, a version of which appeared in the published proceedings (not listed in Bibliog.). He also agreed to prepare a lecture for the Medical Grand Rounds at the University of Texas Health Science Center, 13 March, and suggested as his topic 'Medical and Biological Aspects of Juvenile Delinquency After correspondence with the organiser he changed this to 'Basic Research and Practical Medicine'.

- F.336, F.337 Correspondence <u>re</u> arrangements, publication of proceedings, etc. 2 folders.
- F.338 Information sent to participants; programme; poster.
- F.339 Drafts of Krebs's response.
- F.340 Ms. notes found with symposium material.

- F.341 Gesellschaft für Biologische Chemie Conference on 'Interactions of Biosynthetic Pathways', Düsseldorf, 27-29 May.

 Letter from organiser and preliminary programme; notes of Krebs's travel arrangements.
- F.342 Visit to West Germany, ? October.

 Brief correspondence re costs.
- F.343 Colloquium in honour of Kurt Mothes, Halle, East Germany, 11 November Krebs lectured on 'Evolution des Zitronensdurezyklus'.

 Invitation; correspondence re arrangements; Krebs's ms. notes.

Invitations for 1980

F.344 First Congress of the Association Mondiale de Perspective Sociale,

Dakar, 21-23 January.

Mexico City, March.

13th FEBS Meeting, Jerusalem, 24-29 August.

F.345 Joint meeting of German and Austrian Biochemical Societies, Innsbruck,

14-17 September.

Wright State University School of Medicine, Dayton, Ohio.

1981

F.346-F.349 Harvard Medical School, May.

Krebs visited the medical school as Dunham Lecturer. He originally suggested juvenile delinquency as his theme but after discussion with the organiser settled on 'The Evolution and Regulation of Metabolic Cycles'.

F.346 Correspondence with organiser re arrangements; synopsis of lectures.

F.347 Miscellaneous correspondence with colleagues re Harvard visit; personal

correspondence.

F.348 Schedules of visit; lecture posters; social invitations; newspaper cutting.

F.349 Miscellaneous ms. notes <u>re</u> Harvard visit.

For Dunham Lectures see also D.459-D.511.

F.350 Boston University, 27 May.

Krebs lectured on 'The Evolution of Metabolic Cycles'.

Correspondence re arrangements.

F.351-F.353
Lindau meeting of Nobel prizewinners, 29 June-3 July.

Krebs lectured on 'The Evolution of the Citric Acid Cycle and other Metabolic Pathways'.

F.351 Correspondence re arrangements.

F.352 Invitation; programmes; summaries of papers.

F.353 Photographs and press-cuttings.

Invitations for 1981

F.354 University of Cologne, 19-21 March.

Ciba Foundation Symposium No.87: Metabolic acidosis, London, 11–14 May

F.355 3rd Congress of the European Society of Parenteral and Enteral Nutrition, Maastricht, 27-30 September.

Symposium on 'Relationships between Structure and Function in Biochemical Systems' in honour of A. Rossi Fanelli, Rome, 28–30 September.

Round-table discussion on 'Sponsoring and Promoting Outstanding Academic Achievements - Reasons and Approaches', Essen, 29 September.

Pre-doctoral Student meeting of Irish Area Section of the Biochemical Society, Cork, 1 and 2 October.

Invitations for 1982

F.356 Congress on Citric Acid and Vitamin C, Mexico City, 21-27 March.

Biochemische Analytik 82. Internationale Tagung für Biochemische und Instrumentelle Analyse, Munich, 27-30 April.

Krebs agreed to give the opening lecture on 'Übermedikation und iatrogene Krankheiten'.

Harry S. Steenbock Symposium on 'Biochemistry of Metabolic Processes', University of Wisconsin-Madison, June.

Invitations for 1983

- F.357 First International Conference on Elements in Health and Disease, New Delhi, 6-10 February.
 - Symposium on 'Hormonal Effects on Membrane Systems', Netherlands.

- F.358 Miscellaneous unattributed material re visits.
- F.359 Draft schedules for visits, lectures, etc., various dates, 1963-78.
- F.360 Miscellaneous correspondence and papers exchanged with United States Embassy, travel agents, <u>re</u> foreign travel, various dates, 1970-81.

SECTION G SOCIETIES AND ORGANISATIONS G.1 - G.243

The material is presented in an alphabetical sequence and covers both British and overseas organisations.

While some entries are relatively trivial and deal with membership, invitations to meetings and the like, others are substantial folders covering a lengthy time-span and matters of consequence such as research policy and the refereeing of grant applications. Of particular importance in these respects is the material re the Agricultural Research Council, the Biochemical Society, especially Krebs's chairmanship of the Society's Sub-committee on the Report of the Working Group on Molecular Biology, and the Science Research Council. Although slight in quantity there is also interesting material re refugee scientists. See G.1, G.85, G.216.

ACADEMIC ASSISTANCE COUNCIL	G.1
ACADEMIC STUDY GROUP ON ISRAEL AND THE MIDDLE EAST	G.2
ACADEMIE NATIONALE DE MEDECINE	G.3
ACADEMIE ROYALE DE MEDECINE DE BELGIQUE	G.4
ACCADEMIA NAZIONALE DEI LINCEI	G.5
AGRICULTURAL RESEARCH COUNCIL	G.6-G.13
AMERICAN LONGEVITY ASSOCIATION	G.14
AMERICAN PHILOSOPHICAL SOCIETY	G.15
AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS	G.16
ANGLO-ISRAEL ASSOCIATION	G.17
ASSOCIATION OF AMERICAN PHYSICIANS	G.17
ASSOCIATION OF JEWISH REFUGEES IN GREAT BRITAIN	G.18
J.T. BAKER CHEMICAL COMPANY	G.19
BI-LINGUAL EDUCATIONAL RESEARCH CORPORATION	G.19 ·
BIOCHEMICAL SOCIETY	G.20-G.65
british committee for jews in arab countries	G.66
BRITISH COUNCIL	G.67, G.68
BRITISH DIABETIC ASSOCIATION	G.69-G.71
BRITISH NUTRITION FOUNDATION	G.72

Societies and organisations

BRITISH SOCIETY FOR SOCIAL RESPONSIBILITY IN SCIENCE	G.73-G.80
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION (CSIRO)	G.81
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	G.81
COUNCIL FOR SCIENTIFIC POLICY	G.81
DEUTSCHE AKADEMIE DER NATURFORSCHER LEOPOLDINA	G.82-G.84
emergency society for german scholars in exile	G.85
encounter for the universality of unesco	G.86
EUROPEAN PARLIAMENT	G.87
EUROPEAN UNIVERSITY FOR PURE SCIENCE	G.87
FLEMING MEMORIAL FUND FOR MEDICAL RESEARCH	G.88-G.96
freie wissenschaftliche vereinigung	G.97
FRIENDS OF THE HEBREW UNIVERSITY OF JERUSALEM	G.98-G.101
HEBREW UNIVERSITY OF JERUSALEM	G.102-G.104
IMPERIAL CANCER RESEARCH FUND	G.105
INTERNATIONAL CONFERENCES ON THE UNITY OF THE SCIENCES / INTERNATIONAL CULTURAL FOUNDATION	G.106-G.120
INTERNATIONAL INSTITUTE OF STRESS / HANS SELYE FOUNDATION. See J. 649	
ISRAEL UNIVERSITIES' STUDY GROUP FOR MIDDLE EASTERN AFFAIRS	G.121
MAHARISHI EUROPEAN RESEARCH UNIVERSITY	G.122
MAHARISHI INTERNATIONAL COLLEGE/OXFORD TRANS- CENDENTAL MEDITATION CENTRE	G.122
MASSACHUSETTS GENERAL HOSPITAL SCIENTIFIC ADVISORY COMMITTEE	G.123-G.125
MEDICAL RESEARCH COUNCIL	G.126
MENTAL HEALTH FOUNDATION	G.127
METABOLIC DISEASE INSTITUTE	G.127
MICROBIOLOGICAL RESEARCH ESTABLISHMENT	G.128
MINISTRY OF HEALTH	G.129
MINISTRY OF OVERSEAS DEVELOPMENT, INTERNATIONAL RECRUITMENT UNIT	G.129
NATIONAL ACADEMY OF SCIENCES	G.130, G.131
NATIONAL SCIENCE FOUNDATION	G.132

S∝ieties and organisations

NUFFIELD FOUNDATION	G.133-G.135
NUTRITION SOCIETY	G.136
OMNIHEALTH	G.137
ORDEN POUR LE MÉRITE FÜR WISSENSCHAFTEN UND KÜNSTE	G.138-G.152
PUBLIC HEALTH RESEARCH INSTITUTE OF THE CITY OF NEW YORK	G.153
PUGWASH CONTINUING COMMITTEE	G.153
RAJA YOGA CENTRE	G.153
RAMSAY MEMORIAL FELLOWSHIPS TRUST	G.153
RESEARCH SOCIETY ON ALCOHOLISM	G.153
ROYAL SOCIETY	G.154-G.189
ROYAL SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS	G.190
ROYAL SOCIETY OF MEDICINE	G.191
SCIENCE RESEARCH COUNCIL	G.192-G.201
SERVICE FOR THE DIAGNOSES OF INBORN ERRORS	G.202-G.213
SOCIETÀ ITALIANA DI BIOLOGIA SPERIMENTALE	G.214
SOCIETY FOR EXPERIMENTAL BIOLOGY	G.214
SOCIETY FOR GENERAL MICROBIOLOGY	G.215
SOCIETY FOR THE PROTECTION OF SCIENCE AND LEARNING	G.216-G.219
SPECIAL COMMISSION ON INTERNAL POLLUTION (SCIP)	G.22 0- G.232
'THANK-YOU BRITAIN' FUND	G.233-G.238
WEIZMANN INSTITUTE OF SCIENCE	G.239-G.242
WORLD PEACE CONGRESS / NATIONAL PEACE COUNCIL	G.243
WORLD RENEWAL SPIRITUAL TRUST (U.K.)	G.243

G.1 ACADEMIC ASSISTANCE COUNCIL

1934, 1935

References for refugee scientists.

See also G.216.

G.2 ACADEMIC STUDY GROUP ON ISRAEL AND THE MIDDLE EAST

1979

Invitations for Krebs to become associated with academic study group, attend meetings.

G.3 ACADEMIE NATIONALE DE MEDECINE

Various dates, 1952-77

Krebs was elected to the Académie in 1952, and was elected a Foreign Associate in 1973.

Brief correspondence only, re election, reprints, etc.

G.4 ACADEMIE ROYALE DE MEDECINE DE BELGIQUE

1974, 1976-78

Brief correspondence only.

G.5 ACCADEMIA NAZIONALE DEI LINCEI (Rome)

Various dates, 1951-79

Krebs was elected 'Sodalizio' in 1967.

Brief correspondence <u>re</u> election, deposit of Krebs's publications in Library, invitation (declined) to serve on committee for Feltrinelli Prizes.

G.6-G.13 AGRICULTURAL RESEARCH COUNCIL

Various dates, 1949-81

Krebs served the Council in various capacities, principally on the Standing Committee on Research affecting Animals (1951–65), as Chairman of the Rowett Visiting Group, and member of the Visiting Group of the Food Research Institute. He was also consulted on research grant applications. See also A.569.

The folders also include correspondence on scientific research, meetings, reports, invitations to lecture, etc.

G.6 1949-65

Includes letter of appointment to Standing Committee on Research affecting Animals (1951), general correspondence on meetings, research, reports, letters of thanks at end of period on Council (1965).

G.7 General correspondence on Council affairs, 1966.

G.8, G.9 Grant applications, 1966

2 folders: January-March June-November

G.10 1967-69

General correspondence. Includes some scientific material, invitation to lecture, arrangements for dinner to mark retirement of Council Chairman, Duke of Northumberland (1968).

G.11 1970-71

Includes copy of report of Visiting Group to the Food Research Institute, scientific correspondence, invitation to speak, proposal to form ARC group on ruminant metabolism.

G.12 1977

Correspondence on gluconeogenesis.

G.13 1981

Grant application.

G.14

AMERICAN LONGEVITY ASSOCIATION

1980

Krebs was asked to become associated with this body but declined.

G.15

AMERICAN PHILOSOPHICAL SOCIETY

Various dates, 1964-78

Krebs was elected as foreign member, 1964.

General correspondence on affairs of the Society. Correspondence 1976-78 concerns invitation and arrangements for and proposed publication of the Jayne Lectures at Philadelphia, August 1976. Krebs's lectures were on 'The regulation of the metabolism of amino acids'. (Not listed in Bibliog.)

See H.229-H.242.

G.16

AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS 1961, 1971-73

Krebs was elected as the first Honorary Member of the Society in May 1961.

Brief correspondence on election, and on general affairs of the Society.

G.17

ANGLO-ISRAEL ASSOCIATION

1980, 1981

Brief correspondence only.

ASSOCIATION OF AMERICAN PHYSICIANS

1973, 1974

Notices of meetings only.

G.18

ASSOCIATION OF JEWISH REFUGEES IN GREAT BRITAIN

Various dates, 1957-80

Correspondence with the General Secretary (W. Rosenstock) on general affairs of the Association.

Correspondence 1957 is about congratulatory address for 75th birthday of N. Bentwich, who had been prominent in securing release of Jewish refugees from Germany. Krebs sent a short message.

Correspondence 1964 is about 'Thank-You Britain' Fund, of which Krebs was a patron. See also G.233-G.238.

G.19

J.T. BAKER CHEMICAL COMPANY

1978

Brief correspondence only, re 'Nobel Laureate Signature Award', sponsored by the Company and awarded by American Chemical Society.

BI-LINGUAL EDUCATIONAL RESEARCH CORPORA-TION 1973

Invitation (declined) to join the Science Advisory Committee of the Corporation.

G.20-G.65 THE BIOCHEMICAL SOCIETY

1934-81

Krebs attended or organised meetings of the Society and published papers in its Journal, almost from the beginning of his residence in Britain. He served on several committees, was a frequent speaker at meetings and symposia, and undertook visits sponsored by the Society. Although he declined an invitation to serve on the Editorial Board of the <u>Biochemical Journal</u> (1948, see G.28), he was frequently consulted as a referee, and also submitted many of his own papers for publication.

Of special interest is the full record Krebs preserved of his service as Chairman of the Society's Sub-committee to consider the Report of the Working Group on Molecular Biology (H.M.S.O. July 1968).

The Society organised symposia to mark Krebs's retirement in 1967, and his 80th birthday in 1980.

The material is presented as follows:

G.20-G.27	General correspondence on affairs of the Society
G.28-G.34	The Biochemical Journal
G.35-G.65	Sub-committee on the Report of the Working Group on Molecular Biology.

G.20-G.27 General correspondences on the affairs of the Society

G.20 1934-35

Correspondence re Krebs's lecture before the Society, 31 January 1935. His subject was Experiments on the Nitrogen Metabolism of Vertebrates'

G.21 1940, 1946-51

1940 papers relate to 207th meeting of the Society, organised by Krebs at Sheffield.

In 1946 Krebs was elected to the Committee of the Society. He retired from the Sub-committee dealing with the publication of symposia in 1949.

1949-51 correspondence relates to the payment of honoraria to editors and officers of the Society.

G.22 1961

Fiftieth Anniversary Meeting, 27-29 March.

Krebs gave the Third Hopkins Memorial Lecture on 'The Physiological Role of Ketone Bodies'. (Bibliog. 200.)

Programme, invitation cards, 3pp. draft for lecture and correspondence arising from lecture.

G.23 1963, 1964, 1969

1963 letter relates to invitation to serve on Biochemical Society Committee.

1964 correspondence relates to award of Colworth Medal.

G.24 1970-71

Correspondence re attendance at committee meetings, service on Hopkins Medal sub-committee, reproduction of Krebs's article on symposia (see also E.249-E.255).

G.25 1972-76

Includes material \underline{re} arrangements for meetings at Stirling (1976) and Cardiff (1977).

G.26 1977-81

Includes a little material \underline{re} Krebs's 80th birthday colloquium. See also B.98-B.100.

G.27 1970-71, 1975

Correspondence re CIBA and Colworth Medals.

G.28-G.34 Biochemical Journal

G.28 1946, 1948

1948 correspondence relates to an invitation to join the Editorial Board.

G.29-G.31	Correspondence re submission of papers by Krebs.
G.29	1949, 1951, 1971
G.30	1972, 1973, 1975
G.31	1976-80
	Includes 1p. note by Krebs 'Comments on the Editorial Policy of the Biochemical Journal', 15 December 1978, and letter from Krebs, 19 October 1979, suggesting that the importance of one of his papers had been underestimated. He noted that the last time editors had failed to see the significance of one of his papers was in 1937 when Nature had returned his manuscript describing the tricarboxylic acid cycle 'because of the congestion of the correspondence column'.
G.32-G.34	Correspondence re refereeing of papers by others.
G.32	1967, 1971-72
G.33	1973-75
G.34	1976-80
G.35-G.65	Biochemical Society Sub-committee on the Report of the Working Group on Molecular Biology 1968-69

In April 1966 the Council for Scientific Policy set up a Working Group on Molecular Biology under the chairmanship of J.C. Kendrew. It was 'to enquire into the present position of, and future plans for, teaching, recruitment and research in molecular biology in the United Kingdom (G.64). The Report of the Working Group (published July 1968) aroused considerable unease amongst biochemists; for example, the concern lest the 'necessary vagueness' involved in the Working Group's decision to 'treat the name Molecular Biology in its widest sense' might 'be dangerous for biochemistry in the hands of a non-scientist who might have the responsibility of acting on recommendations in the Report'. Accordingly it was hoped 'that the Biochemical Society might take some action to safeguard the identity of the subject of biochemistry as a component of the complex of biological sciences'. (See G.36.)

At a Committee meeting of the Biochemical Society, 26 September 1968, a decision was taken to set up a Sub-committee under the chairmanship of Krebs to look into the problem raised by the report and the status and function of biochemistry in the United Kingdom.

G.35

Correspondence <u>re</u> organisation of committee meetings, terms of reference, etc. with A.I.P. Henton, Executive Secretary of the Biochemical Society (later acting-secretary of Sub-committee), various dates, October 1968-July 1969.

G36-G.43

Correspondence with colleagues arranged alphabetically.

G.36

W.N. Aldridge

J.S.D. Bacon

Includes 'Comments on a Draft Report prepared by H.A. Krebs', 5 December 1968.

G.R. Barker

G.37

W. Bartley

Includes copy of memorandum from the biology departments in Sheffield to the University Grants Commission, with reference to the Report of the Working Group on Molecular Biology.

G.38

J.N. Davidson

Includes copies of correspondence between Davidson and the officers of the Society and the Society and the Secretary of State for Education and Science, 1967, and Davidson's comments on the Report of the Working Party on Molecular Biology, October 1968.

G.39

S.R. Elsden

G.A. Haselwood

D.E. Hughes

H.L. Kornberg

G.40

A.G. Lloyd et al

A.P. Mathias

Includes Mathias's comments on the Report of the Working Group on Molecular Biology.

A. Neuberger

D.C. Phillips

M.L. Rosenheim

G.41-G.43 R.M.S. Smellie

G.41 September, October 1968

Includes copy of letter from Smellie to Secretary of Biochemical Society, 6 September, drawing the attention of members of the committee to the Report of the Working Group on Molecular Biology because he believed 'that many of the statements and conclusions in this report are inaccurate and misleading and its recommendations could be seriously to the detriment of biochemistry'; also Smellie's comments on the report, 9 October.

G.42 December 1968

Includes Smellie's redrafts of sections of Krebs's draft report.

G.43 February, April, May 1969

Includes Smellie's comments on a memorandum by D.C. Phillips.

G.44-G.46 Correspondence with societies and organisations re information for Sub-committee's work, arranged alphabetically.

G.44 A - M

G.45 Nuffield Foundation, Science Teaching Project

G.46 P-U

G.47 Correspondence <u>re</u> origin of the term 'molecular biology' found with Sub-committee papers. See also E.1.

Letter from E.F. Hartree discusses 'the moves that led to the Medical Research Council's decision to back the Perutz-Kendrew group'.

G.47A Correspondence arising from publication of report.

Minutes

G.48 Draft minutes of Sub-committee meeting, 25 November 1968, with Krebs's ms. amendments.

G.49 Draft minutes of Sub-committee meeting, 16 December 1968, with Krebs's ms. amendments.

	Drafts
G.50-G.54	'Raw material for the work of the Sub-committee of the Biochemical Society'.
G.50	46pp. typescript draft of this paper, with ms. corrections and additions. Various dates, October, November 1968.
G.51	Typescript drafts, with ms. corrections and additions, of sections of the preceding.
G.52	Krebs's paper in the form distributed to members of the Sub-committee (29pp. duplicated typescript).
G.53	Copy of the paper with ms. notes by W. Bartley.
G.54	Copy of the paper with ms. note 'Amended Copy for second draft'.
G.55-G.58	'Biochemistry, "Molecular Biology" and the Biological Sciences'
G.55	Annexes A, B, E, H and I of the Sub-committee's report.
	All except annex I are dated 7 February 1969.
G.56, G.57	Contents of a folder (not preserved) inscribed 'Material Used March 1969'.
	The material appears to be drafts of sections of the report or comments on sections of the report.
	2 folders.
G.58	Drafts of various sections of the report. One section, on the relations between academic and industrial biochemistry, is dated 14 April 1969.
G.59	Miscellaneous material \underline{re} departmental organisation at Oxford assembled by Krebs for Biochemical Society Sub-committee.
G.60, G.61	Miscellaneous material \underline{re} membership examination of the Royal College of Physicians.
	2 folders.
G.62, G.63	Miscellaneous ms. and typescript notes.
	2 folders.

G.64 'Report of the Working Group on Molecular Biology' (Cmnd. 3675).

Krebs's working copy, with ms. annotations, marginal emphasis, etc.

G.65 Background material.

1 Box.

G.66 BRITISH COMMITTEE FOR JEWS IN ARAB COUNTRIES 1969

Correspondence re Krebs's membership of this Committee.

G.67, G.68 BRITISH COUNCIL

1964, 1972-76

Correspondence with officers of the British Council and others about foreign visitors to Krebs's laboratory, information requested re Krebs's work, and arrangements for visits by Krebs to the University of Düsseldorf, 1974, and to Australia, 1975 (declined).

G.67 1964, 1972

G.68 1973-76

G. 69-G.71 BRITISH DIABETIC ASSOCIATION

Various dates, 1962-82

G.69 1962

Krebs's election as Honorary Life Member.

1968

Meeting of Association at Oxford.

G.70 1969

Includes research grant application by Krebs.

G.71 1970-82

Includes correspondence, 1970-71, re appeal to commemorate 50th year of insulin, and research by Krebs supported by the Association.

G.72 THE BRITISH NUTRITION FOUNDATION

1969, 1973, 1978

Miscellaneous shorter correspondence on affairs of the Foundation; correspondence 1978 is <u>re</u> Krebs's resignation from the Council.

G.73-G.80 BRITISH SOCIETY FOR SOCIAL RESPONSIBILITY IN SCIENCE 1969-73

Krebs was a founder member of the Society. He resigned in 1973.

G.73, G.74 Correspondence re general affairs of the Society.

Krebs disapproved of the Society's involvement with such issues as the personal and academic freedom of scientists abroad, the use of CS gas, and interrogation techniques in Northern Ireland and suggested more appropriate social concerns for the Society, for example, finding remedies for the spread of crime and vandalism.

2 folders.

G.73 1969-70

G.74 1971-73

G.75 Programmes of meetings, conferences; summary of activities of the Society, 1969-70.

G.76 BSSRS 'newsheet', nos. 1, 7, 8 and 10.

G.77 C[ambridge] SSRS Bulletin.

Special issue <u>re</u> public debate on education, race, iq. and intelligence, 18 July 1970.

Annotated by Krebs.

G.78 O[xford] SSRS Bulletin nos. 2, 3, 7 and October 1972 (unnumbered).

G.79 Krebs's ms. and typescript notes on social responsibility.

G.80 Newspaper-cuttings, journal extracts, etc. on social responsibility.

G.81

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION (CSIRO) 1976

One letter only.

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS 1967

Brief correspondence only.

COUNCIL FOR SCIENTIFIC POLICY

1967

Correspondence re fees for postgraduate students.

G.82-G.84

DEUTSCHE AKADEMIE DER NATURFORSCHER

LEOPOLDINA

Various dates, 1956-8

Krebs was elected as member in 1956 and honorary member in 1969.

Correspondence <u>re</u> general affairs of the academy including invitations for Krebs to attend meetings.

G.82 1956-62

Includes material (1962) re obstacles in the way of East German

scientist attending symposium in Oxford.

G.83 1969-71

G.84 1972-81

G.85

EMERGENCY SOCIETY FOR GERMAN SCHOLARS

1944

Request from F. Demuth of the society for information about teachers then working in German medical faculties, in particular who had and who had not been Nazi sympathisers. The information was required 'to answer questions asked by a British Authority dealing with the reconstruction of German Medical faculties after the occupation of Germany'. Krebs was also asked for a list of German biochemists in Great Britain.

Related correspondence with F.L. Breusch in Istanbul.

G.86

ENCOUNTER FOR THE UNIVERSALITY OF UNESCO 1976-77

Correspondence with André Lwoff, President of Encounter for the Universality of UNESCO, re the possible suspension of Israel's membership of the World Health Organisation.

G.87

EUROPEAN PARLIAMENT

1981

Invitation to be associated with an appeal by Nobel Prize winners for immediate action against hunger and underdevelopment in the world (declined).

EUROPEAN UNIVERSITY FOR PURE SCIENCE

1978-79

Krebs was invited by J.C. Eccles to advise on developing a Biological Sciences Faculty of the European University for Pure Science (declined).

G.88-G.96

FLEMING MEMORIAL FUND FOR MEDICAL RESEARCH

Various dates, 1959-7,

A chronological sequence of correspondence and papers.

G.88

1959

Includes invitation for Krebs to become a Trustee of the Fund.

G.101

Societies and organisations

	Societies and organisations
G.89	Correspondence re what Krebs considered the extravagant administrative costs of the Fund. He mentioned two other fund-raising endeavours with which he had been associated: the Oxford Historic Buildings Appeal and St. Catherine's College, Oxford.
G.90-G.92	Correspondence, etc. <u>re</u> application to the Fund from E.B. Chain. (Krebs was chairman of the Fund's Scientific Advisory Committee.) 3 folders.
G 93	1976-77 Correspondence, after the Fund had been wound up, re the use of the sum allocated to Imperial College for research by Chain.
G.94-G.96	Miscellaneous printed and duplicated material re Fund, 1959-62. Includes trust deed, statement of aims, progress reports. 3 folders.
G 97	FREIE WISSENSCHAFTLICHE VEREINIGUNG 1966, 1967, 1979, 1981 Krebs joined the society in Munich in the early 1920s. 1966 material relates to the 85th anniversary celebrations and includes notes of Krebs's after-dinner address, 16 July.
G.98-G.101	FRIENDS OF THE HEBREW UNIVERSITY OF JERUSALEM General correspondence re the activities of the Friends.
G.98	1945, 1947, 1948 1945 correspondence relates to formation of a group of Friends at Sheffield. Krebs became chairman of the Sheffield branch in 1947. 1948 correspondence relates to launching of an appeal for the Hebrew University.
G.99	1954, 1957
G 100	1958-63

1964, 1966, 1971, 1979-81

G.102-G.104 HEBREW UNIVERSITY OF JERUSALEM

Various dates, 1961-81

G.102, G.103

1961-62

Correspondence, etc. re election of new President of the University.

2 folders.

G.104

1963, 1968, 1981

In 1981 Krebs was elected as Honorary Governor of the Hebrew

University for life.

G.105

IMPERIAL CANCER RESEARCH FUND

1959

Brief correspondence <u>re</u> possibility of Krebs becoming a member of the Council of the Fund.

G.106-G.120

INTERNATIONAL CONFERENCES ON THE UNITY OF THE SCIENCES / INTERNATIONAL CULTURAL FOUNDATION

1975-81

Correspondence with American and European officers of the Foundation, fellow academics associated with it and opponents of the 'Moonies'.

Includes invitations and information about conferences organised by ICUS and material reflecting on the criticism of the Unification Church and the responsibility of scientists who countenanced it by attending ICUS meetings, etc.

Krebs attended conferences at Los Angeles in 1979 and Miami Beach in 1980.

G.106

1975

Includes invitations to attend 4th International Conference on the Unity of the Sciences (declined).

G.107

1976, January-June

Includes copy of K. Mellanby's inaugural address at the 4th International Conference and invitations to attend 5th International Conference (declined).

G.108 1976, June-December

Includes correspondence about ICUS's use of Krebs's name as an International Advisor, without his authorisation; also note of discussion with M. Young Warder, Secretary General of ICUS, re press criticism of the Unification Church.

G.109 1977, January-June

Includes invitation to attend 6th ICUS Conference (declined).

G.110 1977, August-November

Includes articles on the Unification Church sent to Krebs by ICUS.

Krebs again declined to attend 6th ICUS Conference.

G.111 1978, January-July

Includes invitation to attend 7th ICUS Conference (declined).

G.112 1979

Krebs agreed to attend 8th ICUS Conference (Los Angeles, 23-25 November) and speak on the topic 'How does material well-being affect "Happiness"?' See also E.419-E.426.

G.113 1980, January-May

Includes Krebs's replies to questionnaire on the 8th ICUS Conference and invitation (from K. Mellanby) to chair group on 'Biotechnology and Values' at the 9th ICUS Conference (Miami Beach, 27-30 November).

G.114 1980, August-December

Includes material <u>re</u> Krebs's participation at the 9th ICUS meeting. Krebs's talk was published by the International Cultural Foundation, Inc. (SUPP. Bibliog. 23).

G.115 1981, January-March

Includes invitation to attend ICF Seminar, Abidjan, Ivory Coast, 11-18 August (declined).

G.116 1981, May- July

Includes material <u>re</u> 10th ICUS Conference which Krebs eventually decided he could not attend despite the attractiveness of the subject-matter.

G.117

1981, August-November

Includes correspondence with colleague whose son had recently been rescued from the 'Moonies'. Krebs justified his attendance at a meeting of 'Moonies' because it gave him an opportunity to discuss 'the ever-increasing problem of vandalism, juvenile delinquency and asocial conduct'.

G.118

1980-81

Correspondence re young British 'Moonie' recruit.

G.119, G.120

Printed background material.

2 folders.

INTERNATIONAL INSTITUTE OF STRESS / HANS SELYE FOUNDATION

See J. 649

G.121

ISRAEL UNIVERSITIES' STUDY GROUP FOR MIDDLE

EASTERN AFFAIRS

1974

Brief correspondence only.

G.122

MAHARISHI EUROPEAN RESEARCH UNIVERSITY

1978-79

Invitations to take part in seminars.

MAHARISHI INTERNATIONAL COLLEGE / OXFORD

TRANSCENDENTAL MEDITATION CENTRE

1976, 1979

Brief correspondence only.

G.123-G.125

MASSACHUSETTS GENERAL HOSPITAL, SCIENTIFIC
ADVISORY COMMITTEE 1968-70

Correspondence and papers re work of Advisory Committee, including Krebs's typescript draft, 'Massachusetts General Hospital - Comments made regarding the place of basic science in a hospital'.

3 folders.

G.126

MEDICAL RESEARCH COUNCIL

1962-63

Material relating to research proposal by E.B. Chain for study of metabolic reactions.

Includes comments by Krebs, and synopsis of talk by Chain 'Some contributions of chemical microbiology to biochemistry and medicine', November 1962.

G.127

MENTAL HEALTH FOUNDATION

1976-77

Appeal for funds.

METABOLIC DISEASE INSTITUTE

1981

Krebs agreed in principle to serve as Chairman of a Board of Scientific Advisers for the proposed Institute.

G.128

MICROBIOLOGICAL RESEARCH ESTABLISHMENT

Correspondence \underline{re} supply of materials for research in Krebs's laboratory.

G.129

MINISTRY OF HEALTH

1958

Invitation to serve on a panel of the committee on the Medical and Nutritional Aspects of Food Policy.

1960-65, 1972

G.	129
(Co	ont'd.)

MINISTRY OF OVERSEAS DEVELOPMENT, INTERNATIONAL RECRUITMENT UNIT 1970

Invitation to serve UNESCO as consultant in science planning.

G.130, G.131 NATIONAL ACADEMY OF SCIENCES

Various dates, 1969-82

Correspondence re papers submitted for publication in PNAS.

G.130

1969, 1972, 1975, 1977-78

G.131

1980-82

G.132 NATIONAL SCIENCE FOUNDATION

1971, 1976, 1979

1971 correspondence relates to request to evaluate research proposals.

1976 correspondence relates to nomination of candidates for National Medal of Science. Krebs praises E.O. Wilson's work on sociobiology which he believed would help in understanding social problems such as 'the ever-increasing crime rate and vandalism among juveniles'.

G.133-G.135

NUFFIELD FOUNDATION

Various dates, 1965-78

Correspondence re research grant applications.

G.133

1965, 1968, 1972

G.134

1973, 1978

G.135

Correspondence <u>re</u> award to Krebs of a Foundation Travelling Lecturership in respect of a visit to Canada, 1972–73.

G.136

NUTRITION SOCIETY

1943, 1944, 1952-53

1952 correspondence relates to arrangements for a meeting of the Society at Sheffield in December 1952. Includes Krebs's ms. notes re the meeting.

G.137

OMNIHEALTH

1981

Invitation to be associated with this research foundation as a Charter Member.

G.138-G.152

ORDEN POUR LE MÉRITE FÜR WISSENSCHAFTEN UND KÜNSTE 1972-81

Krebs was elected a foreign member of the Order in 1972. He regularly attended meetings in Bonn and elsewhere in Germany and contributed short biographies of former members of the Order (Mediziner) for a 'Bildband über die Ordensmitglieder seit 1842'.

Correspondence with officers and members of the Order in a chronological sequence.

G.138

1972

G.141

1975

G.139

1973

G.142

1976

G.140

1974

G.143

1977-81

G.144, G.145

Miscellaneous material <u>re</u> meetings, invitation cards, lists of participants, reports of proceedings, etc.

2 folders.

G.146

Krebs's ms. and typescript notes re meetings.

G.147

Press-cuttings re meetings.

G.148

Photographs re 1973 meeting.

G.149

Correspondence re biographies for 'Bildband über die Ordensmitglieder seit 1842', 1973-75.

G.150-G.152

Biographies of 'Mediziner' written by Krebs for Pour le Mêrite.

3 folders.

G.153 PUBLIC HEALTH RESEARCH INSTITUTE OF THE CITY OF NEW YORK 1978

Brief correspondence with Director of the Institute and with Mayor of New York <u>re</u> survival of the Institute, which Krebs strongly supported.

PUGWASH CONTINUING COMMITTEE

1971

Brief correspondence only.

RAJA YOGA CENTRE

1978

Invitation to conference on 'Future of Mankind', London, 3 June.

RAMSAY MEMORIAL FELLOWSHIP TRUST

1967

One letter only.

RESEARCH SOCIETY ON ALCOHOLISM

1977

Invitation to join Society.

G.154-G.189 THE ROYAL SOCIETY

Various dates, 1948-81

G.154-G.164

Committees, Meetings, Symposia, Visits

G.165-G.184

Elections and awards

G.185-G.189

General correspondence and papers on the affairs of the

Society

Committees, Meetings, Symposia, Visits

G.154 Meeting on 'The function and location of enzymes in cells', 12 March 1953.

Brief correspondence; dinner menu with list of those attending on verso.

G.155	Visits of delegation of Russian Academy of Sciences to Britain and Royal Society delegation to Russia, 1965.
	Krebs entertained Russian scientists at Oxford but was not a member of the Royal Society delegation to Russia.
	Correspondence and papers, including personal invitation to visit Soviet Union.
G.156	Meeting on 'The chemistry and biology of immunoglobulins', 2 June 1966
	Programme; brief correspondence.
G.157, G.158	Symposium on 'Anomalous aspects of biochemistry of possible significance in discussing the origins and distribution of life', 2 November 1967.
G.1 <i>5</i> 7	Correspondence re arrangements; information about symposium.
G.158	Correspondence re publication of proceedings.
G.159	British National Committee for Nutritional Sciences Working Group on the calorie and the joule, 1969.
	Krebs served on the Working Group.
	Includes correspondence with R.W. Burchfield on the pronunciation of 'joule'.
G.160	Bruno Mendel Fellowship Committee, 1972, 1973, 1976-79
	Krebs resigned from the Committee in 1979.
G.161, G.162	Visit of F. Mayor, 30 November-4 December 1973.
	Mayor was a guest of the Royal Society at the Anniversary Dinner and subsequently visited Oxford.
G.161	Correspondence re arrangements; programme of visit.
G.162	Correspondence arising from visit.
G.163	Meeting on 'The enzymes of glycolysis: structure, activity and evolution', 16 and 17 October 1980.
	Correspondence, programmes and 5pp. typescript draft 'Royal Society Meeting, 16 October 1980'. (SUPP. Bibliog. 44.)
G.164	Material <u>re</u> possible placement of Russian scientist in Krebs's laboratory under terms of Royal Society's agreement for exchange of scientific visits with the Academy of Sciences of the USSR, 1981.
	Programme of visit by delegation from Academia Sinica, n.d.

G.185

G.186

G.187

G.188

G.189

Societies and organisations

Elections and awards

G.165			
	1948-49	G.175	1972-73
G.166	1952-54	G.176	1974 (1)
G.167	1963 (1)	G.177	1974 (2)
G.168	1963 (2)	G.178	1974 (3)
G.169	1964-65	G.179	1976
G.170	1966 (1)	G.180	1977
G. 171	1966 (2)	G.181	1978
G.172	1967	G.182	1979 (1)
G.173	1968-69	G.183	1979 (2)
G.174	1970-71	G.184	1980-81, n.d.
	orrespondence and		
1965	ven by Oxford Fell		Royal Society reform. on of Florey's retirement
Memorano 1965 Dinner giv as P.R.S.	ven by Oxford Fell	ows on the occasi	
Memorano 1965 Dinner giv as P.R.S.	ven by Oxford Fell	ows on the occasi	
Memorano 1965 Dinner giv as P.R.S. Includes r	ven by Oxford Fell	ows on the occasi	

G.190 ROYAL SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS 1976

Brief correspondence <u>re</u> the use of the guinea pig as a test animal for the diagnosis of tuberculosis.

G. 191

ROYAL SOCIETY OF MEDICINE

1972-74, 1976, 1981

Krebs was elected an Honorary Fellow of the Society in 1981.

G.192-G.201

SCIENCE RESEARCH COUNCIL

1966-69

G.192-G.199

Cell Regulation Panel of the Biology Committee

In May 1966 Krebs was invited to serve on a panel appointed to consider research in the area of 'the regulation of cell activites and cellular differentiation'. Its chairman was R. Brown.

G.192

1966-67

G.193

1968

In November Krebs agreed to serve on the reconstituted Cell Regulation Panel (now called the Developmental Biology Panel) under the chairmanship of J. Paul.

Folder includes memorandum from Paul to members of the Panel.

G.194

1969, January, February

Folder includes minutes of first meeting of Developmental Biology Panel, 21 January, and document prepared by Paul to be assimilated into the policy and programme statement of the Biological Sciences Committee of the Council.

G.195-G.197

Copies of replies to questionnaire circulated after first meeting of Panel. 3 folders.

G.198

'Additional Information'

Contents of a folder so inscribed: agenda for Panel meeting, 28 February, analysis of questionnaire and further replies to questionnaire.

G.199

1969, March-December

Includes draft conclusions of Panel (August) and the comments of C.H. Waddington on Panel's report (September).

G.200

'Report on Developmental Biology'

Sent to Krebs September 1970.

G.201

General correspondence, 1969

Includes Krebs's reply to invitation to serve on Biology Board and minutes of Industrial Biology meeting, 3 April.

G.202-G.213 SERVICE FOR THE DIAGNOSIS OF INBORN ERRORS

1975-77

Krebs was concerned with the advisability of organising on a national level a diagnostic service for inborn errors of metabolism. Correspondence with interested scientists led to an informal meeting at the Royal Society, 21 November 1975, which decided on an approach to the Department of Health and Social Security. Krebs concluded from the subsequent meeting at the DHSS that the ministry would be unhelpful and he and the other interested scientists considered ways they could proceed without DHSS assistance.

Correspondence

G. 202 1975, July-October

Includes note by Krebs and R.W.E. Watts on 'A Service for the Diagnosis of Inborn Errors'.

G.203 1975, November, December

Includes Krebs's note of meeting at Royal Society.

G.204 1976, January-June

Includes notes of discussion at DHSS, 11 February.

G. 205 1976, July-September

Includes minutes of first meeting of Prenatal Diagnosis Group, Edinburgh, 13 July.

G.206 1977

G. 207 Krebs's ms. and typescript notes re inborn errors.

G.208-G.210 Background material

3 folders.

Prenatal Diagnosis Group Newsletters

G.211 Vol.1, no.1 (December 1976), no.2 (March 1977).

G.212 Vol.1, no.3 (June 1977), no.4 (August 1977), no.5 (September 1977.

G.213 Vol.2, no.1 (January 1978), no.3 (December 1978); Vol.3, no.2 (September 1979).

G.214 SOCIETÀ ITALIANA DI BIOLOGIA SPERIMENTALE 1978

Brief correspondence only.

SOCIETY FOR EXPERIMENTAL BIOLOGY

1950, 1971

1950 papers relate to 80th Conference of the Society, Sheffield, 3-7 July.

G.215 SOCIETY FOR GENERAL MICROBIOLOGY

1957, 1980-81

1957 correspondence relates to Krebs's contribution to Society's 1958 Symposium on the Strategy of Chemotherapy.

1980-81 correspondence relates to membership and arrangements for symposium at Edinburgh, September 1981, where Krebs lectured on 'The Evolution of Metabolic Pathways'. (Bibliog. 387.)

G.216-G.219 SOCIETY FOR THE PROTECTION OF SCIENCE AND

LEARNING

Various dates, 1938-78

G.216 1938, 1944

Includes correspondence, 1938, <u>re</u> Pearson Research Foundation of Vienna and its head Dr. Freund, and correspondence, 1944, <u>re</u> whereabouts of refugee biochemists from Germany.

G.217 1966

re repression in Argentina.

G.218, G.219 1965-66 Appeal on behalf of Esther Simpson, Secretary of the

Society since 1930s.

G.218 1965, January-June

G.219 1965, September-November; 1966, January-June, November

Folder includes Krebs's notes for presentation speech, 9 June, and invitation only for subsequent (1978) reception held in Esther

Simpson's honour.

G.220-G.232 SPECIAL COMMISSION ON INTERNAL POLLUTION (SCIP) 1974-77

Krebs was a member of the Commission whose chairman was Peter Beaconsfield. Its terms of reference were: 'to consider the present use of chemicals under four broad headings – medication, food additives and colorants, agricultural aids, and household goods – and to relate their respective use to the responsibility shared by the producers, that is, industry – the consumer, the government regulatory agencies, and the biomedical professions'. (See G.220.)

Correspondence

G.220 1974, June, August Includes abstract of SCIP's 'raison d'être'.

G.221 1974, September-November

G. 222 1975, April-July

re arrangements for conference, Bedford College, London, 22-24 October.

G.223 1975, August-October; 1976, January re Bedford College conference.

G. 224 1977

<u>re</u> possible grant to 'a Society whose objects were to counter the widespread use of chemical medications, the effects of iatrogenesis'.

G.225-G.229 Duplicated background material re SCIP and the Bedford College conference.

5 folders.

G.230-G.232 Printed material <u>re</u> internal pollution, reprints of papers of P.Beaconsfield. 3 folders.

G.233-G.238 'THANK-YOU BRITAIN' FUND

1964-68, 1970

In 1964 an appeal was organised, called the 'Thank-You Britain' Fund, to enable former refugees from Central Europe to express their gratitude to Britain. Krebs contributed to the Fund and made the presentation speech in November 1965. £90,000 was raised and handed to the British Academy to finance an annual lecture and research fellowships.

G.233 1964

Correspondence re organisation of appeal.

G. 234 1965, February-May

Continuing correspondence re organisation of appeal. Folder includes address list of 'Displaced Scholars formerly resident in Great Britain and Ireland registered with S.P.S.L.' [Society for the Protection of Science and Learning] and copies of correspondence between the organisers and E.A. Rose as to whether Britain's support for refugees merited such a public thank-you.

G.235 1965, September-December

Continuing correspondence \underline{re} organisation of appeal, presentation ceremony, 8 November.

G.236 Drafts of Krebs's speech at presentation ceremony; printed copy of presentation ceremony speeches. (Not listed in Bibliog.)

Folder also includes An Appeal ... for Britons. 1p. sheet published for the National Socialist Students, [1938]. See Rem. & Refl. p.101.

G.237 Press-cuttings <u>re</u> presentation ceremony.

G.238 1966, 1970, 1972

1966 material includes copy of Lord Robbins's Inaugural Lecture under the 'Thank-offering to Britain Fund'.

1970 material relates to book by J.A. Patmore, the first research fellow of the Fund.

G.239-G.242 WEIZMANN INSTITUTE OF SCIENCE

1947-81

G.239 1947-48

Correspondence with the American Committee for the Weizmann Institute re invitation to Krebs to attend the opening of the Institute of Biophysics and Physical Chemistry of the Weizmann Research Centre.

G.240 1968-69, 1973, 1975, 1978-79

In 1969 Krebs was invited to serve as a member of a Sponsoring Committee to mark the 25th Anniversary of the Weizmann Institute.

1978-79 material relates to meetings of the Board of Governors.

G.241 1980

Includes material re meetings of Board of Governors.

G.242 1981

Includes material <u>re</u> meeting of Scientific and Academic Advisory Committee, Krebs's re-election as a member of the Board of Governors, and typescript and ms. notes on 'Wonder and Amazement' and 'Biological Miracles' found with Weizmann material.

G. 243 WORLD PEACE CONGRESS / NATIONAL PEACE COUNCIL

1950, 1953

In 1950 Krebs was invited to be an observer at the Second World Peace Congress, Sheffield, 12–19 November.

WORLD RENEWAL SPIRITUAL TRUST (U.K.) 1977

Invitation to attend a conference on 'the Future of Mankind', Delhi, February 1978 (declined).

CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

Catalogue of the papers and correspondence of

SIR HANS ADOLF KREBS, FRS

(1900-1981)

Compiled by Jeannine Alton and Peter Harper

VOLUME IV

Sections H - K

Deposited in the Library Sheffield University

CSAC 113/4/86

All rights reserved

SECTION H PUBLICATIONS, LECTURES, BROADCASTS H.1 - H.446

H.1 -H.97 PUBLICATIONS, 1927-81

H.98 -H.271 LECTURES, 1936-80

H.272-H.284 BROADCASTS AND TELEVISION

H.285-H.446 CORRESPONDENCE ON PUBLICATIONS AND LECTURES

H.285-H.426 Publications

H.427-H.446 Lectures

H.1 - H.97 is a sequence presented in chronological order so far as this is ascertainable. The material may include manuscript drafts, often very heavily corrected, references, diagrams and background material, correspondence with colleagues, collaborators and editors, and sometimes a copy of the published text. Some of the early work emanating from the period in Warburg's laboratory is difficult to date or attribute; tentative dates and descriptions only have been assigned.

The material includes book reviews; of interest are H.15, H.16, which show the very extensive stint of reviewing undertaken by Krebs for German journals during the 1930s, perhaps to supplement his earnings in the first years in Cambridge. Although Krebs never published a mongraph on biochemistry, it is interesting to note that he was asked to do so very shortly after he settled in Britain (H.390), and he appears to have considered the idea at various times subsequently (see H.23, H.322, H.325).

Attention is drawn to H.9, which may be an unpublished paper by Warburg.

H.98 - H.266, a chronological sequence of drafts or texts for lectures, is also heterogeneous and ranges from a straightforward typed -up text to a series of revised drafts, accompanying correspondence and background material. Some of the lectures formed the basis of, or were a simplified version, of published papers, and bear the relevant Bibliography number. Of special interest are H.98 - H.100, lectures given 1936-37, which provide insights into Krebs's thinking immediately before the crucial paper on the citric acid cycle published in Enzymologia (Bibliog. 62). Undated lectures are at H.267 - H.271.

Although Krebs gave relatively few broadcasts, the surviving documentation at H.272 - H.284 does not represent the full total. Section L preserves some additional tape or cassette recordings of broadcasts.

H.285 - H.426 present, in alphabetical order, correspondence with editors, publishing houses and scientific colleagues. The material, which varies in extent, includes requests to Krebs to write articles or books, to comment on works submitted by others for publication, to serve on advisory boards or editorial panels, etc.; a little scientific correspondence is sometimes incorporated. Two sequences documenting long-term editorial commitments are of particular interest; they are H.307 - H.320 (Biochimica et Biophysica Acta) and H.342 - H.358 (FEBS Letters). The material is dated and an indication is given of any information of special biographical or scientific interest.

H.427 - H.446 is a chronological sequence of correspondence concerning lectures, varying from a simple invitation to detailed arrangements for travel and payment, letters of thanks, etc. Sometimes this correspondence is the only evidence that a lecture was given. Several of the folders 1967-73 contain correspondence and information about the regular lectures Krebs gave as Visiting Professor during that period at the Royal Free Hospital School of Medicine, University of London.

H.1-H.97 PUBLICATIONS

H.1 'Über den Stoffwechsel der Netzhaut'

Heavily-corrected typescript and ms. draft for paper published in <u>Biochem. Z</u>, 1927 (<u>Bibliog.</u> 13). Many of the corrections are in Warburg's hand and the folder includes envelope with Krebs's note 'Script of HAK corrected by O.W.'

H.2 'Stoffwechsel des Carcinoms'

11pp. typescript and ms. draft, with corrections probably in Warburg's hand. No author or date; perhaps c.1927. No paper of this title is listed in Krebs's own Bibliography or in his list of Warburg's publications (Bibliog. 375).

H.3 Bestimmung der Acetessigsdure'

2 ms. drafts (1p. only), perhaps a research note written in Warburg's laboratory not intended for publication, n.d., c.1927.

H.4 'Über die Autoxydation von Kohlenhydraten in ammoniak – und in bicarbonathaltigen Salzlösungen'

Ms. and typescript drafts and tables, very heavily corrected by Warburg and including 1p. ms. draft by him. Latest reference 1926. Not listed in Bibliog. and perhaps not published.

- H.5 'Über das Kupfer in menschlichen Blutserum' (<u>Bibliog</u>. 17)
 Reprint only.
- H.6 'Über die Wirkung von Kohlenoxyd und Licht auf Häminkatalysen'
 (Bibliog. 18)
 Reprint only.
- H.7 'Über die Wirkung von Kohlenoxyd und Blausdure auf Häminkatalysen' (Bibliog. 21)
 Reprint only.

- H.8 'Über die proteolytische Wirkung von Papain und Kathepsin'

 Drafts with ms. corrections, corrected proof, correspondence re paper with A. Berliner (editor, Naturwissenschaften) 1930-31 (Bibliog. 29).

 See H.9 below.
- H.9 'Über die katalytischen Wirkungen der lebendigen Substanz'

 19pp. typescript and ms. draft of a paper 'von Otto Warburg' with a typescript note at head of p.1, 'Nicht an andere Stelle erschienen'.

 Not listed in Krebs's list of Warburg's publications (Bibliog. 375).

 Found with material in H.8.
- H.10 'Über den Abbau der Pyrimidine im Tierkörper'
 7pp. typescript and ms. draft +1 additional page, for collaborative paper with K. Henseleit and F. Bielschowski. Intended for publication in Hoppe-Seyler's Z. physiol. Chem., 210, 1932 (see H.11 below),

but not listed in Bibliog.

- H.11 'Untersuchungen über des Harnstotfbildung im Tierkörper', with K. Henseleit (Bibliog. 36).
 Reprint only, with ms. notes re Krebs's use of it at San Antonio, Texas, December 1966.
- H.12, H.13 'Untersuchungen über den Stoffwechsel der Aminosduren im Tierkörper' (Krebs's Habilitationsschrift at Freiburg).
 - H.12 Bound typescript and ms. version as presented.
 - H.13 Copy of version published in <u>Hoppe-Seyler's Z.physiol. Chem.</u>, with some ms. corrections (<u>Bibliog</u>. 41).
- H.14 'Weiterer Untersuchungen über den Abbau der Aminosäuren im Tierkörper'
 (<u>Bibliog</u>. 42).
 Reprint only.

H.15, H.16

Book reviews and abstracts written by Krebs for German journals; a substantial number of short accounts of books in German, French and English, generally signed 'H.A. Krebs, Cambridge, England'.

H.15 1933, 1934. For an unidentified journal.

H.16 1934, 1936. For Chemische Zentralblatt.

H.17 Correspondence, 1933-34, with editor, Naturwissenschaften, re proposed article 'Neuere Ergebnisse in der Physiologie des Zellstoffwechsels' to be written by Krebs on development of metabolism research with special reference to work of Warburg.

Includes 5pp. typescript and ms. draft, very heavily corrected and amended, in German and English, headed 'Naturwissenschaften'. Corrections in ink in first paragraph may be by Warburg, the remainder are by Krebs.

Not listed in Bibliog. and perhaps not completed.

H.18, H.19 'Untersuchungen über die urikolytischen Fermente'. Collaborative paper with H. Weil contributed to <u>Problèmes de Biologie et de Médecine</u>, 1935 (Bibliog. 55).

H.18 20pp. typescript draft with a few ms. additions, brief correspondence with editor.

H.19 Drafts, notes, diagrams, charts, tables, including 1p. by Weil.

H.20 'The role of citric acid in intermediate metabolism in animal tissues'.

This is the crucial collaborative paper with W.A. Johnson, Enzymologia, 1937 (Bibliog. 62).

Reprint only.

H.21 Correspondence, 1939-40 re paper by Krebs and L.V. Eggleston on "NC" soil organism, with B.F. Miller claiming priority for discovery of properties of the organism for himself and R. Dubos. Title of paper not given, probably <u>Bibliog</u>. 78.

- H.22 Correspondence, 1943-45, with R.L.M. Synge re article on aspects of cellular metabolism requested by Association of Scientific Workers for transmission to USSR. The article was sent (November 1944) but is not listed in <u>Bibliog</u>.
- H.23 Preface, table of contents, miscellaneous diagrams and notes for a projected book on cell metabolism with special reference to manometric methods, n.d., c.1945. See H.326.
- 'Urea synthesis in the mammalian liver'; letter to Nature, 1947

 (Bibliog. 112).

 4pp. typescript, including references, with ms. corrections and interpolations.
- H.25 'Cyclic processes in living matter', Enzymologia, 1947 (Bibliog. 113).
 Reprint only, with later (1949) letter from editor.
- H.26 Correspondence, 1946-47, with editors, Encyclopaedia Britannica, rearticle on citric acid. Includes Krebs's heavily-corrected ms. draft and notes; the article was sent October 1947 but is not listed in Bibliog.
- H.27 'Copy of letter from Dr. Macfarlane to Professor King 26 Oct. 1948', on collaborative paper on carbonic anhydrase by Krebs and F. J.W. Roughton (an adverse referee's report) (Bibliog. 123).
- 10pp. typescript, with a head note 'Written for Central Office of Information ... Sent 11 Aug. 1948'.
- H.29 Correspondence, 1952, with D.M. Greenberg re Krebs's chapter contributed to Chemical Pathways of Metabolism, sent September 1952. Not listed in Bibliog.

- H.30 Review of: Wuhrmann & Wunderly: <u>Die Bluteiweisskörper des Menschen</u>, 1952. Not listed in <u>Bibliog</u>. Typescript.
- H.31 Correspondence with editors re Krebs's contribution to Biochemistry of Nitrogen, a 'homage volume' for 60th birthday of A.I. Virtanen. Includes note of thanks from Virtanen (Bibliog. 175).
- H.32 Review of: The Nucleic Acids. Vol.1, eds. Chargaff and Davidson.
 Reprint. Not listed in Bibliog.
- H.33 Review of: Methods in Enzymology. Vol.1, eds. Colowick and Kaplan, 1955. Proof only. Not listed in Bibliog.
- H.34 Review of: H. Harris, <u>Human Biochemical Genetics</u>. Typescript draft (for <u>B.M.J.</u>) 1955. Not listed in <u>Bibliog</u>.
- H.35 Review of: Currents in Biochemical Research, ed. Green, 1956.

 Typescript draft. Not listed in Bibliog.
- H.36 Correspondence, notes, list of slides for 'Biochemical concepts in medicine', published version of lecture to Oxford Medical Society (<u>Bibliog</u>. 182).

 See also H.135.
- H.37 Reviews from German journals of Krebs and Kornberg: Energy transformations in living matter, 1957. Sent by publisher in 1959 (Bibliog. 183).
- H.38 Review of: S.A. Waksman, My Life with the Microbes. Typescript draft, 1958. Not listed in Bibliog.

- Review of: Beveridge, A Defence of Free Learning. Typescript H.39 draft (for New Scientist) 1959. Not listed in Bibliog. 'The cause of the specific dynamic action of foodstuffs'. Typescript H.40 draft and tables with few ms. corrections, dated January 1960 (Bibliog. 194). 'Biologische Energieumwandlungen'. Published versions of lecture H.41 given 1960 at Lindau, as printed in Naturwissenschaftliche Rundschau and (shortened) in Therapeutische Berichte, 1961. Not listed in Bibliog. See also H.148. Reprints only. Review of: I, Asimov, Wellsprings of Life (for New Scientist). Corres-H.42 pondence and proof, 1960-61. Not listed in Bibliog. Review of: E. Walsh, Introduction to Biochemistry (for New Scientist). H.43 Correspondence and proof, 1961. Not listed in Bibliog.
 - H.44 Review of: Greenstein and Winitz, Chemistry of the Amino Acids (for Nature). Correspondence, draft and proof, 1961. Not listed in Bibliog.
- H.45 Review of: Methods of Biochemical Analysis, ed. Glick (for Endeavour), 1963. Draft only. Not listed in Bibliog.
- H.46 'The metabolism of glutamate in homogenates and slices of brain cortex'
 10pp. heavily-corrected typescript and ms. draft for collaborative paper with R.J. Haslam (Bibliog. 213).
- H.47 'Role of aspartate aminotransferase in glutamate metabolism in brain'
 Very heavily-corrected typescript and ms. draft for collaborative paper with R. Balazs and R.J. Haslam (Bibliog. 214).

- H.48, H.49 'Gluconeogenesis'. The Croonian Lecture, 1963 (<u>Bibliog</u>. 223).

 2 folders.
 - H.48 Heavily-corrected typescript and ms. draft, some pages with various dates, March-July 1963.
 - H.49 Text and tables as set up for print, 54pp., marked 'Treat with priority', with a few corrections and variations.See also H.159.
- H.50-H.61 'Theoretical concepts in biological sciences', contribution to <u>Current</u>

 <u>Aspects of Biochemical Energetics</u>, published to commemorate <u>25th</u>

 anniversary of F.A. Lipmann's work on energy transformations (Bibliog. 239).

Krebs brought together a considerable amount of material for this work, some of it antedating the immediate preparation of his paper. He also used it, with modifications, as the basis of one of his lectures as Distinguished Visiting Professor at Galveston, Texas, in November 1966 and for the John Coffin Memorial Lecture in London in 1967, neither of these lectures being published. He continued subsequently to assemble notes and drafts, developing his ideas both in the direction of social biology and of evolution. All the material was found together with the Lipmann contribution and has been left as a unit. It includes some correspondence and background material.

12 folders.

- H.50 19pp. very heavily-corrected draft dated January 1965 originally titled 'Theoretical Biology' and with many variations from eventual version.
- H.51 Extensive sequences of notes, drafts and ideas, November, December 1965, January 1966.
- H.52 Undated notes, drafts, references, tables (1p. references dated
 1961). H.51, H.52 originally in folder inscribed 'Lipmann'.
- H.53 The John Coffin Memorial Lecture, London. 13pp. heavily-corrected draft based on printed version of Lipmann paper with extensive revisions; texts for slides.
- H.54 Miscellaneous drafts and notes headed 'London Lecture' or similar, and 1p. (only) ms. introduction for 'Galveston' 16.11.66'.

- H.55 Drafts, notes, ideas on 'The Naturalistic Fallacy', 'Evolutionary ethics', etc., 1961.
- H.56 Similar material, on theoretical concepts, etc., various dates, 1965, 1966.
- H.57 Similar material, 1967, 1968, 1970 and undated.
- H.58 Letter (Krebs's carbon and draft only) to W.L. Bragg re initial hostile reception of scientific ideas, including Bragg's (referred to in Lipmann paper), 1965.
- H.59 Correspondence with K. Mothes, 1967 (referred to in drafts and ideas). Includes printed matter.
- H.60 Correspondence arising from Lipmann paper, and London lecture,1967. Includes article on Auschwitz sent to Krebs.
- H.61 Background material, most annotated by Krebs, 1959-71.
- H.62 Correspondence, notes, tables, experimental results, etc. for proposed contribution to 'Essays on Biological Organization' to be edited by L. Wolpert, 1967. Not listed in Bibliog. and perhaps not completed.
- H.63 'Restricted permeability of rat liver for glutamate and succinate' (Bibliog. 258).

Miscellaneous ms. and typescript drafts and tables for paper, and for lecture using same material, some pages with various dates in 1967. The draft bears the names of Krebs and R. Hems only; the published paper was also in collaboration with M. Stubbs.

H.64 'Effects of adenine nucleotides on renal metabolism' (<u>Bibliog</u>. 270), Krebs's collaborative contribution to volume of <u>Nephron</u> dedicated to R.F. Pitts.
Editorial correspondence only.

- H.65 Miscellaneous notes, drafts, tables for paper on ketone bodies, and perhaps lecture on same topic. Latest reference 1968. Includes photocopy of paper by M.J. Weidemann, 1968, heavily corrected by Krebs; Weidemann published several collaborative papers with Krebs 1969-70.
- H.66 Background material kept with above.
- H.67 'Sir Archibald Garrod' (Bibliog. 291)
 Typescript draft, brief editorial correspondence.
- H.68 'The Citric Acid Cycle'

12pp. heavily-corrected typescript and ms. draft for article (journal unspecified), +1p. ms. introduction headed 'Nursing Times'.

N.d. but probably an early version of material used in lecture at Miami, 1969 (Bibliog. 293, of which a copy is included). Also included are correspondence 1971 ordering 1,000 copies, and correspondence 1978 re a later version given as a lecture, with a request for Krebs to write a book on the discovery of the tricarboxylic acid cycle.

- H.69 'Gluconeogenesis and redox state', contribution to Regulation of Gluconeogesis (Bibliog. 302). Brief editorial correspondence only, 1970.
- H.70-H.72 'Reflections on the role of tryptophan derivatives on metabolic regulations', contribution to Metabolic Effects of Nicotinic Acid and its Derivatives (Bibliog. 303).

3 folders.

- H.70 5pp. typescript and ms. draft and 1p. diagram.
- H.71 Notes and drafts, 1969, including discussion meeting with H. Lardy and colleagues. Undated ms. references, brief correspondence with colleague.
- H.72 Extensive background material, most annotated by Krebs.

H.73-H.76 'The role of ketone bodies in caloric homeostasis' (Bibling. 305).

Notes, drafts, etc., originally contained in file inscribed 'Ketone Body Metabolism. Madrid Indianapolis Ottawa'. Krebs used this material for lectures during 1971, including his annual Indianapolis lecture which was published as usual in Adv.Enzyme Reg.

4 folders.

- H.73 'Ketone Body Material 1971'. Miscellaneous notes and drafts, various dates, February-April. Includes 21pp. draft version of Madrid lecture.
- H.74 Typescript version headed 'Madrid' for lecture under title 'Interrelations between the Metabolism of Carbohydrate, Fat and Ketone bodies'.
- H.75 'Ketosis and Ketone Body Metabolism'. Version headed 'Tokyo Ottawa 5.11.1971' and 'Adv.Enz.Reg.'
- H.76 Shorter drafts, and a little background material.
- H.77 Correspondence, 1972, 1975, re 'Interrelations between gluconeogenesis and urea synthesis', collaborative chapter contributed to Gluconeogenesis (dedicated to H. Lardy). The volume was scheduled for 1973 but did not appear until 1976 (Bibliog. 347).
- H.78 Correspondence, 1972-73, re Krebs's contribution to Ammoniastoffwechsel, ed. I. Szam. Not listed in Bibliog.
- H.79 'Concentration gradients between mitochondrial matrix and cytosol in the liver cell'
 - 12pp. heavily-corrected typescript and ms. draft of introductory talk at symposium later published (Bibliog. 349).
- H.80 'Cyclic Processes in Biology'
 17pp. heavily-corrected typescript and ms. draft, various dates,
 25 January-28 February 1977, apparently intended for publication.
 Not listed in Bibliog.

- H.81 'Regulation of the hepatic concentration of reduced glutathione' (Bibliog. 359).
 - Heavily-corrected typescript and ms. draft, June 1978, collaborative paper with R. Hems.
- H.82-H.85 'Fate of glutamine carbon in renal metabolism, collaborative paper with P. Vinay and J.P. Mapes (Bibliog. 361).
 - H.82 'Vinay draft', 15pp. typescript and ms. draft and miscellaneous tables, n.d., under title 'Relative rate of TCA cycle and gluconeogenesis in various acid-base status in dogs and rats', and with names of Vinay and Krebs only.
 - H.83 Notes, drafts, ideas, discussions, some headed 'Vinay paper', various dates, October 1974-October 1976.
 - H.84 Undates notes, tables, calculations, almost all in Krebs's hand, some headed 'Patrick' or 'Vinay', a few by or for J.P. Mapes.
 - H.85 Correspondence with collaborator and editor <u>re</u> publication of paper, 1975-77.

Includes copies of referees' comments, Krebs's reply to them, and some corrections for final version.

- H.86 'Rate-limiting factors in urate synthesis and gluconeogenesis in avian liver', collaborative paper with J.P. Mapes (<u>Bibliog</u>. 362).
 - Typescript draft with a few ms. corrections.
- H.87, H.88 'Some general considerations concerning the use of carbohydrates in parenteral nutrition'. Introductory remarks at Travenol symposium, May 1977 (see F.307), published in Advances in Parenteral Nutrition (Bibliog. 364).
 - H.87 Notes, ideas, drafts for talk, various dates, October 1976-July 1977
 - H.88 Background material, some annotated by Krebs.

- H.89 'Regulatory mechanisms in purine biosynthesis' (Bibliog. 365)
 - 'Lecture copy' (for Indianapolis), and draft for published version.
- H.90 'Metabolic properties of the epithelium of the small intestine', collaborative contribution with slight change of title to <u>Topics in Gastroenterology</u> (<u>Bibliog</u>. 370).

Types cript draft, dated March 1978.

H.91-H.93 'The "August Krogh" Principle', collaborative papers with J.R. Krebs (Bibliog. 380, 388)

Krebs wrote an essay on this topic ('For many problems there is an animal on which it can be most conveniently studied') in 1975 (Bibliog. 345); the two collaborative papers, both published in Comp.Biochem.Physiol., are respectively a 'postscript' and a 'comment'.

3 folders.

- H.91 Brief correspondence, and printed material 1976.
- H.92 Miscellaneous notes and drafts, suggested amendments by collaborator, etc., various dates, July-November 1979.
- H.93 Typescript and ms. straft, and brief forwarding correspondence of <u>Bibliog</u>. 388, 1981.
- H.94 Correspondence, 1979-80, re contribution by Krebs to Festschrift for M. Florkin, with ms. note on possible choice of topic. Paper was written and sent but is not listed in Bibliog.
- H.95 Correspondence, 1980, with editor of <u>The Bulletin</u> (publication of the New York City Life Underwriters Association), re article by Krebs for 'Survival' column. Includes ms. notes headed 'Survival New York'. Not listed in <u>Bibliog</u>. and perhaps not completed.

H.96, H.97 'The evolution of metabolic cycles', collaborative paper with J.E. Baldwin (Bibliog. 385).

H.96 Correspondence with Baldwin, June 1980-May 1981.

H.97 Correspondence with editor, <u>Nature</u>, and others <u>re</u> paper, publication delay, referees' comments and Krebs's reply to them, November 1980-April 1981. Two sets (one originals and one photocopies) made up and kept together by Krebs.

Drafts and material relating to this paper are in Section D.

H.98-H.271 LECTURES

H.98 Untitled lecture, on carbohydrate metabolism, given to 'Medico. Chir. Soc.', 19 November 1936.

12pp. typescript and ms. draft, 2pp. ms. notes.

H.99 'The biological breakdown of carbohydrates'. Lecture to Fellows of Chemical Society living in Leeds district, 26 November 1936.
 19pp. typescript and ms. draft, 1p. ms. notes, slides, etc., corres-

pondence re invitation and arrangements.

- H.100 'The oxidative breakdown of carbohydrates', 1937.
 14pp. typescript and ms. draft, 2pp. ms. notes, slides, etc. No indication where given.
- H.101 'Fluorosis', 'Special Lecture', at British Association meeting, Dundee, August-September 1939.

4pp. typescript and ms. notes, miscellaneous tables, etc.

Includes correspondence with F. Dickens and R.A. Peters about Dickens's lecture on 'The interpretation of intermediary metabolism from measurement of tissue respiration'; Krebs took part in the discussion.

- H.102 'Pyruvate oxidation'. Lecture to Biochemical Society, 1939.5pp. typescript and ms. draft.
- H.103, 'Proprietary Foods', n.d., probably 1939.
 - H.103 12pp. typescript and ms. draft, 1p. ms. notes. No indication where given.
 - H.104 Press-cuttings and background material on proprietary foods; includes brief correspondence with Horlicks Limited on the scientific basis of their claims for their product.

H.105 'The Citric Acid Cycle'. Lecture for Sheffield meeting of the Society for Experimental Biology, December 1940. The meeting was not held because of bombing.

Printed programme of meeting.

6pp. typescript; 10pp. tables; 4pp. ms. notes for talk.

- H.106 'The early recognition of nutritional deficiencies'

 10pp. heavily-corrected typescript and ms. draft and second copy with list of references (latest reference 1941).
- H.107 'War-time Nutrition'. Lecture to the Sheffield Queen Victoria District Nursing Association, January 1942.
 6pp. typescript and ms. .draft, 2pp. ms. notes with a little related correspondence.
- H.108 'Isotopes as tools in the study of intermediary metabolism'. Lecture delivered at University College Medical School at Leatherhead, 6 February 1942.
 15pp. typescript with ms. corrections, 1p. ms. notes.
- H.109 'How vitamins act'. Lecture given to South Yorkshire Section of Institute of Chemistry, February 1942.
 12pp. typescript and ms. draft, ms. list of slides, brief related correspondence.
- H.110 'How vitamins act', 4pp. typescript draft different text from above but kept with it, n.d.
- H.111 5pp. untitled typescript draft for slide lecture on isocitric acid (n.d. but latest reference 1942) found with above.

H.112 Lecture on oxidation of carbohydrate, given to Chemical Society, Manchester College of Technology, March 1942.

16pp. typescript and ms. draft, ms. notes and slide list, brief correspondence.

H.113 'Nutrition in relation to industrial workers'. Lecture given to post-graduate 'Course in industrial medicine', July 1942.

15pp. typescript and ms. draft.

H.114 'Feeding the people'. Lecture to Natural History Society, September 1942.

14pp. typescript and ms. draft.

H.115 'Intermediary stages of the biological oxidation of carbohydrate'.

Lecture given at I.C.I. Dyestuffs Group, Blackley, April 1943

(Bibliog. 98).

16pp. types cript and ms. draft, correspondence re invitation, etc.

H.116 'Current nutritional problems in industry'

17pp. typescript draft with substantial ms. corrections, dated July 1943. No indication where given but perhaps for postgraduate medical audience, similar to H.113.

Enclosed here is a letter to the Editor, <u>Time and Tide</u>, 1944, on 'School Meals', typed out and kept by Krebs.

H.117 'Enzyme hydrolysis of patulin'

3pp. heavily-corrected typescript and ms. draft for lecture, with miscellaneous ms. notes and calculations, slide lists, etc., some dated 1944, and 9pp. draft with similar title, perhaps intended for publication.

Also included is letter from E.B. Chain on Krebs's results and on work in Florey's laboratory on patulin.

- H.118 'Energy transformations in living matter'. Course of four lectures given at University College London, April-May 1945.
 Typescript and ms. draft, poster for lectures.
- H.119 'Nutritional experiments on human guinea pigs'. Lecture to Midlands Section, Royal Institute of Chemistry, March 1946.
 19pp. typescript and ms. draft, diagrams, tables, etc.
- H.120 'Isotopes in biological research'. Lecture to laboratory technicians, March 1947.4pp. ms. notes.
- H.121 Untitled paper (on synthesis of glutamic acid in animal tissues), given at International Physiological Congress, Oxford, July 1947 (Bibliog. 121).
 Typescript and ms. drafts for paper, tables, slide list, abstract, etc.
- H.122 'The tricarboxylic acid cycle'. Lecture given in a French translation in Paris at the Laboratoire de Chimie Biologique, Ecole de Médecine, 4 February 1948.
 31pp. typescript and ms. draft and tables, on current work.
- 'Carbonic anhydrase as a tool in studying the mechanism of Enzyme Reactions involving H₂CO₃, CO₂ or HCO₃'. Paper read before the Biochemical Society at Dublin, 9 April 1948 (<u>Bibliog</u>. 123).

 5pp. typescript with ms. corrections and interpolations, 8 diagrams (graphs) for slides.
- H.124 'Some recent investigations into the chemistry of secretory processes'.

 Lecture given at Columbia Medical Center, March 1949, during Krebs's extended visit to America (F.8-F.16).

 Extensive typescript and ms. drafts, slide-list, references, etc.

- H.125 'The tricarboxylic acid cycle in microorganisms', 1949, no indication of place.
 - 22pp. typescript and ms. draft, ms. slide-list.
- H.126 'The occurrence of the tricarboxylic acid cycle in yeast (Paper read before the First International Biochemical Congress) Cambridge 1949' (See F.17).

7pp. typescript and ms. draft.

H.127 'Free energy. What it is and how it is measured'. Lecture given February 1951, no indication of place.

15pp. heavily-corrected typescript and ms. draft.

- H.128 Correspondence with J.S. Mitchell arranging lecture given by Krebs at Cambridge, May 1951, on free energy.
- H.129 'The reactivity of the labile phosphate groups of adenosinetriphosphate', collaborative communication at meeting of Biochemical Society, Oxford, May 1951.

Programme of meeting, 3pp. typescript and ms. draft.

H.130 'The measurement of the turnover rate of steady state systems in living tissues', paper read at Isotopes Techniques Conference, Oxford, July 1951 (Bibliog. 142).

Typescript and ms. draft, tables, etc. Also included is invitation from J.D. Cockcroft to chair a session at conference.

H.131 'The place of the tricarboxylic acid cycle in cell metabilism', latest reference 1951, no indication of place.

22pp. typescript and ms. draft.

- H.132 Untitled lecture to British Orthopaedic Association, October 1952.
 No indication of place (perhaps Sheffield).
 10pp. heavily-corrected typescript and ms. draft, 7pp. slides, brief
- correspondence.
- H.133 'Oxidative Phosphorylation, lecture given in Paris Faculté de Médecine', February 1953 (Bibliog. 161).
 31pp. typescript and ms. draft.
- H.134 'Oxidative Phosphorylierung', German version dated 1955, kept with above.
 19pp. typescript and ms. draft, with 1p. ms. concluding remarks.
- 'The role of biochemical concepts in medicine and biology'. Lecture given before the Oxford University Medical Society and the Oxford University Scientific Club, February 1955.
 Typescript and ms. draft, letter of invitation, brief correspondence with editor Oxford Mail.
 See also H.36, H.138.
- H.136 'The steering of metabolic processes'. Lecture to Postgraduate Medical Federation, January 1956. Version of <u>Bibliog</u>. 178, heavily corrected and adapted for delivery as lecture.
- H.137 'Control of metabolic processes'. Lecture given at Rome, October 1956 (see F.58-F.62) (Bibliog. 187).
 16pp. typescript and ms. draft.
- H.138 'Biochemical concepts in medicine'. Lecture to Oxford Medical Society, November 1956 (<u>Bibliog</u>. 182), not same as H.135. See also H.36.
 16pp. typescript and ms. draft.

- H.139 'Banting Memorial Lecture', July 1957, on insulin.
 Typescript and ms. draft, including recollections of Krebs's visit to Toronto and work with Banting in 1938.
- Untitled lecture (on energy transformations) given at Geigy Bicentenary celebration, Basel, June 1958. (See F.68.) Not listed in <u>Bibliog</u>.
 16pp. typescript, 5pp. figures.
- H.141 'Synthesis of cell constituents from CO₂ compounds'.

 Typescript draft, diagrams, bibliography. The draft has a ms. heading 'Paris 4.3.58'; Krebs's visit to Paris to give this lecture was in March 1959 (see F.73) though he had given the same lecture in March 1958 at Amsterdam (see F.65-F.67).
- H.142

 'Über die Ursachen der Ketonkörperanhäufung in tierischen organismus'.
 Lecture given at Basel, Berne, Zurich, Saarland, June-July 1959.

 21pp. heavily-corrected typescript and ms. draft; German version of Bibliog. 193 (see F.74-F.78).
- H.143, 'Smoking and lung cancer'. Lecture given to Alembic Club, Oxford, H.144 probably October 1959.
 - H.143 Heavily-corrected typescript and ms. draft and slide-list, type-script draft with 'general discussion' section, correspondence with colleague.
 - H.144 Background material, some annotated by Krebs.

For slides used in lecture see L.82.

H.145 'The biochemical lesion in ketosis', Joseph P. Ross lecture at Chicago, March 1960 (Bibliog. 198).
 Typescript and ms. draft, tables, references, etc.

- 'The cause of the specific dynamic action of foodstuffs'. Lecture given 'USA 1960 Jerusalem 1960' (<u>Bibliog</u>. 194).

 14pp. typescript.
- H.147 'Some Aspects of the Metabolism of Ketone Bodies Cleveland-Western Reserve Supper Club March 1960 Jerusalem April 1960'
 10pp. +3pp. list of slides, typescript with ms. corrections and additions.
- H.148 'Biologische Energieumwandlungen'. Lecture at Lindau meeting, July 1960.
 18pp. of typescript (in German) heavily corrected.
 13pp. of diagrams for slides.
 Draft has ms. note 'also used as draft for printed paper'. (Not listed in Bibliog.). See H.41 for reprints of published versions.
- H.149 'Ketone Bodies', talk for 'Colloquium 7.11.60'.

 Heavily-corrected typescript and ms. draft.
- H.150 'The physiological role of the ketone bodies', third Hopkins Memorial Lecture for 50th anniversary meeting, Biochemical Society, March 1961 (Bibliog. 200, Rem. & Kefl. v, 91-93).

 Heavily-corrected typescript and ms. draft, references, tables, etc.
- H.151 'Über den Stoffwechsel der Ketonkörper', with a ms. headnote 'Berlin 21.5.61, Freiburg 4.6.61'. See F.97, F.98.
 20pp. typescript and ms. draft, 2pp. ms. introductory remarks.
- H.152 'Biochemical aspects of ketosis', Biochemical Society of Mexico,
 December 1961. See F.100.
 Typescript and ms. draft, tables, references.

- H.153 'Biological reductions in complex systems'. Lecture given at Houston, California and Philadelphia, December 1961 (Bibliog. 202). See F.99.
 Typescript and ms. draft, slide-list.
- H.154 'Control and direction of metabolism', Krebs's contribution to 'Symposium on lens metabolism in relation to cataract', Oxford, May 1962.
 Timetable of symposium, heavily-corrected typescript and ms. draft and slide-list.
- H.155 Untitled lecture (on regulation of metabolic processes) at Louvain, June 1962. See F.102.
 11pp. typescript and ms. draft, 9pp. diagrams.
- H.156 'Gluconeogenesis'. Lecture at first Indianapolis conference on advances in enzyme regulation, 0 ctober 1962 (<u>Bibliog</u>. 219). See F.103-F.106.
 Heavily-corrected typescript and ms. drafts for lecture, tables, diagrams, introductory and concluding remarks.
- H.158 'Gluconeogenesis'. Lecture given on Krebs's visit to USA, March 1963, with a ms. headnote 'Dartmouth, Amherst, Kansas City'. See F.110-F.113.
 20pp. typescript and ms. draft.
- H.159 'Gluconeogenesis', the Croonian Lecture of the Royal Society, June 1963 (Bibliog. 223).
 24pp. heavily-corrected typescript and ms. draft, 10pp. diagrams.
 See also H.48, H.49.

- H.160 'Regulierung des: Zellstoffwechsels'. Lecture at Lindau meeting,
 July 1963.
 16pp. typescript and ms. draft.
 - ropp. Typosarip. and mer arang
- H.161 5pp. untitled ms. notes, for concluding remarks at CNRS Symposium on Regulatory Mechanisms (Bibliog. 218).
- H.162 Untitled lecture (on rate of gluconeogenesis regulation in mammalian tissues) at Indianapolis conference, September 1963 (<u>Bibliog</u>. 222).
 Typescript and ms. draft, diagrams, list of slides.
- H.163

 'The new biology', with ms. headnote 'General lecture, Swansea',
 December 1963.

 Heavily-corrected typescript and ms. draft and diagrams. Includes
 correspondence, March-November, re invitation, travel and other
 arrangements.
- H.164 Introductory remarks to lecture given in Oxford by G. Wald, on 'The Visual Pigment', February 1964.
- H.165 'Biological selection of metabolic fuels'. Lecture at Deuel Conference,
 February 1964. See F.118.
 Typescript and ms. drafts and tables.
- H.166 'Experiments on Gluconeogenesis'. Lecture in Spain 1964. See F.119, F.120
 15pp. heavily-corrected typescript and ms. draft, dated February 1964 (lecture was given in March).
 2pp. (only) on 'Feedback' (Krebs's second lecture on Spanish visit).

- H.167 'Chemical control of mechanisms of metabolism'. Lecture at Exeter Chemical Society, April 1964.
 Typescript and ms. draft, slide-list, diagrams.
- H.168 'Some aspects of gluconeogenesis'. Lecture 'given at Third Symposium on Energy Metabolism of the European Association for Animal Production', May 1964.
 13pp. typescript and ms. draft.
- H.169 'Feedback mechanisms in the regulation of cell metabolism'. Lecture prepared for Haifa but not delivered, October 1964. See F.126.
 Typescript and ms. draft, tables, diagrams for slides.
- H.170 Untitled lecture (on rate control of glucone ogenesis) given at Faculté de Médecine, Paris, November 1964. See F.122.
 24pp. typescript and ms. draft.
- H.171 'Hepatic control mechanisms'. Lecture given at Leeds for twenty-fifth year of 'Biochemical Colloquia', March 1965. The lecture was repeated at Birmingham, March 1965.

Correspondence with organisers of Leeds colloquium, letter of invitation, travel arrangements, etc.

17pp. typescript and ms. draft. Also included is 'Statement by H. Klemperer' on oxaloacetate in metabolism, March 1952, and an extract from Krebs's letter of reply, April 1952 (made in March 1965 probably for use in lecture).

H.172 'Control mechanisms of carbohydrate metabolism'. Lecture at Federation of European Biochemical Societies meeting, Viénna, April 1965. See F.128.

Two typescript and ms. drafts for lecture, tables, references. Not identical.

- H.173 'Biochemistry of ketosis', described as 'material used for lectures' at Aberdeen and on Krebs's visit to USA, May 1965. See F.129-F.139.
 Typescript and ms. draft and notes.
- H.174 'Draft lecture' (on molecular biology).Brief draft only, dated June 1965.
- H.175 'Regulierung des Kohlehydratstoffwechsels der Leber'. Lecture in Göttingen, July 1965.
 13pp. typescript and ms. draft for lecture (in German), tables, slides.
- H.176

 'The regulation of the release of ketone bodies by the liver', described as 'Lisbon Lecture Sept. 1965' and also delivered later at Indianapolis (Bibliog. 236).

19pp. typescript draft, 5pp. references.

- H.177 Ms. notes for 'Lecture to Oxford Biochem. Soc. 1965'.
- H.178, 'The control of enzyme patterns in animal tissues'. Lecture for
 H.179 colloquium of Biochemical Society, Sheffield, January 1966.

H.178 Heavily-corrected draft and references, various dates in December 1965.

H.179 Later typescript and ms. draft, diagram, etc.

H.180 'Sources of reducing power in animal tissues'. Lecture at Glasgow,February 1966.

16pp. typescript and ms. draft, 4pp. diagrams for slides.

- H.181 Untitled lecture (on reducing power by mitochondria, related to <u>Bibliog</u>. 248) given at Warsaw, April 1966. See F.148.
 16pp. typescript draft.
- H.182 'The causes of the accumulation of ketone bodies in the animal body'.
 Lecture given in German, Lindau, June 1966 (<u>Bibliog</u>. 240). See F.149.
 13pp. typescript draft in English, 2pp. introductory remarks in German.
- H.183 'Redox state of cell compartments', material used for lectures in Oxford and in several locations during Krebs's visits to USA and Mexico, October and November-December 1966. See F.150-F.156. Related to Bibliog. 252.

Very heavily-corrected typescript and ms. draft, and some introductory or concluding remarks for specific locations. See also H.184 below.

- H.184 'Galveston lecture notes: the metabolic function of kidney', November 1966.Ms. and typescript notes and draft.
- H.185 'Role of the redox state of nicotinamide adenine nucleotides in the regulation of metabolic processes', Krebs's contribution to Symposium at Mexico City, November-December 1966 (Bibliog. 237). See F.156.
 Two typescript and ms. drafts (not identical), one with later note 'Further questions for discussion', March 1967.
- 'Unpublished Lecture Stockholm Nov. 1967' on 'Reversed electron transport energy linked transhydrogenation'. See F.161-F.163.
 Typescript and ms. draft, notes, tables, including pasted-in pages from published papers.
- H.187 'Lecture on current research'.
 Miscellaneous ms. and typescript notes, some dated in 1967.

H.188 Typescript and ms. drafts for lecture variously titled 'The effects of ethanol on the metabolic activities of the liver' and 'The effects of alcohol on liver metabolism'. A version was given at Indianapolis October 1967 (Bibliog. 261), and there are Krebs's lists of many other locations in Britain and USA where he lectured on the same theme up to and including May 1968 (the Withering lecture at Birmingham).

Includes correspondence, 1967-68 re the Withering lecture.

H.189 'Pyridine nucleotide interrelations'. Lecture given at several locations during Krebs's visit to USA, February-March 1968. See F.165-F.169 and H.190 below.

Very heavily-corrected and variously paginated typescript and ms. draft. Related to Bibliog. 268.

H.190 'Liver permeability'. Lecture given at several locations in USA,
 January-March 1968 (listed on front page).
 Very heavily-corrected typescript and ms. draft.

H.191 'Renal carbohydrate metabolism', Krebs's opening address at Symposium on Renal Metabolism, Washington, DC., August 1968. See F.175, F.176 and H.192 below.

14pp. typescript and ms. draft, notes, references, experimental results, background material.

H.192 'How the whole becomes more than the sum of the parts', after-dinner lecture to Metabolic Discussion Group during Washington meeting, August 1968.

14pp. typescript and ms., membership list, brief correspondence. Krebs published a paper on the theme in 1971 (<u>Bibliog</u>. 298).

H.193

'Equilibrium relations between pyridine nucleotides and adenine nucleotides and their roles in the regulation of metabolic processes'. Lecture at Indianapolis, October 1968 (Bibliog. 278).

21pp. typescript and ms. draft.

H.194

'Metabolic control mechanisms'. Lecture at University College, London, December 1968.

19pp. heavily-corrected typescript and ms. draft.

H.195, H.196 'Lecture on the occasion of the award of the Warburg Medal', given at Freiburg, January 1969, on 'Die Glukone ogenase und ihre Regulierung'. See F.179, F.180, H.388.

The occasion and location of the lecture afforded Krebs the opportunity to include historical and autóbiographical reflections on the topic and personalities involved in its development. The multiple drafts and corrections indicate the importance he attached to this lecture.

H.195 Two extended drafts, variously paginated and not identical, heavily-corrected and amended.

H.196 Three shorter sequences, similar.

H.197

'Rate control of the tricarboxylic acid cycle'. Lecture to Biochemical Society, Bristol University, May 1969.

17pp. typescript and ms. draft, 1p. slide-list.

H.198

'Regulierung des Tricarbonsdurecyclus'. Lecture at Lindau meeting, July 1969.

18pp. heavily-corrected typescript and ms.

9pp. typescript prepared for publication in <u>Naturw.Rdsch</u>. and editorial correspondence.

Also included is a copy of an English version (related to Bibliog. 286).

H.199 'Ketosis'. Lecture to Hammersmith Postgraduate Medical School, January 1970.

Typescript and ms. draft, diagrams, summary, etc., with a ms. note by Krebs 'material only, not perfect script'.

Includes correspondence re invitation and arrangements.

- H.200 'Kidney survival', April 1970, no indication of place given.
 Brief typescript and ms. draft and tables.
- H.201 'Equilibrium relations between pyridine nucleotides in the liver and their regulation'. Lecture at Amsterdam and Oslo, May 1970.
 See F.202, F.203.
 23pp. typescript and ms. draft, ms. introductory remarks.
- H.202 'Organ perfusion in small animals'. Lecture at Homberg, Saar, July 1970. See F.204.
 20pp. (incomplete) typescript and ms. draft in English.
 23pp. heavily-corrected typescript and ms. draft in German.
 Miscellaneous shorter notes and drafts.
- H.203 'Regulierungsmechanismen in tierischen Aminosdurestoffwechsel'.
 Lecture at Halle, November 1970. See F.212, F.213.

 18pp. heavily-corrected typescript and ms. draft, ms. introductory remarks.
- H.204 'Die Bedeutung der Grundlagenforschung für die Medizin'. Lecture at Munich, November 1970. See F.214, F.215 (Bibliog. 304).
 21pp. heavily-corrected typescript and ms. draft in German.
 15pp. typescript. English version.

- H.205 'Interrelations between the metabolism of carbohydrate, fat and ketone bodies', Third Jiménez Diaz Memorial lecture, Madrid, May 1971.
 22pp. typescript and ms. draft, ms. introductory and concluding remarks.
- H.206 'Biochemistry and Medicine', given at Oakham School, December 1971.

 Heavily-corrected typescript and ms. draft, variously paginated.

 Includes letters of invitation and thanks, arrangements, card announcing lecture, etc.
- 'The Pasteur effect and the relations between respiration and fermentation'.

 Heavily-corrected typescript and ms. draft dated February 1972 for the Redfearn Memorial Lecture given at Leicester, May 1972 (Bibliog. 316).

 Krebs also gave this lecture in German at the Lindau meeting in June 1972 (see F.237) and the German version was published in Naturw. Rdsch. (Bibliog. 312). See E.143, H.437.

Folder also includes a little correspondence <u>re</u> Redfearn Lecture, and a lecture on 'Brighter Biochemistry' given by Krebs to students' Biology Society on the occasion of his visit to Leicester.

- 'Some aspects of hepatic energy metabolism'. Lecture at Alfred Benzon Symposium, Copenhagen, May 1973 (Bibliog. 332).
 Typescript and ms. draft, diagrams for slides, ms. note, etc.
- H.209 'Biochemistry and clinical medicine', with a ms. note 'Lecture in Indianapolis 10 Oct. 1973'.
 Ms. draft, 19pp. and several intercalated pages.
- H.210 'Material used for a lecture on liver metabolism given at the meeting of the American Association for the Study of Liver Diseases', Chicago, October 1973. See F.251-F.253.
 15pp. heavily-annotated and amended typescript and ms. draft, list of slides.

H.211 'Georg Hübscher Memorial Lecture', Nottingham, November 1973. This was the first Hübscher Memorial Lecture and includes some reminiscences.

Variously-paginated typescript and ms. draft.

- H.212 'Cyclische Reactionesketten'. Lecture at Freiburg, November 1973.
 29pp. ms. draft.
 18pp. typescript and ms. draft.
 6pp. diagrams for slides.
- H.213 'Rate limiting factors in glucone ogenesis'. Lecture at EMBO meeting, Sheffield, April 1974. See F.258.
 Heavily-corrected typescript and ms. drafts, variously dated January-March 1974.
- 'Recent investigations with isolated liver cells'. Lecture at Dusseldorf, October 1974. See F.269.
 Typescript and ms. draft, photographs for figures, etc.
- H.215 'Overmedication'. Lecture at Indianapolis and Philadelphia, October 1974 and Dallas, January 1975. See F.261, F.262, F.267.
 Two heavily-corrected typescript and ms. drafts.
- H.216 'The role of chemical equilibrium in organ function'. Lecture at Case Western Reserve University, Cleveland, January 1975 (Bibliog. 341). See F.267, F.268.
 34pp. very heavily-corrected typescript and ms. draft, 3pp. typescript summary, poster for lecture.
- H.217 'Lunchtime meeting', March 1975. Short talk on 'what our laboratory is trying to do'.
 9pp. typescript and ms. notes on personnel and current research.

- H.218, Untitled lecture (on chemical equilibria in organ function), BordeauxH.2191975.
 - H.218 21pp. typescript draft and 2pp. summary of 'English version of Bordeaux lecture', dated May 1975.
 - H.219 Two heavily-corrected 25pp. typescript and ms. drafts (not identical) descriptions of slides, introductory remarks, etc. All in French.
- H.220 'Versuche mit isolierten Leberzellen'. Lecture at Lindau, June 1975.
 Typescript and ms. draft, 2pp. synopsis. In German. 5pp. description of slides.
- H.221 Untitled lecture (on methionine in liver metabolism) given as opening talk to 'Clinical Research Seminar', July 1975. With ms. note 'Script used at Madrid Oxford'. See F.276 for Madrid visit.
 Typescript and ms. draft, some dated July 1975.
- 'Concentration gradients between mitochondrial matrix and cystosol in the liver cells'. Introductory talk at FEBS Symposium, Paris, July 1975, later published in Use of Isolated Liver Cells ... in Metabolic Studies (Bibliog. 349).

 13pp. heavily-corrected typescript and ms. draft.
- H.223 'Stockholm Lecture' (on histidine and methionine), November 1975.
 See F.279.
 Typescript and ms. draft and slide descriptions.
- H.224 Talk on methionine metabolism, at Nuffield Department of Medicine, Oxford, February 1976.
 2pp. brief notes, diagrams.

H.225

'Regulatory mechanisms for non-essential amino acids'.

7pp. very heavily corrected typescript and ms. draft for lecture at a symposium or meeting, dated May 1976, no indication of place.

H.226-H.228 'The biochemistry of pernicious anaemia'. Lecture given in Cologne, June 1976.

H.226 13pp. typescript and ms. draft in English, March.

H.227 Typescript and ms. drafts in German, some dated May, June and one with a ms. note 'Köln'. No visit by Krebs to Cologne is recorded in the jotters in Section A, or in the visits in Section F.

H.228 Ms. draft 'Lecture Cologne', pp.1-11 probably written in the course of Krebs's visit to Australia, April-May.

Also included is Krebs's notebook (cover missing) paginated 1-44 containing his own carbon of Cologne lecture, see above, and (pp.12-44) his lecture at Konstanz on biology and social problems. See E.378-E.380.

H.229-H.242 'The Jayne Lectures'

Contents of a box so described.

Krebs gave three Jayne lectures at the meeting of the American Physiological Society in Philadelphia, August 1976. The general theme - the regulation of amino acid metabolism - was presented as:

Lecture 1: Regulation of methionine metabolism.

Lecture 2: On the regulation of the metabolism of amino acids.

Lecture 3: Regulatory mechanisms for non-essential amino acids.

The extensive drafts and notes go back in some cases to 1970 and may incorporate shorter talks or discussion papers on regulatory mechanisms given during the earlier 1970s.

H.229 Brief correspondence <u>re</u> lectures, August-September 1976. Krebs's reply states that the lectures were to be published 'in due course' by American Philosophical Society but they are not listed in <u>Bibliog</u>.

H.230 Lecture 1

20pp. heavily-corrected typescript and ms. draft.

23pp. typescript incorporating corrections.

H.231 Lecture 2

17pp. heavily-corrected typescript and ms. draft.

18pp. typescript and ms. with further corrections. Miscellaneous notes and drafts for slides.

H.232 Lecture 3

29pp. heavily-corrected typescript and ms. draft.

27pp. typescript incorporating corrections.

H.233 Miscellaneous typescript and ms. additional notes, ideas and drafts for 'Lecture 3'.

H.234 Miscellaneous lists of slides, tables, diagrams prepared for lectures.

H.235 Miscellaneous bibliographical references.

Notes and drafts

H.236 1970 August-October. Includes 22pp. draft lecture on 'Regulation of the supply of essential amino acids' and ms. introduction for 'Halle Nov. 1970'. See F.212, F.213.

H.237 1971 January-September. Includes 20pp. draft lecture on 'Regulatory mechanisms in mammalian amino acid metabolism', given at 'Toronto, Guelph, Kingston' during Krebs's visit to USA and Canada. See F.217-F.223.

H.238 1972 (headed 'Philadelphia'), 1973, January-December. Includes notes, May-June, headed 'Indianapolis and Bristol' and draft on 'Regulation of the concentration of components of cells and body fluids' for a seminar, December 1973.

H.239 1974 July-September, 1975. May, December

H.240 1976 January-June

H.241 1976 July-August

H.242 Miscellaneous loose pages, drafts, results, etc., not dated or identified.

H.243 'Regulation of folate metabolism'

Typescript and ms. draft, using some Jayne lecture material, with a note 'given at various places (Michigan State University, Bethesda) in 1976-77'.

H.244 'Regulierung der Folsdurestoffwechsels'. Lecture given at Munich, November 1976. See F.296.

11pp. typescript and ms. draft.

- H.245- 'Regulierung der Folsdurestoffwechsels', the Heilmeyer Memorial Lecture,
 H.247 University of Ulm, February 1977. See F.300.
 - H.245 Miscellaneous ms. and typescript drafts. Also included are miscellaneous obituaries of Heilmeyer, 1969-70.
 - H.246 27pp. typescript (perhaps transcript) of lecture sent to Krebs.
 - H.247 Another copy, very heavily corrected and amended by Krebs.
- H.248 H.251
 Wolfson College [Oxford] Lectures, 1977. The series was on 'The Molecular Basis of Life' and Krebs gave the opening lecture on 'Historical Perspectives'.
 - H.248 Typescript of lecture as given, 22pp. +1p. 'Dates of the discovery of protein amino acids'.
 - H.249 Ms. and typescript notes and drafts, some with various dates, October 1976–January 1977.
 - H.250 Correspondence, 1976, with K. Dalziel (organiser of the course) re title and date of lecture and brief correspondence, 1977, with President of Wolfson. Also included here is earlier correspondence, 1966, with O.U.P. re contribution by Krebs to proposed book on history of biochemistry and 3pp. notes on 'material for an essay' compiled by Krebs at that date.
 - H.251 Background material on history of biochemistry, some annotated by Krebs.

H.252 'Regulatory factors in isolated hepatocytes'. Lecture at International Physiological Congress, Paris, July 1977. See F.303.

Typescript and ms. draft, slide-list, with ms. note at head 'Many misprints'. Uncorrected.

H.253 'Literature of B₁₂ and folate metabolism. Lecture for Haematology course, Oxford, March 1978.

10pp. heavily-corrected typescript and ms. draft.

H.254, Typescript and ms. notes and drafts for lecture on regulation of folate
 H.255 metabolism, given at University of Wisconsin-Madison, October 1978.
 See F.325.

Two folders.

- H.256- 'Glutamine metabolism in the animal body'.
- H.261

 Closing address at Symposium: 'Glutamine metabolism, Enzymology and Regulation' to commemorate Fiftieth Anniversary of University of Mexico, November 1979 (Bibliog. 381). See F.333.

H.256 Programme of symposium.

2pp. summary and 16pp. typescript of paper as delivered.

- H.257 Ms. notes for opening remarks; miscellaneous heavily-corrected typescript and ms. notes, drafts and ideas, various dates, August-November 1979.
- H.258 3pp. typescript and ms. note, on renal function, arising from discussion of paper by B. Ross. Two versions, dated December 1979.

H.259-H.261 Three typescripts of paper, all with different ms. corrections, some very extensive.

H.262 'Biochemical and psychological aspects of alcoholism'

Ms. and typescript draft, some pages dated December 1979, for 'Miami lecture on alcohol'.

- 'Issues of vital clinical importance from the vantage point of fundamental biochemistry and psychology'. Lecture prepared for Medical Grand Rounds, University of Texas Health Center, during the Symposium in honour of Krebs's 80th birthday, Dallas, March 1980. See F.336-F.340. Extensive typescript and ms. drafts, variously dated and paginated.
- 'Sessional Chairman's Remarks', Krebs's contribution to Symposium in honour of D. Nachmansohn, Liège, May 1980. Personal and biographical reflections. See J.485.
 3pp. typescript headed 'From Neurochemistry International'. (SUPP. Bibliog. 57.)
- H.265 'Evolutionary concepts in biological thought'. Keynote lecture at Kiawah Island (South Carolina) symposium organised by Travenol Limited.

 See C.144. (Bibliog. 386.)

 7pp. typescript.
- H.266 Untitled lecture (on evolution of metabolic pathways) in German, given at Halle, October 1980.
 13pp. typescript and ms. draft.

Undated lectures

- H.267 Untitled lecture (on carbohydrate oxidation in living cells), latest reference 1940.
 15pp. typescript and ms. draft, slide list, ms. notes.
- H.268 Untitled lecture (on energy regulation) headed 'Cambridge', ?1950s.
- H.269 'Oxidation level of organic substances'
 7pp. typescript. ? 1950s.

H.270 'Speech introducing Paul (?)Zannemark, at a 'lunch time' talk.2pp. ms.

H.271 Miscellaneous fragmentary ms. notes for lectures.

	Publications, lectures, broadcasts
H.272-H.284	BROADCASTS AND TELEVISION
H.272	'What are enzymes?' Talk for BBC Home Service 'Science Survey' Scripts as rehearsed and broadcast; pp.6 & 7 only of Krebs's original ms.
H.273	Correspondence (only) re possible talk by Krebs for BBC, 1951.
H.274	'BBC Broadcast to Sweden', on award of Nobel Prize, 1953. 2 heavily-corrected typescript and ms. drafts, brief forwarding letter.
H.275	Correspondence (only) re interview given by Krebs in New York for 'Science Surveys', 1954.
H.276	Correspondence (only) <u>re</u> proposed programme on 'The Living Cell' for BBC Television Outside Broadcasts, 1958.
H.277	'How living organisms regulate their metabolism', talk for BBC European English Service, June 1959. Script as recorded.
H.278	Correspondence and Krebs's notes for contribution to BBC Home Service programme, 'The Men Outside', broadcast June 1962.
H.279	'Excellence', broadcast in BBC Third Programme, February 1968. Press-cutting from The Listener giving extract from talk.

H.280

Contribution, on animals and alcohol, to BBC Radio 4 Programme 'The Living World', broadcast December 1969. See also D.252.

Script, correspondence 1969-70 with producer.

H.281

Contribution to Open University Foundation Course Unit 15, recorded December 1970.

Script, correspondence with producers, 1970, and related later correspondence on cytochrome, 1972.

For Krebs's contribution to Global Television Network's 'The Great Debate' programme, Toronto, January 1975, see E.367-E.372, F.268.

H.282

Correspondence and list of questions for proposed contribution to Canadian Broadcasting Corporation programme 'Science et Société', 1975.

H.283

Contribution to Open University course on 'Science and Belief', 1979.

Correspondence with producer, list of questions to be used for recording session on 21 June by BBC TV.

H.284

Correspondence <u>re</u> interview by J.R. Maddox for BBC Radio Three 'Scientifically Speaking' programme, September 1979.

See L.91 for a cassette-recording of the interview.

H.285-H.446 CORRESPONDENCE ON PUBLICATIONS AND LECTURES

PUBLICATIONS

H.285-H.426

H.285

Die Abendzeitung (Munich newspaper)

1981

Request for article.

H.286-

Academic Press

1948-49, 1955, 1956, 1970

H.289

H.286 Correspondence 1948-49 re Krebs's contributions to The Enzymes (Bibliog. 143, 148).

H.287 Correspondence 1955 re new edition of <u>The Enzymes</u>. Krebs was unable to undertake task of Editor.

H.288 Correspondence 1956 re volume of essays in honour of Szent-Győrgyi.

H.289 Correspondence 1970 re proposed book 'The Cell in Medical Science'.

H.290

Advances in Enzymology

1977

Invitation to write.

American Journal of Digestive Diseases

1945

Request for article.

H.291 -

Annual Review of Biochemistry

1966-81

H.295

Mainly requests for Krebs and colleagues to contribute to various volumes of the publication.

H.291 Correspondence 1966-67 rearticle 'Interrelationships of metabolic cycles' (with H.L. Kornberg and P. Lund) intended for vol.37 (1968) but postponed.

H.292 Notes and drafts by Krebs, intended for article, some headed 'Annual Review', some dated January, August 1967.

H.293 Invitation, 1968 (declined), to contribute to vol. 39 (1970).

H.294 Similar invitations, 1971, to contribute to vol.42 (1973), and 1973 to contribute to vol.44 (1975).

H.295 Correspondence 1979-81, mainly re invitation to contribute to vol.50 (1981). Krebs accepted, intending to write on 'Regulation of glucose utilization by mammalian tissues' in collaboration with D.H. Williamson, but withdrew in July 1980.

H.296 Annual Review of Physiology

1972

Invitation (declined) to contribute prefatory chapter to vol.36 (1974).

H.297 - Aud

Audio Learning Limited

1969, 1971-72

H.301

Correspondence, notes and drafts for Krebs's contribution to 'taped discussion on biology' for schools. Krebs's collaborator was M.B.V. Roberts, and the 1969 correspondence relates to previous collaboration on a biology textbook.

H.297 1969

H.298 1971

H.299 1972

H.300 Notes and drafts for talk and tape, some dated January, February 1972.

H.301 Transcripts of tape, with ms. corrections and revisions by Krebs.

H.302 Biochemical Engineering

1957

Correspondence re possible launch of new journal.

H.303 Biochemical Preparations

1955

Correspondence re possibility of Krebs joining Editorial Board.

H.304, H.305

Biochemical Songs

1978-80

Mainly correspondence with H. Baum, author of many of the 'songs'
re this proposed collection of parodic and satiric verse to be published
by Pergamon Press. Krebs wrote a foreword. Not listed in Bibliog.

H.304 Correspondence 1978-80; includes various drafts of Krebs's foreward.

H.305 Texts of some of the 'songs'.

H.306

Biochemist's Handbook

1957

Request for advice on 'metabolic quotients' section.

H.307-H.320

Biochimica et Biophysica Acta (BBA)

1972-81

Krebs was a member of the Editorial Board from the inception of the journal in 1947 (see letter of 22 September 1972 in H.307) until the time of his death; the main sequence presented here dates only from 1972 but see A.460 for earlier material. He appears to have refereed a large number of papers submitted to <u>BBA</u> (see letters <u>re</u> fees due, sent annually in April).

The material includes general correspondence on policy and content with the Managing Editor (E.C. Slater during the relevant period) and members of the Editorial Secretariat, drafts or copies of Krebs's assessments and of correspondence arising.

Fourteen folders.

H.307 1972. Includes invitation to serve on Advisory Board of BBA Reviews on Bioenergetics, material re FEBS conference in Amsterdam, invitation to remain on advisory board of BBA after expiry of term of office.

H.308 1973-74

H.309 1975-76

H.310 1977-78. Includes invitation to remain on advisory board after expiry of term of office.

H.311 1979, January-February

H.312 1979, March-April

H.313 1979, May-August

H.314 1979, September-October

H.315 1979, November-December

H.316 1980. Includes invitation to continue to serve for a further three years.

H.317 1981, January-March

H.318 1981, April-May

H.319 1981, June-November

H.320 <u>BBA</u> <u>Newsletters</u>, 1972-79 (not a complete set), some with brief annotations by Krebs.

H.321 Biological Reviews

1934, 1938-39

Request for article (1934) sent January 1939. The article, on 'The technique of metabolic experiments on surviving tissues', was returned as 'too specialised'.

H.322 Blackwell Scientific Publications Limited

1953

Request to write book on cell metabolism.

H.323 British Journal on Alcohol and Alcoholism

1981

Request (declined) to serve on Advisory Board.

H.324 British Medical Journal

1945

Krebs's carbon only, objecting to incorrect reference in \underline{BMJ} to his collaborative paper (perhaps Bibliog. 102).

H.325 Cambridge University Press

1976

Brief correspondence only, <u>re</u> medical textbook on biochemistry, and <u>re</u> Krebs's autobiography.

H.326 Clarendon Press Oxford

1949-50, 1953, 1965, 1973

Correspondence 1949-50 is re Krebs's proposed <u>Textbook of Biochemistry</u> and includes draft synopsis (perhaps related to H.23).

Correspondence 1973 is re Krebs's comments on proposed series on 'Biochemistry and Clinical Medicine'.

See also 'Oxford University Press', H.390-H.392.

H.327 Clinical Science 1970

Request (declined) for comment on paper.

H.328 Edizioni Scientifiche e Tecniche Mondadori 1973

Correspondence re photographs of Krebs, and settlement of account.

H. 329 Encyclopaedia Britannica 1956

Request for photograph of Krebs, as a contributor. (No article in the

Encyclopaedia is listed in Bibliog.).

H.330 Endeavour 1956

One letter only, re review and article (probably Bibliog. 187).

H.331 Enzymologia 1972

Invitation to serve on Advisory Board; comment on proposed change of name to Molecular and Cellular Biochemistry (q.v.).

H. 332 Ergebnisse der Enzymforschung 1933

Brief correspondence only, re Bibliog. 51.

H.333 Ergebnisse der Physiologie, Biochemie und Pharmakologie 1980

Invitation to serve on editorial board, in succession to F. Lynen.

The journal was in process of changing its title to Reviews in physiology,

biochemistry and pharmacology.

H.334-H.341

Executive Health

1974-79

In 1974 Krebs was invited by the Editor, Richard Stanton, to contribute an article on drug abuse (Bibliog. 334), and to allow his name to appear on the Editorial Board. He remained in regular correspondence with the Editor on topics raised by readers; a second article 'On the dark side of man', based on an earlier article of that title for PRISM in 1974 (see E.366, H.400), appeared in 1979. Not listed in Bibliog.

- H.334 1974-75. Mainly article on drug abuse and correspondence arising (Bibliog. 334).
- H.335 1975. Request for article on 'Fever and survival' (not completed); nutrition; theories of Linus Pauling. Includes relevant copies of Executive Health.
- H.336 1976. Mainly re absence of women from Editorial Board, and Krebs's 'Dark side of man' article.
- H.337 1977, January-February. Comments on topics raised by readers.
- H.338 1977, May-June. Request for article on ascorbic acid (declined).
- H.339 1977, June-November. Krebs's article 'The dark side of man'; comment on topics raised by readers.
- H.340 1979. Correspondence and comments (not all favourable) on published article.
- H.341 Typescript draft with a few ms. corrections of article (originally titled 'Clouds gathering over society') and reprint of published version.

H.342- FEBS Letters 1968-71, 1974-76, 1978-81 (Publication of the Federation of European Biochemical Societies)

Krebs was appointed an Editor of <u>FEBS Letters</u> from its inception in 1968 and he continued very active participation in the work to the end of his life. The surviving material, which is extensive, relates mainly to 1971-81 and concerns the refereeing of papers and general editorial matters. Much of it is addressed to the Managing Editor (S.P. Datta) and other members of the Editorial Staff and there are some exchanges with colleagues and authors on research matters and on papers submitted.

H.342 1968-71

H.343 1974-76. Includes correspondence <u>re</u> Krebs's long service as editor and extension of his appointment.

H.344 1978-79. Includes draft of Krebs's review of M. Florkin's History of Biochemistry for FEBS Letters (not in Bibliog.).

H.345 1980, January-February

H.346 1980, March-April

H.347 1980, May

H.348 1980, June. Includes correspondence with author, and farewell letter to FEBS editors from W. J. Whelan on launch of <u>Biochemistry International</u>.

H.349 1980, July-August

H.350 1980, September-October

H.351 1980, November-December

H.352 1981, January-May

H.353 1981, June-July

H.354 1981, August-September

H.355 1981, October-November, and posthumous correspondence, December 1981-March 1982. Includes brief tribute by Datta re Krebs's work for FEBS Letters and a reference to Krebs Lecture at FEBS Special Meeting at Athens, April 1982.

H.356 Miscellaneous notes kept with material, perhaps related to mss. submitted to Krebs.

H.357 Managing Editor's lists of mss. in hand, referees' assessments, etc., various dates, July 1975–October 1981.

H.358 Miscellaneous information - progress reports, newsletters, circulars, etc., a few annotated by Krebs.

- H.359 Field Enterprises Educational Corporation 1963, 1978

 Correspondence re article on Krebs cycle prepared by Krebs for The World Book Encyclopedia. (Not listed in Bibliog.)
- H.360 Fires of Life (International Yearbook of Food and Farming) 1975

Request (declined) to serve on editorial advisory board and to contribute article.

- H.361 Fratelli Fabbri Editori 1971

 Krebs contributed an article to the Physiology and Medicine Section of the series 'Tutti i Nobel' (not listed in <u>Bibliog</u>.).
- H.362 Handbook of Nutrition and Food 1978
 Krebs's carbon only, declining invitation to contribute an article.
- H.363- Institute for Scientific Information 1970-82

 H.365 Correspondence, mainly with the President (E. Garfield), on Science

 Citation Index and Current Contents. Krebs was a member of the Editorial Advisory Board.

H.363 1970-76

- H.364 1977-78. Mainly on frequency of citation of Krebs's early papers with K. Henseleit (<u>Bibliog</u>. 34, 35, 36), and invited article by Krebs on the subject for <u>Citation Classics</u>. Includes drafts and notes. Not listed in <u>Bibliog</u>.
- H.365 1978-82. Continuing correspondence on publications and proposed publications of the Institute.

H.366-H.372

Interdisciplinary Science Reviews

1974-81

Mainly correspondence with Editor (A.R. Michaelis) of the journal.

Krebs served on the Editorial Board from its inception (correspondence
December 1974) and advised on possible members, contributors, manuscripts
submitted for publication, Editorial Board Dinners, etc.

H.366 December 1974-1975

H.367 1976. Includes request for Krebs to review E.O. Wilson: Sociobiology.

H.368 1977

H.369 1978. Includes request for Krebs to write 'Comment'; he proposed an article on 'problems of preventing juvenile delinquency, of dealing with offenders and possibly of solving some economic problems'.

H.370 1979. Includes programme of proposed conference on 'The Interdisciplinary Future of Biotechnology'.

H.371 1980-81. Includes comments by Krebs on Michaelis's article on the recovery of science in Germany.

H.372 Miscellaneous prospectuses of new journal, publicity announcements, members of Editorial Board, etc.

H.373

International Journal of Environmental Studies

Request (declined) to contribute 'editorial'.

H.374

Journal of Bioenergetics

1969, 1979

1971

(later Journal of Bioenergetics and Biomembranes)

Correspondence 1969 is invitation to Krebs to join Editorial Board at the inception of the journal (declined owing to pressure of other editorial work) and includes copies of letters from other distinguished members of Editorial Board.

Correspondence 1979 is re manuscript submitted for publication.

For Journal of Molecular and Cellular Cardiology see J.527.

H.375

The Lancet

1943

Brief correspondence only, re report on research (topic unidentified) submitted by Krebs for publication, but returned by Editor with regret that paper shortage prevented publication as quickly as it deserved.

H.376

Lenfant, C. (Editor)

1976

Correspondence re chapter to be contributed by Krebs and R.L. Veech to monograph on 'Extrapulmonary Manifestations of Respiratory Diseases' in series 'Lung Biology in Health and Disease' edited by Lenfant. Krebs was unable to write the chapter and it was omitted.

H.377,

Molecular and Cellular Biochemistry

1973-75, 1978, 1982

H. 378 (formerly Enzymologia (q.v.)

H.377 1973-75. Mainly re proposed special issue to be edited by J.T. Edsall on the discovery of carbon dioxide fixation, to include Krebs's contribution to the Conference on the Historical Development of Bioenergetics (Bibliog. 335).

H.378 1978

H.379

Molecular Pharmacology

1976

Krebs was a member of the Editorial Advisory Board.

Brief correspondence only.

H.380-H.387

Nature

various dates 1952-81

Correspondence on all aspects of the journal: manuscripts forwarded or submitted by Krebs for publication; comments on papers sent to him for assessment; requests for reviews, notes or articles, etc. H.383 includes correspondence with Editor re the events of 1937 when the collaborative paper containing the first announcement of the citric acid cycle was turned down by Nature. See also A.27, A.437, A.1233, Rem. & Refl., pp.98-99.

H.380 1952

H.381 1959. Includes note by Krebs on award of Nobel Prize for Medicine to S. Ochoa and A. Kornberg (not listed in <u>Bibliog</u>.) and a carbon of his recommendation of Ochoa to the Nobel Committee.

H.382 1963, 1965-66

H.383 1967

H.384 1969-72

H.385 1974

H.386 1975-77

H.387 1978, 1981

H.388 Die Naturwissenschaften

1968, 1973

Correspondence 1968 is request for article and arrangement to publish Krebs's lecture on receipt of Warburg medal. (Not listed in <u>Bibliog</u>.) See also H.195, H.196.

H.389 Oxford Books

1981

Brief correspondence only, with publisher, W.L. Meagher.

H.390 - Oxford University Press H.392 1934, 1978, 1981

H.390 1934. On possible book by Krebs on amino-acid metabolism.

H.391 1978. Correspondence and discussion on proposed reference book similar to Knaurs Lexicon.

H.392 1981. On proposed Oxford Companion to Medicine.

See also Clarendon Press Oxford. H.326.

H.393 Pergamon Press

various dates 1973-81

Correspondence with various publishing managers requesting advice on proposed publications. Includes Krebs's review, 1978, of Proceedings of FEBS meeting. (Not listed in <u>Bibliog</u>.)

H.394-H.396 Perspectives in Biology and Medicine various dates 1960-76

General correspondence with Editors (**D**.J. Ingle to 1973, thereafter R.L. Landau). Krebs accepted an invitation in 1962 to serve on the Advisory Board on the death of Q. Loewi, and contributed reviews and papers for publication.

H.394 1960, 1962-63. Includes correspondence re Krebs's review of On Cancer and Hormones, festschrift for C. Huggins (not listed in Bibliog.).

H.395 1967-70. Includes correspondence <u>re</u> Krebs's papers published in Perspectives (Bibliog. 293, 298).

H.396 1971-73, 1976. Includes correspondence <u>re</u> Krebs's paper 'Some facts of life - biology and politics' (<u>Bibliog</u>. 313).

H.397,

PHP Institute

1970-80

H.398

(Peace and Happiness through Prosperity and Peace, Happiness and Prosperity for all)

General correspondence with Editor, including various contributions and comments by Krebs.

1970-71. Includes typescript and ms. draft of article 'True H.397 Teachers' (on Warburg). Krebs sent another article 'Good Intentions and Wisdom' which was also accepted for publication in PHP International (Not listed in Bibliog.) See E.15 for another and in Japanese edition. article published in PHP.

1972-80. Includes Krebs's answers to questionnaire on H.398 purpose and success of PHP 1975, a short note on his feelings about America, 1976, for publication in PHP International, and a further questionnaire on PHP, 1980. See also A.13.

H.399

Plenum Publishing Corporation

various dates

1972-79

Correspondence 1972 re Krebs's request for publication on 'Ethical Issues in Genetic Knowledge; correspondence 1974-75 re Krebs's contribution to publication (Bibliog. 342); correspondence 1976-79 re proposed publication 'Biochemistry and Pharmacology of Ethanol' to which Krebs was unable to contribute but for which he wrote a testimonial on publication.

H.400, H.401

PRISM

1973-74

(The Socioeconomic Magazine of the American Medical Association)

Correspondence re article 'The dark side of man' published H.400 in February 1974 issue of PRISM, based on similar article (Bibliog. 313), itself based on lecture given at Royal Institution 1971 (Bibliog. 300). See also E.366, H.334-H.341. The PRISM article is not listed in Bibliog.

Ms. notes on 'The neglect of biological knowledge', December 1973; press-cuttings, some annotated.

H.402

process biochemistry

1966

Brief correspondence re foreword (text not included) written by Krebs for first issue of the journal, which appeared in March 1966. (Not listed in Bibliog.)

H.405

Publications, lectures, broadcasts

H.403 Progress in Liver Diseases

Request (declined) to contribute article on 'Intermediary M

Request (declined) to contribute article on 'Intermediary Metabolism' to proposed volume.

H.404, prospective et santé publique 1979-81

Correspondence with M. Salomon re interview with Krebs, an edited version of which was included in Future Life (English translation by G. Daniels, New York, 1983).

H.404 1979. Correspondence June also refers to article by Krebs published in current issue of <u>Prospective et Santé</u> (not listed in <u>Bibliog</u>.)

H. 405 1980-81

H.406 The Quarterly Review of Biology 1972, 1974
Requests (declined) to review books.

H.407 Reinhold Book Corporation 1968

Correspondence re request by Editor for Krebs to advise in preparation of biochemistry textbook to be written by S. Dagley.

H.408 Sandoz Limited 1955

Correspondence re biographical article on Krebs to be published in company journal Triangle.

H.409 Scientific American 1949-50

Krebs agreed to write article on 'acid secretion in the stomach' but later withdrew.

H.410 – Springer-Verlag various dates 1956-81
 H.414 – Mainly on various publications by Krebs and colleagues.

H.410 1956-58, re 'Energy transformations in living matter' (with H.L. Kornberg). Includes correspondence on translation into Spanish, and some reviews (Bibliog. 183).

H.411 1964-68, re proposed new edition of 'Energy transformations' and possible translation into Thai.

H.412 1970. Brief correspondence re Bibliog. 284.

1971. Brief correspondence re 'Effects of ethanol on gluconeogenesis', Krebs's contribution to a volume Metabolic Changes Induced by Alcohol (not listed in Bibliog.).

1972

H.413 1974

1978, re collaborative paper 'Regulation of the hepatic concentration of reduced glutathione' contributed to Functions of Glutathione in Liver and Kidney (Bibliog. 359).

H.414 1979

October 1980-April 1981. Invitation (declined) to Krebs to join editorial board of Reviews of Physiology, Biochemistry and Pharmacology.

August-September 1981. Request to Krebs to write book based on collaborative paper 'Evolution of metabolic cycles' (Bibliog. 385).

H.41**5,** H.416 Trends in Biochemical Sciences (TIBS)

1976, 1978-79

The first issue of TIBS appeared in January 1976 and the Editor—in-Chief was W. J. Whelan. See J.834.

H.415 1976. Invitations to Krebs to write article on Warburg (declined), review 'Alcohol and Abnormal Protein Biosynthesis' (draft enclosed – not listed in <u>Bibliog</u>.), and to contribute a historical piece on 'The origins of the International Congress of Biochemistry'. An outline of Krebs's article is enclosed and refers especially to the tenth meeting, Cambridge 1949. The article appeared in TIBS, August 1976. (Not listed in <u>Bibliog</u>.) See A.453. See also H.422 for an article planned in 1981.

H.416 1977-78

H.417

UNICEF

1978

Request (declined) for contribution to volume for 'International Children's Year'.

H.418

United Educators, Inc.

1968

Request (declined) for contribution to volume on possible developments in science.

H.419, H.420 USES (Utet/Sansoni Edizioni Scientifiche) various dates, 1969-79

Correspondence <u>re</u> articles contributed to Enciclopedia della Chimica (Chemical Encyclopaedia).

H.419 1969-71. Article on 'Ketone bodies' (not listed in Bibliog.).

H.420 1971-79. Article on 'Cyclic processes in biology' (not listed in Bibliog.). See D.474.

H.421-

John Wiley & Sons

1961, 1969, 1973-79, 1981

H.423

(and Wiley Interscience)

Miscellaneous correspondence on publications or proposed works by Krebs. Much of the later (1976 onwards) correspondence refers to Krebs's biography of Warburg and to his autobiography.

H.421 1961. Brief correspondence only rearticle published in Biochemical Preparations, 8. (Not listed in Bibliog.)

1969. Request to write book on 'metabolic fuels' and 'caloric homeostasis'.

1973. Agreement to contribute to Gluconeogenesis (Bibliog. 347).

H.422 1975-76. Agreement and correspondence <u>re</u> contribution to <u>The Urea Cycle</u> (<u>Bibliog</u>. 347). Includes one later letter, 1981.

H.423 1977-79. Correspondence <u>re</u> proposed series on 'The History of Biochemistry'. Krebs was asked to advise, and to write, or allow reproduction of previous writings, on Warburg and his own autobiography, but copyright prevented this.

H.424

G. Witzstrock

1975-78

Mainly personal correspondence with publisher, but includes comments, 1978, on new journals Clinical Cardiology and Scanning.

H.425

Worth Publishers, Inc.

1966

Request for textbook on biochemistry.

H.426

Shorter correspondence requesting permission to quote, reproduce diagrams, photographs, etc., 1964-81.

LECTURES	H.427-H.446
H.427	1935
H.428	1948
H.429	1950-54
H.430	1955, 1957-58
H.431	1960-61, 1966-67
H.432	1967-68
H.433	1968-69
H.434	1969-70 (Royal Free Hospital lecture and correspondence arising)
H.435	1969-70
H.436	1970-71
H.437	1971 -72
H.438	1972-73
H.439	1973
H.440	1974
H.441	1975-76
H.442	1976
H.443	1977
H.444	1977 -78
H.445	1979-80
H.446	1981

SECTION J

CORRESPONDENCE J.1 - J.985

INTRODUCTION TO SECTION J

J.1 -J.868

SCIENTIFIC AND GENERAL CORRESPONDENCE

Correspondence with individuals, organisations and firms, in alphabetical order, dated and indexed, with an indication of any information of particular biographical, scientific or historical interest.

J.869-J.931

SHORTER SCIENTIFIC CORRESPONDENCE

Indexed, in chronological order.

J.932-J.985

UNINDEXED CORRESPONDENCE

Exchanges of reprints, books and articles, specimens, methods and information.

The folders in the main sequence J.1-J.868 may include any or all of the following: applications to visit or work in Krebs's MRC Unit or in his Departments at Sheffield and Oxford; research programmes and progress reports; grant applications; ideas, drafts and data for publications, some in collaboration with Krebs; reports on visits to other laboratories or institutions, or to colloquia and conferences; applications and references for appointments in Britain and overseas; continuing contact in research and personal news. Some of the exchanges are relatively brief, albeit dealing with topics of some scientific substance; others extend over a long period of time, continuously or intermittently.

It should be noted that many of the most significant letters dealing with important events in Krebs's life were removed by him for insertion into his scrapbooks, now in Section A. Other letters, which he considered important either by reason of their content or their author, were kept with a short annotation by him probably made while he was assembling material for his autobiography. These annotations are reproduced in the relevant entries in the sequence.

A word should be said about the designation 'Personnel' given by Krebs to some of his files. Conscious as he always was of his own debt to Warburg as scientific mentor, Krebs was convinced of the importance of 'filiation' or 'scientific genealogy' in fostering scientific excellence, and felt that he should, and that he did, attempt to carry on this tradition. He devotes the whole of Chapter 12 of his autobiography to the history, personnel and success of 'The MRC Unit 1944 - 67'; shorter sections of Chapters 15, 17 and 18 are on similar themes, as are many of the historical lectures and writings of his later years. For Krebs, therefore, the selection, direction and future careers of coworkers and collaborators bore a special dimension. Unfortunately the 'Personnel' label as applied by him to his files does not represent a full or accurate tally of those who worked long- or short-term with him, nor does it distinguish between such varied categories as: MRC-funded staff on long- or short-term contracts; doctorate and postdoctorate students from Oxford or elsewhere; scientists from Britain or overseas visiting briefly to learn a laboratory technique; senior scientists spending all or part of a sabbatical leave as guests with their own funding. Several very long-term colleagues acknowledged by Krebs in his autobiography are not filed as 'Personnel', while others who spent quite brief periods with him are so designated. Thus, while Krebs's 'Personnel' category as found on his files has been preserved, an attempt has been made in the catalogue entries to clarify the status of the persons involved and, incidentally, the magnetic influence of his laboratory.

The 'Shorter Scientific Correspondence' at J.869 - J.931 consists of briefer exchanges usually on one matter only and more specifically connected with research in hand. For these reasons it is presented in chronological order. The correspondents are indexed.

J.1 Aebi, H.

1950-51, 1964-66

Correspondence 1950-51 is on tissue respiration, and glutamic acid.

Correspondence 1964-66 is re semester spent by Aebi in Krebs's laboratory in summer 1964; includes recommendation for Naegeli Prize.

'Personnel' file.

J.2, Alleyne, G.A.O. and others

1969-78

J.3 Research on renal metabolism, recommendations.

Two folders.

J.2 1969-72

J.3 1975-78

J.4- Allison, A.C. and others

1954-57, 1962-63

J.6

Allison was a part-time member of Krebs's MRC Unit, working on the genetics of animal viruses. He transferred to the National Institute for Medical Research in 1957.

'Personnel' file.

Three folders:

- J.4 1954-56. Letters of appointment, reports on research, publications, exhibition on 'The Living Cell', report on visits.
- J.5 1957. Radcliffe Prize, transfer to NIMR.
- J.6 1962-63. Includes reprints by Allison.
- J.7 Ammon, R.

various dates 1958-81

Correspondence 1959 is re colleagues and pupils of Rona.

Includes requests for articles, visits, etc.

J.8 Anagnostopoulos, C.

1956-57

Research on carbamyl phosphatases.

J.9 Anson, M.L.

1931-33 and n.d.

Research on enzyme chemistry and insulin. The letters were kept together by Krebs and described as 'Mortimer L. Anson, protein chemist, long-standing friend of Otto Warburg, and whom I first met in New York in 1929'.

J.10 Ardenne, M. von

1966, 1971-78

Research and publications on cancer therapy.

J.11 Arnon, D.1.

various dates 1960-77

Visits, research on photosynthesis, recollections of Warburg, recommendation.

J.12 Aschoff, J. and Aschoff, E.

1961-62, 1969, 1974

Visits, research. Includes a little correspondence with Eva Aschoff (daughter of Ludwig Aschoff) and notice of her death (1969), and some family news.

J.13 Ashworth, J.M.

1959-64, 1977, 1981

Ashworth joined the Department of Biochemistry after taking a degree in Chemistry at Oxford; he worked with H.L. Kornberg, moving with him to Leicester in 1961. In 1976 he was seconded from the Chair of Biology at Essex to the Cabinet Office and was Chief Scientist, Central Policy Review Staff, until 1981, when he became Vice-Chancellor, Salford University.

Early material includes research reports and recommendations.

'Personnel' file.

J.14 Atkinson, D.E.

1965, 1976-77

Correspondence 1976-77 is <u>re</u> Atkinson's book on metabolism, and the influence of Krebs on his career; includes miscellaneous ms. notes by Krebs on the importance of the concept of evolution in his own work, dated 4 November 1977 and headed 'Re Dan Atkinson'.

J.15 Ausman, R.K.

1980

Lactic acidosis.

J.16 Avi-Dor, Y.

1959-61

Research, recommendations. Avi-Dor worked in Krebs's Department at Sheffield.

'Personnel' file.

J.17- Bacon, J.S.D. and others

1947-75

J.25

Bacon was a Senior Lecturer at Sheffield 1948–54 and Krebs describes him as 'closely integrated with the research team' (Rem. & Refl., pp.135, 140). In 1956 he moved to the Macaulay Institute for Soil Research, Aberdeen, and in 1972 to the Rowett Research Institute, Aberdeen, as Head of Department of Carbohydrate Chemistry.

'Personnel' file.

Nine folders, mainly on research, visits, appointments, publications.

- J.17 1947. Application for Senior Lecturership at Sheffield (duplicated papers).
- J.18 1955-56
- J.19 1957-58
- J.20 1959-62
- J.21 1963-64
- J.22 1965-66
- J.23 1967-68
- J.24 1971-72
- J.25 1973-75
- J.26 Baldwin, E.H.F.

1950

One letter only.

J.27 Balinsky, J.B.

1963, 1967

Research on Xenopus laevis.

J.28 Bannister, J.V.

1973-79

Research, visits, appointments.

J.29 Barcroft, H.

1980-81

On war-time and later experiments on bracken as a source of animal feedstuff; includes photocopies of draft paper and memorandum by Krebs on subject, July and December 1940.

J.30 Barcroft, J.

1934, 1945

Brief correspondence only, on research.

The letters were kept together by Krebs and described as 'Joseph Barcroft, Professor of Physiology at Cambridge with whom I collaborated in measurements of oxygen consumption in fetal tissues'.

J.31 Barnes, F.W.

1953

Transaminase; oxaloacetic acid.

J.32- Bartley, W.

J.38

1946-80

Bartley began work with the MRC Unit at Sheffield in 1946, as a laboratory technician, on the strong recommendation of Krebs who had known him since 1941 in a similar post at the Sorby Research Institute. He took a B.Sc. and Ph.D. at Sheffield, became a member of the scientific staff of the Unit and moved with it to Oxford. In 1963 he returned to Sheffield as Professor of Biochemistry.

'Personnel' file.

Seven folders as follows, on research, publications, visits, career and appointments.

- J.32 Miscellaneous cvs., bibliographies, departmental records.
- J.33 1946-52. Appointments, conditions of service, promotions.
- J.34 1953-59. Ph.D., research report, promotion, appointment as University Demonstrator, resignation from MRC Unit.
- J.35 1960-64. Research grants, note by Krebs for Nature on Bartley's appointment at Sheffield, copy of Bartley's inaugural lecture, etc.
- J.36 1965-70. Research, visits, publications; includes Krebs's visit to Sheffield 1967.
- J.37 1972-75. Research, publication, death of L.V. Eggleston, presentation of 'Krebs Prize' at Sheffield.
- J.38 1976-80. Includes material relating to Krebs's collected reprints, his broadcasts, and reference to his intention that Sheffield should eventually house his papers and other material (November 1979).

J.39 Bassham, J.A.

1955-56

Bassham worked in Krebs's laboratory as a National Science Foundation Senior Postdoctoral Fellow 1956-57. Folder includes 'Proposed plan of study' (on photosynthesis), and two research reports by Bassham and R. Hems (on DPN and TPN).

Not a 'Personnel' file.

J.40 Bates, M.W. and others

1965-68

Bates spent two years as a National Institute of Health postdoctoral research fellow at the Department of Biochemistry 1965-67. Folder includes cv., arrangements for fellowship, recommendations.

Not a 'Personnel' file.

J.41 Baum, H.

1967-71

Research on mitochondria, lectures and visits.

J.42 Beadle, G.W.

1949, 1960

Correspondence 1949 is on amino-acid oxidases.

The letters were kept together by Krebs and described as 'George Beadle, California Institute of Technology, later President of Chicago University. Nobel Laureate 1958'.

J.43 Beattie, A.

1962, 1964.

J.44- Bellamy, D. and others

1956-67

After graduating from Sheffield, Bellamy obtained an MRC Scholarship for research and doctoral work in the Department of Biochemistry, Oxford, becoming a 'Departmental Assistant'. He was appointed to an ARC research team at Sheffield in 1959 and became Senior Legturer in Zoology at Sheffield from 1965.

Not a 'Personnel' file.

Three folders as follows:

J.44 1956-57

J.45 1959-62

J.46 1964-67

J.50A

Correspondence

J.47 Benesch, R.

1948, 1954

J.48 Bennet-Clark, T.A.

1944, 1947

Iso-citric research.

J.49 Bennett, D.A.H.

1961-62

Krebs accepted Bennett as a 'personal student' for Part II work in biochemistry at Oxford. Includes programme of work, Krebs's reports to university.

'Personnel' file.

J.50, Benzinger, T.H. and others

1933, 1950-81

Benzinger was a colleague of Krebs at Freiburg and published a collaborative paper with him on metabolism in birds. He emigrated to America, working mainly on calorimetry; he spent some time in 1956 in Krebs's Department working with R. Hems and C. Kitzinger, and continued collaborative work on the subject 1971–78 (see D.331–D.341).

'Personnel' file.

Two folders as follows:

J.50 1933. Extensive ms. data, drafts and narratives on metabolism in animals and birds (perhaps related to <u>Bibliog</u>. 45); letters of 1933 on research and conditions in Germany were kept together by Krebs and described as 'T.H. Benzinger, my collaborator in Freiburg in 1932 and 1933. Physiologist, after the war especially interested in calorimetry at Bethesda and National Bureau of Standards at Washington'.

J.50A 1950-57, 1969, 1981. Research, visits, collaborative work on calorimetry.

J.51 Bergel, F.

1933, 1954-56, 1959, 1968, 1970, 1978

Personal and scientific correspondence (on oxidases). Correspondence 1959 is re-proposed protest on Apartheid; correspondence 1978 (Krebs's carbon only) recalls his and Haddow's part in inviting German scientists to the International Congress in Cambridge in 1949.

J.52 Bernardi, G.

1965

Origins of protein nomenclature.

J.53 Bernhard, S.

1975-77

'Dahlem Konferenzen'.

J.54- Berry, N.M. and others

1960-81

J.60

Berry, a New Zealand graduate, was nominated to the Department of Biochemistry as Demonstrator under the Nuffield Dominions Trust. He worked there from January 1961 and was a member of the MRC Unit from January 1964, resigning to take up an appointment at Pittsburgh from September 1964. Later appointments were at the Postgraduate Medical School, London (1965), San Francisco Medical Center (1967) and Flinders University of South Australia (1973). Krebs described him (Rem. & Refl., p.220) as 'one of the main initiators of the successful preparation of isolated liver cells', though Berry's later work concentrated on electrochemical interpretations of metabolism and the role of proton gradients.

Not a 'Personnel' file.

Seven folders as follows, covering all aspects of research and career.

- J.54 1960-61
- J.55 1962-64
- J.56 1965-66
- J.57 1967-69
- J.58 1970

There is no surviving correspondence 1971-76

- J.59 1977-79
- J.60 1980-81 and some undated drafts and data

J.61 Besser, F.

1933, 1934

A fellow refugee, working in London.

J.62, Bielschowsky, F.D. and Bielschowsky, M.

1933-54

J.63

Bielschowsky was a contemporary and colleague of Krebs at Freiburg and later at Sheffield. In the 1930s he also worked in Holland and Spain, and after the war in New Zealand. Several of the letters are undated and their assignment is tentative only.

Two folders:

J.62 1933-39, few dated.

J.63 1947-54, not all dated. Includes a little correspondence with Marianne Bielschowsky (also a biochemist) and an obituary of Franz Bielschowsky from University of Sheffield <u>Gazette</u>, <u>47</u>, November 1967. See also J.171.

J.64 Biran, A.L.

1958-62

Biran was accepted as an MRC student for training in research methods in the Department of Biochemistry, obtaining his doctorate in 1962.

Not a 'Personnel' file.

J.65, Birt, L.M.

1956-67

J.66

Birt came from Melbourne University as an 1851 Exhibitioner and worked under Krebs's 'personal supervision' before returning to various university posts in Australia.

'Personnel' file.

Two folders, on research and appointments.

J.65 1956-59

J.66 1960-67

J.67- Blaschko, H.K.F. and others

1931-80

Blaschko and Krebs met at Freiburg in 1919 and remained close friends. Their careers followed similar paths: to Berlin where Blaschko worked in Meyerhof's laboratory; to Britain in 1933 where Blaschko met and offered lodging to Krebs on his first arrival in London; to Cambridge (Physiological Laboratory) in 1934;

and to Oxford where he was Reader in Biochemical Pharmacology 1944-67.

The correspondence includes personal and historical material, as well as aspects of research and career. The early letters (not all dated) often contain news of other refugee colleagues.

Eight folders as follows:

J.67 1931 (card only), 1933 April-August

J.68 1933, September-December

- J.69 1934
- J.70 1935. Includes card and letter from D. Nachmansohn 1936
- J.71 1937 (few dated)
- J.72 1938-45
- J.73 1947-80. Shorter items, including social occasions, recollections, etc.
- J.74 Miscellaneous recollections and narratives relating to Blaschko, compiled by Krebs, 1980.
- J.75 Blaxter, K.L.

1957, 1967, 1971

J.76 Blumberg, B.S.

1955-59, 1963, 1973

Blumberg was a postgraduate student working with A.G. Ogston in the Department of Biochemistry. He shared the Nobel Prize for Medicine in 1976.

'Personnel' file.

J.77- C.H. Boehringer Sohn and others

1960-80

UK subsidiary re research projects, visits. The chief correspondents are H.U. Bergmeyer in Germany, and J.H. Shelley in Britain.

Five folders as follows:

- J.77 1960, 1962-63
- J.78 1964-69. Includes material <u>re</u> collaborative paper with Bergmeyer (<u>Bibliog</u>. 242).
- J.79 1970-74
- J.80 1975-77. Correspondence with Boehringer Ingelheim, UK, on research and publications. Includes material re Bibliog. 343.
- J.81 1977-78, 1980. Mainly appeal for funds for new medical college at Oxford.

Correspondence			
J.82	Böhning, F.	1933, 1937, 1947	
J.83	Bonner, J. Discussion of Krebs's Harvey Lectures (Bibliog. 133).	1951	
J.84, J.85	Booth, V. Krebs mentions Booth and other early Cambridge friends to him on arrival in Britain (Rem. & Refl., p.88). Two folders of cards and letters, on personal and science. J.84 1934–40 J.85 1951, 19	entific matters.	
J.86	Born, G.V.R. and others Mainly re arrangements for the publication in Britain of Max Born; folder includes brief correspondence w	1966, 1973-81 of the autobiography	
J.87	Bowman, W.C. Pharmacology of salicylates.	1981	
J.88	Brock, D.J.H. and others Research, appointments; Brock worked in Krebs's lab from the ARC's Animal Breeding Research Organisation Not a 'Personnel' file.		
J.89, J.90	Bronk, J.R. and others 'Personnel' file. Two folders as follows: J.89 1952–58 J.90 1964–66	1952-58, 1964-66	
J.91	Brunet, P. 'Personnel' file.	1952-56	
J.92	Buchanan, J.G.	1948	

Urea synthesis.

J.93 Buchanan, J.M.

1947

Citrulline in urea synthesis.

J.94 Bücher, T.

1947-56

Bücher was a pupil of Warburg (see Rem. & Refl., pp.149-150).

J.95 Burk, D.

1952-53, 1961-72

Correspondence 1952-53 is re Warburg Festschrift; later correspondence is on research and also has frequent references to Warburg.

J.96 Burton, K.

1949, 1977

Burton was a lecturer in the Biochemistry Department at Sheffield, and a long-term colleague and member of the MRC Unit at Oxford 1954-66.

Not a 'Personnel' file.

J.97 Bush, I.E.

1952, 1956-59

Bush was a research assistant in the department, working on biochemistry and medicine. Includes early (1952) papers by Bush.

'Personnel' file.

J.98 Butenandt, A.

1934-35, 1978, 1980

Letter of 1 March 1935 has a later description attached by Krebs: 'Adolf Butenandt. The letter refers to an invitation to contribute a review paper to a German journal. I first accepted but later declined when Neuberg was dismissed as Editor of Biochemische Zeitschrift'.

J.99 Buxton, J.

1955-56

'Personnel' file.

J.100 Cairns, H.J.F.

1970

J.101 Calderbank, A.

1957-58

Calderbank studied for three terms in Krebs's Department, on secondment from ICI.

'Personnel' file.

J.102 Callaghan, O.H.

1957-58, 1961-62

Callaghan worked as a research student in Krebs's Department from December 1957 to September 1958.

'Personnel' file.

J.103 Calvin, M.

1965, 1967

J.104 Carter, C.W.

various dates 1959-65

The material was kept together by Krebs and described 'Dr. Cyril Carter, Reader in Biochemistry, Oxford'.

Not a 'Personnel' file.

J.105- Chain, E.B.

1956-75

J.107 Three folders.

J.105 1956-62. Research, publications, visits.

J.106 A group of autograph letters from Chain, mainly personal, 1945, 1956, 1962, 1969, kept together by Krebs and described as 'Ernst Chain, fellow refugee at Cambridge in 1934–35. Isolated penicillin. Nobel Laureate 1945'.

J.107 1971-75. Research, appointments.

J.108- Chance, B.

1961-80

J.111 Four folders, on research, visits, lectures, etc., including some research data, and some personal news.

J.108 1961-67

J.109 1968. Bibliog. 268; Krebs's Penn Lecture at University of Pennsylvania.

J.110 1969-70

J.111 1973-80. Krebs's Penn Lecture 1974, miscellaneous research and personal correspondence.

J.112- Chaplain, R.M.A. and others

1960-67

J.115

Chaplain, a biochemist from East Germany, came as a visiting research worker in Krebs's Department in April 1961. He had various financial and visa difficulties and much of the correspondence deals with the efforts of Krebs, scientific colleagues in Britain and Germany, and officials of charitable organisations to make it possible for him to continue his studies. He obtained a D.Phil. at Oxford before returning to East Germany in 1966.

'Personnel' file.

Four folders on all aspects of career, research, appointments.

J.112 1960-61

J.113 1962-63

J.114 1964-65

J.115 1966-67. Includes reprints of papers by Chaplain.

J.116 Chappell, J.B.

1965-67, 1972-76

Research, visits, recommendations.

J.117 Chatagner, F.

1956-57

Chatagner visited Krebs's laboratory May-June 1957 to learn amino-acid techniques.

'Personnel' file.

J.118 Chibnall, A.C.

1937-39, 1947-48, 1956-57,

1963

Research, meetings, appointments.

The letters of 1956-57 were kept together by Krebs and described as 'Professor A.C. Chibnall, Professor of Biochemistry at Imperial College, London and later at Cambridge'.

J.119- Chou, J.T.Y. and others

1960-66

J.121

Chou, born in Peking, was a British Council Scholar and Inter-University Fellow at Oxford 1955-58 and a member of Krebs's MRC Unit 1958-63, working mainly on the biochemistry of the inner ear.

'Personnel' file.

Three folders, on all aspects of research and career, visas, appointments, research programmes and reports.

J.119 1960-61

J.120 1962

J.121 1963-64 and one letter 1966.

J.122 Clarke, J.S.

1960

Clarke held an MRC Scholarship for training in research methods at Krebs's Department for one year.

'Personnel' file.

J.123 Clayton, R.B.

1955-63

Clayton held an ICI Fellowship in Krebs's Department.

'Personnel' file.

J.124- Cohen, P.P.

1937-79

Cohen spent a year, 1938-39, as a National Research Council Fellow in Krebs's laboratory in Sheffield as (with A. Östrüm) 'the Department's first post-doctoral visitors from overseas' (Rem. & Refl., p.103). He became a life-long friend.

Not a 'Personnel' file.

Three folders.

- J.124 1937-38. Arrangements for Cohen's visit to Sheffield to work on intermediary metabolism; invitation to Krebs to visit and lecture in USA.
- J.125 1948 (Harvey lecture), 1950-54 (research, offer of posts at Harvard and Oxford).
- J.126 1960-61, 1966, 1979.

J.127 Cohen, S.S.

1963, 1966, 1973

Correspondence 1963 is on 'Biochemical variability'; correspondence 1973 includes historical recollections.

J.128 Cohn, M.

1955-63, 1972

Cohn worked in Krebs's Department for eight months from June 1955, while on leave from Washington University, St. Louis, on hydrolysis of adenosine triphosphates. Folder includes material on research, publications, visits, recommendations.

'Personnel' file.

J.129 Cole, H.

1964-65

Cole held an MRC Scholarship for training in research 1964-66 in Krebs's Department and at Cardiff.

'Personnel' file.

J.130 Cole, J.A.

1964-65

Research report only.

'Personnel' file.

J.131 Coleman, G.

1959

Brief correspondence only, from D.D. Woods, <u>re</u> Coleman's Guinness Research Fellowship.

'Personnel' file.

J.132 Collins, J.F.

1957-59

Collins was an MRC Scholar in training in research.

'Personnel' file.

J.133 Conn, R.B.

1952

Conn came to work in the Department of Biochemistry, on tumour biochemistry, for three years from 1953.

'Personnel' file.

J.134 Conway, E.J.

1948-49

Carboxylase.

J.135 Cooke, K.B.

1954

Brief correspondence only.

'Personnel' file.

J.136 Cooper, E.H.

1958-59

'Personnel' file.

J.137 Cooper, R.

1954

Brief correspondence only, re Cooper's MRC Scholarship for training in research, under the supervision of D.D. Woods.

'Personnel' file.

J.138 Cornell, N.

1977

Research on ethanol.

J.139 Craigie, A.

1968

J.140 Crawford, R.M.M. and others

1960-62, 1966

Crawford was a Carnegie Scholar in Krebs's Department 1961-62.

'Personnel' file.

J.141 Creasey, W.A.

1956

Creasey held an MRC Scholarship for training in research at the Department of Biochemistry, working under the supervision of L.A. Stocken 1956-58.

'Personnel' file.

J.142 Crutchley, M.J.

1959-60, 1965

Crutchley held a graduate scholarship from the Ministry of Agriculture, Fisheries and Food, for research in the Department of Biochemistry under the supervision of D.E. Hughes.

'Personnel' file.

J.143 Cuthbertson, D.P.

1947, 1960, 1968, 1978-79

Miscellaneous correspondence on research, publications, etc. Correspondence 1960 is related to Bibliog. 194.

J.144 Damadian, R.V.

various dates 1966-79

Research and publications, mainly on potassium binding, and on NMR.

J.145 Davenport, J.L.

1979-81

Sociobiology, juvenile delinquency. Includes various drafts for 'Foreword' by Krebs (May 1981) to a forthcoming publication by Davenport.

J.146 Davidson, J.N.

1964, 1967

J.147- Davies, D.D. and others

1953-64, 1981

J.149

Davies held an ARC Junior Research Fellowship and worked in Krebs's Department at Sheffield (and later at Oxford) 1953-55; he was awarded a Rockefeller Research Fellowship to work at Wisconsin 1955-56, and subsequently accepted appointments at King's College London, Sydney and East Anglia. He published a collaborative paper with Krebs in 1955.

'Personnel' file.

Three folders, on all aspects of research and career.

- J.147 1953-55. Includes correspondence <u>re</u> error in collaborative paper (Bibliog. 177).
- J.148 1956-59. Mainly research and publications on malate and succinate.
- J.149 1960-64, 1981.
- J.150 Davies, R.E. and others

1945-75

J.154

Davies was a member of Krebs's MRC Unit from its inception in Sheffield in 1945, moving with it to Oxford and remaining until 1956 when he accepted an appointment at the University of Pennsylvania. Krebs refers to him on several occasions in his autobiography, and published collaborative papers with him on ion transport (Bibliog. 150, 165, 169).

'Personnel' file.

Five folders, on all aspects of career and research.

- J.150 Miscellaneous cvs, bibliographies, salary scales.
- J.151 1945-54. Research, visits, promotions.
- J.152 1955-56. Research, move to Pennsylvania, offer of Chair at Imperial College.

- J.153 1957. Research and appointments.
- J.154 1958-68, 1972, 1975. Research and appointments.
- J.155 Dawson, R.M.C.

1951-55, 1960

Dawson was a Betty Brookes Research Fellow at the Oxford Department of Biochemistry from 1952 (under Krebs's predecessor, R.A. Peters).

Not a 'Personnel' file.

J.156, Dean, P.D.G.

various dates 1963-71

J.157

Dean held an MRC Scholarship for training in research in the Department of Biochemistry, working under the supervision of M.W. Whitehouse.

'Personnel' file.

Research, appointments.

Two folders:

J.156 1963-67

J.157 1968, 1971

J.158 Deutsch, M. and Deutsch, W.

1935-36, 1939

Fellow refugees.

J.159 Dickens, F.

1933, 1935, 1938, 1973,

1978

Brief correspondence only, on research, appointments, publications.

Letter 1938 is re Bibliog. 69.

J.160 Dixon, G.H. and others

1958

Dixon was a member of Krebs's MRC Unit from October 1958 but left in August 1959 to take up an appointment in Canada.

'Personnel' file.

J.161 Doll, W.R.S.

1969, 1970, 1973

Miscellaneous correspondence.

J.162 Donegan, J.F.

various dates 1930-35, 1943

Donegan was a colleague of Krebs in Warburg's laboratory (Rem. & Refl., p.30); he worked from 1930 at University College, Galway.

Miscellaneous correspondence (none of Krebs's replies survive) on research, German scientists.

J.163 Eccles, J.C.

1973, 1974, 1976-77

Correspondence 1973 is re book-review; correspondence 1974 is re early research of W.H. Bragg; correspondence 1976-77 is re ICUS Conferences of which Eccles was Chairman.

J.164, Edelman, J. and others

1948-53, 1964, 1975

J.165 Edelman held an ARC grant to work in Krebs's Department at Sheffield 1948-50, working under the supervision of J.S.D. Bacon.

'Personnel' file.

Two folders:

J.164 1948-53

J.165 1964, 1975

J.166 Edozien, J.C.

1946, 1949, 1952

Edozien worked briefly in Krebs's Department at Sheffield in 1946. Brief correspondence on research and career.

Not a 'Personnel' file.

J.167 Edsall, J.T.

various dates 1972-81

Correspondence 1981 is re books and papers of Isidor Traube (q.v.) which Krebs arranged to have deposited at the University of Pennsylvania.

J.168- Edson, N.L.

1935-70

J.171

Edson, a New Zealander, was a D.Phil. student of Krebs at Cambridge before returning to university posts in New Zealand. Krebs published collaborative papers with him in 1936, and refers to him in his autobiography (Rem. & Refl., p.86).

Four folders, on all aspects of research and career.

- J.168 1935-36, 1938. Research and publications (<u>Bibliog</u>. 56, 57). Krebs's note attached to a letter of July 1935 reads 'Norman L. Edson, my Ph.D. student at Cambridge. Later Professor of Biochemistry at the University of Otago, New Zealand'.
- J.169 1946-49. Research, post-war news, publications, appointments.

J.170 1951-57

J.171 1963-64, 1965, 1970.

Includes Edson's obituary notice of F.D. Bielschowsky 1965; correspondence 1970 is re Edson's death.

J.172 Eggleston, L.V.

1956, 1974

Brief correspondence only, kept together by Krebs and described as 'Leonard Eggleston, long-standing collaborator'; see Rem. & Refl., p.97.

Correspondence 1956 is a letter from Eggleston recovering from an operation; correspondence 1974 is re Eggleston's death.

J.173 Eichholtz, F.

1952, 1954

J.174 Eigen, M.

1965, 1975, 1978

Mainly arrangements for Krebs to visit and lecture: at Göttingen, 1965, and at the Katzir Conference, Braunlage 1978 (Bibliog. 374).

J.175 Elliott, K.A.C.

1934, ?1936

J.176 Elliott, W.H. and others

1951-71

Elliott was an enzyme biochemist and Departmental Demonstrator at Oxford, appointed initially for 1952-54 by R.A. Peters; he later held university appointments in Australia.

General correspondence on research and career.

J.177 - Elsden, S.R.

1936-80

Elsden worked briefly in Krebs's laboratory at Sheffield in 1936, on succinic acid. Subsequent university and ARC appointments were at Edinburgh (1937-42), Cambridge (1943-48), Sheffield (1948-65) and East Anglia (from 1965). Elsden and Krebs maintained continued friendly contact and the correspondence covers all aspects of career, research, publications, appointments, etc.

Six folders as follows.

J.177 1936-38

J.178 1947-49. Includes correspondence <u>re</u> Elsden's move to Sheffield as Senior Microbiologist.

J.179 1955-58

J.180 1959

J.181 1960-69

J.182 1973, 1979-80

J.183 Elsworth, R.

1964

Correspondence and research notes on metabolism of D-lactate.

J.184 Embden, H.

1932

One letter only, with an attached note by Krebs: 'Dr. Heinrich Embden, distinguished neurologist in Hamburg, brother of the biochemist Gustav Embden'. The latter is referred to in Rem. & Refl., p.35.

J.185 Emerson, R.

1932

One letter only, with an attached note by Krebs: 'Robert Emerson, American plant physiologist who had worked at the same time as I in Warburg's laboratory in 1926'. Emerson helped Krebs to visit America in 1929 (Rem. & Refl., p.38).

J.186 Engel, D.

1958, 1969, 1975

J.187 Engel, P.C.

1967-75

J.188 Engelhardt, W.A.

1932

Brief correspondence only, kept together by Krebs and described as: 'W. Engelhardt, Russian biochemist, expressing interest in my publications in 1932'.

J.189, Enser, M.B.

1960-67

J.190 Enser held an MRC Scholarship for training in research 1960-63, in the Department of Biochemistry, working under the supervision of W. Bartley; he was awarded an ICI Fellowship 1963-66.

'Personnel' file.

Two folders.

J.189 1960-64

J.190 1965-67

J.191 Estabrook, R.W. 1975

One letter only, re forthcoming visit by Krebs to Dallas.

J.192-Evans, E.A.

1938-75 various dates

J.194

Evans came to work in Krebs's Department at Sheffield as a Rockefeller Travelling Fellow in May 1939, returning to Chicago in April 1940. collaborative papers with Krebs (Bibliog. 84, 85), and participated in work on the TCA cycle, later carrying out additional experiments in Chicago with radioactive carbon.

Three folders as follows:

J.192 1938-40. For correspondence with Evans 1942-43 see E.33.

J.193 1947-48, 1955, 1966-67

J.194 1973-75. Mainly re history of discovery of carbon dioxide fixation, Conference on Historical Development of Bioenergetics and Krebs's paper on See also E.24-E.35 (Bibliog. 335). subject.

J.195 Evans, W.C. 1964, 1971-79

Miscellaneous scientific and personal correspondence, mainly on bracken.

J.196 Evered, D.F. 1971

Inborn errors of metabolism.

J.197-Exley, D. and others 1954-59, 1968-75

J.199 Exley was a member of Krebs's MRC Unit at Sheffield from 1954, moving to Oxford until 1958 working on a joint problem with the MRC Orological Research Unit. He resigned in 1958 and later worked on steroid endocrinology.

'Personnel' file.

Three folders.

J.197 1954 - 58

1959. Includes draft paper on 'Circulation of labyrinthine fluids'. J.198

J.199 1968-75

J.200 Fatmi, H.A.

1965

Moments of scientific discovery (including TCA cycle).

J.201 Faust, R.G. and others

1960-63

Faust worked in Krebs's Department 1960-62 as an NIH Research Fellow, working with D.S. Parsons.

Not a 'Personnel' file.

J.202 Feld, S.

1976

Krebs's views on euthanasia and mental deficiency.

J.203 Feldberg, W.

1946-47

J.204 Feldheim, W.

1966-70

Feldheim worked in Krebs's MRC Unit for short periods in 1967, 1968, on ketogenesis (see D.247-D.249). Includes correspondence with H.D. Cremer.

J.205 Ferdinand, W.

1959-62, 1964

Ferdinand was a DSIR Research Student in the Department of Biochemistry, working on protein chemistry under the supervision of R. Cecil, 1959-62; he later worked at Sheffield with W. Bartley.

'Personnel' file.

J.206 Fessler, J.H. and others

1951 -65

Fessler held an ARC training grant 1950-53 at the Oxford Department of Biochemistry under R.A. Peters, and an MRC Research Assistantship 1953-56 working under the supervision of A.G. Ogston before taking up appointments in Britain and USA.

'Personnel' file.

J.207 Fildes, P.

1946, 1965

Krebs's carbons only. Correspondence 1946 is <u>re</u> Chair of Bacteriology at Sheffield; correspondence 1965 is recollections of appointments at Cambridge in 1935.

J.208 Fischer, H.O.L.

1933, 1936

Cards and letter kept together by Krebs and described as 'Hermann O.L. Fischer, son of Emil Fischer. Later Professor at Toronto and the University of California at Berkeley. Distinguished carbohydrate chemist'. Krebs refers to Emil Fischer, Warburg's teacher, as a link in the Nobel laureate chain (Rem. & Refl., pp. 175-177).

J.209 Fisher, H.W.

1959-60

Fisher held a Postdoctoral Fellowship of the American Cancer Society and worked in Krebs's laboratory 1960-61. Correspondence is <u>re</u> funding and arrangements.

'Personnel' file.

J.210 Fitzgerald, M.G.

1956-58

Fitzgerald was an MRC Clinical Research Fellow in Krebs's Department 1956-58 before accepting an appointment at Birmingham University.

Not a 'Personnel' file.

J.211 Fitzgerald, P.J.

1959-60

Fitzgerald, a Professor of Pathology at New York State University, spent a sabbatical year at the Department of Biochemistry 1959-60, working with L.A. Stocken.

'Personnel' file.

J.212 Fleckenstein, A.

1956-61, 1965

J.213 Florey, H.W.

1965, 1966

Two letters only. Letter of December 1965 has a ms. note by Krebs on verso: 'Florey after Dinner given to him at Brasenose by Oxford F.R.S.' (see also G.186).

J.214 Folley, S.J.

1957

J.215 Fonnesu, A.

1954-56, 1961

Fonnesu was a 'Bertarelli Scholar' from Milan who worked in the Department of Biochemistry from December 1954-July 1955, in collaboration with R.E. Davies, on mitochondria.

Not a 'Personnel' file.

J.216 Forrest, I.S.

1969

Scientific and personal correspondence. Irene Forrest was the daughter of Carl Neuberg, and Krebs's letter of 9 June refers to connections between the Krebs, Neuberg and Meyerhof families (Bibliog. 311).

J.217 Frankel, E.

1933-39

Frankel was an early friend and colleague who emigrated to South Africa.

J.218 Fruton, J.S.

1952, 1954

J.219 Fujita, A.

1948-49, 1952, 1980

Fujita had been a contemporary of Krebs in Warburg's laboratory (Rem. & Refl., p.30). Correspondence is on research and recollections.

J.220 Fuld, H.

1933-34, 1955, 1978

Fuld had been an early colleague of Krebs in Freiburg. He emigrated to Britain and worked as a doctor in Liverpool.

J.221 Fulder, Hans

1933-34

Fulder was another refugee scientist, who emigrated to America.

J.222 Fuller, R.C.

1959-60, 1964

Fuller was a Senior Postdoctoral Research Fellow of the National Science Foundation, working with H.L. Kornberg in Krebs's MRC Unit 1959-60.

'Personnel' file.

J.223 Gabor, D.

1971, 1973

J.224 Gaffron, H.

1930, 1933-34, 1950

Gaffron was a fellow-researcher in Warburg's laboratory (Rem. & Refl., p.30). The material was kept together by Krebs and described as 'Hans Gaffron, my colleague in Warburg's laboratory. Later at Chicago and Tallahassee. Made important contributions to photosynthesis'.

J.225 Gale, E.F.

1950-51

Research, especially on glutamic and aspartic acids.

J.226 Gasquet, P. de and others

1961-63, 1967

Gasquet, a French biochemist, was sent by his firm to work in Krebs's laboratory January-December 1962, on amino-acid metabolism. He became an ordained priest in 1967.

'Personnel' file.

J.227 J.R. Geigy, S.A.

1960-71

Correspondence, mainly with K. Diem, re preparation of 'Geigy Tables' and other research matters, including lactalbumin and organisation of research. The Geigy Company contributed to the costs of the conversion to a laboratory of part of the space allocated to Krebs's MRC Unit at the Radcliffe Infirmary (Rem. & Refl., p.225). See also C.122.

J.228 Geller, D.M.

1956-57

Geller held a National Academy of Sciences Research Fellowship to work 'under the guidance' of Krebs September 1957-August 1958. Correspondence is rearrangements and funding.

Not a 'Personnel' file.

J.229 Gey, K.F. and others

1954-56

Gey worked in Krebs's Department February-October 1955 under the supervision of W.H. Elliott, and published a collaborative paper (Bibliog. 180).

Not a 'Personnel' file.

J.230, Gibson, Q.H. and others

1958-67

J.231 Gibson was at Sheffield 1946-63 (Professor of Biochemistry 1955-63) before accepting posts in America.

Two folders, on research and appointments.

J.230 1958-62

J.231

1963-67

J.232 Glass, H. Bentley

1961

Biological Sciences Curriculum Study.

J.233 Goldwasser, E.

1965-66

Goldwasser held a Guggenheim Fellowship and was a 'guest worker' in Krebs's Department 1966-67.

Not a 'Personnel' file.

J.234 Goodwin, T.W.

1946, 1948-49, 1954

J.235 Gordon, W.

1938-39

Gordon was a Hildesheim doctor, who emigrated to America.

J.236 Gotto, A.M.

1958-64

Gotto was a doctoral student in Krebs's Department with a grant from the National Science Foundation 1958-61; he returned to Vanderbilt University, Tennessee. Folder includes correspondence, research reports, draft papers, recommendations.

Not a 'Personnel' file.

J.237 Gottschalk, A.

1943-52

General correspondence on research, publications, visits.

J.238 Gowing, M.M.

1973, 1976

Mainly re lecture by Krebs.

J.239 Green, D.E.

1937, 1947, 1953, 1968

Green was a Ph.D. student at Hopkins's laboratory in the 1930s and is mentioned by Krebs as helping him to learn and write English (Rem. & Refl., p.88).

Material was kept together by Krebs and described as 'David Green, known to me in Cambridge since 1933. Later at the Enzyme Institute, Madison, Wisconsin'.

J.240 Greville, G.D.

1945, 1959-67

Research, publications, meetings.

J.241 - Griffiths, D.E. and others

1960 -67

J.244

Griffiths was a member of the Research Staff of the MRC Unit in Krebs's
Department from July 1961 to July 1962 when he was appointed a University
Demonstrator. He left Oxford in 1966 to take up university appointments elsewhere.

'Personnel' file.

Four folders on research and career.

J.241 1960. Enquiries.

J.242 1962. Continuing negotiations and arrangements, research programmes and grant applications.

J.243 1962-65

J.244 1966-67

J.245- Grisolia, S.

1958-81

J.247 General correspondence on research, publications, visits.

Three folders.

J.245 1958-69. Citrulline; specific dynamic action.

J.246 1970-73. Correspondence re Bibliog. 287; liver cells.

J.247 1974-81. Correspondence re Bibliog. 323; meetings and conferences; correspondence 1979 includes letters re collection of memorabilia of S. Ochoa at Valencia to which Krebs gave two letters.

J.248 Grunau, J.A.

1960-64

Grunau was a member of the MRC Unit in the Department of Biochemistry for four years, working mainly with K. Burton.

Not a 'Personnel' file.

J.249 Gurin, S.

1949-52

Gurin spent several months from July 1949 in Krebs's Department at Sheffield, funded by the Rockefeller Foundation, and published a collaborative paper (Bibliog. 153).

Not a 'Personnel' file.

J.250 Gutfreund, H.

1953, 1960-70

J.251 Guyot, O.

1931-34, 1948-49, 1952

Guyot was a biochemist working for a pharmaceutical firm at Hamburg; early correspondence is mainly re experimental supplies and results. Includes a little personal correspondence.

Correspondence					
J.252	Haas, E.	1949			
	Haas was a fellow-researcher in Warburg's laboratory, who emigrated to America. Correspondence refers mainly to F. Kubowitz, also a long-standin collaborator of Warburg, and includes an affidavit by Krebs to assist in obtaining entry to America for Kubowitz.				
J.253	Haddow, A.	1952, 1967			
	Correspondence 1967 is <u>re</u> Walker carcinoma strain.				
J.254	Hallpike, C.S. and others	1955, 1959-62			
	Collaborative research in otology and tissue respiration.				
J.255	Happold, F.C.	1947, 1960, 1963			
J.256	Harding, N.G.L.	1965-67			
J.257	Harington, C.R.	1945-49			
	Mainly research on amino-acids.				
J.258, J.259	Harris, E.J.	1971 -78			
	Research, publications, appointments.				
	Two folders.				
	J.258 1971-72 J.259 1972-7	78			
J.260, J.261	Harris, H.	1959-63, 1980			
	Research, publications, appointments.				
	Two folders.				
	J.260 1959-63. Includes material on John Innes	Institute.			
J.261 1980. Mainly re Harris's historical lecture 'The city of Berlin and some modern approaches to the cancer problem'.					

J.262 Hartley, H.B.

1964, 1966

J.263 Heatley, N.G.

1941-42, 1980

Correspondence 1941-42, on research and equipment, is while Heatley was in New Jersey on the penicillin project.

J.264 Hemmerich, P.

1968

Possible re-organisation of Lindau conferences.

J.265 Henseleit, K.

1933, 1934, 1947-48, 1976

Henseleit was a collaborator in research and publications with Krebs at Freiburg, notably on the ornithine cycle.

Early correspondence is on research and colleagues. Later correspondence was kept together by Krebs and described as: 'Kurt Henseleit, my collaborator in the urea work, writing about his experience during the war years and postwar years'. Correspondence 1976 is with Frau Henseleit and includes photographs and notice of death of Henseleit 1973 (not 1976 as in Rem. & Refl., p.150).

- J.266 Not used.
- J.267 Herken, H. and others

1967, 1970-77

General correspondence on research, visits, etc. Includes invitation to contribute to a 65th birthday Festschrift for Herken which Krebs was unable to complete.

J.268 Hers, H.G.

1970-71, 1973-75

Correspondence 1970-71 relates to Krebs's visit to Louvain and Brussels, in the course of which he had an accident to his finger which involved surgery and the cancellation of a visit to Japan (see F.217-F.223).

J.269 Hill, A.V.

1941-42, 1976

Correspondence 1941-42 is with R.A. McCance and Hill re dietary experiments at Sheffield, and the veto on publication of the results (Rem. & Refl., pp.120-121)

J.270 Hill, R.

1952-53, 1970*-*73

Mainly on Warburg, and history of biochemical research.

J.271 Hilton, J.

1965-67

Hilton held an MRC Scholarship for training in research 1964-67, working mainly with L.A. Stocken. Brief correspondence re scholarship and appointments.

Not a 'Personnel' file.

- J.272 Hinshelwood, C.N. 1951 TCA cycle in yeast.
- J.273 Hird, F.J.R. 1967-80

 Research, publications, visits.
- J.274 Hockenhull, D.J.D. 1953
 Teaching of biochemistry for industry.
- J.275 Hodgkin, A.L. various dates 1948-53, 1967
 Examining, research, etc. Correspondence 1967 is re Oxford Chair.
- J.276 Hoek, J.B.

 Hoek worked in Krebs's laboratory for several months in the course of 1970.

 Correspondence mainly about arrangements; research programme.

 Not a 'Personnel' file.
- J.277- Hokin, L.E. and others 1948-80
- J.280

 Hokin held a Research Fellowship of the American Cancer Society to work in Krebs's Department at Sheffield for three years from August 1949; he later took up appointments in Canada and USA.

'Personnel' file.

Four folders as follows:

- J.277 1948-49. Arrangements, negotiations, funding for Hokin's work in Sheffield.
- J.278 1950-52. Renewal of Fellowship, appointment, publication. Includes correspondence 1952 on the premature and incorrect report of the award of the Nobel Prize to Krebs.
- J.279 1953-60. Research, publications, appointments.
- J.280 1974-75, 1980. Correspondence 1975 refers to Krebs's wartime work on vitamin C.

J.281 Holmes, B.E.

1932, n.d. (1930s), 1950-51, 1981

Personal and scientific correspondence. The undated letters and cards of the 1930s are mainly friendly invitations and social arrangements.

Correspondence 1932 was kept together by Krebs and described as 'Correspondence of 1932 whilst I was still in Freiburg with Dr. Barbara Holmes, daughter of Sir Frederick Gowland Hopkins'. Correspondence 1981 is rememorial service, and includes Krebs's recollection of his early acquaintance with Barbara Holmes.

J.282-J.286 Holmes, F.L.

1976-81

Holmes, an American historian of science, was in touch with Krebs from May 1976, originally with regard to an historical study of Krebs's early biochemical research 1926-36. He visited Krebs regularly and frequently, recorded many conversations with him, and consulted notebooks, correspondence and other early documents. As a consequence, he decided to extend the scope of his proposed study to 1940 (later 1949) and to include some biographical and personal material (letters of 20 September 1976, 3 January 1978, 10 July 1980).

Five folders, mainly arrangements for visits and discussions, and comments on various historical matters involving early friends and collaborators, sequence of discovery, and aspects of historical documentation. The material includes correspondence, notes of discussions, drafts for comment.

Microfilms of the transcripts of recorded conversations, kindly made available by Professor Holmes, are held at 1.100-1.103.

J.282 1976-77

J.283 1978

J.284 1979

J.285 1980. References to 80th birthday meetings at Dallas and Sheffield and to Krebs's proposed papers on evolution of metabolic cycles (<u>Bibliog</u>. 385) and related questions. Attached to correspondence of 10 July are Krebs's notes of matters to be discussed with Holmes, mainly about autobiography, and including photocopy of letter of 24 May 1933 from H. Druckrey cancelling his agreement to work in Krebs's laboratory (Rem. & Refl., pp.72-73).

J.286 1981. Further reference to <u>Bibliog</u>. 385, disposal of Krebs's reprint collection; last letter, 13 November, written from hospital shortly before Krebs's death.

J.287, Holzer, H.

1956-80

J.288

Holzer was a biochemist at the University of Freiburg im Breisgau.

Two folders of general correspondence on research, conferences, visits.

J.287 1956-57, 1962-66

J.288 1970-80. Correspondence 1975 is <u>re</u> Rectors of Freiburg before and during the Nazi period.

J.289 Hopkins, F.G.

1936-38, 1941, 1947, 1981

Hopkins's letter of June 1941, acknowledging Krebs's congratulations on his 80th birthday, refers to German science and to Krebs's time at Cambridge. Correspondence 1981 with Jacquetta Priestley (Hopkins's daughter) and others is re the portrait of Hopkins by Meredith Frampton presented to the Royal Society in 1938 by private subscribers.

J.290 Horecker, B.L.

various dates 1969-80

Research, publication (<u>Bibliog</u>. 280), visits, etc. Correspondence 1980 is invitation to S. Ochoa's 75th birthday symposium which Krebs was unable to attend.

J.291 Horowitz, N.H.

1949 -53

Research on neurospora, collaborative publication (Bibliog. 130), and later publication (Bibliog. 153).

J.292 Huggins, C.B.

1965, 1976, 1977

Correspondence 1976 is re Warburg, and Krebs's biography.

J.293- Hughes, D.E. and others

1945-68, 1980-81

Hughes was a founder member of Krebs's MRC Unit at Sheffield, having been attached to Krebs's laboratory since 1941. He moved with the Unit to Oxford in 1954, working mainly on pure and applied microbiology, and became Professor of Microbiology at Cardiff in 1964.

'Personnel' file.

Seven folders on all aspects of career and research.

J.293 1945-51

J.294 1952-60

J.295 1961

J.296 1962

J.297 1963-64. Includes note by Krebs for Nature on Hughes's appointment to Chair of Microbiology at Cardiff.

J.298 1965-68

J.299 1980-81

J.300 Hume, E.M.

1958

Eleanor Hume was a pioneer in nutrition research, and secretary of the Accessory Food Factors Committee of the MRC.

Two letters only, 1958, and copy of obituary 1968.

J.301 ILRA International Research Association

1964, 1965

Research on enantiomorphs of lactate.

J.302 James, W.O.

1964

Visas for East German scientists.

J.303 Jedeikin, L.A.

1966-68

Jedeikin, an American biochemist on sabbatical leave, worked in Krebs's laboratory, on ketone bodies, from March 1966 to September 1967.

'Personnel' file.

J.304 Jensen, P.K.

1954-57

Jensen, a Danish biochemist, worked in Krebs's Department from May 1955 to April 1956, funded by the Churchill Fund (to foster Anglo-Danish relations).

'Personnel' file.

Research and publications, mainly on carbamyl phosphate.

J.305 Johnson, R.H. and others

1967-76

Mainly research on ketosis during exertion in trained and untrained subjects; correspondence, research programme, discussions, later projects (Bibliog. 266, 281).

J.306-

Johnson, W.A.

1939, 1949, 1978-80

J.309

Johnson was Krebs's research assistant at Sheffield, funded by an MRC grant, from April 1936 until he accepted a post in industry in 1939. He was Krebs's collaborator in the work on the TCA cycle and on the famous paper rejected by Nature and published in Enzymologia (Bibliog. 62). Krebs lost contact with Johnson after 1954 but made further enquiries in 1977 to further the historical research of F.L. Holmes (q.v.); Johnson, then running the Cayman Islands Turtle Farm, was invited to the Dallas Symposium in 1980 and gave his recollections of work at Sheffield with Krebs (Rem. & Refl., pp.97–98).

Four folders.

J.306 1939, 1949 (Bibliog. 125).

J.307 1977-78. Later contacts; includes correspondence with F.L. Holmes and turtle farm brochure.

J.308 1980. Includes fuller text of Johnson's recollections given at Dallas symposium.

J.309 Miscellaneous documents re import of turtle shell, a gift from Johnson.

J.310 Johnstone, J.P. and others

1950-60

Johnstone was a research student in the Oxford Department of Biochemistry from 1944, working with A.G. Ogston; after working at Porton Down, he rejoined the Department as a Demonstrator 1956-60.

'Personnel' file.

J.311 Jokl, E.

1972-81

Research, history of science and scientists. Correspondence 1981 is re Sherrington and Eccles.

J.312 Jones, E.R.H.

1955, 1961

J.313 Jones, K.M.

1953-61

Jones was a research student in the Oxford Department of Biochemistry, working under W.H. Elliott and later with D.D. Woods.

'Personnel' file.

J.314	Jones, R.		1973, 1980-81	
J.315	Jones-Mortimer, M.C.		1963-67	
	Jones-Mortimer was a DSIR research student in Krebs's Department, working with C.A. Pasternak.			
	Not a 'Personnel' file.			
J.316	Kalckar, H.M.		1958-62, 1968-69, 1977, 1979	
	Research and publications. Correspo Teeth Radiation Census. Corresponde and Fiske in 1929.			
J.317	Kalnitsky, G.		1954-59, 1963	
Kalnitsky worked in Krebs's Department 1956-57, funded by the N Foundation for Infantile Paralysis, New York, working with D. To				
	'Personnel' file.			
J.318	Kanungo, M.S.		1968-72	
J.319	Kaplan, N.O. 'Personnel' file.		1961, 1974-75	
J.320	Kark, P.		1970, 1977-80	
	Mainly research, discussions and symposium on Friedreich's ataxia.			
J.321	Kark, R.M.		1961-64	
J.322	Katz, B.		1959, 1976	
	Correspondence 1959 is re 'Brain Drain	n'.		
J.323	Katz, J.	various dates	1968-78	

J.324 Keech, D.B. and others

1957-67

Keech spent two years 1957-59 in Krebs's Department, funded by CSIRO, working with J.R. Quayle, before returning to university appointments in Australia.

'Personnel' file.

J.325 Keilin, D.

1930-34, 1940

Material kept together by Krebs and described as 'David Keilin, Cambridge, discoverer of cytochrome'. Includes brief social correspondence from Anna Keilin, and letters and cards 1936-75 from Joan Keilin (daughter). (Rem. & Refl., pp.84-85.)

J.326 Kelemen, M. and others

1953-62

Mary Kelemen held an MRC Scholarship for training in research in Krebs's Department 1954-57, working with K. Burton.

Not a 'Personnel' file.

J.327 Keller, G.

1933-34

J.328 Kemp, M.B.

1963

Kemp was awarded an MRC Scholarship for taining in research, to work with J.R. Quayle, the scholarship being transferred to Sheffield when Quayle accepted an appointment there.

'Personnel' file.

J.329 Kennedy, E.P.

1957-59

Kennedy held a Senior Research Fellowship of the National Science Foundation to work in Krebs's Department with K. Burton, 1959-60.

Brief correspondence, mainly re arrangements.

'Personnel' file.

J.330 Kiessling, K-H.

1954-56

Kiessling was a visiting scientist in Krebs's Department June-October 1955, funded by a Swedish foundation.

'Personnel' file.

J.331 Kitzinger, C.

1955-56

Charlotte Kitzinger was a guest scientist sent to Krebs's Department by the US Office for Naval Research, December 1955-March 1956, working on calorimetry.

'Personnel' file.

J.332 Kl

Kleiber, M.

1955

Comments on publications by Krebs (Bibliog. 156, 166, 167, 168).

J.333,

Kleinzeller, A.

1939-41, 1952-56

J.334

Kleinzeller, a Czech refugee supported by refugee organisations, was a research student in Krebs's Department at Sheffield from 1939, and published several collaborative papers. He returned to Czechoslovakia after the war.

Two folders.

J.333

1939-41.

Funding, arrangements to work in Sheffield.

J.334

1952-56

J.335-

Klemperer, H.G.

1952-68

J.339

Klemperer held an MRC Scholarship for training in research in Krebs's Department at Sheffield and Oxford 1952-55.

'Personnel' file.

Five folders, on all aspects of career and research.

J.335

1952-53

1.338

1959-61

J.336

1954-55

J.339

1962-68

J.337

1956-57

J.340

Klingenberg, E.M.

various dates

1961-78

J.341

Knivett, V.A.

1959

Knivett worked in Krebs's laboratory for two months.

Brief correspondence only.

'Personnel' file.

J.342 Knoop, F.

1934

One letter only, on publications and research, perhaps Bibliog. 50 (Rem. & Refl., pp.66-67), with an attached note by Krebs 'Franz Knoop, German biochemist, discovered \$\beta\$-oxidation, Editor of Z. Physiol. Chem.'.

J.343 Knowles, P.F. and others

1963-65

Knowles held a NATO Fellowship and later an MRC Research Fellowship to work in Krebs's Department, mainly with D.E. Griffiths, 1963-65.

Correspondence on research, grants, equipment, appointments.

'Personnel' file.

J.344 Kolditz, W.

1970, 1975-79

Correspondence 1970 is on etymology of 'snob'. Correspondence 1975-79 is re proposed article by Krebs for Hexagon (journal of Hoffman-La Roche), on hyperlactataemia.

J.345 Kondrashova, M.N.

1968-81

Research, publications.

J.346 König, R.

1963-67

Renata König worked in Krebs's Department for the academic year 1963-64.

'Personnel' file.

J.347- Kornberg, H.L. and others

1945-81

Kornberg was appointed to Krebs's MRC Unit immediately on his graduation at Sheffield; he moved with it to Oxford, being regarded by Krebs, together with K. Burton and J.R. Quayle, as 'the key members'. He remained at Oxford, apart from research visits abroad, until 1960 when he accepted the Chair of Biochemistry at Leicester, moving to the Sir William Dunn Chair of Biochemistry at Cambridge in 1975. He became Master of Christ's College in 1983.

Kornberg published several collaborative papers (<u>Bibliog</u>. 151, 183, 184) with Krebs, who regarded their paper in <u>Nature</u>, 1957 (<u>Bibliog</u>. 184) as particularly important (<u>Rem. & Refl.</u>, pp.215 et seq.); the paper on 'Energy transformations' (<u>Bibliog</u>. 183) was frequently reprinted and is often referred to in the correspondence.

Not a 'Personnel' file.

Continued

Fifteen folders, on all aspects of career and research.

J.347 1945-50. Early career at Sheffield University. Award of MRC Studentship for training in research.

J.348 1951-52. Appointment to MRC staff, etc.

J.349 1953. Doctorate. Commonwealth Fund Fellowship (Yale).

J.350 1954

J.351 1955. Appointment to MRC Unit, etc.

J.352 1956-57

J.353 1958-59

J.354 1960. Appointment to new chair of biochemistry, Leicester, note on appointment, by Krebs, for Nature, etc.

J.355 1961. Resignation from MRC staff, grant application for Leicester department, D.Sc.

J.356 1962

J.357 1963

J.358 1964

J.359 1965

J.360 1966-69. Correspondence 1967 includes some autobiographical information from Krebs.

J.361 1974, 1975, 1978–79 (includes correspondence on planned Symposium at Cambridge on 'Sterile and Fruitful Approaches in the Development of Biochemistry' at which Krebs spoke 'On asking the right kind of question in biological research'), 1980, 1981.

See also E.58.

J.362 Krampitz, L.O.

1952

Tricarboxylic acid cycle in bacteria.

J.363, Kroetz, Kl. (née Gollwitzer-Meier)

1929-33, 1948-50

J.364

Klothilde (Thilde) Gollwitzer-Meier was a physiologist working in Berlin whom Krebs met at the Physiological Congress at Boston in 1929. She was instrumental in making contacts for him with Lichtwitz at Altona and Thannhauser at Düsseldorf (later Freiburg) (Rem. & Refl., pp.42-43).

Two folders

J.363 1929-33. Letters and cards.

J.364 1948-50; includes notice of Kroetz's death, and obituary notice 1954.

J.365 Krogh, A.

1948

Brief correspondence only, with an attached note by Krebs 'August Krogh, Copenhagen'. Also included in the folder is correspondence 1969 with Krogh's daughter enclosing a photograph of him, also with an attached note by Krebs 'Bodil Schmidt-Nielssen, daughter of August Krogh, zoologist ...'

J.366, Kuhn, N.J. and others

1961-67, 1975

J.367

After graduating at Oxford, Kuhn worked with F. Lynen, then held an MRC Scholarship for training in research in Krebs's Department, working under D.S. Robinson, 1963-65.

'Personnel' file.

Two folders

J.366 1961-64

J.367 1965-67, 1975

J.368 Kulka, R.G. and others

1955-61, 1966

Kulka, a New Zealand graduate of Czech origin, held an 1851 Exhibition Science Scholarship to work as a doctorate student under Krebs's supervision December 1955-December 1958. He published a collaborative paper with Krebs and Eggleston (Bibliog. 197).

Correspondence on research, publication, appointments.

'Personnel' file.

J.369 Kulonen, E.I.

1957

Kulonen worked briefly in Krebs's Department funded by a British Council Bursary, working with A.G. Ogston. Brief correspondence only.

'Personnel' file.

J.377

1959

Correspondence

	Correspondence			
J.370	Kun, E.		1959-60, 1969-72	
J.371	Kurti, N.	various dates	1969-76	
	Brief correspondence on various topic	s.		
J.372	Kurtz, A. and others		1958-61	
	Proposed award of Honorary Degree for Federal Republic of Germany), suppostatement of his views and a little back	rted by Krebs.	Includes Krebs's written	
J.373	Kydd, D.M.		1962-63	
	Arrangements to work in Oxford.			
J.374	Lack, D.L.		1970	
	Evolutionary ethics.			
J.375	Lane, C.D. and others		1964-68, 1972-73	
J.376	Lardy, H.A.		1964-67, 1973	
	Research and publications.			
J.377,	Large, P.J.		1959-62	
J.378	Large, a graduate of Sheffield, was awarded an MRC Scholarship for training in research in Krebs's Department, working under J.R. Quayle.			
	'Personnel' file.			
	Two folders			

J.378 1960-62

J.379-

Lascelles, J. and others 1947-65

J.384 June Lascelles, a graduate of Sydney, was awarded an 1851 Exhibition Overseas Scholarship to work in the Microbiology Unit of the Oxford Biochemistry

Department, where her supervisor was D.D. Woods. She was a member of the MRC External Staff from 1952 and a University Lecturer from 1960; she took

up an appointment at UCLA in 1965.

'Personnel' file.

Six folders, on all aspects of career and research, including statements of proposed research, progress reports and assessments at various periods.

J.379 1947-51

J.380 1952-54. Includes application by D.D. Woods for MRC support

for his Microbiology Unit, to which Lascelles was appointed.

J.381 1955-56. Rockefeller Fellowship, work in USA, etc.

J.382 1957

J.383 1958-60

J.384 1961-65

J.385 Laser, E. and H. 1933-34

Includes one letter 1933 addressed to H.K.F. Blaschko.

J.386 Laties, G.G. 1949-51

Laties worked for about three months in Krebs's Department at Sheffield in 1949.

Leaf, A. and others J.387,

1954-74

J.388 Leaf worked in Krebs's Department January 1955-August 1956, on 'body water' and 'ion transport', and spent a later sabbatical year with him 1971-72.

'Personnel' file.

Two folders

J.387 1954-56 J.388 1958-74

J.389 Lehmann, H.

1934-36, 1967, 1979

Early correspondence kept together by Krebs and described 'Hermann Lehmann, later Professor of Clinical Biochemistry, Cambridge'.

J.390,

Lehninger, A.L.

various dates 1946-80

J.391

Research, publications.

Two folders

J.390 1946-70

J.391 1975-80

J.392 Leitner, U. and Z.

1934-37, 1941, 1949, 1952

J.393 Levy, H.R.

1977, 1980-81

J.394 Lewis, R.W.

1980

Krebs's letter of 9 December is 'on the role of an established theory in a discipline' and discusses the philosophy of science especially evolutionary theory.

J.395 Lichtwitz, L.

1932

One letter only, with an attached description by Krebs 'Professor L. Lichtwitz, my chief at Altona from 1930-31, distinguished physician interested in metabolic diseases' (Rem. & Refl., pp.43-44, 75-76). Also attached is a letter, 1961, from A. Jores, a fellow-colleague at Altona (Rem. & Refl., pp.75-78) suggesting a reunion of former Lichtwitz-Assistenten.

J.396 'Line'

1933

A colleague at Freiburg.

J.397 Link, K.P. and others

1958, 1965-69

Correspondence and papers, not all dated, on warfarin and warfarin resistance in rats. Letter 1958 has an attached description by Krebs 'Dr. Karl Paul Link, discovered the nature of the sweet clover disease in cattle, the anti-coagulant activity of coumarin and developed rodent-poison Warfarin (hence Rattor)'. (Rattor was the 'title' Link used on his writing-paper.)

J.398- Lipmann, F.

1934-79

J.401

Lipmann had worked in P. Rona's laboratory, though not at the same time as Krebs, and later in Otto Meyerhof's laboratory at Berlin-Dahlem, emigrating to USA in 1939. He shared the Nobel Prize with Krebs in 1953 and remained a life-long friend.

Four folders.

J.398 1934, 1936, 1951-53, kept together by Krebs and described as 'Fritz Lipmann, known to me since 1927. We shared the Nobel Prize for Medicine and Physiology in 1953'.

J.399 1962-71

J.400 1974. Mainly re Symposium on 'Energy, Biosynthesis and Regulation in Molecular Biology' in honour of Lipmann's 75th birthday. Krebs and Lipmann spoke on 'Dahlem in the late nineteen twenties' (Bibliog. 336).

J.401 1975-79. Lipmann's letter of 20 June 1979 includes recollections of Warburg.

J.402 Loening, U.E.

1954-59

Loening held an ARC research studentship to work in the Oxford Department under the supervision of R. Cecil 1954-56, later taking up an appointment at John Innes Horticultural Institution.

'Personnel' file.

J.403 Loewi, G.

1955-57

Loewi was offered accommodation to work in Krebs's Department on sulphated mucopolysaccharides.

'Personnel' file.

J.404 Lohmann, K.

1937

One letter only, with an attached description by Krebs 'Karl Lohmann, with whom I worked under the same roof in Berlin-Dahlem from 1926-30 (he was with Meyerhof and I with Warburg). Discoverer of ATP (independently of Fiske and Subbarow), and the structure of co-carboxylase'.

J.405 Lominski, I.

1948, 1951

Citric acid, citrulline.

J.406 Losada, M.

1965-78

Research, visits, including 6th Congress of Spanish Biochemical Society 1974.

J.407- Lowenstein, J.M. and others

1954-81

J.416

Lowenstein held a Beit Fellowship to work in Krebs's Department 1955-58, subsequently accepting university appointments in America. He published a collaborative paper with Krebs (Bibliog. 196) and remained a close colleague and friend.

'Personnel' file.

Ten folders, covering all aspects of career and research.

J.407 1954-56. Arrangements for work and funding, research reports.

J.408 1957-59. Research, move to America, collaborative paper (Bibliog. 196).

J.409 1960-63. Publications and research.

J.410 1964-65. Publications and research, especially Geigy Tables.

J.411 1966. Publications and research, especially Geigy Tables.

J.412 1967. Publications, visits.

J.413 1968. Research, seminar, appointment.

J.414 1969-73

J.415 1974-76. Includes correspondence with Leah Lowenstein.

J.416 1978-81

J.417- Lynen, F.

J.419

1948-79

Early correspondence bears an attached note by Krebs: 'Professor Feodor Lynen, Munich. Biochemist, Nobel Laureate'.

Three folders

J.417 1948-49 (research on yeast), 1952 (Krebs's recommendation of Lynen), 1953, 1959, 1961-62, 1965 (lectures and visits).

J.418 1970

J.419 1970, 1974-79

J.420 Macalpine, I.

1936, 1947-50

Ida Macalpine, formerly Hirschmann, was a German refugee doctor who requalified in Britain and practised psychological medicine in Accrington and London, being best known for her collaborative work with her son Richard Hunter on George III and porphyria.

Folder includes miscellaneous obituaries of Macalpine, 1974.

J.421 McCance, R.A.

1941

Brief correspondence only, on calcium and wartime nutrition experiments.

J.422 McFarlane, A.S.

1948-49

C¹⁴ analysis.

J.423 Macfarlane, M.

1949

J.424 Not used.

J.425 McGilvery, R.W.

1970

J.426- McIlwain, H. and others

1940-63

J.428

McIlwain was a Leverhulme Research Fellow in P. Fildes's Department of Bacterial Chemistry, Middlesex Hospital, 1937-41, moving to Sheffield in 1941. He was appointed to the MRC scientific staff 1945-47 in the Unit for Cell Metabolism.

'Personnel' file.

Three folders, covering all aspects of career and research and including cvs., bibliographies, statements of research, etc.

J.426 1940-41, 1947

J.427 1954-58

J.428 1960-63

J.429 Mackay, I.F.S.

1948-49, 1959-65

Mackay was a lecturer in Experimental Physiology at Sheffield, having joint research projects with Krebs's Department, before accepting university appointments overseas.

'Personnel' file.

J.430 McLean, P.

1956, 1968-78

Mainly research on pentose phosphate cycle, experimental diabetes.

J.431 MacMillan, A.L.

1955, 1959

'Personnel' file.

J.432 MacPhee, I.W.

1960-62

MacPhee, a Consultant Surgeon in Liverpool, worked in Krebs's Department with D.S. Parsons, January-July 1961.

'Personnel' file.

J.433 McPhee, J.

1952

McPhee worked with R. Cecil in the Oxford Department from 1952 (correspondence is conducted with R.A. Peters).

Not a 'Personnel' file.

J.434, Madsen, N.B. and others

1955-56

J.435
Madsen worked in Krebs's Department 1956-57 under a fellowship of the US National Academy of Sciences before accepting appointments in Canada.

'Personnel' file.

Two folders

J.434 1955-56

J.435 1957, 1962

J.436 Mahler, R.

1963, 1965

J.437 Mandelstam, J.

1966, 1981

Correspondence 1981 is Krebs's draft only, <u>re</u> experiments on evolution of metabolic cycles.

J.438- Mann, G. and others

1973-74, 1980-81

J.440

Correspondence mainly with Golo Mann (son) re various aspects of Thomas Mann's life and work. Correspondence 1973–74 concerns T. Mann's relations with University of Bonn; correspondence 1980–81 concerns proposals for a new translation of Mann's works.

Three folders

J.438 1973-74

J.439 1980~81

J.440 Miscellaneous printed matter re Mann, annotated by Krebs.

J.441 Mansford, K.R.L.

1969-70

Redox state, amino transferase.

J.442 re D. Marotta

1960, 1964

Commemorative book (1960), Marotta's arrest (1964).

J.443 Martius, C.

1957-59, 1968-69

J.444 Massey, V.

1949-52, 1963

J.445, Massieu, G.H.

1963-72

J.446

Massieu, a Mexican scientist funded by a British Council bursary, worked in Krebs's Department January-September 1964.

'Personnel' file.

Two folders.

J.445 1963-64

J.446 1965, 1970-72

J.447 Mayes, P.A.

1964-71

Research projects, appointments.

J.448, Mayor, F.

various dates 1960-80

J.449

Mayor, a Spanish biochemist, held a British Council Scholarship to work in Krebs's Department for ten months, September 1966-July 1967, and also paid shorter visits in 1959, 1971, 1973.

Not a 'Personnel' file.

Two folders

J.448 1960-67

J.449 1968-73, 1979-80

J.450 Mead, M.

1977

Includes Krebs's 'Earth Day Statement' (on 'safeguarding the resources of the earth') prepared as a sponsor for Margaret Mead's 'Earth Day'.

J.451 Medawar, P.B.

1958, 1960, 1962, 1965

Miscellaneous correspondence with an attached note by Krebs. 1958 correspondence is re university funding; 1962 correspondence is re Oxford Chair of Zoology; 1965 correspondence is re declaration to the Pope on birth control.

J.452 Medina, J.M.

1972-75

Medina, a Spanish scientist and colleague of F. Mayor (q.v.) held a British Council Scholarship to work in Krebs's Department September 1972-July 1973. 'Personnel' file.

J.453 Meek, G.A.

1955

'Personnel' file.

J.454 Mehlman, M.A.

1968-75

Research, symposia, publications. Letter of December 1972 refers to funding of annual 'Hans Krebs Award for Research in Metabolic Control' by Bly Foundation. Correspondence 1973–75 refers to Bibliog. 347 (Festschrift for H.A. Lardy, ed. Mehlman and R.W. Hanson).

J.455 Meier, R.

1948, 1951-42

J.456 Mellanby, J.H.

1959-69

Jane Mellanby held an MRC Scholarship for training in research in Krebs's Department 1959-62, working on biochemical aspects of ketosis under Krebs's supervision.

'Personnel' file.

J.457 Menahan, L.A.

J.460

1965-68

J.458- Mendel, B. and Mendel, H.

1932-73

Letters, cards and telegrams from Bruno and Hertha Mendel, with an attached note by Krebs: 'Bruno Mendel, a colleague at the 3rd Medical Clinic at Berlin in 1924 and a friend ever since. He recommended me to Otto Warburg. Later Professor of Pharmacology at Amsterdam' (Rem. & Refl., pp.23-25).

Three folders

J.458 1932-38

J.459 1939

J.460 1946, 1954-59, 1965, 1973 (from Hertha Mendel, <u>re</u> Warburg and Einstein).

J.461 Merritt, D.H.

1962-67

Miscellaneous publications.

J.462 Meyer, K.

1948, 1961

Meyer was a colleague of Krebs in Rona's laboratory (1925) and later at Berlin-Dahlem where he was in Meyerhof's team.

J.463 re O. Meyerhof

various dates 1969-78

Correspondence with descendants of O. Meyerhof, and others, re Meyerhof and his family, in part re Bibliog. 336.

J.464 Meyer zu Schwabedissen, O.

1980-81

Overuse and misuse of drugs.

J.465	Michaelis, E.M. (later Jacoby)	1931, 1981	
	Two letters only, with a note by Krebs 'Eva Michaelis, daughter of Leonor Michaelis whom I first met at Woods Hole in 1929' (Rem. & Refl., pp.38-39).		
J.466	Mihram, G.A.	1974 <i>-7</i> 7	
	Philosophy of science.		
J.467	Mills, C.F.	1964	
	Zinc deficient rats.		
J.468	Mitchell, P.D.	1961, 1966-67, 1972-73	
J.469	Model, A.	1934-37	
	A refugee medical scientist in Britain.		
J.470	Monod, J.	1964, 1972	
J.471	Moore, S.	1951, 1961	
J.472	Morgan, H.E.	1961, 1969-70, 1977, 1979-80	
	Miscellaneous research and publications; correspond Oxford oxygenator.		
J.473	Morton, R.A.	1971, 1973	
	Correspondence 1973 is re Warburg and history of ph	otoelectric spectrophotometry.	
J.474	Mothes, H.	1960-61	
J.475	Mynant, N.B.	1960-62, 1967	
	Thyroxine.		

J.485A

Correspondence

J.476- Nachmansohn, D. and others

1934-81

Nachmansohn was one of Krebs's oldest friends and colleagues. They first met in Berlin when working in Goldscheider's clinic (1924), then in Rona's laboratory (1925), Warburg's laboratory (1926) when Nachmansohn was in Meyerhof's team, and with Thannhauser at Freiburg. He was also, like Krebs, invited by Weizmann to consider working in Palestine in the mid-1930s. He emigrated to America in 1938.

The pre-war correspondence, mainly from Nachmansohn in Paris, is all autograph manuscript, in German, and by no means all the letters are dated. Many refer to the problem of Jewish and other refugees, and to the suggested work in Palestine.

Ten folders

J.476 1934 (not all dated)

J.477 1935 (not all dated). Includes 'Protokoll' of meeting with Weizmann in London, February 1935.

J.478 1936 (not all dated)

J.479 1937 (not all dated)

J.480 1938-39

J.481 1958-64

J.482 1966-67. Includes statement of Nachmansohn's research career and achievements.

J.483 1969-75. Includes material on Meyerhof and recollections of 1930 s.

J.484 1977. Recollections of Meyerhof and Warburg.

J.485 1979-81. Includes material <u>re</u> colloquium in honour of Nachmansohn at Liège 1980, various recollections, Nachmansohn's letter to Lady Krebs on Krebs's death.

Addendum

J. 485A 1935, 1949 and n.d. Photocopies of letters from Krebs to Nachmansohn (the undated letter is from Lady Krebs) made available by F. L. Holmes.

J.486- Naftalin, L.

1954-62

J.488

Research and recommendations.

Three folders

J.486 Miscellaneous cvs., bibliographies, drafts and papers.

J.487 1954-59

J.488 1960-62

J.489 Needham, D.M.M.

1940, 1948, 1950, 1952

Brief correspondence only. 1948 correspondence is on yeast; 1950 correspondence is on glyceraldehyde inhibition.

J.490 Needham, J.

1933, 1934, 1937

Brief correspondence only. Card of March 1933 has an attached description by Krebs: 'Joseph Needham, at that time Reader in Biochemistry in Cambridge, written when I was still in Freiburg'.

J.491 Neuberg, C.

1932, 1937, 1955

Correspondence 1932 is from Berlin-Dahlem.

J.492 Neuberg, I.

1931, 1932

Correspondence 1932 is from Berlin-Dahlem.

J.493 Neuberger, A.

1934, 1951, 1961-81

Research; publications; nutrition; Jewish organisations.

J.494 Neunhoffer, O.

1970-75

Cancer treatment.

J.495 Neuzil, E.

1960, 1973-75, 1981

Mainly visits, lectures, etc. at University of Bordeaux. Letter of 1981 is Krebs's carbon only, of 13 November, from hospital.

J.496- Newsholme E.A. and others

1961-80

J.499

Newsholme worked in Krebs's Department as a postdoctoral fellow from Cambridge from 1962, supported by a Beit Fellowship. In 1964 he was appointed to Krebs's MRC Unit, moving in January 1967 to J.W.S. Pringle's ARC Unit in the Department of Zoology.

'Personnel' file.

Four folders, on all aspects of career and research.

J.496 1961-62

J.498 1966-69

J.497 1963-65

J.499 1971-80

J.500 Noble, E.P.

1972, 1976-77

Research on alcohol.

J.501 - Nossal, P.M. and others

1948-58

J.503

Nossal, an Australian biochemist, worked as a research student in Krebs's Department at Sheffield 1949-51 before returning to Australia. He died in 1958.

'Personnel - Sheffield'

Three folders

J.501 1948-49

J.502 1950-53

J.503 1954-58

J.504 Nowinski, W.W.

1958-61, 1967-72

J.505 Nuñez de Castro, I.

1980

J.506 Oakeshott, W.

1958, n.d.

Undated correspondence is re proposed honorary degree for Basil Blackwell.

J.507 O'Brien, J.R.P.

1947, 1954-58

Includes 1947 draft report on 'Vitamin C deficiency and requirements of human adults' by O'Brien, heavily revised by Krebs, on work for MRC Vitamin C Subcommittee 1944-46. O'Brien was Secretary of the Sub-committee (Rem. & Refl., p.121). The report was published in 1953 by HMSO and a few reviews are included in the folder. (Not listed in Bibliog.)

Correspondence 1954-58 is re research and teaching at Oxford.

J.508- Ochoa, Severo

various dates 1939-78

J.511
General correspondence on research, publications, visits, recollections.

Four folders

J.508 1939, 1947-52

J.509 1955, 1961 (re conferral of honorary degree from Oxford on Ochoa).

J.510 1964-67, 1970, 1972 (includes note by Ochoa on Meyerhof Symposium).

J.511 1973-78

J.512- Ogston, A.G. and others J.515 1948-79

Ogston was a Demonstrator in Biochemistry at Oxford since 1938, under R.A. Peters. He left the Department in 1959 to take up a Chair at the Australian National University and returned to Oxford in 1970 as President of Trinity (Krebs's College).

'Personnel' file.

Four folders.

- J.512 1948-52. Includes Krebs's comments on Ogston's work on 'three-point attachment', and on aconitase.
- J.513 1954-55. Includes correspondence re Ogston's appointment as Chairman, Editorial Board, Biochemical Journal.
- J.514 1957-59. Includes note on Ogston on his move to Australia, by J.H. Fessler.
- J.515 1960-79. Includes ms. account by Ogston of his career and research interests.

J.516 Olby, R.C.

1967-72

Mainly research on history of molecular biology.

J.517 Oliver, I.T.

various dates 1956-68

Oliver was an Assistant Lecturer in the Biochemistry Department at Sheffield before taking up appointments in Australia.

Correspondence mainly on research and recommendations.

J.518- Olson, R.E. and others

1958-78

J.520

Olson, an American biochemist, spent a sabbatical year in Krebs's Department July 1960-June 1961, supported by the Guggenheim Foundation and a Fulbright Award, working on the metabolism of cardiac muscle.

'Personnel' file.

Three folders on research, publications, later visits, recommendations, etc.

J.518 1958-61

J.520 1966-78

J.519 1962-63

J.521 Ontko, J.A.

1967, 1972-73

Hepatic metabolism.

J.522 Oparin, A.I. and Oparina, N.P.

1967-68, 1979-81

J.523- Opie, L.H. and others

1962-78

J.530

Opie, a South African biochemist, worked in Krebs's Department as a Wellcome Research Fellow for two years from October 1964, working on cardiac metabolism.

'Personnel' file.

Eight folders, on all aspects of research and career.

J.523 1962-63

J.524 1964

J.525 1965-66

J.526 1967-68

J.527 1969. Includes material re new <u>Journal of Molecular and Cellular Cardiology</u>. (Opie was Editor-in-Chief and Krebs agreed to serve as 'Consulting Chief Editor for the European area'); Krebs's reports on papers submitted, publishing policy, etc.

J.528 1970-72

J.529 1973. Includes draft and data for paper by Opie on ketone bodies, originally bearing Krebs's name as co-author. At his request, it was replaced by an acknowledgement.

J.530 1974-78. Includes letter of thanks to Krebs at the end of his period of service to Journal of Molecular and Cellular Cardiology.

J.531 Oster, H.

1933

A German refugee doctor.

J.532 Ostern, P.

1933, 1936, 1939

With an attached note by Krebs: 'Dr. Pawel Ostern. Collaborator of J. Parnas. My collaborator at Freiburg. Committed suicide when he was about to be arrested by the Nazis after the occupation of Poland'. (Rem. & Refl., pp.48, 152.)

J.533 Passonneau, J.V.

1971, 1973

J.534 Pauling, L.

1961, 1974-77, 1980

Correspondence 1974 is on Vitamin C and the common cold, and includes invitation to Krebs to become an Associate of the Linus Pauling Institute of Science and Medicine. Correspondence 1980 includes Pauling's paper on 'Vitamin C therapy of advanced cancer'.

J.535 Peierls, E.

1975, 1978

Mainly re collection of reminiscences (to which Krebs contributed) presented to 'Genia' (Lady Peierls) on her 70th birthday. Includes copy of presentation brochure.

J.536 Pendl, M.

1964

Arrangements to work as 'guest worker' in Krebs's Department August-October 1964.

J.537 Perkins, J.R.

1968-72

Perkins worked as Krebs's 'personal technician' in the Metabolic Research Unit for a year 1968-69.

Not a 'Personnel' file.

J.538 Péron, F.G.

1968, 1970, 1973

Research on mitochondria.

J.539 Perutz, M.F.

1968-70

On the history of DNA research and J.D. Watson's book The Double Helix.

J.540- Peters, R.A. and others

1933-79

J.544 Five folders.

J.540 Miscellaneous biographical and bibliographical information (to c.1952).

- J.541 1933 (one letter only, re Krebs's settling in Cambridge), 1936, 1939.
- J.542 1947-49. Includes material on report on work of Vitamin C subcommittee.
- J.543 1951-52 (on Vitamin C report), 1956.
- J.544 1960-67, 1971, 1979

J.545- Petersen, G.B. and others

1954-74

J.547

Petersen, a New Zealand biochemist, was a doctorate student in Krebs's Department from April 1956, returning to New Zealand in 1959. He accepted an appointment as Departmental Demonstrator in Krebs's Department for two years from January 1962.

Not a 'Personnel' file.

Three folders on all aspects of research and career.

J.545 1954-58

J.546 1959-61

J.547 1962-63, 1967, 1974

J.548 Pette, D. various dates 1969-79

J.549 Pfizer Group 1966

Gluconic acid delta lactone.

J.550 Phillipson, A.T.

1959, 1968-69

Correspondence 1968-69 is re Symposium on 'Physiology of Digestion and Metabolism in the Ruminant', Cambridge. Krebs opened the discussion on metabolic disorders.

J.551 Phizackerley, P.J.R.

1956-65

Phizackerley was appointed Betty Brookes Research Fellow in Krebs's Department for three years from October 1957, moving later to the Nuffield Department of Clinical Biochemistry.

Not a 'Personnel' file.

J.552 Pichotka, J.

1955-56, 1966

J.553, Pickering, G.W.

1939-67

J.554

Two folders.

J.553 1939-43. Includes material re refugee doctors to work in India; with an attached note by Krebs: 'Sir George Pickering, known to me since a visit he paid to Freiburg in 1932. Later Regius Professor of Medicine at Oxford'.

J.554 1956-62, 1967.

J.555 Pierpoint, W.S.

1967, 1980

J.556 Pirie, A. and others

1948-50, 1955, 1964, 1975

Early correspondence has an attached note by Krebs: 'Dr. Antoinette Pirie, known since Cambridge in 1933, later Reader in Ophthalmology at Oxford'.

Correspondence 1955 is re proposed research on retinal metabolism.

J.557 Pirie, N.W.

1936, 1949, 1952, 1964

J.558- Pitts, R.F.

J.560

1966-76

Pitts, a distinguished American renal physiologist, spent a sabbatical year in Krebs's laboratory July 1967-June 1968 'to learn some biochemistry'. A symposium in his honour was held at Cornell in 1964 at which Krebs chaired a session and gave a paper. See F.259, F.260.

Three folders.

J.558 1966-68. Arrangements, funding, biographical and bibliographical information, Pitts's report to National Science Foundation on work done in Oxford.

J.559 1971, 1974-76. Material on Pitts Symposium, Krebs's collaborative paper given there, Pitts's continuing research; includes data and notes (<u>Bibliog</u>. 338).

J.560 Related printed matter.

J.561 Pogell, B.M.

1963-73

Research, publications, recommendations.

J.562 Pontecorvo, G.

1949, 1951

J.563 Popják, G.J.

1957, 1961-64, 1979

Correspondence 1961 is re 'Operation Popcorn', a proposal that Popják and J.W. Cornforth should move their MRC Unit to Oxford, but which the MRC was unable to support. They accepted posts at Shell Laboratories instead.

J.564- Popper, K.R. and others

1974-80

J.567

J.569

Four folders.

J.564 Correspondence with Popper 1974-76.

J.565 Correspondence with F.A. Hayek and other colleagues re proposed nomination of Popper for Nobel Prize for literature, 1979-80.

J.566 Notes and ideas by Krebs, on 'the whole and the parts' and other aspects of Popper's philosophy, some dated 1975, 1978.

J.567 Published and unpublished papers by Popper, sent to Krebs.

J.568, Porteous, J.W.

1975-81

Porteous spent a period of sabbatical leave in Krebs's laboratory January-September 1977, supported by MRC.

Two folders

J.568 1975-76

J. 569 1977-81

J.570 Porter, R.R.

1966-67, 1971, 1974, 1981

Correspondence 1966-67 is re Oxford Department of Biochemistry where Porter succeeded Krebs as Whitley Professor.

J.571 - Potter, V.R.

1939-79

J.574

Four folders

J.571 1939, 1941, 1945, Includes correspondence 1939 arranging for Potter to work in Krebs's Department at Sheffield, which was prevented by the outbreak of war.

J.572 1949 re paper by Potter and Heidelberger on 'Asymmetric citric acid: a Substantiation of the Ogston concept', which Krebs considered so important that he expedited its publication in Nature.

J.573 1952, 1957-58

J.574 1971, 1975, 1979. Includes copy of an address by Potter sent to Krebs 'whose life is a model of "humility with responsibility"'.

J.575 Price, C.A. and others

1952-56, 1963, 1976

Price worked in Krebs's Department at Sheffield 1953-54, supported by a National Science Foundation fellowship.

Not a 'Personnel' file.

J.576 Prichard, J.S.

1963-66

Prichard held an MRC award for further education in the medical sciences in Krebs's Department, working under the supervision of D.S. Parsons for a D.Phil.

'Personnel' file.

J.577 Pringsheim, H.

1934, 1935

Two letters only, with an attached note by Krebs: 'Hans Pringsheim, distinguished carbohydrate chemist'.

J.578 Prosen, E.J.

1973-75, 1979-80

Prosen worked in Krebs's laboratory, on secondment from the National Bureau of Standards, January-December 1974, on calorimetry (see Section D).

Not a 'Personnel' file.

J.579 Quagliariello, E.

1963-73

J.580 Quagliariello, G.

1951, 1967

Correspondence 1967 is re memorial on 10th anniversary of Quagliariello's death.

J.581 - Quastel, J.H.

1937-80

J.585

Five folders.

J.581 1937-38, 1950-52, 1958. Correspondence 1958 includes comments on Bibliog. 183.

J.582 1958-60. Correspondence on contribution of Quastel's ARC Unit of Soil Metabolism to discovery of 2:4-D as a herbicide in 1942.

J.583 1962, 1973-76

J.584 1977

J.585 1980. Mainly re Quastel's proposed autobiography.

J.586- Quayle, J.R. and others

1955-80

J.591

Quayle joined Krebs's MRC Unit in 1956, remaining until 1963 when he moved to Sheffield as Senior Lecturer in Biochemistry, becoming Professor of Microbiology in 1965. Krebs regarded him, together with K. Burton and H.L. Kornberg, as 'the key members' (Rem. & Refl., p.142) and describes his research contributions on carbon compounds (Rem. & Refl., pp.218-19). Quayle became Vice-Chancellor of Bath University in 1983.

'Personnel' file.

Six folders on all aspects of research and career.

J.586 1955-56. Biographical information, arrangements for appointment to MRC Unit.

J.587 1957-58

J.588 1959-63. Re-appointment and promotion in MRC Unit, resignation on move to Sheffield.

J.589 1964-65

Continued

J.590 1966-69. Includes arrangements to visit Warburg with Krebs 1969.

J.591 1971-80. Includes material on Quayle's contribution to protein synthesis from methanol.

J.592 Racker, E.

1953, 1957, 1969, 1978

With an attached note by Krebs: 'Efraim Racker, biochemist, Yale, New York and Cornell University'.

Correspondence on research, publication, humorous 'Rules for students in biochemistry'.

J.593 Rado, R.

1934, 1936, 1937

Refugee mathematician. Also Liese Rado.

Brief correspondence only.

J.594 Raggett, P.R.

1963-69

Raggett held an MRC Scholarship for training in research methods in Krebs's Department 1965-67, working under the supervision of M.M. Whitehouse.

Not a 'Personnel' file.

J.595 - Raijman, L.J. and others J.598 1963-75

Raijman joined Krebs's Department in 1964 as 'one of the members of [my] personal group' and was appointed as a temporary member of the MRC Unit August-December 1965; she returned to work with Krebs June-December 1968 and was again funded by MRC, March-July 1969.

Not a 'Personnel' file.

Four folders

J.595 1963-64 J.597 1967-69

J.596 1965-66 J.598 1973-75

J.599, Rainsbury, R.

1971-81

J.600

Mainly on SCIP, and on juvenile delinquency.

Two folders:

J.599 1971-73

J.600 1975-81

J.601 Randle, P.J.

1968-71, 1974, 1980-81

J.602 Ranks Hovis McDougall

1967-69, 1972

Correspondence with A. Spicer, Director of Research, on various lines of research especially nutrition and energy metabolism.

J.603 Rapoport, S.M.

1963-81

Correspondence 1977-78 is re FEBS Symposium session in honour of K. Lohmann.

J.604 Reed, L.J.

1968-70, 1973

Research and publications on pyruvate hydrogenase.

J.605 Robb-Smith, A.H.T.

1967, 1977, 1980

Mainly history of science; correspondence 1977 is on history of 'cascade reaction'.

J.606 Robinson, D.S.

various dates 1966-74

Robinson became a member of Krebs's MRC Unit in 1963. Correspondence 1973-74 is re Krebs's 'Eleventh Biochemical Society Lecture' at Leeds in May 1974.

Not a 'Personnel' file.

J.607 Roche, J.

1953, 1962-64

J.608- Rolleston, F.S.

1961-72

J.610

Rolleston joined Krebs's Department in 1962 and worked for his D.Phil. under the supervision of E.A. Newsholme. He later worked in USA and Canada.

Not a 'Personnel' file.

Three folders on research and career.

J.608 1961-63

J.609 1964-67

J.610 1968-72

J.611 Ronayne, J.

1972

Sociology of science.

J.612 Roper, J.A.

1945-52

Roper, a Sheffield graduate, was appointed to the MRC Unit as a temporary staff member January 1946–January 1948, working under the supervision of H. McIlwain.

'Personnel' file.

J.613- Rose, S.P.R. and others

1960-65

J.616

Rose worked in Krebs's Department as a Research Fellow funded by IC1 1961-63.

Not a 'Personnel' file.

Four folders on career and research.

J.613 1960

J.615 1962

J.614 1961

J.616

1963-65

J.617 Ross, B.D.

1977, 1980

J.618- Rothschild, N.M.V.

1950-71

J.622

Five folders on research projects, ARC matters, collaboration, recommendations, etc.

J.618 1950-51, 1955-56

J.619 1957-58

J.620 1959-60. Includes proposed collaborative research on biochemistry of synergism in relation to insecticide action.

J.621 1961-63

J.622 1968, 1971

J.623 Rothschild, P.

1934-35

A German refugee scientist.

J.624 Roughton, F.J.W.

1935, 1937, 1947-48, 1961, 1970-71

With an attached note by Krebs: 'F. J.W. Roughton, Cambridge. Professor of Colloid Science with whom I collaborated on the possible role of carbamino-ornithine in the synthesis of citrulline (with negative results) and later on carbonic anhydrase'. Correspondence 1947-48 refers to latter (Bibliog. 123).

J.625 Rous, S.

1969, 1971, 1973

J.626 Rowatt, M.E.

1947-49

Margaret Rowatt was a doctoral student in Krebs's Department at Sheffield, working under the supervision of H. McIlwain.

'Personnel-Sheffield' file.

J.627- Ruderman, N.B. and others

1968-75

J.630

Ruderman worked in Krebs's laboratory 1969-71, funded by the American Diabetes Association and the American Heart Association, on caloric homeostasis and metabolic regulation; after his return to USA he spent shorter periods in Krebs's laboratory during visits to Europe.

'Personnel' file.

Four folders on funding, research, publications.

J.627 1968-69

J.628 1970-71

J.629 1972 Includes experimental data.

J.630 1973-75

J.631 Ruffo, A.

1949, 1962-66

Ruffo was a research student in Krebs's Department at Sheffield January - October 1948.

J.632, Ryman, B.E.

1972-81

J.633

Two folders

J.632 1972-74. Mainly re Krebs's visit as first visiting lecturer in new Department of Biochemistry, Charing Cross Hospital Medical School. Krebs lectured on 'Sociological Aspects of Scientific Research'.

J.633 1976-81. Mainly on various Girton College invitations, including Krebs's acceptance of Honorary Fellowship 1979.

J.634 Sáez Tormo, G.

1980-81

Såez worked in Krebs's laboratory for a year from May 1981, in collaboration with R. Hems.

'Personnel' file.

J.635 Saz, H.J.

1955-65, 1969

Saz worked in Krebs's Department at Sheffield 1953-54, though the surviving correspondence is of later date.

'Personnel' file.

Mainly research on Ascaris.

J.636- Schering AG

J.640

1969-76

The main company was based in Berlin; there is also a little correspondence with Schering Chemicals Limited, the UK pharmaceutical division.

Five folders on advisory visits and discussions, possible collaborative research projects, with directors of the firm.

J.636 1969. Mainly diabetes research.

J.637 1970. Includes timetable and notebook of discussions at meeting February, and agreement of arrangements and fees, June.

J.638 1971-72

J.639 1974

J.640 1975-76. Includes notes of meeting and possible collaborative projects.

J.641 Schimassek, H.

1962, 1972-78

J.642 Schoenheimer, R.

1937

Two letters only, with an attached note by Krebs: 'Rudolf Schoenheimer, biochemist, known to me since 1922 and a colleague in the Faculty at Freiburg. Later Columbia University, New York'.

J.643 Schoental, R.

various dates 1967-76

Brief correspondence only.

J.644- Scrutton, M.C. and others

1961-66, 1973-78

J.647

Scrutton held an MRC Scholarship for training in research methods in Krebs's Department, working under the supervision of I. Walker.

'Personnel' file.

Four folders on research and career.

J.644 1961-64

J.645 1965-66

J.646 1973

J.647 1974-78. Includes comments on research and publications on methionine.

J.648- Selye, H.

1972-81

J.650

Three folders.

J.648 1972, 1975-76. Comments by Krebs on publications by Selye on homeostasis, and on stress.

J.649 1979-March 1980, re Selye's 'International Institute of Stress' in Montreal (Krebs was a member of the Board of Governors) and its 2nd International Symposium at Monte Carlo at which Krebs spoke on 'Biological Aspects of Juvenile Delinquency'. The talk was published in STRESS. (SUPP. Bibliog. 33.)

See E.412-E.418.

J.650 June 1980-81. Continuing correspondence <u>re</u> newly-founded 'Hans Selye Foundation of America' and 'Hans Selye Foundation of Europe' (Krebs was a member of the Board of Governors), invitation to 3rd and 4th International Symposia.

J.651 Semenza, G.

various dates 1963-80

Research, lectures, publications, including Krebs's writings on Warburg and his autobiography.

J.652 Severina, 1.

1957-58, 1964-76

irena Severina, a Russian biochemist, spent two months in Krebs's Department in 1958 under a WHO Fellowship.

'Personnel' file.

J.653 Severin, S.E.

various dates 1968-80

A Russian biochemist, father of I. Severina.

Brief correspondence only, mainly on proposed visits and conferences.

J.654 Shilo, M.

1961

Shilo worked as a research student in Krebs's Department in 1954.

Brief correspondence only.

'Personnel' file.

J.655 Shipp, J.C.

1967, 1973-74

Shipp was a post-doctoral Research Fellow in Krebs's Department in the late 1950s.

J.656 Sies, H.

1975-81

Research, visits, conferences.

J.657 Simon, E.

1963-64

Mainly on D-mannoheptulose in diabetes research.

J.658-

Sinclair, H.M. and others

1956-81

J.661
Sinclair was Reader in Human Nutrition at Oxford 1951-58, his laboratory being attached to the Department of Biochemistry.

'Personnel' file.

Four folders on research and career.

J.658 1956-57

J.660 1960-64

J.659 1958

J.661

1973, 1981

J.662 Singer, T.P.

1951 -52

Protein chemistry of purified enzymes.

J.663 Skidmore, I.F.

1963-69

Skidmore held an MRC Scholarship for training in research methods in Krebs's Department 1963-66, working under the supervision of M.W. Whitehouse, and was appointed an MRC temporary staff member 1966-67.

'Personnel' file.

J.664 Skidmore, J.

1964-67

Janice Robinson held an MRC Scholarship for training in research methods in Krebs's Department 1964-67 working under the supervision of E.A. Newsholme. She married I.F. Skidmore (q.v.).

'Personnel' file.

J.665- Slater, E.C.

1953-76

J.667

Three folders.

J.665 1953-54. Meetings, collaborative research, includes data and discussions from L.V. Eggleston.

J.666 1957 (one letter only), 1962-63

J.667 1966-76. Visits, conferences, recommendations.

J.668- Slater, T.F.

1972-81

J.670

Three folders.

J.668 1972-73. Research on alcohol.

J.669 1978, re Krebs's Szent-Győrgi lecture for National Foundation for Cancer Research Inc.

J.670 1980-81

J.671 Smith, A.J.

1962-68

Smith held an ARC Research Scholarship to work in Krebs's Department under the supervision of J. Lascelles.

'Personnel' file.

J.672 Smith, L.H.

1962

Smith spent a sabbatical leave from Massachusetts General Hospital in Krebs's laboratory September 1963-August 1964.

'Personnel' file.

J.673- Smyth, D.H.

various dates 1940-80

J.675
Smyth joined Krebs's Department in Sheffield in 1939 when part of University College London was evacuated there, becoming Professor of Physiology at Sheffield in 1946.

Three folders.

- J.673 1940 (collaborative paper with Krebs), 1946 (Sheffield appointment).
- J.674 1971-75
- J.675 1979-80. Recollections of Smyth.
- J.676 Snell, K.

1975, 1978

J.677 Soberon, G.

1962-63, 1975

J.678 Söling, H-D.

1972-80

Research, recollections.

J.679 Sols, A.

1960, 1968, 1975, 1981

Correspondence 1981 is comments on benzoate research.

J.680 Speake, R.N.

1962-67

Speake, an ICI chemist, spent two academic years in Krebs's Department 1962-64 as a 'Recognised Student', contributing to collaborative papers (Bibliog. 222, 227).

'Personnel' file.

J.681, Srere, P.A.

1963-78

J.682

Research, publications, visits, recommendations.

Two folders.

J.681 1963-69

J.682 1971-78

J.683 re Starling, E.

1972

Correspondence with T.J.S. Patterson (Starling's grandson) and others re Starling, and including typescript of a 1922 letter from Starling.

J.684 Start, C.

1965-69

Carole Start held an MRC Scholarship for training in research methods in Krebs's Department 1965-67, working under the supervision of E.A. Newsholme. Not a 'Personnel' file.

J.685 Starzl, T.E.

1970-76

Research, publications, conferences, including Krebs's visit to Denver June 1971 (see F.218) and participation in Roche Symposium, November 1973 (see F.251-F.253).

J.686 Staudinger, M.

1969, 1972-77

Origins of term 'molecular biology' and the early contribution of Hermann Staudinger (Rem. & Refl., pp.45, 168).

J.687 - Stephenson, M. J.690

n.d., 1936-48

Marjory Stephenson was an early colleague of Krebs in Hopkins's laboratory in Cambridge (Rem. & Refl., p.86). Early correspondence has an attached note by Krebs: 'Marjory Stephenson, distinguished microbiologist at Cambridge. One of the first two women Fellows of the Royal Society'.

Four folders.

J.687 1935, 1936 and n.d.

J.688 1941-42. Various wartime research projects.

J.689 1945, 1947 (re proposed ARC Microbiology Unit at Sheffield).

J.690 1948

J.691 Stern, E.

192(?), 1933, 1951, 1952, 1969, 1973

Stern was a childhood friend of Krebs. He became a doctor, later settling in America. The early letters address Krebs by his boyhood nickname 'Lotze' (Rem. & Refl., p.16).

J.692- Stern, J.R. and others

1946-67

J.695

Stern worked in Krebs's Department at Sheffield as a postgraduate research worker from October 1946 on his discharge from the Royal Canadian Air Force, before accepting a post in America. He wrote a collaborative paper with Krebs and others.

Not a 'Personnel' file.

Four folders.

J.692 1946-47

J.693 1948, re collaborative paper (Bibliog. 128).

J.694 1950-54. Research and publications, including problems of nomenclature for enzymes.

J.695 1966-67

J.696 Sternheimer, R.

1960, 1973-75

Sternheimer was a fellow-student at medical school with Krebs, later settling in America.

J.697 Still, J.

1946-47

J.698 Stoner, H.B.

various dates 1955-77

Mainly research on trauma and metabolism.

J.699 Streffer, C.

various dates 1968-80

J.700 Swoboda, B.E.P.

1967-71

J.701 Synge, R.M.S.

1957

One letter only, with an attached note by Krebs: 'R.M.S. Synge, known to me since Cambridge 1935, Nobel Laureate 1952'.

J.702 - Szent-Györgi, A.

various dates 1933-79

J.705

Four folders.

J.702 1933, 1936-38 (discussion of citric acid cycle).

J.703 1962. Includes Krebs's recollections of Szent-Győrgi's help in recommending him to Hopkins, and photocopies of the relevant 1933 correspondence (Rem. & Refl., pp.64-65).

J.704 1969

J.705 1978-79

J.706 Szilard, L.

1960

Brief correspondence only, on teaching of biology.

J.707 - Szirmai, E.

various dates 1969-81

J.709

Biographical writings by Szirmai, including drafts and information, and comments by Krebs.

Three folders.

J.707 1969, 1975

J.708 1976-79

J.709 1981

J.710 Tager, J.M.

1952, various dates 1966-80

J.711 Tamiya, N.

1967, 1974-76, 1980

Tamiya was a postdoctoral student in Krebs's Department in 1956. Correspondence is <u>re</u>later visits.

J.712 Teich, M.

1970-71, 1976, 1978, 1980

Mainly comments on writings on history and philosophy of science, and Cambridge seminar on 'Sterile and Fruitful Approaches in the Development of Biochemistry'. See also E.58.

J.713- Terner, C.

1938-58

J.715

Karl (later Charles) Terner held an MRC appointment in Krebs's Unit at Sheffield 1947-50, working under the supervision of R.E. Davies.

Not a 'Personnel' file.

Three folders.

J.713 1938-49

J.714 1950-53. Includes material re collaborative paper (Bibliog. 135).

J.715 1954-58

J.716, Thannhauser, S.J.

1932 -55

J.717

Two folders.

J.716 1932-37. With an attached note by Krebs: 'Siegfried Thannhauser, physician distinguished in the field of metabolic disease. My chief in Freiburg 1931-33'. Letters of 1935 and 1937 are from Boston where Thannhauser was then living

J.717 1947, 1955 re invitation to Thannhauser to return to Freiburg for 70th birthday. Krebs explains his own reasons for accepting an invitation to give the Aschoff Memorial Lecture there.

Folder also includes miscellaneous printed tributes to Thannhauser, 1963.

J.718 Thomas, D.B.

1965-67

Thomas held an MRC Award for Further Education in the Medical Sciences in Krebs's Department 1964-67.

Not a 'Personnel' file.

J.719 Thompson, A.D.

1972-73

J.720 Thurman, R.G.

1972-78

Mainly on International Conferences on Alcohol and Aldehyde Metabolising Systems.

J.721 - Tidow, G.

1932-77

J.725

Tidow was a colleague of Krebs at Altona. He remained in Germany and resumed contact with Krebs after the war.

Five folders of letters and cards. Few of Krebs's replies survive but there is sometimes a ms. note 'Ans....'.

J.721 1932-33, 1938

J.724 1951, 1952-55

J.722 1947, 1948

J.725 1974-77

J.723 1949, 1950

J.726 Tinbergen, N.

1977-78

J.727 Tischler, M.E.

1977

J.728 Tischler, M.

1968, 1970

J.729 Todd, A.R.

1939, 1948

J.730 - re Traube, I. J.733 - .

1925, 1970-82

Traube was a cousin of Krebs's mother, who came to Britain in 1934 (then aged 74) and settled in Edinburgh (Rem. & Refl., p.7). The correspondence is with relations, historians and others re Traube's material for which Krebs arranged safe keeping.

Four folders.

J.730 1925 card and 1p. notes from Traube, 1970-81 with Sonya Boas-Traube (daughter).

J.731 1978-79, with E.N. Hiebert.

J.732 1979, with Edinburgh University Library, which accepted manuscripts and correspondence of Traube.

J.733 1981-82, with J.T. Edsall and others <u>re</u> deposit of Traube's books and reprints at University of Pennsylvania.

Also included here is a reprint of an article on Traube's life and work by Edsall, sent by him to Lady Krebs and made available by her, 1986.

1963 J.734 Treble, D.H. 1963-64, 1967 J.735 Twyford Laboratories Correspondence with director, F.A. Robinson. 1971-77 J.736 Tyler, B.W. 1969-70 J.737 Ullrich, K.J. Lactate in kidney. Includes data and experimental results. 1966 J.738 Unilever Research Laboratory Recruitment of British scientists from North America. 1965-67, 1973, 1976, 1981 J.739, Uo, J.M. and others J.740 Junko Uo, a Japanese biologist, held an MRC appointment as a temporary staff member in Krebs's Unit October 1965-October 1966, and collaborated on a paper (Bibliog. 246). Not a 'Personnel' file. Two folders. 1973, 1976, 1981 J.739 1965-67 J.740 J.741 The Upjohn Company various dates 1965-73 Miscellaneous correspondence on samples and methods. various dates 1954-56, 1969-81 J.742 Utter, M.F. Research, visits, etc. Includes notice of Utter's death and Memorial Lecturership. J.743

van Rossum, G.D.V. 1957-68 van Rossum held an MRC Scholarship for training in research methods in Krebs's Department 1957-60, working under the supervision of D.S. Parsons; worked briefly in the Department during the summer of 1964. Not a 'Personnel' file.

J.763

Correspondence

J.744- Veech, R.L. and others

1965-81

Veech, an American biochemist, joined Krebs's Department in September 1966, funded by a Fellowship of the US Public Health Service 'for further training in biochemistry'. His Oxford career was interrupted by injury in an air crash in October 1968 (see J.763); he resumed work with Krebs in March 1969, but in July returned to a research career in America.

Veech's thesis (on redox state) was supervised by Krebs, and he continued to collaborate with Krebs and his team on a substantial number of papers 1969-74 (Bibliog. 268, 276, 277, 278, 279, 284, 285, 307, 328). He maintained regular contact with Krebs on research projects and findings, conferences and publications. Krebs was a contracted member of the review panel of Veech's Laboratory of Metabolism at the National Institute of Alcohol Abuse and Alcoholism.

Not a 'Personnel' file.

Twenty folders on all aspects of career and research.

J.744 1965-66

J.745 1967. Includes 11pp. paper April 1967 'Why Study the Pineal Gland?', with Veech's name added by Krebs.

J.746 1968. Includes news of air crash injury and recovery, research and publications.

J.747 January-June 1969.

J.748 July-December 1969. Return to America, research, publications.

J.749 1970-71

J.750 March-June 1972. Includes data and experimental results; grant applications by Krebs.

J.751 July-November 1972

J.752 1973

J.753 1974

J.754 1975. Includes arrangements for discussion meeting at Veech's laboratory, discussions, experimental results, laboratory report and comments.

J.755 January-June 1976.

J.756 July-December 1976. Includes reports by Krebs and others on review meeting at Veech's laboratory.

J.757 January-June 1977. Includes Veech's 'Proposal to create an institute for metabolic research'.

	1077
J.758 August-December 1	17//

J.759 1978. Includes drafts, reports on review meeting.

J.760 1979-80

J.761 January-July 1981

J.762 Miscellaneous cvs. and information.

J.763 Press-cuttings re air crash in which Veech was injured in October 1968.

J.764 Veloso, D. and others various dates 1966-71, 1976-79

Dulce Veloso, a Portuguese biochemist, worked in Krebs's Department 1966-68, funded by the Gulbenkian Foundation. In 1970 she worked with R.L. Veech (q.v.).

J.765, Vennesland, B.

1949, 1954, 1970, 1973-74

J.766 Two folders.

J.765 1949, 1954 (on oxaloacetate), 1970.

J.766 1973-74, on history of discovery of CO₂ fixation in animal metabolism (<u>Rem. & Refl.</u>, p.130). Also included is copy of Vennesland's 'Recollections and small confessions', 1981, annotated by Krebs.

J.767 Ventling, C.

1954-65

Christa Ventling, a Swiss chemist, came to work as a postgraduate student in Krebs's Department for two years from October 1954, returning in 1957 as a temporary research assistant before going to work in America. The early letters are under her maiden name of Dierks.

'Personnel' file.

J.768 Vickery, H.B.

1954, 1958

J.769 Vieira, O.L.

1964-68

Otilia Vieira, a Portuguese chemist, worked as a research assistant in Krebs's laboratory 1964-67.

Not a 'Personnel' file.

J.770, Vignais, P.M. and Vignais, P.V.

1953-75

J.771

Vignais, a French scientist and collaborator of Macheboeuf, came to work in Krebs's Department 1954-55 under an exchange scheme of the Centre National de la Recherche Scientifique and MRC; he was accompanied by his wife Paulette, also a biochemist. They returned for a short period of work in 1976.

'Personnel' file.

Two folders.

J.770 1953-59

J.771 1966-75

J.772- Villet, R.H.

1967-79

J.774 Three folders.

J.772 1967-71

J.774 1975-79

J.773 1972-74

J.775 Vinay, P. and others

1971-77

Vinay was a postdoctoral research student in Krebs's laboratory 1973-75 funded by a Centennial Fellowship of the Medical Research Council of Canada.

Includes correspondence and comments on draft of collaborative paper (Bibliog. 361).

J.776 Vine, J.

1961-63

Tests on analogues of ADP and ATP.

J.777 Virtanen, A.I.

1956

J.778 Vulović, D.M.

1979-80

Vulović worked in Krebs's laboratory October 1979-March 1980, funded by a Yugoslav state scholarship.

J.779 Waelsch, H.

1948, 1963

J.780 Wald, G.

1952, 1961-67, 1971, 1978

Includes material re Pitt Rivers Museum, Oxford.

J.781 Walker, P.G.

1970-78

Walker was a Research Fellow in Krebs's Department at Sheffield 1952-54, but the surviving correspondence is of later date.

J.782-

Wallace, J.C. and others

1963-76

J.787

Wallace held a Beit Memorial Fellowship in Krebs's Department for eighteen months from January 1965, working with E.A. Newsholme. He was accompanied by his wife, P.G. Wallace, who also held a Beit Fellowship (see J.788).

'Personnel' file.

Six folders on research and career.

J.782	1963-64	J.785	1968
J.783	1965-66	J.786	1970
J.784	1967	J. <i>7</i> 87	1973-76

J.788 Wallace, P.G.

1964-69

Patricia Wallace, the wife of J.C. Wallace, held a Beit Fellowship in Krebs's laboratory 1965-66, and wrote a collaborative paper (Bibliog. 269).

J.789,

Walser, M.

1970-80

J.790

Walser worked in Krebs's laboratory as a visiting scientist May-August 1971, with a special interest in therapeutics of renal metabolism.

Two folders.

J.789 1970-73. Includes abstract of collaborative paper with Krebs and others, to be published in Clinical Research 1972 (Not listed in Bibliog.)

J.790 1975-80. Continuing research and conferences, including symposium at Kiawah Island, November 1980, at which Krebs gave the 'keynote' address on 'Evolutionary concepts in biological thought' (Bibliog. 386). See also C.144.

J.791 - Warburg, O.H. and others

1930-76

J.794

Letters and cards from Warburg, collaborators and other colleagues on research and other matters.

Four folders.

J.791 1930-38. Includes photocopies of Krebs's grant application for equipment, amended by Warburg 'for educational reason', April-May 1930; letter 1931 from W. Cremer on his dismissal by Warburg; letter 1935 to D. Keilin; letter 1936 from E. Negelein; letters 1936, 1938 from Warburg on research.

J.792 1942, 1949 re Warburg.

J.793 1952-59, 1965

J.794 Later material, 'Warburgiana' presented to Krebs in 1972 and 1976 by Jacob Heiss, Warburg's companion.

J.795 Waterlow, J.C.

1964, 1970, 1973

J.796 Weatherall, D.J.

various dates 1974-80

Brief exchanges only.

J.797 - Weber, G. and others

1960-77

J.804

Weber, an American scientist, visited and corresponded with Krebs regularly from 1962, often in relation to the Enzyme Regulation Conferences at Indianapolis which he organised and which Krebs attended almost annually to present papers on his current research (subsequently published in Advances in Enzyme Regulation). See also Section F. passim. Krebs was a consultant to Weber's Laboratory for Experimental Oncology.

Eight folders on research, visits, publications, recommendations, personal news.

J.797 1960

J.798 1962, 1966

J.799 Miscellaneous experimental results and data by L.V. Eggleston 1965, 1966, on pyruvate kinase, related to work by Weber.

J.800 1968

J.801 1969. Includes arrangements for Weber to visit Krebs's laboratory to work on kidney tumours.

Continued

J.802 1970-71. Includes correspondence re collaborative paper (<u>Bibliog</u>. 288) and long letter from Krebs (20 October 1971) on Warburg and 'the origins of the molecular correlation concept'.

J.803 1972-75

J.804 1976-77

J.805 Weber, G.

1954, 1960

Reader in Biochemistry at Sheffield.

J.806, Weber, H.H.

J.807

1952-59, 1964-66, 1971

Krebs first met Weber in Rona's laboratory in 1925, but the surviving correspondence is of later date, on research and publications.

J.806 1952-56. Includes material on Bibliog. 183.

J.807 1957, 1959, 1964-66, 1971

J.808 Webster, C.

1975

re proposed talk by Krebs (eventually not given) in history of medicine seminar at Oxford; includes 7pp. typescript draft of 'Material for the Seminar on the History of German medicine in the 1920s and early 1930s'.

J.809 Webster, L.T.

1973-74

Enzyme tests. Includes data and results.

J.810- Weidemann, J.M. and others

1963-80

Weidemann held a CSIRO Overseas Postgraduate Studentship to work in Krebs's Department for one year May 1965-April 1966; he was appointed to the MRC Unit April 1966-November 1968. He worked on renal metabolism, and published several collaborative papers 1969-70 (Bibliog. 263, 265, 270, 273, 283), before returning to academic posts in Australia.

Not a 'Personnel' file.

Five folders on research and career.

J.810 1963-65

J.811 1966-68

J.812	1969.	Includes	drafts and	comments	for collabo	orative papers.
J.813	1970,	1973				

J.814 1976, 1980

J.815- Weil-Malherbe, H.

1933-49, 1970-81

J.818
Weil-Malherbe (or Weil) first met Krebs at Freiburg in 1931, and worked with him subsequently in Hopkins's laboratory at Cambridge 1933-35. He held medical research posts in Britain before settling in America.

Four folders.

J.815 1933-35. Includes a little correspondence with Weil-Malherbe's parents (doctor in Stuttgart).

J.816 1936-38

J.817 1940, 1944 (re publication on metabolism of acetoacetic acid), 1949.

J.818 Shorter later correspondence 1970-81.

J.819 Weinhouse, S.

1946, 1967

Acetoacetate; pyruvate carboxylase.

J.820 Weir, D.G.

1981

J.821 Weissenberg, K.

1974

With an attached note by Krebs: 'Karl Weissenberg, distinguished physicist known to me from Dahlem'.

J.822 Weitzman, P.D.J.

1970-81

J.823 Weizmann, C.

1938

J.824 Welch, A.D.

1967

J.825 Welt, L.G. and others 1969-72
Welt spent a sabbatical year in Krebs's laboratory 1971-72.

J.826 Werkman, C.H. 1940-41 Krebs's letter of 1940 is on CO₂ fixation.

J.827 Werth, G. 1960-68

J.828- Whatley, F.R. and others

J.830 Whatley spent part of a sabbatical year in Krebs's Department in 1959; he returned to work in California before accepting university posts in Britain.

Three folders on research and career.

J.828 1959-61 J.830 1966, 1974, 1978

J.829 1962-63

J.831 - Whelan, W.J. 1963-81

Whelan's contacts with Krebs are first documented when he was working at the Royal Free Hospital in London, where Krebs lectured regularly to students. After Whelan's move to Miami, Krebs was a frequent visitor and contributor to the 'Winter Symposia' which Whelan organised there.

Six folders.

J.831 1963-66. Research and visits. Includes arrangements for various lectures by Krebs, his appointment as Honorary Professor, Royal Free Hospital, Whelan's appointment at Miami, etc.

J.832 1967-68. Includes material <u>re</u> endowment of memorial lecture to mark Krebs's retirement, FEBS, proposed visits to Miami for autobiographical lecture.

J.833 1970-72

J.834 1975-77. Includes material re new journal Trends in Biochemical Sciences (TIBS) of which Whelan was Editor-in-Chief, visits and lectures by Krebs.

J.835 1978-79

J.836 1980-81

J.837 Wheldrake, J.F.

1963-67

Wheldrake was an MRC Research Assistant in Krebs's Department, working under the supervision of C.A. Pasternak.

J.838 Whittam, R.

1957, 1959, 1965-73

Whittam was a member of the MRC 'team' 1958-63 (Rem. & Refl., p.140) but the surviving correspondence is scanty and chiefly of later date when Whittam was Professor of Physiology at Leicester.

Not a 'Personnel' file.

J.839 Wieland, H.

1948, 1976-77

Correspondence 1948 is on metabolism of yeast; later correspondence is <u>re</u> Heinrich Wieland Memorial Lecture; recollections of Wieland, Warburg and others.

J.840 Wieland, O.

various dates 1961-80

Research, lectures, etc. on ketosis, conferences, Krebs's Foreword to book on Diabetes mellitus.

J.841 Wilkins, M.H.F.

1968

Future of Microbiological Research Establishment; brief correspondence only.

J.842 Williams, G.R. and others

1964-69

J.843 Williams, J.F.

1967-68, 1976-79

J.844- Williamson, J.R. and others

1956-81

Williamson held an MRC Scholarship for training in research methods in Krebs's Department 1956-59, working under the supervision of R.B. Fisher and, later, in close collaboration with Krebs, before accepting research appointments in America. He published a collaborative paper with Krebs (Bibliog. 201).

Not a 'Personnel' file.

Five folders on career and research.

J.844 1956-59. Includes proposed research projects, reports, data and results by Williamson and Krebs.

J.845 1960-62

J.846 1963, 1965

J.847 1966, 1968 (one letter only).

J.848 1977-81. Shorter exchanges.

J.849 Wilson, D.F.

1970-81

Wilson published a collaborative paper with Krebs and others in 1974 (Bibliog. 328).

J.850, Wilson, T.H. and others

1950-76

J.851

Wilson was an Exchange Fellow of the American Cancer Society first in Oxford (1950-51) then in Krebs's Department at Sheffield (1951-53). In 1965-66 he spent a period of sabbatical leave in Oxford.

'Personnel' file.

Two folders.

J.850 1950-53, 1955-58

J.851 1962-67, 1976

J.852 Wood, H.G.

1946, 1955, 1973-74

Correspondence 1974 is re the Conference on the History of Bioenergetics, to which Wood was not invited, and the account of the history of CO₂ fixation.

J.853 - Woods, D.D. and others

1936-65

J.858

Woods was a doctorate student in Hopkins's laboratory at Cambridge, where Krebs first met him, though the earliest surviving correspondence dates from Krebs's Sheffield period. After war service at the Microbiological Research Establishment, Woods became Reader in Microbiology in the Department of Biochemistry at Oxford in 1946 and in 1955 was appointed the first Iveagh Professor of Chemical Microbiology in the Department. Some of Woods's correspondence 1945-51 is conducted with R.A. Peters and other members of the departmental and University staff.

Six folders.

J. 853 1936-39

J.854 1945. Correspondence with R.A. Peters and others re move to Oxford, apparatus and equipment, staff, research grant.

J.855 1946-51

J.856 1955-59

J.857 1962-65

J.858 Miscellaneous cvs, research reports, obituary, etc.

J.859 Woods, H.F.

1966-76

Woods, a lecturer in medicine in the department of the Regius Professor at Oxford, worked on carbohydrate metabolism of the liver under Krebs's supervision 1967-70, and subsequently on collaborative research projects at the Radcliffe Infirmary. He became Professor of Clinical Pharmacology and Therapeutics at Sheffield in 1975.

J.860 Wyn Jones, R.G. and others

1962-66

Wyn Jones was a postgraduate student in the Microbiology Unit of Krebs's Department, working under the supervision of D.D. Woods, with whom most of the correspondence is conducted.

Also included in the folder is exchange of correspondence with Woods (not related to Wyn Jones), on 'Marfanil', April-June 1963.

'Personnel' file.

J.860A Yagil, G.

1974, 1977

J.861- Young, F.G.

1938-66

J.865
Five folders on research, university examinations, administration, appointments, visits.

J.861 1938, 1948 (<u>re</u> examining new M.Sc. (Biochemistry) course at London University.

J.862 1954-55

J.863 1956-57

J.864 1958-59

J.865 1960-66

- J.866 Young, J.Z. various dates 1949-59

 Correspondence 1958-59 is on research on fluids of the inner ear.
- J.867 Yudkin, J. 1949, 1956, 1966-69, 1975-76

 Mainly research and publications on sucrose; later correspondence is re Executive Health.
- J.868 Zuckerman, S. 1957, 1964

 Correspondence 1964 is on contents of proposed 'Time Capsule'.

J.869- J.931	SHORTER SCIENTIFIC CORRESPONDENCE (INDEXED)					
	J.869	1931	J.875	1933,	November, December	
	J.870	1932, May-September	J.876	1934		
	J.871	1932, October	J.877	1935		
	J.872	1932, December	J.878	1936		
	J.873	1933, January	J.879	1937		
	J.874	1933, March-September	J.880	1938,	1939	
	J.881	1941 -45	J.884	1948		
	J.882	1946	J.885	1949		
	J.883	1947				
	J.886	1950	J.893	1956,	January-June	
	J.887	1951	J.894	1956,	September-November	
	J.888	1952	J.895	1957		
	J.889	1953	J.896	1958,	January-July	
	J.890	1954, January, February	J.897	1958,	August - December	
	J.891	1954, March-December	J.898	1959		
	J.892	1955				

J.899	1960	J.907	1966, January-June
J.900	1961	J.908	1966, July-December
J.901	1962	J.909	1967
J.902	1963	J.910	1968, January-March
J.903	1964, May-June	J.911	1968, April-July
J.904	1964, September-December	J.912	1968, August-December
J.905	1965, January-May	J.913	1969
J.906	1965, July-November		
J.914	1970, January-March	J.922	1974, September-December
J.915	1970, April-June	J.923	1975
J.916	1970, September-December	J.924	1976, February-June
J.917	1971	J.925	1976, August-November
J.918	1972, February-April	J.926	1977
J.919	1972, September-December	J.927	1978
J.920	1973	J.928	1979
J.921	1974, January-July		
J.929	1980, January-May	J.931	1981
J.930	1980, June-November		

J.932- J.985	UNINDEXED CORRESPONDENCE				
J. 932- J. 951	Exchanges of reprints, requests and thanks for reprints received or made by Krebs.				
	20 folder	rs in chronological order.			
	J.932	1925, 1926	J.942	1967	
	J.933	1932	J.943	1968	
	J.934	1933	J.944	1969	
	J.935	1934, 1936	J.945	1970, 1971	
	J.936	1941 -47	J.946	1972, 1973	
	J.937	1950, 1951	J.947	1974	
	J.938	1952, 1953	J.948	1975	
	J.939	1954-59	J.949	1976, 1977	
	J.940	1960-64	J.950	1978	
	J.941	1965, 1966	J.951	1980-82	
J.952- J.965		and thanks for specimens of re eceived by Krebs.	esearch mat	erial, methods and assays	
	14 folder	rs in chronological order.			
	J.952	1933	J.959	1960, 1962	
	J.953	1945-49	J.960	1963-66	
	J.954	1950, 1951	J.961	1967-69	
	J.955	1952, 1953	J.962	1970, 1971	
	J.956	1954	J.963	1972-74	
	J.9 <i>5</i> 7	1955	J.964	1976	
	J.958	19 <i>57-</i> 59	J.965	1977, 1979, n.d.	

J.966- Miscellaneous shorter correspondence on books, articles, etc., including
J.978 letters of thanks for books, etc. sent to Krebs.

13 folders in chronological order.

J.966	1941, 1947	J.973	1972
J.967	1952-57	J.974	1973, 1974
J.968	1960-62	J.975	1975-77
J.969	1963, 1965	J.976	1978
J.970	1966, 1967	J.977	1979
J.971	1968, 1969	J.978	1980, 1981, n.d.
J.972	1970, 1971		

J.979 - Brief correspondence on general scientific topics, research, exchanges of J.985 information, etc.

7 folders in chronological order.

J.979	1962-66	J.983	1977-79
J.980	1969, 1970	J.984	1980
J.981	1 971 -73	J.985	1981
J.982	1975, 1976		

SECTION K

REFERENCES AND APPOINTMENTS, 1946-82 K.1 - K.72

Krebs's opinion was much valued and sought by individuals and by organisations throughout the world. The folders below may include requests for advice on any or all of the following subjects:

University appointments of Professors, Heads of Department, Lecturers

College Fellowships or research posts

Appointments to research laboratories and institutions

Promotions or special awards in universities or government departments

Research grants and funding

Awards of prizes or medals

Reports on papers submitted for publication

There are also individual requests for advice on publications, research plans, careers and personal matters; these are at K.53 - K.72.

MATERIAL IN THIS SECTION IS SUBJECT TO RESTRICTION

References and appointments

K.1-	THESES AND HIGHER DEGREES
K.31	

31	folders	in	chrono	logical	order
100000				5	

K.31

K.1	1948	K.16	1968 (1)
K.2	1949	K.17	1968 (2)
K.3	1950, 1951	K.18	1969 (1)
K.4	1952	K.19	1969 (2)
K.5	1953	K.20	1970
K.6	1954	K.21	1971 (1)
K.7	1955, 1956	K.22	1971 (2)
K.8	1957 (1)	K.23	1971 (3)
K.9	1957 (2)	K.24	1972 (1)
K.10	1958 (1)	K.25	1972 (2)
K.11	1958 (2)	K.26	1973
K.12	1959, 1960	K.27	1974
K.13	1963	K.28	1975
K.14	1964, 1965	K.29	1976
K.15	1966	K.30	1981

n.d. (probably 1950s)

K.51

1974, 1975

References and appointments

K.32- K.45	REFERENCES AND RECOMMENDATIONS FOR POSTS IN UNIVERSITIES AND INSTITUTIONS					
	14 folde	ers in chronological order				
	K.32	1946, 1947	K.39	1968		
	K.33	1951-54	K.40	1969, 1970		
	K.34	1955-58	K.41	1971, 1972		
	K.35	1959-62	K.42	1973, 1974		
	K.36	1963, 1964	K.43	1975, 1976		
	K.37	1965, 1966	K.44	1977, 1978		
	K.38	1967	K.45	1979-82		
K.46- K.49	GRANT APPLICATIONS AND SCHOLARSHIPS					
K.47	4 folder	s in chronological order				
	K.46	1954-70	K.48	1975-79		
	K.47	1971 -74	K.49	1980, 1981		
K.50-	PRIZES AND MEDALS					
K.52	3 folders in chronological order					
	K.50	1955-73	K.52	1976-79		

References and appointments

K.53-	PERSONAL REQUESTS FOR ADVICE ON DRAFTS, PUBLICATIONS, ETC.
K.58	
	6 folders in chronological order

K.53	1951, 1952	K.56	1971, 1973
K.54	1957-61	K.57	1974-77
K.55	1969	K.58	1978-80

K.59- PERSONAL REQUESTS FOR REFERENCES AND CAREER ADVICE K.72

10 folders in chronological order

K.59	1951 -53	K.64	1970-72
K.60	1955	K.65	1973, 1974
K.61	1958, 1959	K.66	1975, 1976
K.62	1964-66	K.67	1977, 1979
K.63	1967, 1969	K.68	1980, 1981

4 folders in alphabetical order

K.69 L K.71 M (2) K.70 M (1) K.72 R

CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

Catalogue of the papers and correspondence of

SIR HANS ADOLF KREBS, FRS

(1900-1981)

Compiled by Jeannine Alton and Peter Harper

VOLUME V

Section L
Bibliographies
Conspectus
Index of correspondents

Deposited in the Library Sheffield University

CSAC 113/4/86

All rights reserved

SECTION L

NON-PRINT MATERIAL L.1-L.108

LIST OF CONTENTS

L.1 -L.78	PHOTOGRAPHS
L.1 -L.11	Photograph Albums
L.12-L.23	Photographs of Krebs
L.24-L.30	Krebs's departments or laboratories
L.31-L.44	Scientific colleagues
L.45-L.56	Conferences and groups
L.57-L.72	Family and personal
L.73	Otto Warburg
L.74-L.76	Reminiscences and Reflections
L.77, L.78	Miscellaneous
L.79, L.80	NEGATIVES
L.81, L.82	PHOTOGRAPHIC PLATES
L.83 -L.86	PHOTOGRAPHIC SLIDES
L.87 -L.95	AUDIOTAPES AND CASSETTES
L.96 -L.98	VIDEOTAPES
L.99	FILM
L.100-L.108	MICROFILMS

L.1-L.78 PHOTOGRAPHS

L.1- Photograph Albums

L.11

L.1 List of contents only of family photograph album entitled 'Heimat und Familie'.
The album is retained by J.R. Krebs.

This album was apparently compiled for Krebs by Maria Krebs for his birthday in 1937. Most photographs or groups of photographs have ms identifications or descriptions by the compiler and there are a small number of later notes by Krebs and additional identifications on postcards in another hand. One or two items for which there are ms. identifications, including the announcement of Krebs's birth, are already missing from the album.

Contents include the following photographs or groups of photographs: Old Hildesheim; Krebs family homes; 'Congratulatory Poem on Hans' birth by Mohr Traube with reply (on back) by Vater'; Gymnasium Andreanum; Krebs's parents and their families; Hans, Lise and Wolfgang Krebs as children; 'Erntedienst im Kriege'; 'Im Weltkrieg 1918'; 'Studentzeit'; Lise Krebs (1932); Adolf and Lise Daniel (née Krebs); Krebs's father, Maria Krebs and Gisela (half-sister, b.1932); Wolfgang and Lotte Krebs.

L.2 List of contents only of untitled family photograph album retained by J.R. Krebs.

According to a manuscript note by Krebs inside the front cover, this album was compiled in 1947. Most photographs or groups of photographs have ms identification or descriptions by Krebs. At least one item for which there is a ms. identification is missing from the album ('With Walter Auerbach at Wiesbaden April 1932'). Probably now at L.75.

Contents include the following photographs or groups of photographs:
Hildesheim (postcards); Krebs family home destroyed 1944; Göttingen, 1919 and 1920, with Erich Stern; family photographs 1920s; US visit 1929; Altona, Städtisches Krankenhaus, 1930–31 (Krebs in laboratory, colleagues including L. Lichwitz); 'Departure from Altona March 1931' (Poem); Wiesbaden Congress April 1932 (colleagues including F.D. Bielschowsky, S.J. Thannhauser); Freiburg 1932–33 (medical clinics, Krebs's living quarters, colleagues, skiing holiday Black Forest); Cambridge 1934; various outings and holidays mid–1930s (colleagues and friends depicted include the Osterns, Friedmanns, Auerbachs and Dr. Murray Luck and family); miscellaneous photographs of Krebs, family and friends mid–1930s to mid–1950s. Loose items include brief correspondence with Kate Gruen (Altona colleague) 1970s.

L.3 Small format photograph album (German in origin), dated 25 August 1935.
Contents include photographs of Cambridge Biochemical Laboratory, King's College, holidays, etc.

L.4 Blue large format album entitled 'Biochemists', and covering period ?1929-56.

Contents include portrait photographs of E. Mellanby, O. Meyerhof, A. Baird Hastings and S. J. Thannhauser (signed and dated May 1933); group photograph of biochemists associated with Sir Frederick Gowland Hopkins (taken at King's College, Cambridge, during the First International Congress of Biochemistry August 1949), photographs of participants at symposia at University of Wisconsin, September 1941 and September 1947 and of CIBA Foundation conferences of July 1952 (with key) and March 1956, and shipboard photographs in respect of Krebs's ?1929 and 1951 US visits.

Album also includes programmes of CIBA conferences and newspaper cutting re Second International Biochemical Congress, 1952.

L.5 Green large format album entitled 'Department of Biochemistry University of Sheffield 1950', and covering period 1950-54 with a few earlier photographs 1939, 1945-46.

Contents comprise photographs of Krebs, members of department, laboratories (including Scala Cinema conversion) and apparatus; participants at conferences organised at Sheffield including Society for Experimental Biology Symposium on Carbon Dioxide Fixation 1950 (group photograph with key and individual photographs of H. Blaschko, M. Calvin, S. Ochoa, H.G. Wood), Biochemical Society meeting 1951 and Society for Experimental Biology meeting 1953; Krebs's exodus from Sheffield 1954.

Miscellaneous items of interest include:

Photograph of Earl A. Evans buying a newspaper in Sheffield. The photograph, which is signed and dated 4 September 1939, appeared in the Sheffield Telegraph under the caption 'Business as usual'.

Photograph of R.E. Davies pole-vaulting, 1946.

Photograph of members of cave diving group (R.E. Davies, D.E. Hughes and H.L. Kornberg), 1950.

Undated photograph of H.L. Kornberg in evening dress in the laboratory.

- Large format green album with photographs of American biochemists, January-May 1958, and F. Cedrangolo and staff, Naples, 1960.
- L.7 Album of photographs 1966: Lindau meeting, honorary degree ceremony Bordeaux, visits to Hildesheim (created freeman) and Galveston.
- L.8 Small format green album with photographs of members of Metabolic Research Laboratory, 1969.

- L.9 Album with photographs of members of Metabolic Research Laboratory, 1974.
- L.10 Boehringer Ingelheim symposium on 'The creative process in science and medicine', Kronberg, May 1974. See E.36-E.42.
- L.11 Sequence of mounted photographs, 1960-65, all identified and perhaps intended to be made up into an album later.

 Photographs relate to visits, meetings and honorary degree ceremonies.

L.12- Photographs of Krebs L.23

L.12 Early photographs of Krebs.

One of Krebs in laboratory is identified on verso as taken at Altona, 1930.

L.13 1945

n.d. ?1940s

1950 (with covering letter)

- L.14 University of Wisconsin, Madison, 1954Lindau, 1960
- L.15 Miscellaneous photographs, 1965, 1966.
- L.16 Metabolic Research Laboratory, 1975.
- L.17 'Pour le Mérite', Bonn, May 1973.CIBA Foundation lecture, 1978.
- L.18 Pennsylvania State University, 1979.

Five copies of portrait photograph, used on dust-jacket of auto-biography (Bibliog. 391); related correspondence.

L.19	Meeting on Stress, Montecarlo, November 1979.
	Honorary Degree Ceremony, Indianapolis, May 1980.
L.20	Medical College of Georgia, Augusta, November 1980.
	Kiawah Island Symposium, November 1980.
L.21	Late undated studio portrait.
L.22	Miscellaneous later undated photographs.
L.23	Large mounted photograph undated.
L.24- L.30	Krebs's departments or laboratories
L.24	Members of Sheffield Biochemistry Department (with key), December 1948.
L.25, L.26	Krebs, members of Sheffield Department, laboratories, 1950. Duplicates of photographs in L.5. 2 folders.
L.27	Presentation tray with engraved signatures of colleagues; Krebs's message of thanks, 18 February 1954.
L.28	Members of Sheffield Biochemistry Department, June 1954. Duplicate of photograph in L.5.
L.29	Views of Oxford Biochemistry Department extension, some dated 1963 and 1964
1 30	Metabolic Research Laboratory, visitors, 1979

Visit from Gymnasium Andreanum, April 1980.

- L.31- Scientific colleagues
- L.44
- L.31 German colleagues, ? Altona.
- L.32 H.G. Wood at Sheffield, 1950

 Duplicates of photographs in L.5.
 - R.E. Davies at Oxford, 1951.
- L.33 A.L. Lehninger at Sheffield, 1952.

On board R.M.S. Ascania, August 1953.

Photographs of colleagues including C. de Duve and H. McIlwain.

- L.34 T.H. Wilson, ? Sheffield, September 1953.
 - E. Racker, October 1953.
 - H.L. Kornberg and D. Sprinson, Columbia, October 1953.
- L.V. Eggleston, Old Physiology Laboratory, Oxford, July 1955.
- L.36 Krebs with F.A. Lipmann at Welch Foundation Symposium, Houston, December 1961.

Krebs with G. Weber, Indianapolis, October 1963.

- L.37 Maria Erecinska, 1966, 1967.
- L.38 Krebs with A. Szent-Győrgi, Brunel, 1978.
- L.39 Miscellaneous colleagues, 1980.
- L.40 O.H. Warburg, n.d.

Portrait photograph; photograph of grave.

- L.41 J.S.D. Bacon, n.d.
- L.42 Russian colleagues, n.d.
- L.43 Colleagues including F.A. Lipmann, n.d.
- L.44 Miscellaneous, n.d.
- L.45- Conferences and groups
- L.56
- L.45 XVI Internationaler Physiologen Kongress, Zurich, 14-19 August 1938.Group photograph with key.
- L.46 Society for Experimental Biology Symposium on Carbon Dioxide Fixation,
 Sheffield, July 1950.
 Duplicate of group photograph in L.5.
- L.47 2nd International Biochemical Congress, Paris, July 1952.
 Photographs of colleagues including J.S. Fruton, A. Baird Hastings, J. Murray Luck and R.E. Davies.
- L.48 Department of Physiological Chemistry, University of Wisconsin, April 1954.
 Duplicate of photograph in L.4.
 Atlantic City 'Smoker', April 1954.
- L.49 Joint Meeting of Belgian and British Biochemical Societies, Oxford, 12 and 13 August 1957.
- Lindau meeting, 1969.Tenth Symposium on Enzyme Regulation, Indianapolis, 1971.
- L.51 Stockholm, 1973.

 Photographs of colleagues including E.C. Slater and E. Racker.

- L.52 Inauguration of the library and archives for the history of the Max-Planck-Gesellschaft (Otto-Warburg-Haus), March 1978.

 Krebs with R. Schmid and H. Rotta.
- L.53 Pour le mérite meeting, Bonn, May 1978.
- L.54 Lindau meeting, June 1978.

 Reisenburg, July 1978.
- L.55 Oxford Students Biochemical Society Dinner, November 1978.

 'In memory of the Editorial Board Session on May 22, 1979'.
- L.56 Lynen Memorial Meeting, Munich, February 1980.Mainau, July 1981.
- L.57- Family and personal L.72
- L.57 Eight views of Hildesheim from a commercially produced collection of twelve. For the missing four views see L.75.
- L.58 Homes, including house in Hildesheim destroyed during Second World War.
- L.59 Photograph of Krebs with friend, c.1904.Krebs's typescript note accompanies the photograph.
- L.60 Early school photographs sent to Krebs in 1966.Group photograph, First World War period.
- L.61 Adolf Daniel, 1921.
 Adolf and Lise Daniel (née Krebs) with Wolfgang Krebs, 1926.
 Georg Krebs with children and son-in-law, 1926.

- L.62 Girlfriend of Krebs (nurse at Altona).Krebs's living quarters, Freiburg.
- L.63 Georg and Maria Krebs, n.d.
- L.64 Miscellaneous German views, one dated April 1934,
- L.65 Cambridge, 1930s.
 Holidays, 1930s.
- L.66 Krebs's wedding photograph (with key), 1938.
 Margaret Krebs, c.1939.
- L.67 'Talene' (Helene Fuld), 1941.
 Gisela Krebs, 1946.
- L.68 Krebs children, c.1946.Krebs family on holiday, 1950.
- L.69 Kurt and K\u00e4the Davidson, 1952.Krebs family, 1953.
- L.70 Family reunion, 1954.

 Krebs family and friends, 1955.
- L.71 Ursula Lück, Hildesheim, 1966.
- L.72 Photographs taken in the garden, Abberbury Road, September 1974.

 Krebs, sister, son-in-law, grandchildren.

L.73 Otto Warburg (Bibliog. 384)

Photograph of Kaiser Wilhelm Institute for Cell Physiology, Berlin-Dahlem, used for Plate 4 of Krebs's Warburg biography.

Photograph of Warburg's country house on the island of Rügen, mounted and annotated by Krebs.

- L.74- Reminiscences and Reflections (Bibliog. 391).
- L.76
- Photocopies of photographs for Plate 1 (Krebs's parents), Plate 3a (Krebs as a student, about 1922) and Plate 5 (Nobel Prize-giving ceremony) of Krebs's autobiography; also two further photocopies of photographs of Nobel Prize-giving ceremony and Krebs lecturing on the citric acid cycle. Original photographs retained by J.R. Krebs.
- L.75 Photographs used for Plate 2 (Hildesheim) and Plate 3b (Krebs at the congress of Internal Medicine, 1932) of autobiography.
- L.76 Photographs used for Plate 4 (F.G. Hopkins and T. Thunberg, 1936), Plate 7 (Krebs with his team, 1974) and Plate 8 (Krebs with R. Estabrook, S. Ochoa, K. Bloch and C. Cori, 1980) of the autobiography.
- L.77, Miscellaneous

L.78

L.77 Nobel document.

Nobel document and 1937 Nature letter.

L.78 University of Indiana, Bloomington; Purdue University, Lafayette, Indiana, c.1953.

Photographs identified on verso by H.L. Kornberg.

L.79, L.80 NEGATIVES

- L.79 Miscellaneous 1930s negatives. Many but not all are represented by photographs in L.3.
- L.80 Krebs's living quarters in Freiburg (see L.62); Krebs on bicycle, n.d.; Nobel document and 1937 Nature letter.

L.81, L.82 PHOTOGRAPHIC PLATES

- L.81 Photographic plate, Krebs, n.d. ? 1930s.
- L.82 Three glass photographic plates to accompany lecture on smoking and lung cancer, c.1958.

L.83-L.86 PHOTOGRAPHIC SLIDES

- L.83 2 slides of Krebs, 1973; 1 slide of Krebs with Russian colleague at Indianapolis, 1974.
- L.84 6 slides of Krebs, one dated in 1973, one (with Koala Bear) dated in 1976.
- L.85 4 slides of Krebs; 2 of Krebs with team, n.d. ? 1970s.
- L.86 Visit to California, n.d.

L.87-L.95 AUDIOTAPES AND CASSETTES

- L.87 Tape-recording of talk at Federation of American Biological Chemists meeting, Atlantic City, April 1954 (2 reels).
 - The speakers were Krebs, F. Lipmann and C. Neuberg (Wright Wilson in the chair).
- L.88 Cassette-recording of 'Speech by Philip Randle (and Dorothy Hodgkin) at Hon. Degree Ceremony, Bristol, 12 July 1973'.

- L.89 Cassette-recording of Krebs's plenary lecture at Australian Biochemical Society meeting, Armidale, New South Wales, 8 May 1976.
- L.90 Three cassette-tapes of interview for Imperial War Museum Oral History Programme, made October 1979.
- L.91 Cassette-recording of interview by J.R. Maddox for BBC Radio 'Scientifically Speaking' programme, September 1979.
- L.92 Tape-recording of interview on Biological Aspects of Juvenile Delinquency for Radio UNESCO, 25 February 1980.
- L.92A Forwarding correspondence for L.92.
- L.93 Cassette-recording of BBC radio 'Science Now' programme, dated 30 June 1981.
- L.94 Unidentified tape (probably of German origin).
- L.95 Unidentified tape.

L.96-L.98 VIDEOTAPES

- L.96 Television recording (videotape) of lecture on history of tricarboxylic acid cycle, Indianapolis, 2 October 1968.
- L.97 Videotape of lecture given by Krebs on the history of the tricarboxylic acid cycle, at the University of Miami.
 Dated in error by Krebs '1962 or so'. Probably 1970 or 1972.
- L.98 Videotape of lecture given by Krebs on the history of the tricarboxylic acid cycle, Philadelphia, 29 September 1977.

L.99 FILM

'Nobel Awards, 1953'.

L.100- MICROFILMS

L.108

L.100- Microfilms of transcripts of conversations between Krebs and F.L. Holmes and L.103 made available by Holmes for the present collection (4 reels).

L.100 Vols. 1-3 L.102 Vols. 7 (part)-10 (part)

L.101 Vols. 4-7 (part) L.103 Vols. 10 (part) -12

Professor Holmes has written the following statement to accompany the material:

'These are unedited transcripts of conversations that took place between Sir Hans Krebs and Frederic L. Holmes between the years 1976 and 1981. They were originally intended to acquire information for the specific purpose of a book that Holmes intended to write concerning the early scientific career of Krebs. The discussions therefore center on the period 1900 to 1940, although there are some scattered discussions of later events.

Although the transcripts have been corrected by Holmes after they were typed by a secretary, there remain a substantial number of errors, especially with respect to proper names. Users of the tapes should therefore expect to check such information against written sources.

Sir Hans Krebs requested before his death that anyone using these tapes should take into account that his answers to the questions posed were extemporaneous, and that he did not subsequently have the opportunity to check the transcripts. He should therefore not be expected to be accurate in all the technical details of the subjects he discussed.'

Special terms of restriction apply to this material.

L.104- Microfilms of Krebs's laboratory notebooks (5 reels).

L.108

BIBLIOGRAPHY

The following Bibliography of 396 items is that which appears on microfiche to accompany the Royal Society Memoir (Biographical Memoirs of Fellows of the Royal Society, 30, 1984, 351 - 385). References in all sections of the catalogue are to this list, in the form (Bibliog. . . .).

It should be noted that the Memoir itself refers only to a selection of 121 papers which are printed in a numbered list after the text. These numbers do not correspond to the Bibliography and have not been used in the compilation of the catalogue.

- [1] 1923. Die Färbung des Skelettmuskels mit Anilinfarbstoffen.

 Arch. mikroskp. Anat. [Entw. Mech.] 97, 557.
- [2] 1925. Zur Goldsolreaktion im Liquor cerebrospinalis. Klin. Wschr. 4, 1309.
- [3] Die Flockung des kolloidalen Goldes durch Eiweisskörper.

 Biochem. Z. 159, 311.
- Die Theorie der Kolloidreaktionen im Liquor cerebrospinalis.

 Z. Immun. Forsch. exp. Ther. 44, 75.
- [5] Zur Theorie der Weichbrodtschen Sublimatreaktion im Liquor cerebrospinalis. <u>Dt. med. Wschr.</u> 51, 1771.
- [6] 1926. (With A. WITTGENSTEIN.) Studien zur Permeabilität der Meningen unter besonderer Berücksichtigung physikalischchemischer Gesichtspunkte. Z. ges. exp. Med. 49, 553.
- [7] (With A. WITTGENSTEIN.) Untersuchungen über die Permeabilität der Meningen. Dt. med. Wschr. 52, 1161.
- [8] (With A. WITTGENSTEIN.) Die Abwanderung intravenös eingeführter Substanzen aus dem Blutplasma. Ein Beitrag zum Permeabilitätsproblem und zur Theorie der Giftwirkung.

 I. und II. Mitteilung. Pflüger's Arch. ges. Physiol. 212, 268.
- [9] (With A. WITTGENSTEIN.) Über die Abwanderung intravenös eingeführter Farbstoffe aus dem Blutplasma. Klin. Wschr. 5, 320.
- [10] (With P. RONA.) Physikalisch-chemische Untersuchungen über die Isohämagglutination. I. Mitteilung: Die Bedeutung der Elektrolyte bei der Isohämagglutination. Biochem. Z. 169, 266.

- [11] 1927. (With D. NACHMANSOHN.) Vitalfärbung und Adsorption.

 Biochem. Z. 186, 478.
- [12] Über die Rolle der Schwermetalle bei der Autoxydation von Zuckerlösungen. <u>Biochem. Z. 180</u>, 377.
- [13] Über den Stoffwechsel der Netzhaut. Biochem. Z. 189, 57.
- [14] (With F. KUBOWITZ.) Uber den Stoffwechsel von Carcinomzellen in Carcinomserum und Normalserum. Biochem. Z.
 189, 194.
- [15] (With O. WARBURG.) Über locker gebundenes Kupfer und Eisen im Blutserum. Biochem. Z. 190, 143.
- [16] Über den Stoffwechsel der Tumoren. <u>Biologischen Zentral-</u> blatt 47, 59.
- [17] 1928. Uber das Kupfer im menschlichen Blutserum. Klin. Wschr. 7, 584.
- [18] Über die Wirkung von Kohlenoxyd und Licht auf Häminkatalysen.

 Biochem. Z. 193, 347.
- [19] Über die Chemische Konstitution des Atmungsferments.
 Klin. Wschr. 7, 1047.
- [20] 1929. Über die Wirkung von Kohlenoxyd und Blausäure auf Hämatinkatalysen. Biochem. Z. 204, 322.
- [21] Über die Wirkung der Schwermetalle auf die Autoxydation der Alkalisulfide und des Schwefelwasserstoffs. <u>Biochem. Z.</u>

 204, 343.
- [22] Stoffwechsel der Zellen und Gewebe. In: Methodik der wissenschaftlichen Biologie, Vol. 2, p. 1049.
- [23] Über Hemmung einer Hämatinkatalyse durch Schwefelwasserstoff.

 Biochem. Z. 209, 32.
- [24] (With J.F. DONEGAN.) Manometrische Messung der Peptidspaltung. <u>Biochem. Z. 210</u>, 7.

- [25] 1930. Manometrische Messung des Kohlensäuregehaltes von Gasgemischen. Biochem. Z. 220, 250.
- [26] Manometrische Messung der fermentativen Eiweisspaltung.

 Biochem. Z. 220, 283.
- [27] Versuche über die proteolytische Wirkung des Papains.
 Biochem. Z. 220, 289.
- [28] Über "Aktivierung" proteolytischer Fermente. Naturwissenschaften 18, 736.
- [29] 1931. Über die proteolytische Wirkung von Papain und Kathepsin.

 Naturwissenschaften 19, 133.
- [30] Über die Wirkung der Monojodessigsäure auf den Zellstoffwechsel. <u>Biochem. Z. 234</u>, 278.
- [31] (With H. ROSENHAGEN.) Über den Stoffwechsel des Plexus chorioideus. Z. ges. Neurol. Psychiat. 134, 643.
- [32] Manometrische Messung der Eiweisspaltung. In: Abderhalden's

 Handbuch der biologischen Arbeitsmethoden, Section IV,

 Part 1, p. 871.
- [33] Über die Proteolyse der Tumoren. Biochem. Z. 238, 174.
- [34] 1932. (With K. HENSELEIT.) Untersuchungen über die Harnstoffbildung im Tierkörper. Klin. Wschr. 11, 757.
- [35] (With K. HENSELEIT.) Untersuchungen über die Harnstoffbildung im Tierkörper. II. Klin. Wschr. 11, 1137.
- [36] (With K. HENSELEIT.) Untersuchungen über die Harnstoff-bildung im Tierkörper. Hoppe-Seyler's Z. physiol. Chem. 210, 33.
- [37] Untersuchungen über den intermediären Eiweisstoffwechsel.

 Klin. Wschr. 11, 1692.

- [38] Über den Stoffwechsel der Aminosäuren im Tierkörper.

 Klin. Wschr. 11, 1744.
- [39] 1933. (H. WESTERKAMP.) Über Ketosäuren im Blutserum.

 Biochem. Z. 263, 239.
- [40] (H. MANDERSCHEID.) Über die Harnstoffbildung bei den Wirbeltieren. Biochem. Z. 263, 245.
- [41] Untersuchungen über den Stoffwechsel der Aminosäuren im Tierkörper. Hoppe-Seyler's Z. physiol. Chem. 217, 191.
- [42] Weitere Untersuchungen über den Abbau der Aminosäuren im Tierkörper. Hoppe-Seyler's Z. physiol. Chem. 218, 157.
- [43] (P. OSTERN.) Methode zur Bestimmung von Oxalessigsäure.

 Hoppe-Seyler's Z. physiol. Chem. 218, 160.
- [44] (With H. EITEL and A. LOESER.) Hypophysenvorderlappen und Schilddrüse. Die Wirkung der thyreotropen Substanz des Hypophysenvorderlappens auf die Schilddrüse in vitro.

 Klin. Wschr. 12, 615.
- [45] (With TH. BENZINGER.) Über die Harnsäuresynthese im Vogelorganismus. Klin. Wschr. 12, 1206.
- [46] Grösse der Atmung und Gärung in lebenden Zellen. In:

 Oppenheimer's Handb. Biochem. 2. Auflage, Ergänzungswerk I,

 863.
- [47] Abbau der Fettsäuren. In: Oppenheimer's Handb. Biochem. 2.

 Auflage, Ergänzungswerk I, 936.
- [48] Abbau der Aminosauren. In: Oppenheimer's Handb. Biochem. 2.

 Auflage, Ergänzungswerk I, 939.
- [49] Atmung und Gärung in lebenden Zellen. <u>Tabul. Biol.</u>

 <u>III</u>, 209.

- [50] 1934. Über die Harnstoffbildung in der Leber. Hoppe-Seyler's Z. physiol. Chem. 230, 278.
- [51] Urea formation in the animal body. <u>Ergebn. Enzymforsch.</u>

 III, 247.
- [52] 1935. Metabolism of amino-acids. III. Deamination of amino-acids.

 Biochem. J. 29, 1620.
- [53] Metabolism of amino-acids. IV. The synthesis of glutamine from glutamic acid and ammonia, and the enzymic hydrolysis of glutamine in animal tissues. Biochem J. 29, 1951.
- [54] (With H. WEIL-MALHERBE.) Metabolism of amino-acids. V.

 The conversion of proline into glutamic acid in kidney.

 Biochem. J. 29, 2077.
- [55] (With H. WEIL.) Untersuchungen über die Urikolytischen Fermente (Uricase, Allantoinase, Allantoicase). In:

 Problèmes de Biologie et de Médecine, Éditions de l'État de la Littérature biologique et médicale, Moscou/
 Leningrad, p. 32.
- [56] 1936. (With N.L. EDSON.) Micro-determination of uric acid. Biochem. J. 30, 732.
- [57] (With N.L. EDSON and A. MODEL.) The synthesis of uric acid in the avian organism: hypoxanthine as an intermediary metabolite. <u>Biochem. J. 30</u>, 1380.
- [58] Intermediate metabolism of carbohydrates. Nature Lond. 138, 288.
- [59] Metabolism of amino acids and related substances. Ann.

 Rev. Biochem. 5, 247.
- [60] 1937. (With W.A. JOHNSON.) Metabolism of ketonic acids in animal tissues. Biochem. J. 31, 645.
- [61] Dismutation of pyruvic acid in Gonococcus and Staphylococcus.

 Biochem. J. 31, 661.
- [62] (With W.A. JOHNSON.) The role of citric acid in intermediate metabolism in animal tissues. Enzymologia 4, 148.

- [63] The intermediate metabolism of carbohydrates. Lancet ii,
- [64] (With W.A. JOHNSON.) Acetopyruvic acid (αγ-diketovaleric acid) as an intermediate metabolite in animal tissues. Biochem. J. 31, 772.
- [65] The role of fumarate in the respiration of <u>Bacterium</u> coli commune. <u>Biochem. J. 31</u>, 2095.
- [66] Intermediary hydrogen-transport in biological oxidations.

 In: Perspectives in Biochemistry, Cambridge University

 Press, p. 150.
- [67] 1938. Micro-determination of α-ketoglutaric acid. Biochem. J. 32, 108.
- [68] (With E. SALVIN and W.A. JOHNSON.) The formation of citric and α-ketoglutaric acids in the mammalian body.

 Biochem. J. 32, 113.
- [69] (With L.V. EGGLESTON.) The effect of insulin on oxidations in isolated muscle tissue. Biochem. J. 32, 913.
- [70] Metabolism of amino acids and proteins. Ann. Rev. Biochem.
 7, 189.
- [71] 1939. (P.P. COHEN.) Microdetermination of glutamic acid.

 Biochem. J. 33, 551.
- [72] (With A. ÖRSTRÖM.) Microdetermination of hypoxanthine and xanthine. Biochem. J. 33, 984.
- [73] (With A. ÖRSTRÖM and M. ÖRSTRÖM.) The formation of hypoxanthine in pigeon liver. Biochem. J. 33, 990.
- [74] (With A. ÖRSTRÖM, M. ÖRSTRÖM and L.V. EGGLESTON.) The synthesis of glutamine in pigeon liver. Biochem. J. 33, 995.
- [75] (W.A. JOHNSON.) Aconitase. <u>Biochem. J.</u> 33, 1046.

- [76] (P.P. COHEN.) Transamination in pigeon breast muscle.

 Biochem. J. 33, 1478.
- [77] The oxidation of d(+)proline by d-amino acid oxidase.

 Enzymologia 7, 53.
- [78] (With L.V. EGGLESTON.) Bacterial urea formation.

 (Metabolism of Corynebacterium ureafaciens). Enzymologia

 7, 310.
- [79] With P.P. COHEN.) Metabolism of α-ketoglutaric acid in animal tissues. Biochem. J. 33, 1895.
- [80] (With P.P. COHEN.) Glutamic acid as a hydrogen carrier in animal tissues. Nature, Lond. 144, 513.
- [81] 1940. (With L.V. EGGLESTON.) The oxidation of pyruvate in pigeon breast muscle. Biochem. J. 34, 442.
- [82] The citric acid cycle. Biochem. J. 34, 460.
- [83] The citric acid cycle and the Szent-Győrgyi cycle in pigeon breast muscle. Biochem. J. 34, 775.
- [84] (E.A. EVANS, Jr.) The metabolism of pyruvate in pigeon liver. Biochem. J. 34, 829.
- [85] (With D.H. SMYTH and E.A. EVANS, Jr.) Determination of fumarate and malate in animal tissues. Biochem. J. 34, 1041.
- [86] (With L.V. EGGLESTON, A. KLEINZELLER and D.H. SMYTH.)

 The fate of oxaloacetate in animal tissues. Biochem. J.

 34, 1234.
- [87] (A. KLEINZELLER.) The effect of electrolytes on the respiration of pigeon breast muscle. Biochem. J. 34, 1241.
- [88] (With L.V. EGGLESTON.) Biological synthesis of oxaloacetic acid from pyruvic acid and carbon dioxide. Biochem. J. 34, 1383.

- [89] (D.H. SMYTH.) Vitamin B₁ and the synthesis of oxaloacetate by Staphylococcus. Biochem. J. 34, 1598.
- [90] 1941. Carbon dioxide assimilation in heterotrophic organisms.

 Nature, Lond. 147, 560.
- [91] (A. KLEINZELLER.) The formation of succinic acid in yeast. Biochem. J. 35, 495.
- [92] (With L.V. EGGLESTON.) Biological synthesis of oxaloacetic acid from pyruvic acid and carbon dioxide. 2. The mechanism of carbon dioxide fixation in propionic acid bacteria.

 Biochem. J. 35, 676.
- [93] 1942. (With K. MELLANBY.) Digestibility of national wheatmeal.

 Lancet i, 319.
- [94] (With D.M. STEPHENSON.) The utilisation of carbon dioxide by heterotrophic bacteria and animal tissues. Ann. Rep. Chem. Soc. 38, 257.
- [95] The effect of inorganic salts on the ketone decomposition of oxaloacetic acid. Biochem. J. 36, 303.
- [96] (With M.M. HAFEZ and L.V. EGGLESTON.) Indole formation in Bacterium coli commune. Biochem. J. 36, 306.
- [97] Urea formation in mammalian liver. Biochem. J. 36, 758.
- [98] 1943. The intermediary stages in the biological oxidation of carbohydrate. Adv. Enzymol. 3, 191.
- [99] Urea synthesis in mammalian liver. Nature, Lond. 151, 23.
- [100] Carbon dioxide assimilation in heterotrophic organisms.

 Ann. Rev. Biochem. 12, 529.
- [101] (With L.V. EGGLESTON.) The effect of citrate on the rotation of the molybdate complexes of malate, citramalate and isocitrate. Biochem. J. 37, 334.

- [102] (With K. MELLANBY.) The effect of national wheatmeal on the absorption of calcium. Biochem. J. 37, 466.
- [103] (A. KLEINZELLER.) Oxidation of acetic acid in animal tissue. Biochem. J. 37, 674.
- [104] 1944. (With L.V. EGGLESTON.) Metabolism of acetoacetic acid in animal tissues. Nature, Lond. 154, 209.
- [105] (With L.V. EGGLESTON.) Micro-determination of <u>isocitric</u> and <u>cis-aconitic</u> acids in biological material. <u>Biochem. J.</u> 38, 426.
- [106] 1945. (With the Vitamin A Sub-Committee.) Vitamin A deficiency and the requirements of human adults. Nature, Lond. 156,
- [107] (With L.V. EGGLESTON.) Metabolism of acetoacetate in animal tissues. 1. <u>Biochem. J. 39</u>, 408.
- [108] (With J.C. SPEAKMAN.) Dissociation constant, solubility, and the pH value of the solvent. J. Chem. Soc., p.593.
- [109]1946. (With J.C. SPEAKMAN.) The solubility of sulphonamides in relation to hydrogen-ion concentration. Brit. Med.J.
 i.go/47.
- [110] (J. TOSIC.) Oxidations in Acetobacter. Biochem. J. 40, 209.
- [111] The advent of biochemistry. Inaugural Lecture 8th May,
 The University of Sheffield.
- [112]1947. (With L.V. EGGLESTON and R. HEMS.) Urea synthesis in mammalian liver. Nature, Lond. 159, 808.
- [113] Cyclic processes in living matter. Enzymologia 12, 88.
- [114] (With W.O. SYKES and W.C. BARTLEY.) Acetylation and deacetylation of the p-amino group of sulphonamide drugs in animal tissues. Biochem. J. 41, 622.

- [115] 1948. The D- and L-amino-acid oxidases. Biochem. Soc. Symp. I, 2.
- [116] (With L.V. EGGLESTON.) Metabolism of acetoacetate in animal tissues. 2. Biochem. J. 42, 294.
- [117] (With L.V. EGGLESTON.) Note on the manometric determination of succinic and α-ketoglutaric acids.

 Biochem. J. 43, 17.
- [118] (With Vitamin C Sub-Committee.) Vitamin-C requirement of human adults. Experimental study of vitamin-C deprivation in man. Lancet i, 853.
- [119] (With L.V. EGGLESTON.) Observations on transimination in liver homogenates. <u>Biochim. Biophys. Acta</u> 2, 319.
- [120] Quantitative determination of glutamine and glutamic acid. Biochem. J. 43, 51.
- [121] (With L.V. EGGLESTON and R. HEMS.) Synthesis of glutamic acid in animal tissues. Biochem. J. 43, 406.
- [122] Inhibition of carbonic anhydrase by sulphonamides.

 Biochem. J. 43, 525.
- [123] (With F.J.W. ROUGHTON.) Carbonic anhydrase as a tool in studying the mechanism of reactions involving H₂CO₃, CO₂ or HCO₃. Biochem. J. 43, 550.
- [124] (J.R. STERN.) Carbon dioxide fixation in animal tissues.

 Biochem. J. 43, 616.
- [125] (With W.A. JOHNSON.) Cell metabolism. <u>Tabul. Biol. XIX</u>, 100.
- [126] (With J.B. BIALE.) Oxidative processes in minced flower buds of the cauliflower, <u>Brassica oleracea</u>. <u>Amer. J. Bot.</u> 35, 806.

- [127] 1949. (With L.V. EGGLESTON and R. HEMS.) Distribution of glutamine and glutamic acid in animal tissues.

 Biochem. J. 44, 159.
- [128] (With J.R. STERN, L.V. EGGLESTON and R. HEMS.)

 Accumulation of glutamic acid in isolated brain tissue.

 Biochem. J. 44, 410.
- [129] (With L.V. EGGLESTON.) Optical rotation of the molybdate complex of dextro-isocitric acid. Biochem. J. 45, 578.
- [130] (With A.E. BENDER and N.H. HOROWITZ.) Amino-acid oxidase of Neurospora crassa. Biochem. J. 45, xxi.
- [131] (With E.M. HUME.) Vitamin A requirement of human adults.

 An experimental study of vitamin A deprivation in man.

 Medical Research Council Special Report No. 264.
- [132] 1950. (With A.E. BENDER.) The oxidation of various synthetic α-amino-acids by mammalian D-amino-acid oxidase, L-amino-acid oxidase of cobra venom and the L- and D-amino-acid oxidases of Neurospora crassa. Biochem. J. 46, 210.
- [133] The tricarboxylic acid cycle. Harvey Lectures, Series XLIV, 165.
- [134] Chemical composition of blood plasma and serum. Ann. Rev. Biochem. 19, 409.
- [135] (With C. TERNER and L.V. EGGLESTON.) The role of glutamic acid in the transport of potassium in brain and retina.

 Biochem. J. 47, 139.
- [136] Manometric determination of L-aspartic acid and L-asparagine.

 Biochem. J. 47, 605.
- [137] Body size and tissue respiration. Biochim. Biophys. Acta 4, 249.

- [138] 1951. Improved manometric fluid. Biochem. J. 48, 240.
- [139] (L.E. HOKIN.) The synthesis and secretion of amylase by pigeon pancreas in vitro. Biochem. J. 48, 320.
- [140] The use of 'CO₂ buffers' in manometric measurements of cell metabolism. <u>Biochem. J. 48</u>, 349.
- [141] (With L.V. EGGLESTON and C. TERNER.) In vitro measurements of the turnover rate of potassium in brain and retina.

 Biochem. J. 48, 530.
- [142] The measurement of the turnover rate of steady state systems in living tissues. In: Radioisotope Techniques,

 Vol. 1, Medical and Physiological Applications (Proceedings of the Isotope Techniques Conference, Oxford, 1951) HMSO, London.
- [143] Oxidation of amino acids. In: <u>The Enzymes</u>, Vol. II, Pt. 1, (Eds. J.B. Sumner and K. Myrbäck), p. 499, Academic Press Inc., New York.
- [144] (L.E. HOKIN.) Amino-acid requirements of amylase synthesis by pigeon-pancreas slices. Biochem. J. 50, 216.
- [145] (P.M. NOSSAL.) Estimation of L-malate and fumarate by malic decarboxylase of <u>Lactobacillus arabinosus</u>. <u>Biochem. J.</u> 50, 349.
- [146] Carbon dioxide fixation in animal tissues. In:

 Symposia of the Society for Experimental Biology No. 5,

 Carbon Dioxide Fixation and Photosynthesis, p. 1.
- [147] The use of 'CO₂-buffers' in manometric measurements of cell metabolism. In: Symposia of the Society for Experimental Biology No. 5, Carbon Dioxide Fixation and Photosynthesis, p.336.

- [148] 1952. Urea synthesis. In: The Enzymes, Vol. II, Pt. 2, (Eds. J.B. Sumner and K. Myrbäck), p. 866, Academic Press Inc., New York.
- [149] Neuere Entwicklungen auf dem Gebiete der Patho-Physiologie der Niere. <u>Verhandlungen der Deutschen Gesellschaft für innere Medizin. Kongress für innere Medizin 58</u>, 113.
- [150] (With R.E. DAVIES.) Biochemical aspects of the transport of ions by nervous tissue. Biochem. Soc.

 Symp. 8, 77.
- [151] (With H.L. KORNBERG.) Carbon dioxide exchanges between tissues and body fluids. Brit. Med. Bull. 8, 206.
- [152] (P.M. NOSSAL.) The effects of glucose and potassium on the metabolism of pyruvate in <u>Lactobacillus arabinosus</u>.

 Biochem. J. 50, 591.
- [153] (With S. GURIN and L.V. EGGLESTON.) The pathway of oxidation of acetate in baker's yeast. Biochem. J. 51, 614.
- [154] (L.V. EGGLESTON and R. HEMS.) Separation of adenosine phosphates by paper chromatography and the equilibrium constant of the myokinase system. Biochem. J. 52, 156.
- [155] (With O. HOLZACH.) The conversion of citrate into <u>cis</u>-aconitate and <u>iso</u>citrate in the presence of aconitase.

 <u>Biochem. J. 52</u>, 527.
- [156] 1953. (With R. HEMS.) Some reactions of adenosine and inosine phosphates in animal tissues. Biochim. Biophys. Acta 12, 172.
- [157] Some aspects of the energy transformation in living matter. Brit. Med. Bull. 9, 97.

	[158]	The equilibrium constants of the fumarase and aconitase
		systems. Biochem. J. 54, 78.
	[159]	Equilibria in transamination systems. Biochem. J. 54, 82.
	[160]	(With K. BURTON.) The free-energy changes associated
		with the individual steps of the tricarboxylic acid
		cycle, glycolysis and alcoholic fermentation and with
		the hydrolysis of the pyrophosphate groups of
		adenosinetriphosphate. Biochem. J. 54, 94.
2	[161]	(With A. RUFFO, M. JOHNSON, L.V. EGGLESTON and R. HEMS.)
		Oxidative phosphorylation. Biochem. J. 54, 107.
	[162]	(With M. JOHNSON, M.A.G. KAYE and R. HEMS.) Enzymic
		hydrolysis of adenosine phosphates by cobra venom.
		Biochem. J. 54, 625.
	[163]	(R. HEMS and W. BARTLEY.) Preparation of 32P-labelled
		adenosine triphosphate. Biochem. J. 55, 434.
	[164]	The Sheffield experiment on the vitamin C requirement
		of human adults. Proc. Nutr. Soc. 12, 237.
	[165] 1954.	(With W. BARTLEY and R.E. DAVIES.) Active transport in
		animal tissues and subcellular particles. Proc. Roy.
		<u>Soc. B</u> , <u>142</u> , 187.
	[166]	Considerations concerning the pathways of syntheses in
		living matter. Synthesis of glycogen from non-carbohydrate
		precursors. Bull. Johns Hopkins Hosp. 95, 19.
	[167]	Some aspects of the metabolism of adenosine phosphates.
		Bull. Johns Hopkins Hosp. 95, 34.
	[168]	Excursion into the borderland of biochemistry and
		philosophy. Bull. Johns Hopkins Hosp. 95, 45.

- [169] (R. WHITTAM and R.E. DAVIES.) Energy requirements for ion transport in steady-state systems. Nature,

 Lond. 173, 494.
- [170] (L.V. EGGLESTON and D.H. WILLIAMSON.) The turnover rates of the phosphate groups of flavin-adenine dinucleotide and adenosine triphosphate during oxidative phosphorylation. Biochem. J. 56, 250.
- [171] (W. BARTLEY.) The formation of phosphopyruvate by washed suspensions of sheep kidney particles. Biochem. J. 56, 387.
- [172] Energy production in animal tissues and in microorganisms.

 In: Cellular Metabolism and Infections (Ed. E. Racker),

 p. 35, Academic Press Inc., New York.
- [173] The citric acid cyche. Nobel Lecture, Les Prix Nobel en 1953, Stockholm.
- [174] 1955. (With L.V. EGGLESTON and V.A. KNIVETT.) Arsenolysis and phosphorolysis of citrulline in mammalian liver.

 Biochem. J. 59, 185.
- [175] (With L.V. EGGLESTON.) Arsenolysis and phosphorolysis of citrulline. In: <u>Biochemistry of Nitrogen</u>, p. 496,
 Academia Scientiarum Fennica, Helsinki.
- [176] (With R. HEMS.) Phosphate-transfer reactions of adenosine and inosine nucleotides. Biochem. J. 61, 435.
- [177] (With D.D. DAVIES.) Inhibition of the 'malic enzyme' by fluorocitrate. Arch. Sci. biol. 39, 533.
- [178] The steering of metabolic processes. In: <u>Lectures on</u>
 the Scientific Basis of Medicine, Vol. V, 1955-56, p. 126.

- [179] 1956. Die Steuerung der Stoffwechselvorgänge. <u>Deut. Med.</u>
 Wschr. 81, 4.
- [180] (K.F. GEY.) The concentration of glucose in rat tissues. Biochem. J. 64, 145.
- [181] The effects of extraneous agents on cell metabolism.

 In: Ciba Foundation Symposium on Ionizing Radiations and Cell Metabolism, p. 92
- [182] 1957. Biochemical concepts in medicine. In: Oxford Medical

 School Gazette, 9, p. 1.
- [183] (With H.L. KORNBERG.) A survey of the energy transformations in living matter. Ergebnisse Physiol. biol. Chem.

 exp. Pharmakol. 49, 212.
- [184] (With H.L. KORNBERG.) Synthesis of cell constituents from C₂-units by a modified tricarboxylic acid cycle.

 Nature, Lond. 179, 988.
- [185] (With R. WHITTAM and R. HEMS.) Potassium uptake by Alcaligenes faecalis. Biochem. J. 66, 53.
- [186] Die energieliefernden Reaktionen des Stoffwechsels.

 Klin. Wschr. 35, 209.
- [187] Control of metabolic processes. Endeavour 16, 125.
- [188] 1958. Inhibitors of energy-supplying reactions. In: Symposia of the Society for General Microbiology, No. VIII, The Strategy of Chemotherapy, p. 104.
- [189] (With P.K. JENSEN and L.V. EGGLESTON.) Phosphorolysis of citrulline by mammalian liver: the effect of a bacterial activator. Biochem. J. 70, 397.
- [190] 1959. The regulation of metabolic processes. <u>Texas Rep. Biol.</u>

 <u>Med. 17</u>, 16.

- [191] Rate-limiting factors in cell respiration. In: Ciba

 Foundation Symposium on Cell Metabolism, p.1, J. & A.

 Churchill Ltd., London.
- [192] (With L.V. EGGLESTON.) Permeability of Escherichia coli to ribose and ribose nucleotides. Biochem. J. 73, 264.
- [193] 1960. Biochemical aspects of ketosis. Proc. Roy. Soc. Med. 53,
- [194] The cause of the specific dynamic action of foodstuffs.

 Drug Res. (Arzneim.-Forsch.) 10, 369.
- [195] (With D. BELLAMY.) The interconversion of glutamic acid and aspartic acid in respiring tissues. Biochem. J. 75, 523.
- [196] (With J.M. LOWENSTEIN.) The tricarboxylic acid cycle.

 In: Metabolic Pathways (Ed. D.M. Greenberg), Vol. 1,

 p. 129, Academic Press Inc., New York.
- [197] 1961. (With R.G. KULKA and L.V. EGGLESTON.) The reduction of acetoacetate to β-hydroxybutyrate in animal tissues.

 Biochem. J. 78, 95.
- [198] The biochemical lesion in ketosis. Arch. Int. Med. 107,
- [199] (With L.V. EGGLESTON and A. D'ALESSANDRO.) The effect of succinate and amytal on the reduction of acetoacetate in animal tissues. Biochem. J. 79, 537.
- [200] The physiological role of the ketone bodies. Biochem. J. 80, 225.
- [201] (With J.R. WILLIAMSON.) Acetoacetate as fuel of respiration in the perfused rat heart. Biochem. J. 80, 540.

[202]	Biological reductions in complex systems. In:
	Proceedings of The Robert A. Welch Foundation
	Conferences on Chemical Research. V. Molecular
	Structure and Biochemical Reactions, p. 77, Houston,
	Texas.
[203]	L(+)-Lactic acid. Biochem. Prep. 8, 75.
[204] 1962.	Control of cellular metabolism. In: The Molecular
	Control of Cellular Activity (Ed. J.M. Allen), p. 279,
	McGraw Hill Book Co. Inc., New York and London.
[205]	(With R. HEMS.) Further experiments on the potassium
	uptake by Alcaligenes faecalis. Biochem. J. 82, 80.
[206]	(With D.H. WILLIAMSON and J. MELLANBY.) Enzymic
	determination of $D(-)-\beta$ -hydroxybutyric acid and
	acetoacetic acid in blood. Biochem. J. 82, 90.
[207]	(With J. MELLANBY and D.H. WILLIAMSON.) The equilibrium
	constant of the β -hydroxybutyric-dehydrogenase system.
	Biochem. J. 82, 96.
[208]	(With L.V. EGGLESTON.) The effect of dinitrophenol and
	amytal on the reduction of acetoacetate in the presence
7/.	of succinate. Biochem. J. 82, 134.
[209]	Enzyme activity and cellular structure. In: Horizons
	in Biochemistry, p. 285, Academic Press Inc., New York.
[210]	Control of metabolism. Exp. Eye Res. 1, 350.
[211] 1963.	(With D.A.H. BENNETT, P. de GASQUET, T. GASCOYNE and
	T. YOSHIDA). Renal gluconeogenesis. The effect of diet
	on the gluconeogenic capacity of rat-kidney-cortex slices.
	The second secon

Biochem. J. 86, 22.

- [212] (With R.J. HASLAM.) Substrate competition in the respiration of animal tissues. The metabolic interactions of pyruvate and α-oxoglutarate in rat-liver homogenates.

 Biochem. J. 86, 432.
- [213] (With R.J. HASLAM.) The metabolism of glutamate in homogenates and slices of brain cortex. <u>Biochem. J. 88</u>, 566.
- [214] (With R. BALAZS and R.J. HASLAM.) Role of aspartate aminotransferase in glutamate metabolism in brain.

 Biochem. J. 88, 28P
- [215] (With T. YOSHIDA.) Renal gluconeogenesis. 2. The gluconeogenic capacity of the kidney cortex of various species. Biochem. J. 89, 398.
- [216] (With T. YOSHIDA.) Muscular exercise and gluconeogenesis.

 Biochem. Z. 338, 241.
- [217] (With R. HEMS and T. GASCOYNE.) Renal gluconeogenesis.

 4. Gluconeogenesis from substrate combinations. Acta
 biol. med. germ. 11, 607.
- [218] Concluding address at the international Symposium on Mécanismes de Régulation des Activités Cellulaires chez les Microorganismes. Colloques Internationaux du Centre National de la Recherche Scientifique, p. 603.
- [219] Renal gluconeogenesis. Adv. Enzyme Reg. 1, 385.
- [220] The metabolic fate of amino acids. In: Mammalian Protein

 Metabolism (Ed. H.N. Munro and J.B. Allison), Vol. 1, p.125.

 Academic Press Inc., New York.
- [221] 1964. (With P. de GASQUET.) Inhibition of gluconeogenesis by α -oxo acids. Biochem. J. 90, 149.

- [222] (With E.A. NEWSHOLME, R. SPEAKE, T. GASCOYNE and P. LUND.)

 Some factors regulating the rate of gluconeogenesis in animal tissues. Adv. Enzyme Reg. 2, 71.
- [223] The Croonian Lecture, 1963. Gluconeogenesis. Proc. Roy.

 Soc. B, 159, 545.
- [224] (With C. DIERKS and T. GASCOYNE.) Carbohydrate synthesis from lactate in pigeon-liver homogenate. <u>Biochem. J. 93</u>, 112.
- [225] (With W. BARTLEY, D.E. GRIFFITHS and L.A. STOCKEN.) Tissue preparations in vitro. In: Biochemisches Taschenbuch (Ed. p.522

 H.M. Rauen), 2nd ed., Part II. Springer Verlag, Berlin.
- [226] (With R. HEMS.) Reduced nicotinamide-adenine dinucleotide as a rate-limiting factor in gluconeogenesis. Biochem. J. 93, 623.
- [227] (With R.N. SPEAKE and R. HEMS.) Acceleration of renal gluconeogenesis by ketone bodies and fatty acids.

 Biochem. J. 94, 712.
- [228] (With L.V. EGGLESTON.) The role of pyruvate kinase in the regulation of gluconeogenesis. Biochem. J. 94, 3C.
- [229] Metabolic interrelations in animal tissues. Proc. Robert

 A. Welch Foundation Conferences on Chemical Research, 8,

 Selected Topics in Modern Biochemistry, p. 101, Houston, Texas.
- [230] 1965. (With M. WOODFORD.) Fructose 1,6-diphosphatase in striated muscle. Biochem. J. 94, 436.
- [231] 1966. (With P. LUND.) Formation of glucose from hexoses, pentoses, polyols and related substances in kidney cortex. <u>Biochem. J. 98</u>, 210.

- [232] (With W. GEVERS.) The effects of adenine nucleotides on carbohydrate metabolism in pigeon-liver homogenates.

 Biochem. J. 98, 720.
- [233] (With R. HEMS, M.J. WEIDEMANN and R.N. SPEAKE.) The fate of isotopic carbon in kidney cortex synthesizing glucose from lactate. Biochem. J. 101, 242.
- [234] (With R. HEMS, B.D. ROSS and M.N. BERRY.) Gluconeogenesis in the perfused rat liver. <u>Biochem. J.</u> 101, 284.
- [235] (With B.M. NOTTON and R. HEMS.) Gluconeogenesis in mouseliver slices. <u>Biochem. J.</u> 101, 607.
- [236] The regulation of the release of ketone bodies by the liver.

 Adv. Enzyme Reg. 4, 339.
- [237] Role of the redox state of nicotinamide adenine dinucleotides in the regulation of metabolic processes. <u>International Symposium on Enzymatic Aspects of Metabolic Regulation</u>, p. 331, Mexico City.
- [238] Bovine ketosis. <u>Vet. Rec.</u> 78, 187.
- [239] Theoretical concepts in biological sciences. In: <u>Current</u>

 <u>Aspects of Biochemical Energetics</u>, p. 83. Academic Press
 Inc., New York.
- [240] 1967. Die Ursachen der Ketonkörperanhäufung im tierischen Organismus. Naturw. Rdsch. 20, 47.
- [241] (With T. GASCOYNE and B.M. NOTTON.) Generation of extramitochondrial reducing power in gluconeogenesis. Biochem. J. 102, 275.
- [242] (With H.U. BERGMEYER, K. GAWEHN, H. KLOTZSCH and D.H. WILLIAMSON.) Purification and properties of crystalline 3-hydroxybutyrate dehydrogenase from Rhodopseudomonas spheroides. Biochem. J. 102, 423.
- [243] (With B.D. ROSS and R. HEMS.) The rate of gluconeogenesis from various precursors in the perfused rat liver.

 Biochem. J. 102, 942.

20	
[244]	(W. GEVERS.) The regulation of phosphoenolpyruvate
	synthesis in pigeon liver. Biochem. J. 103, 141.
[245]	(With D.H. WILLIAMSON and P. LUND.) The redox state of
	free nicotinamide-adenine dinucleotide in the cytoplasm
. The control of the	and mitochondria of rat liver. Biochem. J. 103, 514.
[246]	(With J.M. NISHIITSUTSUJI-UWO.and B.D. ROSS.) Metabolic
	activities of the isolated perfused rat kidney. Biochem. J.
	103, 852.
[247]	The making of a scientist. Nature, Lond. 215, 1244.
[248]	Mitochondrial generation of reducing power. In: Biochemistry
	of Mitochondria (Ed. L. Kaniuga and L. Wojtczak), p. 105.
	Academic Press and P.W.N., London and Warsaw.
[249]	(With M.W. BATES and D.H. WILLIAMSON.) Evidence for the
	existence of an extramitochondrial pathway of acetoacetate
	synthesis in rat liver. Biochem. J. 104, 59P.
[250]	(With B.D. ROSS, R. HEMS and R.A. FREEDLAND.) Carbohydrate
	metabolism of the perfused rat liver. Biochem. J. 105, 869.
[251]	Formation of ketone bodies in the perfused rat liver.
	In: Konferenz der Gesellschaft für Biologische Chemie, p. 129,
	Oestrich/Rheingau. Springer-Verlag, Berlin, Heidelberg.
[251a]	Effects of ethanol on gluconeogenesis in the perfused
[-73	rat liver. In: Konferenz der Gesellschaft für Biologische
	Chemie, p. 216, Oestrich/Rheingau. Springer-Verlag, Berlin,
	Heidelberg.
[252]	The redox state of nicotinamide adenine dinucleotide in
	the cytoplasm and mitochondria of rat liver. Adv. Enzyme
	Reg. 5, 409.
	*
[253] •	The redox state of nicotinamide-adenine nucleotides in
	the cytoplasm and mitochondria of rat liver. In: Atti del
	Seminario di Studi Biologici (Ed. E. Quagliariello), Vol. 3,

p. 171. Adriatica Editrice, Bari.

- [254] 1968. Der Werdegang eines Wissenschaftlers. Naturw. Rdsch.
 21, 231.
- [255] The biologist's and the chemist's approach to biochemical problems. In: Reflections on Biologic Research (Ed. G. Gabbiani), p.124. Warren H. Green, Inc., St. Louis, Missouri.
- [256] (With J.M. HASLAM.) The permeability of mitochondria to oxaloacetate and malate. Biochem. J. 107, 659.
- [257] (With G.D. BAIRD, K.G. HIBBITT, G.D. HUNTER, P. LUND and M. STUBBS.) Biochemical aspects of bovine ketosis.

 Biochem. J. 107, 683.
- [258] (With R. HEMS and M. STUBBS.) Restricted permeability of rat liver for glutamate and succinate. <u>Biochem. J.</u> 107, 807.
- [259] (With D.H. WILLIAMSON and M.W. BATES.) Activity and intracellular distribution of enzymes of ketone-body metabolism in rat liver. <u>Biochem. J.</u> 108, 353.
- [260] (With T. GASCOYNE.) The redox state of the nicotinamide-adenine dinucleotides in rat liver homogenates. Biochem. J. 108, 513.
- [261] The effects of ethanol on the metabolic activities of the liver. Adv. Enzyme Reg. 6, 467.
- [262] (With M.W. BATES and D.H. WILLIAMSON.) Turnover rates of ketone bodies in normal, starved and alloxan-diabetic rats.

 Biochem. J. 110, 655.
- [263] 1969. (With M.J. WEIDEMANN.) Acceleration of gluconeogenesis from propionate by DL-carnitine in the rat kidney cortex.

 Biochem. J. 111, 69.
- [264] (With R.A. FREEDLAND, R. HEMS and M. STUBBS.) Inhibition of hepatic gluconeogenesis by ethanol. <u>Biochem. J.</u> 112,

- [265] (With M.J. WEIDEMANN.) The fuel of respiration of rat kidney cortex. Biochem. J. 112, 149.
- [266] (With J.L. CORBETT, R.H. JOHNSON, J.L. WALTON and D.H. WILLIAMSON.) The effect of exercise on blood ketone-body concentrations in athletes and untrained subjects.

 J. Physiol. 201, 83P
- [267] Renal carbohydrate and fatty acid metabolism. In: Renal

 Transport and Diuretics (Ed. K. Thurau and H. Jahrmärker),

 p.1. Springer-Verlag, Berlin.
- [268] (With R.L. VEECH.) Pyridine nucleotide interrelations.

 In: The Energy Level and Metabolic Control in Mitochondria

 (Ed. S. Papa, J.M. Tager, E. Quagliariello and E.C. Slater),
 p. 329. Adriatica Editrice, Bari.
- [269] (With P.G. WALLACE, R. HEMS and R.A. FREEDLAND.) Rates of ketone-body formation in the perfused rat liver. Biochem. J. 112, 595.
- [270] (With M.J. WEIDEMANN and D.A. HEMS.) Effects of adenine nucleotides on renal metabolism. Nephron, 6, 282.
- [271] (With D.H. WILLIAMSON, D. VELOSO and E.V. ELLINGTON.)

 Changes in the concentrations of hepatic metabolites on administration of dihydroxyacetone or glycerol to starved rats and their relationship to the control of ketogenesis.

 Biochem. J. 114, 575.
- [272] (With L.V. EGGLESTON.) Strain differences in the activities of rat liver enzymes. Biochem. J. 114, 877.
- [273] (With M.J. WEIDEMANN and D.A. HEMS.) Effects of added adenine nucleotides on renal carbohydrate metabolism.

 Biochem. J. 115, 1.

- [274] (With D.J.C. CUNNINGHAM, M. STUBBS and D.J.A. JENKINS.)

 Effect of ethanol on postexercise lactacidemia. <u>Israel</u>

 <u>J. Med. Sci. 5</u>, 959.
- [275] (With R.H. JOHNSON, J.L. WALTON and D.H. WILLIAMSON.)

 Metabolic fuels during and after severe exercise in

 athletes and non-athletes. Lancet ii, 452.
- [276] (With R.L. VEECH and L.V. EGGLESTON.) The redox state of free nicotinamide-adenine dinucleotide phosphate in the cytoplasm of rat liver. Biochem. J. 115, 609.
- [277] (With R.L. VEECH, L. RAIJMAN and K. DALZIEL.) Disequilibrium in the triose phosphate isomerase system in rat liver. Biochem. J. 115, 837.
- [278] (With R.L. VEECH.) Equilibrium relations between pyridine nucleotides and adenine nucleotides and their roles in the regulation of metabolic processes. Adv. Enzyme Reg. 7, 397.
- [279] (With R.L. VEECH.) Interrelations between diphospho- and triphospho-pyridine nucleotides. In: Mitochondria Structure and Function, p. 101. Academic Press Inc., London.
- [280] The role of equilibria in the regulation of metabolism.

 In: Current Topics in Cellular Regulation, Vol. 1, p.45.

 Academic Press Inc., New York.
- [281] (With R.H. JOHNSON, J.L. WALTON and D.H. WILLIAMSON.)

 Post-exercise ketosis. Lancet ii, 1383.
- [282] 1970. (With J.T. BROSNAN and D.H. WILLIAMSON.) Effects of ischaemia on metabolite concentrations in rat liver. <u>Biochem. J.</u> <u>117</u>, 91.
- [283] (With M.J. WEIDEMANN, R. HEMS, D.L. WILLIAMS and G.H. SPRAY.)

 Gluconeogenesis from propionate in kidney and liver of the vitamin B₁₂-deficient rat. <u>Biochem. J.</u> 117, 177.

- [284] (With R.L. VEECH.) Regulation of the redox state of the pyridine nucleotides in rat liver. In: Pyridine Nucleotide-Dependent Dehydrogenases (Ed. H. Sund), p. 413. Springer-Verlag, Berlin.
- [285] (With R.L. VEECH and L. RAIJMAN.) Equilibrium relations between the cytoplasmic adenine nucleotide system and nicotinamide-adenine nucleotide system in rat liver.

 Biochem. J. 117, 499.
- [286] Rate control of the tricarboxylic acid cycle. Adv. Enzyme

 Reg. 8, 335.
- [287] (With J.R. PERKINS.) The physiological role of liver alcohol dehydrogenase. Biochem. J. 118, 635.
- [288] (With D.H. WILLIAMSON, M. STUBBS, M.A. PAGE, H.P. MORRIS and G. WEBER.) Metabolism of renal tumors in situ and during ischemia. Cancer Res. 30, 2049.
- [289] (With H.F. WOODS and L.V. EGGLESTON.) The cause of hepatic accumulation of fructose 1-phosphate on fructose loading.

 Biochem. J. 119, 501.
- [290] (With R. HEMS.) Fatty acid metabolism in the perfused rat liver. Biochem. J. 119, 525.
- [291] Sir Archibald Garrod. In: Oxford Medicine, p. 127. Sandford Publications, Oxford.
- [292] Intermediary metabolism of animal tissue between 1911 and 1969. In: <u>British Biochemistry Past and Present</u> (Ed. T.W. Goodwin), p. 123. Academic Press, New York.
- [293] The history of the tricarboxylic acid cycle. Perspect. Biol.

 Med. 14, 154.
- [294] Warburg architect of modern biology. New Scientist, 20
 August, p.375.

[304]

Bibliography

[295] 1971.	(With D.H. WILLIAMSON, M.W. BATES and M.A. PAGE.)
	Activities of enzymes involved in acetoacetate utilization
	in adult mammalian tissues. Biochem. J. 121, 41.
[296]	(With M.A. PAGE and D.H. WILLIAMSON.) Activities of
	enzymes of ketone-body utilization in brain and other
	tissues of suckling rats. Biochem. J. 121, 49.
[297]	Professor Otto Warburg. Naturw. Rdsch. 24, 1.
[298]	How the whole becomes more than the sum of the parts.
	Perspect. Biol. Med. 14, 448.
[299]	(With R.A. HAWKINS and D.H. WILLIAMSON.) Ketone-body
	utilization by adult and suckling rat brain in vivo.
348	Biochem. J. 122, 13.
[300]	Some facts of life - biology and politics. Proc. Roy.
	Instn. Gt. Br. 44, 169.
[301]	(With H.F. WOODS.) Lactate production in the perfused
	rat liver. Biochem. J. 125, 129.
[302]	Gluconeogenesis and redox state. In: Regulation of
	Gluconeogenesis (Ed. HD. Söling and B. Willms), p. 114.
	Georg Thieme Verlag, Stuttgart; Academic Press, New York.
[303]	Reflections on the role of tryptophan derivatives on
	metabolic regulations. In: Metabolic Effects of Nicotinic
	Acid and its Derivatives (Ed. K.F. Gey and L.A. Carlson),
	p. 1115. Hans Huber Publishers, Bern.

Die Bedeutung der Grundlagenforschung für die Medizin.

and F. Lynen), p.1. Georg Thieme Verlag, Stuttgart.

In: Biochemie und Klinik des Insulinmangels 6. Symposion

der Forschergruppe Diabetes 1970 (Ed. O. Wieland, H. Mehnert

- [305] (With D.H. WILLIAMSON, M.W. BATES, M.A. PAGE and R.A. HAWKINS.) The role of ketone bodies in caloric homeostasis. Adv. Enzyme Reg. 9, 387.
- [306] (With R.A. HAWKINS, K.G.M.M. ALBERTI, C.R.S. HOUGHTON and D.H. WILLIAMSON.) The effect of acetoacetate on plasma insulin concentration. Biochem. J. 125, 541.
- [307] 1972. (With M. STUBBS and R.L. VEECH.) Control of the redox state of the nicotinamide-adenine dinucleotide couple in rat liver cytoplasm. Biochem. J. 126, 59.
- [308] (With J.F. BIEBUYCK and P. LUND.) The effects of halothane (2-bromo-2-chloro-1,1,1-trifluoroethane) on glycolysis and biosynthetic processes of the isolated perfused rat liver.

 Biochem. J. 128, 711.
- [309] (With J.F. BIEBUYCK and P. LUND.) The protective effect of oleate on metabolic changes produced by halothane in rat liver. Biochem. J. 128, 721.
- [310] Some aspects of the regulation of fuel supply in omnivorous animals. Adv. Enzyme Reg. 10, 397.
- [311] Otto Meyerhof's ancestry. In: Molecular Bioenergetics and

 Macromolecular Biochemistry (Ed. H.H. Weber), p.14. SpringerVerlag, Berlin.
- [312] Der Pasteur-Effekt und die Beziehungen zwischen Atmung und Gärung in lebenden Zellen. Naturw. Rdsch. 25, 387.
- [313] Some facts of life biology and politics. <u>Perspect. Biol.</u>

 <u>Med.</u> 15, 491.
- [314] Wissenschaftliche Forschung in der heutigen Medizin.

 Verh. Dt. Ges. inn. Med. 78, 1.

- [315] (With J.T. HUGHES and D. JERROME.) Ultrastructure of the avian retina. An anatomical study of the retina of the domestic pigeon (Columba liva) with particular reference to the distribution of mitochondria. Exp. Eye Res. 14, 189.
- [316] The Pasteur effect and the relations between respiration and fermentation. Essays Biochem. 8, 1.
- [317] Otto Heinrich Warburg 1883-1970. Biogr. Mem. Fellows Roy.

 Soc. 18, 629.
- [318] 1973. (With H.F. WOODS.) The effect of glycerol and dihydroxy-acetone on hepatic adenine nucleotides. Biochem. J. 132, 55.
- [319] The discovery of the ornithine cycle of urea synthesis.

 Biochem. Educ. 1, 19.
- [320] (With H.F. WOODS.) Xylitol metabolism in the isolated perfused rat liver. <u>Biochem. J. 134</u>, 437.
- [321] (With N.W. CORNELL, P. LUND and R. HEMS.) Acceleration of gluconeogenesis from lactate by lysine. Biochem. J. 134,
- [322] (With R. HEMS and P. LUND.) Accumulation of amino acids by the perfused rat liver in the presence of ethanol.

 Biochem. J. 134, 697.
- [323] (With R. HEMS and P. LUND.) Some regulatory mechanisms in the synthesis of urea in the mammalian liver. Adv. Enzyme Reg. 11, 361.
- [324] Two letters by Wilhelm Conrad Röntgen. Notes Rec. Roy.

 Soc. Lond. 28, 83.
- [325] (With R. HEMS and P. LUND.) Regulatory mechanisms in the synthesis of urea. In: Inborn Errors of Metabolism (Ed. F. Hommes and C.J. van den Berg), p. 201. Academic Press, London.

- [326] Pyridine nucleotides and rate control. In: Rate Control

 of Biological Processes, Vol. XXVII, Symposia of the

 Society for Experimental Biology, p.299. Cambridge
 University Press.
- [327] 1974. (With L.V. EGGLESTON.) Regulation of the pentose phosphate cycle. Biochem. J. 138, 425.
- [328] (With D.F. WILSON, M. STUBBS, R.L. VEECH and M. ERECIŃSKA.)

 Equilibrium relations between the oxidation-reduction
 reactions and the adenosine triphosphate synthesis in
 suspensions of isolated liver cells. Biochem. J. 140, 57.
- [329] (With L.V. EGGLESTON.) The regulation of the pentose phosphate cycle in rat liver. Adv. Enzyme Reg. 12, 421.
- [330] (With N.W. CORNELL and P. LUND.) The effect of lysine on gluconeogenesis from lactate in rat hepatocytes. Biochem. J. 142, 327.
- [331] Metabolic requirements of isolated organs. <u>Transplantn</u>.

 <u>Proc. 6</u>, 237.
- [332] (With N.W. CORNELL, P. LUND and R. HEMS.) Some aspects of hepatic energy metabolism. In: Regulation of Hepatic

 Metabolism, Alfred Benzon Symposium VI, (Ed. F. Lundquist and N. Tygstrup), p. 549. Munksgaard, Copenhagen.
- [333] (With N.W. CORNELL, P. LUND and R. HEMS.) Isolated liver cells as experimental material. In: Regulation of Hepatic Metabolism, Alfred Benzon Symposium VI, (Ed. F. Lundquist and N. Tygstrup), p. 726. Munksgaard, Copenhagen.
- On the overuse and misuse of medication. Executive Health XI, No. 2.

- [335] The discovery of carbon dioxide fixation in mammalian tissues. Mol. Cell. Biochem. 5, 79.

 [336] (With F. LIPMANN.) Dahlem in the late nineteen twenties.
- [336] (With F. LIPMANN.) Bantem in the late minorest the first state of the late of the la
- [337] 1975. (With H.F. WOODS and K.G.M.M. ALBERTI.) Hyperlactataemia and lactic acidosis. Essays Med. Biochem. 1, 81.
- [338] (With P. VINAY.) Regulation of renal ammonia production.

 Med. Clin. of N. Amer. 59, 595.
- [339] (With M. STUBBS.) The accumulation of aspartate in the presence of ethanol in rat liver. Biochem. J. 150, 41.
- [340] (With R. HEMS and P. LUND.) Rapid separation of isolated hepatocytes or similar tissue fragments for analysis of cell constituents. Biochet. J. 150, 47.
- [341] The role of chemical equilibria in organ function.

 Adv. Enzyme Reg. 13, 449.
- [342] (With M. STUBBS.) Factors controlling the rate of alcohol disposal by the liver. In: Alcohol Intoxication and Withdrawal (Ed. M.M. Gross), p. 149. Plenum Publishing Corporation, New York.
- [343] (With J.H. SHELLEY (eds.) The Creative Process in Science and Medicine. International Congress Series No. 355.

 Excerpta Medica, Amsterdam.
- [344] (With P. LUND and N.W. CORNELL.) Effect of adenosine on the adenine nucleotide content and metabolism of hepatocytes.

 Biochem. J. 152, 593.
- [345] The August Krogh Frinciple: "For many problems there is an animal on which it can be most conveniently studied".

 J. Exp. Zool. 194, 221.

- [346] The metabolism of ethanol. In: <u>Topics in Gastroenterology</u>,

 Vol. 2 (Ed. S.C. Truelove and J. Trowell), p. 283.

 Blackwell Scientific Publications, Oxford.
- [347] 1976. (With P. LUND and M. STUBBS.) Interrelations between gluconeogenesis and urea synthesis. In: Gluconeogenesis (Ed. R.W. Hanson and M.A. Mehlman), p. 269. John Wiley & Sons, Inc., New York.
- [348] (With R. HEMS.) The regulation of the degradation of methionine and of the one-carbon units derived from histidine, serine and glycine. Adv. Enzyme Reg. 14, 493.
- [349] Concentration gradients between mitochondrial matrix and cytosol in the liver cell. In: Use of Isolated Liver Cells and Kidney Tubules in Metabolic Studies (Ed. J.M. Tager, H.D. Söling and J.R. Williamson), p. 3. North-Holland Publishing Company, Amsterdam.
- [350] (With R. HEMS and B. TYLER.) The regulation of folate and methionine metabolism. Biochem. J. 158, 341.
- [351] The discovery of the ornithine cycle. In: The Urea Cycle

 (Ed. S. Grisolia, R. Baguena and F. Mayor), p. 1. John

 Wiley & Sons, Inc., New York.
- [352] Soziologische Fragen der wissenschaftlichen Forschung.

 In: Vorlesungsreihe Schering, p. 103. Pharma Forschung der Schering AG, Berlin.
- [353] Comments on the productivity of scientists. In: Reflections
 on Biochemistry (Ed. A. Kornberg et al.), p.415. Pergamon
 Press, Oxford.
- [354] Festrede zur Feier des 750 jährigen Bestehens des Gymnasium

 Andreanum Hildesheim, 29th November 1975, p.3. Gebrüder

 Gerstenberg, Hildesheim.

- [355] 1977. (With P. LUND.) Aspects of the regulation of the metabolism of branched-chain amino acids. Adv. Enzyme Reg. 15, 375.
- [356] Errors, false trails, and failures in research.

 In: Search and Discovery. A tribute to Albert Szent-Györgyi,
 p.3. Academic Press, Inc., New York.
- [357] Getting to the root cause of delinquency. In: The Times, 26 April.
- [358] 1978. (With J. VINA and R. HEMS.) Maintenance of glutathione content in isolated hepatocytes. Biochem. J. 170, 627.
- [359] (With R. HEMS and J. VINA.) Regulation of the hepatic concentration of reduced glutathione. In: <u>Functions of Glutathione in Liver and Kidney</u> (Ed. H. Sies and A. Wendel), p.8. Springer-Verlag, Berlin.
- [360] (With J. VINA and R. HEMS.) Reaction of formiminoglutamate with liver glutamate dehydrogenase. Biochem. J. 170, 711.
- [361] (With P. VINAY and J.P. MAPES.) Fate of glutamine carbon in renal metabolism. Amer. J. Physiol. 234, F123.
- [362] (With J.P. MAPES.) Rate-limiting factors in urate synthesis and gluconeogenesis in avian liver. Biochem. J. 172, 193.
- [363] (With M. STUBBS and P.V. VIGNAIS.) Is the adenine nucleotide translocator rate-limiting for oxidative phosphorylation? Biochem. J. 172, 333.
- [364] Some general considerations concerning the use of carbohydrates in parenteral nutrition. In: Advances in Parenteral Nutrition (Ed. I.D.A. Johnston), p. 23.

 MTP Press.

- [365] Regulatory mechanisms in purine biosynthesis. Adv. Enzyme

 Reg. 16, 409.
- [366] (With D. WIGGINS.) Phosphorylation of adenosine monophosphate in the mitochondrial matrix. Biochem. J. 174, 297.
- [367] Regulation of the concentration of low molecular constituents in compartments. In: Microenvironments and Metabolic Compartmentation, p.3. Academic Press, Inc., New York.
- [368] (With R. HEMS, P. LUND, D. HALLIDAY and W.W.C. READ.)

 Sources of ammonia for mammalian urea synthesis. Biochem. J.

 176, 733.
- [369] 1979. (With P. LUND.) Isolated hepatocytes as experimental material. In: <u>Topics in Gastroenterology</u>, Vol. 6, p.273.

 Blackwell Scientific Publications, Oxford.
- [370] (With P. LUND.) Metabolic properties of the isolated enterocyte. In: Topics in Gastroenterology (Ed. S.C. Truelove and C.P. Willoughby) Vol. 7, p. 273. Blackwell Scientific Publications, Oxford.
- [371] (With M. WATFORD and P. LUND.) Isolation and metabolic characteristics of rat and chicken enterocytes. Biochem. J. 178, 589.
- [372] (With G.M. SAINSBURY, M. STUBBS and R. HEMS.) Loss of cell constituents from hepatocytes on centrifugation.

 Biochem. J. 180, 685.
- [373] Zur Biologie der Jugendkriminalität. Wirtschaftspolitische
 Chronik 1, 27.
- [374] On asking the right kind of question in biological research.

 In: Molecular Mechanisms of Biological Recognition (Ed.

 M. Balaban), p.27. Elsevier/North-Holland Biomedical Press,

 Amsterdam.

Otto Warburg: Zellphysiologe, Biochemiker, Mediziner. [375] Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart. (With P. LUND and M. EDWARDS.) Criteria of metabolic [376] competence of isolated hepatocytes. In: Cell Populations: Methodological Surveys (B) Biochemistry (Ed. E. Reid), Vol. 9, p.1. Ellis Horwood Ltd., Chichester. (With H. TAEGTMEYER and R. HEMS.) Utilization of energy-[377] 1980. providing substrates in the isolated working rat heart. Biochem. J. 186, 701. (With G. BAVEREL and P. LUND.) Effect of bicarbonate on [378] glutamine metabolism. Int. J. Biochem. 12, 69. [379] Zur Biologie der Jugendkriminalität. Sozialpädiatrie 2, 252. (With J.R. KREBS.) The "August Krogh Principle". Comp. [380] Biochem. Physiol. 67B, 379. Glutamine metabolism in the animal body. In: Glutamine: [381] Metabolism, Enzymology and Regulation (Ed. J. Mora and R. Palacios), p.319. Academic Press. [382] Wie ich aus Deutschland vertrieben wurde. Dokumente mit Kommentaren. Medizinhistorisches Journal 15, 357. On the biology of juvenile delinquency: comments on the [383] essay by Felton Earls, "The social reconstruction of adolescence: toward an explanation for increasing rates of violence in youth". Perspect. Biol. Med. 23, 179. [384] 1981. Otto Warburg (1883-1970). Oxford University Press. (English translation of [375]). (With J.E. BALDWIN.) The evolution of metabolic cycles. [385]

Nature, Lond. 291, 381.

[386] Evolutionary concepts in biological thought. In: Metabolism and Clinical Implications of Branched Chain Amino and Ketoacids (Ed. Walser and Williamson), p.3. Elsevier North Holland Inc. Amsterdam. [387] The evolution of metabolic pathways. In: Molecular and Cellular Aspects of Microbial Evolution (Ed. Carlile, Collins and Moseley), p.215. Cambridge University Press. (With J.R. KREBS.) The "August Krogh Principle". Comp. [388] Biochem. Physiol. 70B, 385. [389] Response. Current Topics Cell. Reg. 18, 555. [390] Biological and medical aspects of juvenile delinquency. In: New Horizons of Human Knowledge, p.79. UNESCO Press, Paris. [391] Reminiscences and Reflections. Clarendon Press, Oxford. [392] 1982. The discovery of the ornithine cycle of urea synthesis. Trends Biochem. Sci. 7, 76. [393] (With D. WIGGINS and P. LUND.) Adaptation of urate synthesis in chicken liver. Comp. Biochem. Physiol. 72B, 565. [394] (With K. DECKER.) Feodor Lynen 1911-1979. Biogr. Mem. Fellows Roy. Soc. 28, 261. (With J. VINA, G.T. SAEZ, D. WIGGINS, A.F.C. ROBERTS and [395] 1983. R. HEMS.) The effect of cysteine oxidation on isolated hepatocytes. Biochem. J. 212, 39. [396] (With D. WIGGINS, M. STUBBS, A. SOLS and F. BEDOYA.) Studies on the mechanism of the antifungal action of

benzoate. Biochem. J. 214, 657.

SUPPLEMENTARY BIBLIOGRAPHY

Listed here are additional papers by Krebs, 1980-82. Titles and descriptions are taken from the list of publications from the Metabolic Research Laboratory, Oxford, 1980-83; the complete list is at A.26.

References to these papers in the catalogue are in the form (SUPP. Bibliog. no. ...).

- 20a. Gedenkworte für Feodor Lynen
 In: Reden und Gedenkworte, pp. 39–42, Verlag Lambert Schneider,
 Heidelberg, 1980.
- Gesellschaftskrankheiten Jugenkriminalität vom biologisch medizinischen Gesichtspunkt.

Der Kassenarzt 20, 44, 1980.

- Jugendkriminalität vom biologisch-medizinischen Gesichtspunkt.
 Deutsche Krankenpflegezeitschrift 10, 1980.
- Biotechnology and values: how to arrive at sound value judgments.
 International Cultural Foundation, 1980.
- 33. Biological aspects of juvenile delinquency. In: Stress, 1, No.1, 7-9, 1980.
- 37. On asking the right kind of question in biological research.
 In: Rheinisch-Westfälische Akademie der Wissenschaften 300, 7-30, 1981.
- Introductory remarks.
 Phil. Trans. R. Soc. Lond. B 293, 3-4, 1981.
- 56. Biotechnology and Values: How to arrive at sound value judgments. Social Science for Summer 1981.
- 57. Sessional Chairman's remarks.

 Neurochem. Int. 2, 13, 1980.
- Biological aspects of juvenile delinquency. (N.B. Duplicate of no.33.)
 In: Stress 1, 7-9, 1980.
- Zur Evolution des Citronensäurezyklus.
 Naturw. Runds. 6, 225-228, 1982.

NOTE OF ADDITIONAL PUBLICATIONS

The collection contains considerable material which relates to publications unlisted in the Bibliography or Supplementary Bibliography, or which indicates an intention to publish. This material may range from a fully-prepared draft with references and figures ready for despatch to a journal to a reference in editorial correspondence. It applies especially, though not exclusively, to writings on social problems which were such a feature of Krebs's later years, but also includes such scientific contributions as his Jayne Lectures, as well as book reviews, abstracts, short notes and letters to the press omitted from the canon.

The relevant catalogue entry numbers are presented by Section.

A.437; A.440; A.453; A.903; A.909 - A.911; A.1081

B.34; B.95

C.28; C.228; C.267; C.329 - C.334

D.137; D.151; D.158; D.211; D.286; D.307; D.322; D.407; D.428; D.474;

D.502 - D.505

E.11; E.15; E.72; E.131; E.136 - E.142; E.158; E.174; E.223; E.244 - E.247;

E.248; E.249 - E.255; E.261; E.288 - E.290; E.291 - E.297; E.306; E.363 - E.365;

E.366; E.374 - E.377; E.381; E.395; E.415; E.427 - E.433; E.444 - E.446

Note of additional publications

F.68; F.236; F.328 - F.330; F.336 - F.340

G.15; G.236

H.2; H.4; H.10; H.15; H.16; H.17; H.22; H.26; H.29; H.30; H.32; H.33; H.34; H.35; H.38; H.39; H.41; H.42; H.43; H.44; H.45; H.62; H.78; H.80; H.94; H.95; H.140; H.148; H.229 - H.242; H.279; H.291 - H.295; H.304; H.305; H.321; H.329; H.339 - H.341; H.344; H.359; H.361; H.364; H.381; H.388; H.393; H.394; H.397; H.398; H.400; H.402; H.404; H.412; H.415; H.419; H.420; H.421

J 29; J.35; J.145; J.297; J.354; J.507; J.535; J.789; J.840

CONSPECTUS

The following conspectus has been compiled to relate Krebs's publications in the microfiche Bibliography of the Royal Society Memoir and in a Supplementary Bibliography 1980 - 82 to their principal sources in the manuscript collection.

Only the more extended references, to research, publication and reception of work, ensuing correspondence and the like, appear in the conspectus. Passing allusions in correspondence, or requests for reprints are omitted.

The Royal Society Bibliography is reproduced on pp. 633-669.

The Supplementary Bibliography is on p. 670.

Attention is drawn to the list of references in the collection to additional work which does not appear in the Bibliographies, on pp. 671-72.

Publication number	References to folders or items in the catalogue
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	·
13	H.1
14	D.3
15	D.3
16	
17	D.3, H.5
18	D.1, D.4, H.6
19	
20	×

Publication number	References to folders or items in the catalogue
21	H.7
22	
23	
24	
25	
26	
27	D.8
28	
29	H.8
30	
31	
32	
33	
34	H.364
35	H.364
36	H.11, H.364
37	
38	
39	v e
40	

Publication number	References to folders or items in the catalogue
41	H.13
42	H.14
43	
44	
45	J.50
46	
47	
48	
49	
50	J.342
51	H.332
52	D.12
53	D.12
54	
55	H.18, H.19
56	J.168
57	D.12, J.168
58	
59	
60	

Publication number	References to folders or items in the catalogue
61	
62	A.27, A.28, D.17, H.20, J.306-J.309
63	E.4
64	
65	
66	
67	
68	
69	J.159
70	
71	
72	D.20
73	D.20
74	D.20
75	
76	
77	D.20
78	H.21
79 .	
80	

Publication number	References to folders or items in the catalogue
81	D.26
82	D.26
83	D.26
84	J.192-J.194
85	J.192-J.194
86	D.30
87	
88	D.30
89	
90	
91	
92	
93	A.1170
94	
95	
96	
97	
98	D.31, H.115
99	
100	

Publication number	References to folders or items in the catalogue
101	
102	A.1170, H.324
103	
104	D.36
105	
106	
107	
108	
109	D.36
110	D.36
,111	A.28
112	H.24
113	D.490, H.25
114	
115	
116	
117	
118	
119	
120	

Publication number	References to folders or items in the catalogue
121	F.5, H.121
122	
123	H.27, H.123, J.624
124	
125	A.461, J.306
126	
127	
128	J.693
129	
130	J.291
131	
132	
133	F.8-F.16, J.83
134	
135	J.714
136	
137	
138	
139	
140	D.160

Publication number	References to folders or items in the catalogue
141	
142	H.130
143	H.286
144	
145	
146	
147	D.160
148	H.286
149	
150	J.150-J.154
151	J.347-J.361
1 52	
153	J.249, J.291
154	
155	
156	J.332
1 <i>57</i>	A.470-A.476, B.83
158	9
159	
160	5 14

Publication number	References to folders or items in the catalogue
161	H.133
162	
163	
164	
165	J.150-J.154
166	F.26, J.332
167	F.26, J.332
168	D.101-D.111, F.25, J.332
169	J.150-J.154
170	
171	
172	
173	A.28, A.544
174	
175	H.31
176	
177	
178	D.115, H.136
179	A.28, D.113, F.48-F.56
180	J.229

Publication number	References to folders or items in the catalogue
181	
182	H.36, H.138
183	H.37, H.410, J.347-J.361, J.581, J.806
184	J.347-J.361
185	
186	F.58-F.62
187	D.115, H.137, H.330
188	
189	
190	_
191	
192	
193	D.135, D.137, F. 7 4-F.78, F.93-F.95, H.142
194	D.125-D.128, F.84, F.93-F.95, H.40, H.146, J.143
195	
196	J.408
197	J.368
198	D.136, D.137, F.81, F.82, H.145
199	D.139-D.157
200	D.137, G.22, H.150

Publication number	References to folders or items in the catalogue
201	J.844-J.848
202	D.139-D.157, H.153
203	
204	F.86
205	
206	
207	
208	D.139-D.157
209	D.139-D.157
210	F.93-F.95
211	
212	
213	H.46
214	H.47
215	
216	
217	
218	H.161
219	F.103-F.106, H.156
220	

Publication number	References to folders or items in the catalogue
221	
222	F.116, H.162, J.680
223	H.48, H.49, H.159
224	
225	
226	
227	J.680
228	
229	D.185, F.123-F.125
230	D.41-D.43
231	
232	F.140, F.141
233	D.185
234	
235	D.210-D.222
236	D.137, F.145, F.146, H.176
237	F.152, F.156, H.185
238	8
239	F.153, F.154, H.50-H.61
240	F.149, H.182

Publication number	References to folders or items in the catalogue
241	
242	
243	
244	D.177
245	D.312
246	J.739, J.740
247	E.224-E.243
248	F.148, H.181
249	
250	
. 251	
252	F.150, H.183
253	
254	E.305
255	E.6
256	
257	
258	H.63
259	
260	D.223-D.226, D.237

Publication number	References to folders or items in the catalogue
261	F.161-F.163, H.188
262	
263	J.810-J.814
264	
265	J.810-J.814
266	J.305
267	F.172
268	D.237, F.170, F.171, H.189, J.109, J.744-J.763
269	J.788
270	H.64, J.810-J.814
271	
272	
273	J.810-J.814
274	
275	
276	D.312, J.744-J.763
277	
278	F.177, H.193, J.744-J.763
279	J.744-J.763
280	F.181-F.183, J.290

Publication number	References to folders or items in the catalogue
281	
282	
283	J.810-J.814
284	D.237, F.190-F.192, J.744-J.763
285	D.312, J.744-J.763
286	D.262, D.271, H.198
287	D.251-D.253, F.188, F.189, F.194, J.246
288	J.802
289	
290	
291	D.275-D.288, H.67
292	
293	A.1163, A.1166, D.490, E.7, E.16, E.55, E.64, H.68, H.395
294	E.131
295	
296	
297	E.132, E.149
298	Н.192, Н.395
299	D.45
300	E.355-E.362, E.363, H.400

Publication number	References to folders or items in the catalogue
301	
302	F.200, H.69
303	H.70-H.72
304	F.214, F.215, H.204
305	D.254, F.210, H.73-H.76
306	
307	J.744-J.763
308	
309	
310	D.303, D.490, F.224
311	E.119-E.128, F.205, J.216
312	D.292, E.143, F.237, H.207
313	E.355-E.362, H.396, H.400
314	E.265-E.285
315	D.323
316	D.292, F.233-F.235, H.207
317	E.134
318	
319	E.20-E.22
320	

Publication number	References to folders or items in the catalogue
321	D.204
322	D.210-D.222
323	D.210-D.220, D.343, J.247
324	E.130
325	
326	
327	D.359-D.372, F.246
328	D.227-D.229, D.234, D.237, D.315, J.744-J.763, J.849
329	D.359-D.372, F.247
330	
331	F.244
332	D.188-D.205, H.208
333	D.188-D.205
334	D.386, F.261, F.262, F.267, H.334-H.341
335	A.1173, E.24-E.35, H.377, J.194
336	E.54, J.400, J.463
337	D.400-D.408
338	D.409-D.414, F.259, F.260, J.559
339	
340	

Publication number	References to folders or items in the catalogue
341	D.90, F.261, F.262, F.268, H.216
342	H.399
343	E.36-E.42, J.80
344	
345	F.263-F.266
346	F.330
347	D.349-D.358, D.514, H.77, H.421, H.422, J.454
348	D.415-D.435, F.277
3 49	F.275, H.79, H.222
350	D.415-D.435
351	D.490, E.43, F.271-F.273
352	E.257-E.260
353	E.262
354	A.912-A.916
355	D.440-D.444
356	E.46-E.50, F.278
357	E.387, E.388, E.475
358	
359	H.81, H.413
360	D.415-D.435

Publication number	References to folders or items in the catalogue
361	H.82-H.85, J.775
362	H.86
363	
364	C.140, F.303, H.87, H.88
365	D.446-D.449, F.306, H.89
366	
367	F.308-F.315
368	
369	
370	H.90
371	
372	
373	E.396-E.410
374	E.57-E.64, F.325, J.174
375	E.143-E.172, H.2, H.9
376	D.514, D.536, F.323, F.324
377	
378	D.451, F.331, F.332
379	
380	H.91-H.93

Publication number	References to folders or items in the catalogue
381	D.451, F.333, H.256-H.261
382	A.1074-A.1083
383	E.443
384	E.143-E.172, L.73
385	D.484-D.486, H.96, H.97, H.414, J.285, J.286
386	D.487, H.265, J.790
387	D.475, D.486, D.488, D.490, G.215
388	H.91-H.93
389	
390	E.427-E.433
391	A.1084-A.1278, L.18, L.74-L.76
392	
393	D.446-D.449
394	E.77-E.118
395	D.513, D.514
396	D.455-D.458

INDEX OF CORRESPONDENTS

ABDERHALDEN, Emil	A.455
ABRAHAM, Sir Edward (Penley)	A.600
ABRAMS, Richard	J.40
ACADEMIA DE CIENCIAS MEDICAS	
(Argentina)	A.651
ACADEMIC ASSISTANCE COUNCIL	A.438, G.1
ACADEMIC STUDY GROUP ON ISRAEL AND THE MIDDLE EAST	G.2
ACADEMIE NATIONALE DE MEDECINE	G.3
ACADEMIE ROYALE DE MEDECINE DE BELGIQUE	G.4
ACCADEMIA NAZIONALE DEI LINCEI	A.469, G.5
ACHESON, E. D.	G.60
ACHESON, R. M.	A.574, A.689, J.912
ACKERMANN, D.	J.870
ADAMS, Walter	G.216
ADENIYI-JONES, Samuel K.	C.182
ADLER, E. R.	A.1028
ADLER, J. H.	D.123
ADLER, Liselotte (Liesel) (Mrs. G. Kastner q.v.)	A.662
ADLER, Saul	J.902
ADRIAN, Edgar Douglas, Baron	C.363, J.89
AEBI, Hugo	A.525, F.74, F.75, J.1
AGRICULTURAL RESEARCH COUNCIL	A.569, G.6-G.13
AMATHURAI, J. Eric J.	J.930
AJL, Samuel Jacob	B.76 See also J.353, J.362, J.790
ALBERTI, K. George M. M.	D.450
ALDRIDGE, W. N.	G.36
ALDWIN, Lois A.	C.174
ALEXANDER, William Gemmell	G.6, G.10, J.45, J.88
ALLEN, Edgar Johnson	A.421, A.422
ALLEN, John M.	F.86

ALLEN, Robert D.	J.201
ALLEN, S. C.	C.175
ALLEYNE, George Allanmore Ogarren	J.2, J.3
ALLISON, Anthony Clifford	J.4-J.6
ALLISON, P. R.	C.9
AMERICAN COLLEGE OF PHYSICIANS	A.652
AMERICAN LONGEVITY ASSOCIATION	G.14
AMERICAN PHILOSOPHICAL SOCIETY	G.15
AMERICAN PUBLIC HEALTH ASSOCIATION	A.482
AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS	G.16
AMMON, Robert	A.518, A.630, E.60, F.63, F F.187, F.204, J.7
AMOORE, John	A.575
ANAGNOSTOPOULOS, Costas Zena	A.492, J.8
ANDREOLI, Thomas E.	H.85
anglo-israel association	G.17
ANSELL, Brian G.	G.26
ANSON, Mortimer Louis	A.409, A.577, F.3, J.9
ANTWEILER, Hermann J.	F.58
AOKI, Thomas T.	D.91
APPLETON, Sir Edward (Victor)	B.33
APROSHIAN, H. Vashken	F.314
ARANA, J.	E.430
ARCHIBALD, Reginald M.	J.882
ARDENNE, Manfred von	E.185, J.10 See also G.83
ARMSTRONG, George T.	D.333, D.334
ARMSTRONG, Marvin D.	D.344
ARMSTRONG, W. D.	F.36
ARNOLD, M. H. M.	J.301
ARNOLD, Richard T.	F.36
ARNON, Daniel Israel	A.36, E.199, J.11, J.828
ARNSTEIN, Henry R. V.	A.617, G.130, H.344, J.647

ARONOW, Lewis	J.761
ARONSON, Nathan N. Jr.	C.182
ASCHENBRENNER, Hete	A.505
ASCHOFF, Eva	J.12
ASCHOFF, Jürgen	J.12
ASHMORE, James	D.48, J.904
ASHWORTH, John Michael	E.459, E.461, J.13
ASMISS, Herbert	J.640
ASSOCIATION OF JEWISH REFUGEES IN GREAT BRITAIN	G.18
ASTBURY, William Thomas	A.499
ATKINSON, Daniel E.	A.617, F.165, J.14 See also D.91, D.94
ATTLEE, Clement Richard, 1st Earl	See B.34
ATWATER, Reginald M.	A.482, A.499
AUB, Joseph C.	A.27, A.424
AUERBACH, F. E.	A.875
AUERBACH (later AUBURN), Walter	A.967-A.972 See also A.689
AUHAGEN, E.	F.270
AUSMAN, Robert K.	C.140, C.142, J.15
AUSTEN, Dorothy	A.508
AVERY, John	H.374
AVI-DOR, Yoram	A.662, F.79, F.94, F.126, F.235, G.104, J.16
AVRON, M.	See F.94
AXELSSON, Johann	F.107

BABCOCK, John C.	
BACCARI, Vincenze	
BACH, Stephen J.	

A.443, A.445, A.509, A.575, A.636, H.430, J.881

J.741

H.419

BACHARACH, Alfred Louis	A.445, A.509, A.575
BACON, Christopher	H.206
BACON, John Stanley Durrant	A.574, A.575, A.639, A.690, F.24, G.36, J.17-J.25
BADAWY, Abdulla A-B.	H.323
BADDILEY, Sir James	G.167, G.180, J.887
BADENOCH, John	J.893
BADGER, Sir Geoffrey Malcolm	D.245
BAER, Klara	A.575
BAGHDIANTZ, A.	F.178, F.197 See also F.145
BAHLMANN, Jens	C.164
BAILEY, Kenneth	A.506, J.160
BAILEY, N. T. J.	See C.187
BAKER, John Randal	C.338 See also C.207
J.T. BAKER CHEMICAL COMPANY	G.19
BAKER, Wilson	J.122
BALAZS, Robert	C.159
BALDWIN, Ern est H. F.	A.499, A.575, A.615, H.433, J.26, J.354, J.616
BALDWIN, Jack Edward	A.690, H.96 See also D.460, D.465, D.484- D.486
BALINSKY, J. B.	F.256, J.27
BALL, Eric	E.175
BALLARD, F. John	F.283
BALTIMORE, David	See E.441
BAMBOROUGH, John Bernard	C.224
BANASCHAK, H.	F.97
BANISTER, Jean	A.575
BANKS, Geoffrey T.	D.213
BANKS, Peter	A.690, J.73
BANNISTER, Joseph Victor	J.28
BANSCHBACH, Martin W.	J.929

BANTING, Sir Frederick Grant	F.2
BARBEAU, André	See J.928
BARCROFT, Sir Henry	J.29, J.675
BARCROFT, Sir Joseph	A.445, J.30
BARER, Robert	C.186
BARGMANN, W.	F.58
BARGONI, N.	J.903
BARKER, Eileen	G.112
BARKER, Geoffrey R.	G.36
BARKER, John	A.513, E.355
BARLOW, J. S.	F.223, G.135
BARNABEI, Ottavio	C.169
BARNARDT, J. H.	C.163
BARNES, A. S.	A.495, B.88
BARNES, Federick W.	J.31
BARNES, John M.	A.481, A.509, A.564, A.575, B.15, J.911
BARTLEY, Walter	A.690, B.95, B.96, F.24, G.37, J.32-J.38, J.45, J.172, J.343 See also A.561, B.40, C.331, G.53
BARTON, Sir Derek Harold Richard	G.93
BASSHAM, James Alan	F.118, J.39
BATES, Margaret W.	J.40
BATT, R. D.	F.270
BAUER, Walter	C.159, J.372, J.387, J.672
BAUM, Harold	H.304, H.305, H.435, J.41, J.831
BAUM, J. David	D.280, E.454
BAUMGARTEN,	A.973
BAVEREL, Gabriel	C.180
BAYERISCHE AKADEMIE DER WISSENSCHAFTEN	A.644
BEACONSFIELD, Peter	A.690, G.221-G.223
BEADLE, George Wells	A.613, J.42

BERGER, Michael

Index of correspondents

BEAN, William B.	H.396
BEARDSWORTH, Timothy	E.454
BEARN, Alexander G.	E.202
BEATTIE, Alan	J.42
BEATTIE, Colin P.	A.502
BEAUCAMP, Klaus	E.78, E.82
BEAUVOIR, Simone de	A.943
BECKHARD, Paula (formerly Frank)	A.510
BEER, C. T.	J.860
BEESON, Paul Bruce	C.113, C.114
BEEVERS, Harry	F.125
BEHRENS, Otto K.	F.37, F.146
BEHRENS, Walter	A.502, A.630, A.1046, E.438
BEIER, Henning M.	E.398
BELGEONNE, P. E.	J.226
BELL, D. J.	D.56
BELL, Paul H.	D.129
BELLAMY, Denis	J.44-J.46
BELOFF-CHAIN, Anne (Lady Chain)	A.692, C.181, F.289, G.93
BENDALL, J. R.	J.922
BENESCH, Reinhold	A.443, A.455, A.517, J.47 See also E.175
BENNET-CLARK, Thomas Archibald	A.495, G.175, J.48, J.140, J.149, J.828, J.829
BENNETT, David A. H.	J.49
BENNETT, Kenneth H.	A.495
BENSON, Andrew A.	F.166
BENTWICH, Norman	A.495, A.548, G.18, G.103
BENZINGER, The odor Hannes	A.521, A.662, A.690, D.331- D.334, F.29, F.92, F.242, J.50, J.50A, J.331 See also A.414
BERGEL, Franz	A.495, A.576, A.600, A.689, J.51

E.200

BERGER, Robert L.	D.331-D.333
BERGMAN, Emmett N.	E.56
BERGMANN, Ernst	B.33, B.34
BERGMANN, F.	J.654
BERGMANN, G. von	A.410
BERGMANN, M.	J.871
BERGMEYER, Hans-Ulrich	A.623, D.331, D.332, J.77- J.79, J.81, J.412
BERLIN, Sir Isaiah	A.690, J.470
BERLINER, Arnold	H.8, H.17
BERMAN, Elaine R.	D.326
BERNADOTTE, Count Lennart	F.149, F.351
BERNARDI, G.	J.52
BERNHARD, Karl	A.499, F.22
BERNHARD, Silke	E.381, J.53
BERNT, E.	J.77
BERRY, Colin	E.237
BERRY, David R.	C.166
BERRY, Michael Nathaniel	D.201, D.202, F.168, F.274, F.275, H.354, J.54-J.60
BERTRAM, G. C. L.	G.18
BESSER, Felix S.	A.662, E.200, E.454, J.61
BESSMAN, Samuel P.	F.134
BETHGE, H.	F.343
BEVERIDGE, J. M. R.	J.608
BIALE, Jacob B.	A.520, A.1040, F.12, J.710
BIELSCHOWSKY, Franz David	A.485, A.508, J.62, J.63 See also J.171
BIELSCHOWSKY, Marianne	A.504, J.63
BIG BROTHERS/BIG SISTERS OF AMERICA	E.455-E.457
BILBY, Bruce Alexander	J.36
BI-LINGUAL EDUCATIONAL RESEARCH CORPORATION	G.19
BIOCHEMICAL SOCIETY	A.617-A.623, B.19, G.20-G.65

BIOCHIMICA ET BIOPHYSICA ACTA (BBA)	A.460, H.307-H.320
BRAN, Arie Leonard	J.64
BIRT, Lindsay Michael	J.65, J.66
BLACK, Sir Douglas (Andrew Kilgour)	A.691
BLACKBURN, E. K.	A.564, A.576, A.600
BLACKETT, Patrick Maynard Stuart, Baron	J.893
BLACKMAN, Audrey	A.691 See also G.238
BLACKMAN, Geoffrey Emett	C.264
BLACKWELL, Sir Basil	A.576
BLAKE, Colin	D.506
BLAKE, Robert Norman William, Baron	C.301 See also E.458
BLASCHKO, Hermann Karl Felix (Hugh)	A.107, A.422, A.445, A.467, A.499, A.555, A.556, A.576, A.600, A.691, G.136, J.45, J.67-J.74, J.114, J.267, J.482
	See also D.80, J.385, J.623
BLASCHKO, Johanna	A.1023
BLAXTER, Sir Kenneth (Lyon)	G.1 <i>5</i> 9, J. <i>7</i> 5 See also D. 1 25
BLEANEY, Brebis	A.600, C.71, C.91, C.267- C.269, C.271 See also C.193, C.220, C.272, C.274, C.282, C.298
BLOCH, Konrad E.	A.691, C.162, F.88
BLOCKER, Truman G. Jr.	F.125, F.153
BLOOM, B. R.	E.203
BLOOMFIELD, Henry	A.515
BLUMBERG, Baruch Samuel	A.689, E.23, J.76 See also E.320, F.196
BOAS-TRAUBE, Sonya	A.518, J.730
BODE, Ch.	F.201
BODMER, Sir Walter Fred	See E.320
BOERINGER CORPORATION (LONDON) LTD.	A.617
BOEHRINGER, Ernst	J.77
BOEHRINGER MANNHEIM GMBH	J.77-J.81

BOELSMA, E.	H.307
BOESCH, B.	F.74, F.75
BOHN, A.	J.871
BOHNENKAMP, H.	A.1044
BÖHNING, Fridolin	A.979, J.82
BOHONOS, Nestor	D.64
BOHR, Vilhelm	E.201
BOIS, Pierre	J.775
BOLDERO, Sir Harold	A.592
BONNER, David M.	J.260
BONNER, James	J.83
BONSIGNORE, A.	F.206
BOON, W. R.	J.101
BOOTH, C. C.	H.199
BOOTH, Vernon	A.445, A.492, A.576, A.691, B.37, D.19, G.136, J.84, J.85
BORN, Gustav Victor Rudolf	A.576, A.691, C.27, E.299, G.217, J.86, J.656
BORN, Max	A.568, A.600, J.86
BORNSTEIN, J.	F.199
BOSCHKE, F. L.	H.388
BOULANGER, Paul	A.514, F.122
BOURNE, Geoffrey H.	A.490
BOVET, Daniel	J.442, J.894
BOWDEN, Bertram Vivian, Baron	C.225 See also C.242
BOWEN, Edmund John	A.576, E.197
BOWER, Brian D.	D.280
BOWMAN, W. C.	J.87
BOWRA, Sir (Cecil) Maurice	A.557, A.576, G.169, J.13
BOYER, Henry A. (formerly BUJAKOWSKI, Hans A.)	A.509
BOYER, Paul D.	F.36, H.291, H.293, H.295
BOYKEN, M.	A.907
BOYLAND, Eric	A.499, A.576, A.1040, F.64, J.878, J.894

BRACHET, Jean Louis Auguste	A.600
BRACHFELD, Norman	J.526
BRADBURY, Savile	D.55
BRADFORD, H. F.	B.98
BRADLEY, Stanley E.	A.614
BRAGG, Melvyn	H.278
BRAGG, Stephen Lawrence	G.184, J.670
BRAGG, Sir (William) Lawrence	A.600, C.21 6 , C.217, C.224, C.225, C.226, E.197, J.4 See also H.58
BRAIN, M. C.	F.223
BRAMBELL, Francis William Rogers	A.495
BRECHER, George	J.57
BREEZE, Dilys	H.280
BRENNER-HOLZACH, Olga	A.492, A.630, J.892
BREUSCH, F. L.	A.450, A.451, A.452, A.455, G.85
BREWER, Frederick M.	H.143
BRIEGLEB, G.	F.50
BRIGGS, David R.	F.36
BRIMBLE, L. J. F.	H.381, H.382
BRITISH COMMITTEE FOR JEWS IN FOREIGN COUNTRIES	G.66
BRITISH COUNCIL	G.67, G.68
BRITISH DIABETIC ASSOCIATION	G.69-G.71
BRITISH NUTRITION FOUNDATION	G.72
BRITISH SOCIETY FOR SOCIAL RESPONSIBILITY IN SCIENCE	G.73-G.80
BROCK, David J. H.	J.88
BRONK, Detlev W.	F.26, F.28
BRONK, J. Ramsey	J.89, J.90
BROWN, Sir George Lindor	A.576, C.203, C.347, C.350, C.362, C.364, C.369, C.375 See also C.199, C.204, C.276
BROWN, Harrison	A.605

BROWN, Robert	G.192
BROWN, Stuart	C.177
BRUCE, F. F.	A.492
BRUCE, Maurice	A.499
BRÜCKE, F.	D.102, F. <i>57</i> See also E.196
BRUES, Austin M.	F.32
BRUNET, Peter	J.91
BRUNT, Peter Astbury	C.333
BUCHANAN, J. G.	J.92
BUCHANAN, John M.	J.93
BÜCHER, The od or	A.456-A.459, D.153, J.94, J.739
BUCHTHAL, Fritz	J.891
BUCKLEY, Brendan	A.691
BUDD, Kenneth	F.221
BUFFA, P.	C.23
BULGER, Roger J.	F.245
BULLOCK, Alan Louis Charles, Baron	A.576, C.196, C.338, C.378, J.34 See also C.190
BULLOUGH, Geoffrey	A.495, A.934, A.1036
BULLOUGH, W. S.	A.445, A.490, A.547, A.564
BURCHARDT, Ise (later KING)	A.490, A.974-A.977
BURCHFIELD, Robert William	G.159
BURGEN, Sir Arnold (Stanley Vincent)	G.174, J.28
BURK, Dean	A.525, J.95
BURKE, John F.	F.347
BURN, G. P.	D.337, D.339
BURN, Joshua Harold	A.495, A.568, C.185, C.186, C.192 See also C.191
BURNET, Sir (Frank) Macfarlane	C.187

BURTON, Kenneth	A.504, A.639, A.691, C.184, D.335, D.336, E.225, E.236, G.183, G.189, J.96, J.326, J.546, J.619, J.620, J.746
BUSH, Ian Elcock	J.97
BUTENANDT, Adolf	A.460, A.514, A.630, A.691, G.138, J.98 See also A.3
BUTLER, R.	C.360, C.361
BUTLIN, K. R.	A.495, B.75
BUTTERFIELD, Sir (William) John	G.71, J.911
BUXTON, Joyce	J.99
BYGRAVE, Fyfe	F.285

CAIRNS, Hugh John Forster	J.100
CAHILL, George F.	J.627, J.746
CALDERBANK, A.	J.101
CALLAGHAN, Owen Hugh	F.91, J.102
CALLAN, Harold Garnet	C.371
CALLENDER, Sheila T.	C.120
CALLOW, Robert Kenneth	G.28, J.468
CALVIN, Genevieve	A.523
CALVIN, Melvin	A.577, J.103, J.586
CAMPBELL, James, A.	F.81
CAMPBELL, P. N.	A.692
CAMERON, Sir Gordon Roy	J.615, J.616
CANETTI, Elias	A.692
CARAFOLI, Ernesto	F.230
CARLILE, M. J.	G.215 See also D.488
CARRUTHERS, Malcolm	J.931
CARTER, Cyril William	A.557, A.558, A.560, C.10, C.102, C.335, J.104

CARTER, H. E.	A.605
CARTER, Kenneth	F.156
CARTER, Paul M.	J.920
CASTLE, William B.	J.388
CATLEY, Brian J.	F.226
CECIL, Rupert	A.558, C.59, C.63, C.66, C.72, C.74, C.94, C.102, C.206, C.240, G.59, J.658
CEDRANGOLO, Francesco	A.31, A.487, A.495, F.159, F.199
CENTRAL POLICY REVIEW STAFF	E.329, E.330, E.459-E.467
CERASI, Erol	F.188
CHADWICK, Sir James	B.30, E.31
CHAIN, Anne, Lady (see BELOFF-CHAIN)	
CHAIN, Clark B.	A.516
CHAIN, Sir Ernst (Boris)	A.445, A.577, A.600, F.61, G.90, G.92, G.126, H.117, J.105–J.107, J.616 See also F.289–F.292
CHAIX, P.	A.499
CHALLENGER, Frederick	A.443, A.522, A.577, A.1035, H.99
CHAMALAUN, R. A. F. M.	D.75
CHAN, Allan	F.222
CHAN, Samuel T. H.	C.165
CHANCE, Britton	A.36, A.605, A.616, A.623, A.692, D.153, F.105, F.129, F.130, F.194, F.206, J.108- J.111, J.391, J.754, J.847 See also D.72, D.155
CHANGEUX, Jean-Pierre	E.198 See also E.237
CHANNON, H. J.	E.31
CHAPLAIN, Ronald Michael A.	J.112-J.115
CHAPMAN, Arthur W.	A.28, A.445, A.518, A.577, B.2
CHAPPEL, F. P.	See B.66
CHAPPELL, J. Brian	A.692, H.431, J.116

CHARLES, Sir John	G.129
CHATAGNER, Fernande	A.692, F.73, J.116
CHATTAWAY, F. W.	H.171
CHAYEN, Joseph	J.402, J.892
CHELDELIN, Vernon H.	A.577
CHERWELL, Viscount, Frederick Alexander (F.A. Lindemann)	C.336
CHESTER-JONES, lan	J.45
CHETVERIKOVA, Elizabeth	J.345
	A.28, A.443, A.496, A.564, A.577, A.600, J.118 See also A.27, A.451
CHICK, Harriette	A.577
CHILDS, C. G.	J.301
	C.332 See also A.1208
CHOCHINOV, Ronald H.	C.173
CHODAT, F.	F.75, F.76
CHOU, John Tung-Yang	J.119-J.121, J.254
CHRISTIAN, Walter	A.507
CHRISTIE, John Traill	J.205
CIARANFI, Enrico	J.215
	A.577 See also B.23, C.193
CLARENDON PRESS OXFORD (see also OXFORD UNIVERSITY PRESS)	A.1267-A.1271, H.326
CLARK, Colin	C.264
CLARK, Dallas G.	C.172
CLARK, Sir George (Norman)	C.190
CLARK, Irwin	F.39
CLARK, Rodney	H.383
Andream controllation of the Controllation of the State o	A.574, A.582, C.183, C.185, C.338, J.453 See also C.336
CLARK, W. Mansfield	F.15

CLARKE, Sir Cyril (Astley)	D.385
CLARKE, Juliet Sandra	J.122
CLARKE, Patricia Hannah	G.183
CLAYTON, Barbara	G.202-G.205
CLAYTON, Roderick C. (Ray)	J.123
CLEGG, John B.	G.131
CLOW, Archibald	H.273
COATES, G. E.	J.326
COCKCROFT, Sir John Douglas	H.130
COCHRANE, William A.	E.161
COCKRELL, Ronald S.	F.246
COGGESHALL, L. T.	F.31
COGGIN, P. A.	E.459, E.460 See also E.461
COHEN OF BIRKENHEAD, Henry, Baron	A.577, A.607
COHEN, Georges N.	B.71
COHEN, Philip Pacy	A.31, A.471, A.502, A.564, A.577, A.613, A.616, A.692, D.203, F.14, F.34, F.92, F.137, F.156, J.124-J.126
COHEN, R. H. L.	C.103-C.106
COHEN, Seymour Stanley	J.127
COHEN, Sidney	G.131
COHEN, Walter S.	A.431
COHN, Mildred	J.128
COLE, Heather	J.129
COLE, J. A.	J.130
COLE, Robin J.	G.130
COLEMAN, G.	J.131
COLLEGE OF PATHOLOGISTS	A.627
COLLICUTT, Janet M.	C.177
COLLINS, John F.	J.132
COLTER, John S.	J.435
COLQUHOUN, John	A.499

COMITE INTERNATIONAL POUR LE PLACEMENT DES INTELLECTUELS REFUGIES	A.424
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION (CSIRO)	G.81
COMROE, Julius H.	H.296
CONN, Eric E.	A.36
CONN, G. K. I.	A.492, A.577
CONN, Rex B.	J.133
CONRAD, Klaus G.	E.398, E.468
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	G.81
CONWAY, Edward J.	A.521, J.134
COOK, Robert	A.492
COOKE, K. B.	J.135
COOMBES, J. D.	J.549
COON, M. J.	F.86
COOPER, Edward Holmes	J.136
COOPER, Ralph	J.137
CORBETT, John L.	J.305
CORDES, Eugene H.	F.151
CORI, Carl Ferdinand	A.413, F.14, J.434, J.901
CORI, Gerty Theresa	A.492, F.14
CORNATZER, W. E.	F.182
CORNELL, Neal	J.138
CORNER, E. J. H.	A.600
CORNER, George W.	F.197, G.15
CORNFORTH, Sir John (Warcup)	G.188
COTTRELL, Sir Alan (Howard)	A.653
COULSON, Charles Alfred	A.577, C.298 See also C.212
COUNCIL FOR SCIENTIFIC POLICY	G.81
COURTOIS, Jean E.	A.527, A.571, F.7, F.78
COUSIN, D. R.	A.1042
COX, Sir (Ernest) Gordon	A.569, A.600, J.260, J.343 See also C.208, C.209

COXON, R. Victor	A.577, C.365, C.369
CRAIG, J. D.	A.502, A.577, D.102
CRAIGIE, Anne	J.139
CRAMER, Geraldine (formerly Gertrud IIse DAVIDSON)	A.31, A.41, A.107, A.492, A.692, A.788, A.804
CRAMER, W.	J.880
CRAWFORD, Robert M. M.	J.140
CRAWFORD, T.	A.627
CREASEY, William Alfred	J.141
CREMER, H. D.	A.499, J.204
CREMER, Werner	J.791
CRICK, Francis Harry Compton	G.168
CROMBIE, Alistair	A.692
CROOK, E. M.	C.4
CROSLAND, (Charles) Anthony (Raven)	G.6
CROWTHER, John G.	A.107, H.326
CRUTCHLEY, Michael Joseph	J.142
CULVENOR, C. C. J.	D.245
CUNNINGHAM, Daniel	D.172
CURLE, Adam	E.444
CURTIS, D. H.	A.793
CUTHBERTSON, Sir David (Paton)	A.445, A.502, A.577, B.73, C.142, J.143, J.294

DAGLEY, Stanley	H.407, J.773
DAINTON, Frederick Sydney, Baron	A.615, A.693, J.314
DALE, Sir Henry Hallett	C.75-C.78, C.84, C.94, C.199, C.204
DALE, Walter M.	A.492
DALY, Ivan de Burgh	A.479
DALZIEL, Keith	E.384, H.250

See also C.4

DAM, Henrik Carl Peter	A.491, G.136, J.877
DAMADIAN, Raymond V.	J.144
DANI, H. M.	C.173
DANIEL, Adolf	A.805, A.806
DANIEL, Elisabeth (Lise) (see KREBS)	
DANIEL, Peter M.	J.922
DARLINGTON, Cyril Dean	A.600, C.183-C.188, C.202- C.204, C.265, C.370, G.185 See also C.241, C.263, C.292 C.298, C.338
DATTA, S. Prakash	H.343-H.358, H.433, H.434, J.603
DAUBE, David	A.577, A.978
DAVENPORT, John L.	A.693, G.116, J.145
DAVEY, L. A.	J.549
DAVIDSON, Arnold	A.787
DAVIDSON, Clara	A.516
DAVIDSON, Gertrud (see ROSENSTEIN)	
DAVIDSON, Gertrud Ilse (see CRAMER, Geraldine)	
DAVIDSON, Helene (see FULD)	
DAVIDSON, Irene	A.524, A.577
DAVIDSON, (James) Norman	A.445, A.496, A.577, A.593, G.21, G.38, J.146
DAVIDSON, John L.	A.875
DAVIDSON, Kurt Adolph	A.31, A.505, A.577, A.789, A.872, A.875, A.890
DAVIDSON, Reni	A.790
DAVIDSON, Siegfried	A.790, A.873
DAVIDSON DE GERVAI, Hilde	A.631
DAVIES, David	H.386
DAVIES, David D. (Dewi)	A.615, J.147-J.149
DAVIES, D. Hywel	G.224
DAVIES, D. R.	J.881
DAVIES, Erwin	A.496

81

DAVIES, Francis	A.492, A.577 See also A.31
DAVIES, Martin	D.81
DAVIES, Robert Ernest	A.556, A.557, A.577, F.24, J.150–J.154 See also D.173
DAVIS, Bernard D.	A.527, A.577, F.347, J.893
DAVIS, E. Jack	J.927
DAVIS, J. G.	D.32
DAVISON, Erwin H.	A.639, A.693
DAVISON, Lil (formerly HERZHEIM)	A.513
DAVISON, Mildred (Mrs. Erwin H.)	F.263
DAWES, Geoffrey Sharman	J.846, J.911 See also J.899
DAWSON, Rex Malcolm Chaplin	J.155, J.885
DEAN, Peter Duncan Goodearl	J.156, J.157
DECKER, Karl	A.693, D.311, D.478, E.79-E.
DECOURSEY, Elbert	F.155
DE HAËN, Christoph	J.928, J.931
DE KOCK, P.	J.896
DELBRÜCK, Axel	A.693, F.356
DELUCA, H. F.	F.325
DEMUTH, F.	G.85
DENBIGH, Kenneth G.	H.438
DENNES, William R.	J.313
DENT, C. E.	G.202
DENTON, Richard M.	D.289 See also J.931
DESNUELLE, P.	C.23, J.907
DEUEL, H. J. Jr.	F.13
DEUTICKE, H. J.	A.454, A.505
DEUTSCH, Maria	J.158
DEUTSCH, Walter	J.158
DEUTSCHE AKADEMIE DER NATURFORSCHER LEOPOLDINA	A.629, G.82-G.84

DELITECTIE OFFICE COLLAFT FLIFT IN INTERE	
DEUTSCHE GESELLSCHAFT FUER INNERE MEDIZIN	A.641, A.642
DICKENS, Frank	A.443, A.445, A.450, A.473, A.490, A.564, A.577, A.600, A.693, F.140, G.21, G.176, H.101, J.65, J.154, J.159, J.170 J.427, J.428 See also A.421, E.20
DIEM, Konrad	A.32, C.122, J.227
DIESEL, Elisabeth	A.492
DINGLE, J. T.	G.31, G.34
DISCHE, Zacharias	D.50, J.903
DITTMAN, Jürgen	E.175
DIXON, Gordon Henry	J.160
DIXON, Hal B. F.	C.171, G.30, J.653, J.931
DIXON, Kendal	A.443, A.577, J.878
DIXON, Malcolm	A.457, G.177, G.178, J.897
DODDS, Sir (Edward) Charles	A.490, A.564, A.577, G.91, G.166
DODDS, Kenneth S.	J.402, J.828
DOISY, E. A.	A.516
DOLKART, Ralph E.	C.140, C.143, C.144
DOLL, Sir (William) Richard (Shaboe)	A.693, J.161
DONEGAN, Joseph F.	A.409, A.507, J.162
DONNAN, Frederick George	A.456
DOUDOROFF, Michael	See J.899
DOUGHERTY, H.	D.241
DOXIADIS, S. A.	B.90
DRABKIN, David L.	A.36, J.231
DRAKE, George L.	A.496
DRUCKEY, Hermann	A.27
DRUMMOND, D. C.	J.397
DRUMMOND, George I.	H.379
DUBOWSKI, Kurt M.	J.920
DUKE-ELDER, Sir Stewart	J.556

EDDY, A. A.

Index of correspondents

index of correspondents	
DUNCAN, Donald	A.36, F.153
DUNCAN, J. G.	C.106, J.4, J.5, J.33, J.34, J.151-J.153, J.293, J.294, J.353, J.380, J.381, J.586
DUNHAM, Sir Kingsley (Charles)	C.372
DUNTZE, Wolfgang	J.908
DUVE, Christian René Marie Joseph de	B.76
DUX, Eric F. W.	A.775
DUX, Walter	G.235
DWEK, R. A.	J.144
EARLS, Felton	E.442
EASTHAM, L. E. S.	See B.33, B.84

EASTHAM, L. E. S.	See B.33, B.84
EBERT, Pam	H.336
ECCLES, Sir John (Carew)	C.362, C.363, G.87, G.107, G.108, G.110, G.111, J.165

	0.150
EDELMAN, Isidore Samuel	C.158
EDELMAN, Jeffrey (Jack)	A.490, A.578, J.164, J.165
EDOZIEN, Joseph C.	J.166
EDSALL, John Tileston	E.24-E.27, E.186, J.167, J.733

C.179

LUSALL,	John Mesion	See also E.175
edson,	Norman Lowther	A.504, A.509, A.564, A.578, J.54, J.168-J.171, J.368

EDWARDS, Käthe	A.1031, A.1036
EGGLESTON, Leonard Victor	B.29, J.172, J.665 See also B.5, Section D passim.

	See also B.5, Section D passim.
EHRENSVÄRD, G.	See J.887
EHRLICH, Felix	J.870
FIGURALITY F	A.518, A.564, F.22, J.173,

EICHHOLTZ, F.	A.518, A.564, F.22, J.173, J.908
EIGEN, Manfred	A.694, J.174
EITEL, H.	A.27, A.521

ELKAN, Wolf	F.92
ELLINGER,	J.876
ELLINGTON, Eric	C.182
ELLIOTT, Keith R. F.	C.171, G.182, H.444
ELLIOTT, Kenneth Allan Caldwell	A.517, F.3, J.175
ELLIOTT, William Herdman	A.578, F.216, F.232, G.179 J.176 See also C.35
ELLIS, Frank	A.578
ELSDEN, Sidney Reuben	A.445, A.469, A.578, B.22, D.162, G.39, J.142, J.177 J.182, J.343, J.856 See also B.85
ELSEVIER PUBLISHING COMPANY	A.460
ELSWORTH, R.	G.128, J.183
EMBDEN, Heinrich	J.184
EMERGENCY SOCIETY FOR GERMAN SCHOLARS IN EXILE	G.85
EMERSON, Robert	J.185
EMMENS, C. W.	J.782
ENCOUNTER FOR THE UNIVERSALITY OF UNESCO	G.86
ENGEL, D.	A.443, J.186
ENGEL, Lewis L.	J.594
ENGEL, Paul Cowper	J.187
ENGEL, S.	B.71
ENGELBERG, Joseph	H.60
ENGELHARDT, W. A.	C.3, J.188
ENGLARD, Sasha	F.178
ENGSTRÖM, Lorentz	F.163, F.189
ENGWICHT, Ernst	A.856-A.863
ENNOR, Sir Arnold Hughes (Sir Hugh Ennor)	J.176, J.241
ENSER, Michael Brian	J.189, J.190
EPSTEIN, Franklin H.	F.152
ERECIŃSKA, Maria	A.694, D.231

Index of correspondents	
ERNSTER, Lars	A.553, C.158, D.154, F.189, J.113
ESTABROOK, Ronald Winfield	A.694, F.169, F.217, F.242, F.267, F.295, F.308, F.336, F.337, J.191, J.682 See also A.616
EULER, F. W.	E.82
EULER, Ulf Svante von	A.550, A.600
EUROPEAN PARLIAMENT	G.87
EUROPEAN UNIVERSITY FOR PURE SCIENCE	G.87
EVANS, Sir Charles Lovatt	A.508, A.564, G.166, J.310, J.550
EVANS, Earl Alison, Jr.	A.445, A.485, A.507, A.564, A.568, A.578, A.613, E.33, F.14, F.31, F.83, F.136, J.192 J.194 See also J.766
EVANS, Benjamin Ifor, Baron	A.578
EVANS, William Charles	A.492, A.578, J.195, J.860
EVERED, Derek F.	J.196
EXECUTIVE HEALTH	H.334-H.341
EXLEY, Donald	A.694, J.197-J.199 See also A.561
EYCK, Violet (née Frank)	A.524, A.1042, A.1044
FABRE, René	A.28, A.571
FAGG, Bernard	J.780
THE POST AND ADDRESS OF THE POST ADDRESS OF TH	

	A*1
FAGG, Bernard	J.780
FAIN, John N.	C.179
FALCONER, lan R.	F.216
FALK, Herbert	A.694, A.1046
FARKAS, L.	D.21
FARMINGTON INSTITUTE FOR CHRISTIAN STUDIES	E.469, E.470
FATMI, H. A.	J.200
FAUST, Robert Gilbert	J.201

RESEARCH

Index of correspondents

FAWCETT, A. W.	B.90
FEBS LETTERS	H.342-H.358
FEINBERG, Abraham	F.234
FELD, Steve	J.202
FELDBERG, Wilhelm Siegmund	A.445, A.504, G.218, G.219, J.203
FELDHEIM, Walter	D.247-D.249, J.204
FELDMAN, M.	F.126
FELIX, Kurt	A.449, A.450
FELLENIUS, Erik	D.257-D.261
FELLS, lan	B.93
FENN, Wallace O.	F.175
FERDINAND, William	J.205
FERGUSON, I. D.	B.19
FESSLER, John Hans	J.206
FIALA, F.	F.74, F.75
FIELD, James B.	J.55
FIELD, John	A.471, A.525, F.13
FILDES, Sir Paul	B.4, J.855 See also C.86, J.207
FINCH, Sir Ernest	A.31, A.511, A.546
FINCHAM, J. R. S.	J.887
FISCHER, Hermann O. L.	J.208
FISCHER, R.	F.236
FISCHGOLD, Harry	A.1032
FISHER, Harold W.	J.209
FISHER, Sir Henry (Arthur Pears)	H.250
FISHER, Reginald Brettauer (David)	A.491, C.36, C.102, J.89, J.105, J.850
FITZGERALD, Michael Gerald	J.210
FITZGERALD, Patrick J.	F.135, J.211
FLANAGAN, Dennis	H.409
FLECKENSTEIN, Albrecht	A.493, F.57, J.212
FLEMING, Sir Alexander	J.881
FLEMING MEMORIAL FUND FOR MEDICAL	G.88-G.96

G.88-G.96

FLETCHER, Robin Anthony	C.380
FLOREY, Howard Walter, Baron	A.568, A.578, C.185, C.192, A.193, C.202, C.225, C.227, C.261, C.264, C.286, C.340, C.344, G.185, G.186, J.213 See also C.282, C.342
FLORKIN, Marcel	A.445, A.496, E.10-E.13
FLOUR MILLING AND BAKING ASSOCIATION	A.627
FLOWERS, Brian Hilton, Baron	G.201
FLOWERS, Mary Frances, Lady	See E.176
FOLLEY, Sydney John	A.600, J.214, J.250, J.326
FONNESU, Alberto	A.623, J.215
FOOT, Michael Richard Daniell	A.578
FORBES, Gilbert	A.31, A.499
FORD, Edmund Brisco	C.223, C.225
FORD, E. J. H.	D.132
FORREST, Irene S.	A.870, J.216
FORSTER, Evelyn	A.518
FORSTER, Robert E.	G.15
FOX, Harold Munro	A.445, H.321
FRAENKEL,	A.496
FRAENKEL-CONRAT, Heinz	B.15
FRANCIS, Martin	D.203
FRANCK, Hugo	A.516
FRANCK, James	A.506
FRANKAU, I. M.	B.37
FRANKEL, Ernest	A.445, A.517, J.217
FRANKEN, Herman	F.77
FRANKS, Oliver Shewell, Baron	C.300
FRASER, (Thomas) Russell (Cumming)	J.55, J.5 2 3
FRAZER, Alastair Campbell	A.517, G.7, J.908
FREEDMAN, Maurice	G.121
FREIE WISSENSCHAFTLICHE VEREINIGUNG	A.1019, G.97
FREINKEL, Norbert	C.158

FREMINET, A.	D.438, H.343
FREUD, Anna	E.471
FREY, Walter	A.410, J.887
FRIBERG, Sten	A.31
'FRIDOLIN' (see under BÖHNING)	
FRIENDS OF THE HEBREW UNIVERSITY OF JERUSALEM	G.98-G.101
FRITZ, Irving B.	A.618, F.220, H.192
FRÖHLICH, Hermann	E.299
FRÖHLICH, J. C.	E.299
FROMAGEOT, CI.	F.21, J.117
FRUTON, Joseph Stewart	A.485, A.493, A.578, E.185, F.12, F.43, F.152, J.218, J.361 J.850
FUJITA, Akiji	J.219
FULD, Heinz	A.31, A.443, A.445, A.578, A.564, G.1, J.220
FULD, Helene ('Talene') (née DAVIDSON)	A.789
FULD DE FLIESS, Marta	A.578, A.631
FULDER, Hans	A.518, J.221
FULLER, R. Clinton	F.91, F.110, F.183, F.196, J.222, J.295

GABOR, Dennis	E.358, J.223
GADAMER, Hans-Georg	A.665, A.695 See also E.176, G.141
GADDUM, Sir John (Henry)	J.250
GAEBLER, O. H.	See D.128
GAFFRON, Hans	A.461, A.499, J.224
GALE, Ernest Frederick	A.469, A.490, A.579, G.177, G.215, J.225, J.612, J.857 See also C.104
GALSTON, Arthur W.	A.579, A.665, B.72
GARDELLA, Joseph W.	J.744

GARFIELD, Eugene	H.363-H.365
GARLAND, Peter B.	A.618
GARLING, Harold	A.695, A.1171, B.37
GARNETT, Alice	A.929, A.980-A.985 See also A.767
GARROD, Sir Archibald Edward	See E.202
GARROD, Dorothy	E.198
GASQUET, Pierre de	J.226
GÄTJENS, Margareta	A.513
GEDDES, W. F.	F.36
GEIGY, J. R., AG.	A.32, C.122, F.68, F.187, J.227
GEISSMAN, T. A.	See J.886
GELEHRTER, Thomas D.	D.71
GELLER, David M.	J.228
GENOVES, Santiago	F.100
GEORGE, Thomas Neville	C.372
GERARD, Ralph W.	A.507, F.86
GERHARDS, E.	J.638
GERLACH, Walter	A.1045, G.141
GERLT, Richard	A.1014
GERRITSEN, George C.	F.183
GEST, Howard	D.506, F.347
GETZ, Godfrey S.	A.665, F.136
GEVERS, Wieland	D.97 See also D.177
GEY, K. Friedrich	J.229
GEYER, Robert P.	F.347
GIBBONS, W. M.	A.27, B.5
GIBSON, Frank William Ernest	A.613, F.164 See also G.179
GIBSON, Quentin Howieson	A.579, B.102, B.104, J.44, J.230, J.231, J.377
GIESSING, R.	A.34
GILBERT, Edmund W.	G.238

GOSSELIN, Gilles

Index of correspondents

GILCHRIST, Frances	A.525
GILLETTE, H. Malcolm	B.52, C.131, C.132
GILLIS, J.	C.16
GINSBURG, David	F.126
GIRNUS, Wilhelm	J.112
GITLER, Carlos	A.36, F.100
GJESSING, Leiv	A.513, B.73
GJESSING, R.	B.73, J.880, J.883
GLASER, Elsa	A.857, A.858, A.860, A.864, A.866-A.868
GLASS, Hiram Bentley	J.232
GLOCK, Gertrude	J.893
GOBLE, Frank	E.482
GOLDING, Arthur	A.502
GOLDSCHMIDT, Carl	J.874
GOLDSCHMIDT (later MEYER), Hannah	A.986, A.987
GOLDSTEIN, Leon	F.174, J.597
GOLDWASSER, Eugene	J.233
GOLDWASSER, R.	F.79
GOLLWITZER-MEIER (see KROETZ)	
GOMBRICH, Sir Ernst	A.695
GOMES DA COSTA, Silverio Ferreira	A.623, F.145
GOOD, I. Jack	J.906
GOOD, Norman E.	See J.906, J.930
GOODDY, William	J.895
GOODHART, Arthur Lehman	A.579, J.5
GOODMAN, A. David	C.169
GOODWIN, Trevor Walworth	A.446, A.493, A.564, A.579, C.23, C.163, G.177, G.180,
	J.157, J.234
GORDON, W.	J.235, J.896
GORDONOFF, T.	J.878
GOSALVEZ, Mario	C.178

J.775

GOTTO, Antonio Marion	E.382, J.236
GOTTSCHALK, A.	J.237
GOULD, E.	G.97
GOWING, Margaret Mary	E.241, J.238
GRAFE, E.	A.410
GRAHAME-SMITH, David Grahame	D.385, J.859
GRANIT, Ragnar	See E.441
GRANT, William C.	F.178
GRANTHAM, Muriel	A.36
GRAY, Clarke T.	A.614
GREEN, David Ezra	A.31, J.239, J.241 See also E.72
GREEN, F. H. K.	A.579, A.592, C.78, C.79, C.199 See also C.76, C.200
GREEN, H. N.	A.446, A.499, A.546
GREENBERG, David M.	B.16, F.13, H.29
GREENBERG, Julius R.	F.167
GREENE, Vivien (Mrs. Graham)	A.695
GREENSTEIN, Jesse P.	F.15
GREGORY, Frederick Gugenheim	J.164
GREGORY, Roderic Alfred	C.366, C.372
GREVILLE, Guy D.	A.499, A.579, D.70, J.240, J.895
GREY, T. C.	J.906
GRIFFITHS, David Ellis	C.354, H.355, J.113, J.241- J.244
GRISOLIA, Santiago	A.695, F.112, F.238, F.271, F.272, J.245–J.247, J.595 See also D.128
GRUNAU, John A.	J.248
GRUNDMANN, Hans and Margaret	A.493, A.579, A.695
GRUNFELD, Ernst	A.516, A.579
GRUNICKE, H.	F.345

GSELL, O.	F.74, F.76
GUERRA, Francisco Carvalho	J.764
GUGGENHEIM, Karl	A.426
GUNNING, A. J.	C.9
GUNSALUS, Irwin Clyde	F.106
GURIN, Samuel	A.471, A.520, A.616, A.695, J.76, J.249
GUTBROD, Rolf	A.695
GUTFREUND, Herbert	B.76, J.250
GÜTLE, Helene	A.988-A.990
GUYOT, Olga	A.461, A.498, A.579, F.52, J.251

HAAS, Erwin	A.31, J.252
HAASE, Harald	A.500
HACKETT, David	B.75
HADDOW, Sir Alexander	A.27, A.452, A.493, A.580, A.600, E.206, J.253
HAGEN, A.	D.332
HAILSHAM OF SAINT MARYLEBONE, Quintin McGarel Hogg, Baron	A.569, A.580, C.100
HALBERSTÄDTER,	A.426
HALES, C. N.	G.25
HALESTRAP, Andrew P.	See J.931
HALLADAY, James	A.580
HALLPIKE, Charles Skinner	A.496, J.197, J.254
HALSBURY, John Anthony Hardinge Giffard Earl of	A.580, J.668
HAMILTON, Robert Houston	A.471
HAMMERSLEY, John Michael	C.190, C.191, J.926
HANDLER, Philip	A.506, A.580, A.613, C.164, E.237, F.35, F.138, J.825

HANDOVSKY, H.

A.461

HARTREE, E. F.

Index of correspondents

HANES, Charles Samuel	J.842
HANSCH, Corwin	J.929
HANSON, Frank Blair	B.44
HANSON, Horst	F.212
HANSON, Richard W.	D.254, H.77, J.742
HAPPOLD, Frank Charles	A.29, A.446, A.450, A.451, A.502, A.563, A.580, A.600, B.21, D.30, G.23, H.171, J.255, J.859
HARDIE, Colin Graham	C.377
HARDING, Harold	A.496
HARDING, Nigel G. L.	J.256
HARDY, Sir Alister (Clavering)	A.600, A.696, C.264, J.91
HARDY, G.	C.140-C.144
HARINGTON, Sir Charles (Robert)	A.446, A.451, A.452, A.500, A.580, A.600, B.6, B.21, B.35 B.65, C.3, C.221, D.37, D.38, G.165, J.257, J.349, J.350, J.513, J.626
HARKER, Paul	E.471
HARLEY, John Laker	A.605
HARMELIN, William	H.95
HARNWELL, Gaylord P.	F.129, F.130
HARRAP, Ken R.	D.91
HARRIS, Eric J.	D.230, D.272, D.273, J.258, J.259
HARRIS, G. J.	A.509
HARRIS, Henry	C.376, G.175, G.180, J.209, J.260, J.261, J.339
HARRIS, Leslie Julius	A.493, A.580, G.136
HARRIS, Robert A.	D.375
HARRISON, Douglas Creese	J.878, J.879
HARTE, Robert A.	A.605
HARTLEY, Brian Selby	A.696, C.22, C.181
HARTLEY, Sir Harold (Brewer)	A.516, J.262

A.491, A.580, G.47, J.792

HEMMERICH, Peter

Index of correspondents

index of correspondents	
HARTUNG, Kurt	E.471
HARTWICH, Horst W.	F.51
HASLAM, J. M.	A.696
HASLAM, Richard J.	See D.241
HASELWOOD, G. A. D.	G.39, H.432
HASTINGS, A. Baird	A.507, A.605, C.159, E.25, E.26, E.32, F.15, G.47A
HATCH, M. D.	D.88, D.396
HAUROWITZ, Felix	A.508, F.151
HAWKINS, Richard A.	D.44, D.45, D.326 See also J.918
HAWORTH, R. D.	A.493, A.568
HAYEK, Friedrich August (von)	A.696, J.565 See also E.441
HAYTER, Sir William Goodenough	J.614, J.615
HAYS, Marguerite T.	F.305
HEALD, P. J.	G.47A
HEARD, C. R. C.	D.344
HEATH, Oscar Victor Sayer	A.600
HEATLEY, Norman George	A.696, J.263
HEBREW UNIVERSITY OF JERUSALEM	A.425, F.79, F.93-F.95, G.102-G.104
HEIDEGGER, Martin	A.27 See also A.1151, G.141
HEILMEYER, L.	A.570, F.47, J.893
HEIMPEL, H.	A.516
HEINEMAN, James H.	A.666, A.685, A.696, A.871- A.875
HEINEMANN, Martin	J.878
HEINZ, Erich	B.72
HEISS, Jakob	A.696, E.177
HELL, Elizabeth	C.177
HELLER, H.	J.891
	- 100 - 007 1044

F.190, F.287, J.264

HEMMING, H. H.	See C.226
HEMS, Reginald	B.9, D.332 See also A.561, B.5, C.145, Section D passim.
HENCH, Philip Showalter	A.538
HENDERSON, David Willis Wilson	G.128
HENDERSON, L. M.	A.36
HENDERSON, P. D.	C.237
HENDERSON, William M.	G.10
HENLEY, Keith S.	J.753
HENNIS,	A.505
HENRICI, Peter	E.178
HENSELEIT, Kurt	A.28, A.508, J.265 See also A.1231, D.9A
HENTON, A. I. P.	G.35
HEPNER, I. L.	H.402
HERBERT, Mary H.	C.175
HERKEL, Walter	A.27, A.1020
HERKEN, Hans	A.666, D.373, D.376, E.288, F.51, J.113 See also E.185, F.63
HERMAN, Lawrence	F.135
HERS, H. Géry	J.268 See also D.73
HERZBERG, Gerhard	See E.438
HESS, Benno	A.453, E.185 See also E.178
HESS, Eugene L.	G.47
HESS THAYSEN, John	F.243
HEUBNER, W.	A.500
HEUSS, Theodor	See J.372
HEVESY, George de	A.500 See also A.414
HEWER, R. Langton	F.257
HEWITT, E. J.	A.580

HEWITT, L. F.	A.481
HEYDEMAN, M. T.	C.160
HIBBITT, K. G.	G.10
HIEBERT, Erwin N.	J.731
HIGGINS, G.	B.89
HIGH, Edward G.	F.35
HILL, Archibald Vivian	C.207, J.269, J.683 See also D.173, E.178
HILL, Robert (Robin)	A.446, A.502, G.177, J.270, J.828, J.884
HILL, Robert T.	D.129
HILLS, G. M.	D.19
HILTON, John	J.271
HIMSWORTH, Sir Harold (Percival)	A.481, A.504, A.556, A.558, A.559, A.580, A.623, B.62, B.65, C.101, C.105, C.107, C.215, C.219-C.221, E.245, J.5, J.197, J.242, J.322, J.556 See also C.216, G.126
HINSHELWOOD, Sir Cyril (Norman)	A.446, A.580, J.272
HIRD, Frank J. R.	J.244, J.273, J.810
HIRS, C. H. R.	F.91
HIRSCH, Walter	E.178
HIRSCHMANN, Ida (later MACALPINE q.v.)	D.32
HIRST, Sir Edmynd (Langley)	A.580, A.600
HIRST, George K.	G.153
HOARE, F. E.	B.66, J.886
HOBERMAN, Henry D.	F.89
HOCHACHKA, Peter W.	F.263
HOCKADAY, T. D. R.	C.118, C.119, C.121
HOCKENHULL, D. J. D.	J.274
HODGKIN, Sir Alan (Lloyd)	A.56 5 , A.580, A.600, G.172, J.275
HODGKIN, Dorothy Mary Crowfoot	A.506, A.697 See also C.213, C.214
HODGKISS, Kathie	A.580, A.697

HOWARD, Frank L.

Index of correspondents

index of correspondents	
HOEK, Jan B.	A.666, D.75, J.276
HOESCH, Adele von	E.178
HOFFMAN, Paul	A.1016
HOFFMANN-OSTENHOF, Otto	A.580, F.128
HOFSTEN, Bengt v.	D.61
HOKIN, Lowell Edward	A.31, A.500, A.666, A.697, J.277-J.280
HOLLAENDER, Alexander	F.139, F.156
HOLLAND, Philip	H.278
HOLMES, Barbara E.	A.520, J.281
HOLMES, Eric	B.1
HOLMES, Frederic Lawrence	A.7, A.697, A.1272, E.67, J.282-J.286, J.307 See also A.1166
HOLMES, Geoffrey Arthur	C.378
HOLMES, Kenneth Charles	C.227
HOLMES, W.	C.207
HOLSTEN, Katharina (Katinka)	A.991-A.1000
HOLTER, Heinz	B.74, J.304
HOLZER, Helmut	A.666, A.697, C.16, E.257, F.143, H.333, H.414, J.140, J.287, J.288
HOLZER, P.	A.859, A.863
HOMMES, F. A.	F.231
HOPE, Derek B.	J.896
HOPKINS, Sir Frederick Gowland	A.27, A.443, J.289 See also A.414, A.420, A.421, A.423
HOPKINS, Reginald Hadyn	H.427
HOPWOOD, B. E. C.	J.3, J.297
HORECKER, Bernie L.	F.178, J.190, J.229, J.290
HOROWITZ, Norman Harold	A.502, J.291
HORWOOD, M.	G.20
HOSCH, Theodor	A.580

J.346

HUANG, Yeh-Zen	C.172
HUBER, Tyron E.	F.92
HUEHNS, E. R.	G.131
HUGGETT, A. St. John	A.515, A.580, J.792
HUGGINS, Charles Brenton	A.564, A.580, A.605, A.697, F.83, J.292 See also F.136
HUGHES, David Edward	A.623, A.639, A.697, F.9, F.24 G.39, G.175, G.176, G.183, J.254, J.293-J.299, J.303, J.403
HUGHES, J. Trevor	A.76, A.697, F.257
HUIJING, F.	D.73
HULME, A. C.	J.889
HUME, Eleanor Margaret M.	A.446, A.502, A.565, A.580, J.300, J.542
HUME-ROTHERY, William	A.580, C.68, C.69, C.269, C.298
HUNSBERGER, I. Moyer	J.296
HUNTER, F. Edmund	J.886
HUNTER, Gordon D.	G.7
HUTCHENS, John O.	B.77, D.128
HUXLEY, Sir Andrew Fielding	A.697, E.200, G.182
HUXLEY, Sir Julian (Sorell)	A.467

IDELSON, V.	A.431
ILLIES, Joachim	E.398
ILRA INTERNATIONAL RESEARCH ASSOCIATION	J.301
IMPERIAL CANCER RESEARCH FUND	G.105
INGALL,	A.493
INGLE, Dwight J.	H.394-H.396
INGOLD, Sir Christopher (Kelk)	A.517
INGRAM, D. G.	F.219

Institute for scientific information	H.363-H.365
INSTONES, Marianne (née Wolffenstein)	A.581
INTERDISCIPLINARY SCIENCE REVIEWS	H.366-H.372
INTERNATIONAL CONFERENCES ON THE UNITY OF THE SCIENCES/INTERNATIONAL CULTUR FOUNDATION	
IRWIN, Glenn W. Jr.	F.177
ISHIKAWA, Eiji	D.80, D.398
ISMAIL, A. A.	C.166
ISRAEL UNIVERSITIES' STUDY GROUP FOR MIDDLE EASTERN AFFAIRS	G.121
ISSELBACHER, Kurt J.	J.746
ISTITUTO LOMBARDO	A.628
IWAI, Ken	H.397, H.398
IZUME, Seiichi	J.870
JACKSON, Clive G.	C.179
JACKSON, Morton B.	E.482
JACKSON, R. A.	J.913
JACOB, François	F.142
JACOBSOHN, Kurt	A.500, A.581, B.76, F.145
JACOBSON, Victoria Peyser	A.875
JACOBSON, W.	J.925
JACOBY, Fritz	A.443, A.524, A.581, A.667, A.698, A.1021
JACOBY, Kurt	H.287
JACOBY, Lilo	A.1034
JAENICKE, Lothar	A.631, A.667, C.181, E.60, F.354
JAMES, A. T.	J.738
JAMES, William Owen	B.23, C.184, J.302
JANNER, Barnett, Baron	G.66

A.513

JANSEN, B. C. P.

JANSSEN, Curt	A.858-A.864, A.866, A.867
JÄRNEFELT, Johan	F.161
JARRETT, I. G.	G.81
JAYLE, Max-F.	F.73
JEDEIKIN, Lillian A.	J.303
JENNINGS, Margaret (Lady FLOREY)	J.909
JENSEN, Elwood V.	F.232, J.391
JENSEN, Poul K.	B.74, F.107, J.304
JESSOP, W. J. E.	C.6, F.6
JEWISH AGENCY FOR PALESTINE	A.430
JOHNS, Alan T.	A.520, J.546
JOHNSON, B. Connor	See G.114
JOHNSON, Monica (formerly LINDSAY)	A.503
JOHNSON, Ralph H.	J.305, J.913
JOHNSON, William Arthur (Johnny)	A.28, A.581, A.698, J.306- J.309
JOHNSTONE, Joseph Perry	J.310
JOKL, Ernst	E.179, J.311
JOLLY, Alison	D.253
JONAS, Gerald	E.202
JONES, Sir Brynmor	A.446, A.581
JONES, Colin T.	H.314
JONES, E. Sherwood	A.568
JONES, Sir Ewart (Ray Herbert)	C.193, C.339, C.378, J.312 See also C.191, C.264
JONES, Howard A.	H.423
JONES, John D.	F.222
JONES, Kenneth Milner	C.35
JONES, Mary Ellen	D.203 See also D.353
JONES, Reginald Victor	E.130
JONES, Robert	J.314
JONES-MORTIMER, Maurice	J.315

JORDAN, Arthur	A.493, B.90
JORES, A.	A.505
JUGGI, J. S.	C.176
JUKES, Thomas H.	H.335, H.337
JUNG, F.	F.97
JUNG, R.	A.698, F.49
JUNGERMANN, Kurt	J.922
JUNK,	A.497
JURTSHUK, Peter	F.125

KADOWAKI, Hiroko	C.178
KALCKAR, Herman M.	A.605, J.316
KALNITSKY, George	A.699, F.139, J.317
KALOW, W.	J.919
KALTER, H.	H.396
KAMPF,	A.889
KANIUGA, Z.	F.148
KANUNGO, M. S.	J.318
KAPLAN, Nathan O. (Nate)	D.57, E.179, F.88, J.16, J.319
KARK, Pieter	J.320
KARK, Robert M.	F.81, F.88, J.321
KARLSON, Peter	J.902
KARNOVSKY, Manfred L.	F.88, F.347
KASHA, Michael	F.278
KASTLER, Alfred	See E.441
KASTNER, Liesel (see also ADLER, Liselotte)	D.130, D.178-D.180

KASTNER, Liesel (see also ADLER, Liselotte)

KATTERMANN, Reinhard

KATUNUMA, N.

C.160, F.228
See also E.179

KATZ, Sir Bernard

A.490, A.581, A.600, A.699,

C.366, G.160, G.173, G.175,

J.322

KATZ, Joseph	J.323
KATZ, N.	J.922
KAY, H. D.	A.581, B.31, J.659
KAY, N. O.	J.897
KAYA, Seiji	F.280
KEAN, E. A.	F.183
KEECH, D. Bruce	J.324
KEELEY, Thomas Clews	A.581
KEEN, H. H.	C.294, J.546
KEILIN, Anna	J.325
KEILIN, David	A.27, A.446, A.500, A.568, A.581, A.600, J.325 See also A.424, J.791
KEILIN, Joan (later Mrs. D. Whiteley)	A.710, J.325
KEIR, Hamish M.	F.282, G.24
KEIR, J.	A.581
KELEMEN, Mary V.	J.326
KELLER, G.	J.327
KELLUM, Wilbur E.	J.331
KELLY, Anthony	H.444
KELLY, F. C.	C.96
KEMP, Michael B.	J.328
KENDAL, L. P.	A.500
KENDALL, James	D.32
KENDREW, Sir John (Cowdery)	A.941, J.565
KENNAN, George F.	A.699
KENNEDY, Eugene Patrick	J.229, J.329, J.651
KERSCHER, Rudolf	E.298-E.300
KEUL, J.	F.231, F.255, F.298
KEWITZ, Helmut	J.267
KEYNES, Richard Darwin	C.362, C.366, C.367
KEYNES, W. Milo	A.10, D.246
KIDDER, George W.	F.111

KIESSLING, Karl-Heinz	D.257, J.330
KIIL, Fredrik	J.912
кікисні, G.	See J.923
KILBURN, Thomas	J.698
KILGORE, W. J.	F.147, F.155
KILLICK, Esther M.	A.513, A.581
KIM, Hyun Dju	F.263
KIMPTON, Lawrence A.	F.31
KING, C. G.	A.485
KING, E. J.	A.490, G.21, G.29
KING, Peter P.	D.507
KING, Tsoo E.	F.182
KINGSLEY, Warren K.	G.19
KINSELL, Laurance W.	F.118
KIPNIS, David M.	C.173
KIRSTEN, R.	J.921
KISCH, Bruno	J.871
KITZINGER, Charlotte	J.331
KLEE, Ph.	F.19
KLEIBER, Max	B.77, J.332
KLEINMAN, Arthur M.	E.37
KLEINZELLER, Arnost	A.518, A.699, J.333, J.334, See also B.79, D.437
KLEMM, Helen M.	E.472
KLEMPERER, G.	J.876
KLEMPERER, Hugh George	J.256, J.335-J.339
KLENOW, Hans	F.107
KLIM, Rita A.	C.143
KLINGENBERG, E. Martin	A.619, D.154, J.340
KLIOZE, O.	F.39
KNIGHT, B. C.	A.504
KNIVETT, Victor A.	A.493, A.581, B.75, J.341, J.887

KNOOP, Franz	A.27, J.342
KNOWLES, Jeremy Randall	A.699, F.347 See also F.349
KNOWLES, John H.	C.139
KNOWLES, Peter Frank	J.343
KOCH, Edward I.	G.153
KODICEK, Egon	C.172
KOENIGSFELD, Erika (née Schragenheim)	A.518, A.699
KOEPPE, Roger E.	F.125
KÖGL, F.	J.880
KOGUT, Margot	A.462, A.581, A.668, A.699
KOHLER, Robert E.	E.25, E 179
KOLDITZ, Wolfgang	J.344
KOLER, R. D.	G.131
KÖLLER, Otto von	E.136
KOMANT, W.	A.504
KONDRASHOVA, Maria N.	J.345
KÖNIG, Franz, Cardinal	E.438
KÖNIG, Renata	J.346
KORNBERG, Arthur	J.338
KORNBERG, Sir Hans (Leo)	A.497, A.500, A.565, A.574, A.615, A.619, A.632, A.639, A.655, A.668, C.35, F.22, F.43, F.86, F.184, G.27, G.39, G.167 G.168, G.169, G.187, G.201, H.97, H.207, H.291, J.347-J.361 J.591, J.842 See also B.65, E.185, J.914
KOSTERLITZ, Hans W.	A.443, G.182
KÖSTLIN, Annemarie	A.668, A.1001, E.185, E.266 See also E.179
KRAAKE,	A.504
KRAMER, K.	F.172, F.175
KRAMPITZ, Lester O.	A.493, A.699, F.38, J.362
KRANSZ, A.	A.498
KRAUS, H.	J.921

KRAYER, O.	J.876
KREBS, Alma (née DAVIDSON)	A.729
KREBS, Elisabeth (Lise)	A.510, A.539, A.577, A.730- A.744, A.804-A.807, A.838, A.892, A.1272, F.58, F.89 See also A.890
KREBS, Ernst Wolfgang	A.494, A.745-A.762, A.800, A.802, A.805, A.806, A.808, A.818, A.833, A.1272
KREBS, Georg	A.715-A.728, A.808
KREBS, Gisela	A.493, A.581, A.639, A.770- A.776, A.827, A.828, A.832, A.833, A.834, A.835, A.837, A.838, A.840, A.841, A.891, F.52
KREBS, Helen Margaret (later LOWELL)	A.785
KREBS, John Richard	A.786, H.92
KREBS, Lotte	A.805
KREBS, Margaret, Lady	A.31, A.36, A.473, A.643, A.770-A.773, A.777-A.783, A.827, F.22, F.58, F.86, F.88, F.89, F.105, F.107, F.153, F.1
KREBS, Maria	A.31, A.107, A.108, A.501, A.639, A.648, A.763-A.769, A.770-A.775, A.801, A.802, A.804, A.805, A.808, A.809, A.890, A.892, A.905, E.286
KREBS, Paul Stephen	A.784
KREBS, Richard	A.526
KREBS, Walter	A.526
KREIBICH, K.	F.298
KRIEGLSTEIN, J.	C.175
KRIPPAHL, Günther	E.179
KRISHNAN, P. S.	C.170
KROETZ, Klothilde	A.463, A.516, J.363, J.364
KRÖGER, Hans	E.447
KROGH, August	J.365
KRÖHNKE, F.	A.1237
KRONFELD, David S.	F.129

KRVAVICA, S.	J.918
KUBOWITZ, Fritz	E.179
KUENZEL, Peter	C.167
KUHN, Nicholas J.	G.10, J.366, J.367
KUHN, Richard	See E.75
KULATILAKE, A. E.	J.925
KULKA, Richard Georg	J.368
KULONEN, Eino I.	C.163, J.369
KUMAR, Soma	F.245
KUN, Ernest	J.58, J.370
KUNIN, Arthur S.	C.166
KURTI, Nicholas	A.581, A.699, G.107, G.109, G.113, G.114, G.118, G.186 J.371
KURTZ, Adolf	J.372
KUSHMERICK, Martin J.	C.166, J.927
KUSSMANN, Eva Maria	A.464
KYDD, David M.	J.373
LACK, David Lambert	J.374
LAGUNA, José	F.156
LAL, S. B.	J.891
LAMBERT, Robert A.	A.27, A.421, A.422
LAMPRECHT, W.	J.910
LANDAU, Bernard R.	D.186
LANDAU, Richard L.	H.396
LANDON, E.	J.873
LANDOR, S. R.	J.903
LANE, Charles D.	J.375
LANE, Miriam (see ROTHSCHILD)	
LANE, Patricia S.	A.669, A.1002
LANKESTER, J.	C.61, C.71, C.347, C.349, C.353 See also C.62

LANOUE, Kathryn F.	F.308
LARDY, Henry Arnold	E.136, J.370, J.376 See also F.356
LARGE, Peter John	J.377, J.378
LARKIN, J. C.	A.565
LASCELLES, June	J.379-J.384, J.671
LASER, Eva	J.385
LASER, Hans	A.497, J.385
LASERSTEIN, K.	A.539
LAST, S. L.	G.233
LATIES, George G.	A.507, A.700, F.166, J.386
LAUDAHN, Gerhard	J.636
LAURSEN, Richard A.	C.174
LAUTER, S.	A.27, A.410
LAWRENCE, William J. C.	J.828
LAWSON, Alexander	H.437
LAWSON, Robert	A.493
LAZAR, David	G.121
LAZAR, Irving	E.472
LAZZARO, Guiseppe	J.876
LEAF, Alexander	E.427, J.387, J.388
LEAKE, Chauncey D.	F.153
LE BRETON, Eliane	F.73
LEDERER, E.	F.122
LEDINGHAM, John Gerard Garvin	J.910
LEE, Sir Kenneth	C.226
LEECH, F. B.	J.901
LEEVY, Carroll M.	J.719
LEFEVER, R.	J.849
LEGGE, J. W.	J.886
LEHMANN, Hermann	A.443, A.493, A.1026, G.131, J.389
LEHMANN, Jörgen	J.901
LEHNARTZ, E.	F.19, F.109 See also A.449

LEHNINGER, Albert Lester	A.503, A.582, F.26, F.134, F.199, F.334, J.229, J.390, J.391, J.756, J.761, J.850
LEIBACH, Frederick H.	E.65
LEIGHTON, Mary	A.582
LEINEN, Hildegard	A.582
LEITNER, Ursula	A.446, A.503, A.582, A.639, A.700, G.136, J.392
LEITNER, Zoli A.	A.54, A.493, C.125, C.126, F.237, G.136, J.392
LEMBERG, (Max) Rudolf	F.47, J.842
LEMIEUX, Guy	C.180, J.775
LEMMERICH, Jost	E.179
LENFANT, Claude	H.376
LENHART, Robert L.	E.306
LENZ, Robert A.	G.117
LEPSIUS, Richard	A.582
LERNER, Alec	G.98
LETTRÉ, Hans	J.885
LEUTHARDT, F.	A.468, A.526, C.162, F.22, J.1
LEVENBOOK, Leo	A.506, J.886
LEVINE, B.	J.915
LEVINE, Rachmiel	J.913
LEVY, H. Richard	J.393
LEWIN, Heinz	A.582
LEWIS, Ralph W.	J.394
LEYDHECKER, Wolfgang	E.252
LICHTWITZ, Leo	J.395
LIDDELL, Edward George Tandy	A.565, A.568, A.582, C.336 See also C.61
LIEBECQ, Claude	A.500, A.565, A.582, F.102, H.344
LIEBER, Charles S.	D.100, F.199, G.153, J.910
LIECKE, Richard	A.901

	2
LIFSON, Shneior	F.126
LIGETI, Gybrgy	A.701
LILJESTRAND, G.	A.536
LINDAHL, Irmgard	A.632, A.669, A.701, A.1003- A.1007
LINDAHL, Per Eric	A.493, F.72, F.107
LINDBERG, Olov	F.107
LINDSAY, Alexander Dunlop, Baron	A.27
LINDSAY, Derek B.	G.12
LINDSEY, Douglas	J.860
'LINE'	J.396
LINK, Karl Paul	A.521, J.397
LINNANE, Anthony W.	J.782
LINNETT, John (Jack) Wilfred	See C.332
LINSTEAD, Sir (Reginald) Patrick	A.446, G.155, J.152
LINZELL, J. L.	D.79 See also J.923
LIPMANN Fritz Albert	A.31, A.497, A.582, A.701, F.15, G.16, J.228, J.387, J.398–J.401 See also D.107, F.210
LIPPEL, Kenneth	J.917
LIPSCHITZ, W.	J.870
LIPSON, M.	J.433
LLOYD, A. G.	G.40
LLOYD, Brian Beynon	D.172
LLOYD, John B.	H.289
LLOYD, June K.	J.915
LOCKSPEISER, Sir Ben	A.516, A.568, A.582, A.601
LODGE, Thomas	A.493
LOEB, Julius	A.446, A.500, A.582, A.608, A.802-A.804, A.813, A.815- A.843, A.845-A.854, A.858- A.868
LOEB, Robert F.	A.1231, F.10, J.692
LOEBENSTEIN, Annie	A.1036

LOENING, Ulrich E.	J.402
LOESER, Alfred A.	A.503
LOEWI, Gerald	J.403
LOEWI, Otto	A.526, A.565 See also E.196
LÖFFLER, Wilhelm	A.420
LOHMANN, Karl	F.97, F.157, J.404 See also E.54
LÖHR, J.	E 472
LOISELEUR, J.	J.876
LOMINSKI, Iwo	C.159, J.405
LONDON, E. S.	J.876
LONG, Cyril	H.306
LOOSMORE, R. M.	J.892
LOPEZ-ALARCON, Luisa	C.178
LORCH, E.	C.167
LOSADA, Manuel	J.406
LOTHAR, Gabriel	J.908, J.911
LOTSPEICH, William D.	A.565, C.14, D.129, J.850, J.888
LOUGHMAN, Brian C.	B.15
LOUTIT, John Freeman	J.316 See also G.181
LOWE, David	A.582
LOWELL, John	J.930
LOWENSTEIN, John M.	A.620, A.701, F.88, J .367, J.407–J.416 See also D.80
LÖWENTHAL, Karl	J.879
LOWRY, Oliver H.	J.885, J.889
LUCK, J. Murray	F.13
LÜCK, Ursula	A.791, A.890
LUCKMANN, Thomas	F.288
LUCY, Jack A.	H.432, H.433, H.434, H.436
LUFT, Rolf	F.188
LUGG, J. W. H.	J.102, J.897

LUKE, David	J.440
LUND, Patricia	C.176, C.180, F.274, J.559 See also Section D passim.
LUND-OLESEN, Knud	J.930
LUNDQUIST, Frank	D.256
LUNDSGAARD, Einar	A.540, J.869
LURIA, Salvador Edward	E.358, E.472, F.32
LUSH, Brandon	C.111, C.112
LUST, Franz J.	A.508, H.290
LÜST, R.	E.136
LÜТНІ, Н.	D.37, D.38
LUTZ, W.	A.28
LWOFF, André	G.86, J.883
LYNEN, Eva	A.32, E.83
LYNEN, Feodor (Fitzi)	A.464, A.565, J.366, J.417- J.419 See also E.76-E.118, G.143, G.178

MACALPINE, Ida (formerly HIRSCHMANN q.v.)	A.446, A.566, J.420
MACARTHUR, Sir William	A.509
MACBETH, Ronald G.	J.121, J.254
McCALLUM, Ronald Buchanan	J.507
McCANCE, Robert Alexander	A.449, A.508, J.269, J.421, J.844, J.885
McCANN, M. T. M. Casey	G.117, G.118
McCARTY, Maclyn	F.9
McCRIE, J. G.	A.503, A.583, A.601, A.607, B.18 See also B.102
McDERMOTT, Alan	G.205, G.206
McDOWALL, R. J. S.	J.898
MCFARLANE, A. S.	J.422
MACFARLANE, Marjorie	J.423

MACFARLANE, Robert Gwyn	B.104, E.204, G.181 See also E.202
McGARRY, John Denis	C.166, C.167, C.177
McGILVERY, R. W.	J.425
McGIVAN, John D.	See J.921, J.924
MacGLASHAN, Maureen	E.460
McILWAIN, Henry	A.490, A.702, D.27, G.168- G.170, G.172, G.173, G.175, G.176, G.182, J.426-J.428, J.613, J.614
McINTYRE, John	H.163
MACKAY, Ian F. S.	A.508, J.429
McKERNS, Kenneth W.	F.182, F.198
MACLAGAN, Michael	A.583
McLEAN, Patricia	A.670, D.377, J.430, J.919
MacLENNAN, David H.	E.72
McLESKEY, Hamilton	E.366
McMICHAEL, Sir John	C.84, J.523, J.525
MACMILLAN, Angus L.	J.431
MACPHEE, Ian W.	J.432
McPHEE, John	J.433
McQUILLEN, Kenneth	C.93
MACRAE, T. F.	A.494

MACHADO, A.	H.348
MADDOX, John (Royden)	C.323, E.236, E.252, H.97, H.382, H.383 See also E.245
MADSEN, Neil Bernard	J.434, J.435
MAGEE, Bryan	C.158
MAGEE, H. E.	G.136
MAGEE, Peter N.	C.167, F.304
MAGNES, J. L.	A.425

MAGNUS-LEVY, A.	F.10, J.873, J.885
MAHARISHI EUROPEAN RESEARCH UNIVERSITY	G.122
MAHARISHI INTERNATIONAL COLLEGE/OXFORD TRANSCENDENTAL MEDITATION CENTRE	G.122
MAHLER, Henry R.	J.326
MAHLER, Robert	J.436
MAIER-LIEBNITZ, Heinz	A.702, E.298
MAJCHROWICZ, Edward	H.399
MAJOR, Victor T. D. H.	J.917
MALAMUD, Daniel	H.229
MALIK, B. K.	C.174
MALONE, P. C.	J.912
MANDEL, Paul	B.76
MANDELSTAM, Joel	A.702, C.29, C.93, G.183, G.194, J.437
MANDERSCHEID, Hildegard	J.874
MANDL, A.	A.1033
MANGUM, Charlotte P.	F.263
MANN, Cecilia	A.490
MANN, George V.	J.917
MANN, Golo	J.438-J.440
MANN, Thaddeus Robert Rudolph	A.465, A.490, A.566, A.583, B.20
MANN, Thomas	See J.438-J.440
MANNING, Robert T.	F.256, J.902
MANSFORD, Keith R. L.	D.98, D.267, D.268, J.441
MANSOUR, Tag E.	J.138
MARGARIA, Rodolfo	D.169
MARIEN, Michael	E.464
MARKESE, James J.	J.921
MAROTTA, Domenico	See J.442
MARRACK, David	A.36, F.123
MARRACK, J. R.	A.443, A.446
MARRIAN, Guy Frederic	A.583, G.105, J.339, J.407

MARCHALL C. (O.H.) B.	1.2
MARSHALL, Sir (Oshley) Roy	J.2
MARSTON, Hedley R.	J.901 A.702, A.1273-A.1275
MARTIN, Anne Vivienne	45 C720280
MARTIN, Archer John Porter	J.886
MARTIN, Sir Charles	A.503
MARTIN, Sir David (Christie)	A.494, A.583, A.601, J.828
MARTIN, Robert D.	D.253
MARTINI, G. A.	E.265
MARTIUS, Carl	A.464, F.76, J.443 See also E.67, J.887
MARUYAMA, Koscak	E.158, F.280
MASKELL, E. J.	A.446
MASON, John	D.79
MASORO, Edward J.	D.272
MASSACHUSETTS GENERAL HOSPITAL SCIENTIFIC ADVISORY COMMITTEE	G.123-G.125
MASSEY, Vincent	J.444
MASSIEU, Guillermo H. (Willie)	J.445, J.446 See also D.206
MASSON, Sir (James) Irvine (Orme)	A.438, A.441, A.446, A.470, A.478, A.480, A.497, A.583, B.2, B.3, B.5, B.11-B.14, B.18, B.44, B.47, B.53, B.78-B.82, B.87, D.34, F.8 See also B.41
MASTERMAN, Sir John (Cecil)	A.583
MATHIAS, A. P.	G.40
MATSUOKA, Toshio	H.398
MATTHEUS, Peter	A.520
MAXWELL, Ian Robert	A.583, A.702, F.115, H.393
MAY, Paul M.	G.97
MAY, Simon	A.702, E.473
MAYER, Claudius F.	See E.120
MAYER, William V.	F.85
MAYES, Peter Arthur	J.447

MAYOR, Federico	F.119, F.184, G.161, G.162 J.448, J.449, J.452, J.505 See also D.311
MAZAR, B.	F.93
MEAD, Margaret	J.450
MEADER, Ralph G.	J.692
MEAGER, Walter Leo	H.68, H.389, H.425
MEANS, J. H.	J.388
MECKE, Reinhard	F.149
MEDAWAR, Sir Peter (Brian)	A.702, J.451
MEDICAL PROTECTION SOCIETY LIMITED	A.607
MEDICAL RESEARCH COUNCIL	G.126
MEDINA, José María	J.452 See also D.379
MEEK, Geoffrey Arthur	J.453
MEHLMAN, Myron A.	J.454
MEIER, Rolf	A.518, J.455
MEISTER, Alton	H.290, H.295, H.346, J.886
MELLANBY, Sir Edward	A.438, A.500, B.33, B.34, B.37 B.53, B.54, B.55, B.58, B.67 See also F.8, J.688, J.887
MELLANBY, Jane Helen	A.1059, J.456
MELLANBY, Kenneth	A.446, A.494, A.583, A.702, B.32, E.215, G.107, G.113, J.166, J.457
MELLANBY, May, Lady	A.583
MELVILLE, Sir Harry Work	J.734
MENAHAN, Lawrence A.	J.457
MENDEL, Bruno	A.446, A.497, D.27, J.458- J.460 See also G.160
MENDEL, Felix	A.1017
MENDEL, Gerald	A.525
MENDEL, Hertha	J.458-J.460
MENDELSON, Janice A.	J.860
MENDELSSOHN, Kurt Albert Georg	F.281

MENNE, Fritz	A.583
MENTAL HEALTH FOUNDATION	G.127
MER, C. L.	G.11
MERRITT, Doris H.	A.605, J.461
MERRITT, E. S.	F.222
METABOLIC DISEASE INSTITUTE	G.127
METROPOLITAN POLICE	E.473
MEYER, E. Gerald	A.36
MEYER, Karl	J.462
MEYER, Paul	A.511
MEYERHOF, Geoffrey G.	J.463
MEYERHOF, Otto Fritz	A.27 See also E.119-E.128, J.463
MEYERHOFF, Erich	E.120, J.436
MEYERS, C. J.	A.1072
MEYER-VIOL, P. G.	E.179
MEYER ZU SCHWABEDISSEN, Otto	J.464
MICHAELIS, Anthony R.	H.366-H.372
MICHAELIS, Eva M.	J.465
MICHAELSON, Israel C.	D.327
MICHEL, Charles	J.923
MICHELSEN, J.	J.872
MICROBIOLOGICAL RESEARCH ESTABLISHMENT	G.128
MIDDLETON, John E.	J.912
MIGICOVSKY, B. B.	See F.222
MIHRAM, G. Arthur	H.367, J.466
MILBURN, T. Robert	A.512, A.702
MILES, Sir (Arnold) Ashley	A.583, A.601
MILES-SEVERAC LIMITED	E.179
MILHEIRO, E.	A.494
MILHORAT, A. T.	J.874
MILLBANK, John	J.893
MILLER, A. T.	J.895

MILLER, Benjamin F.	H.21
MILLER, Derek S.	C.162, F.231
MILLER, H. M.	B.43, B.44
MILLER, James V.	C.175
MILLIGAN, L. P.	C.166
MILLIGAN, W. O.	A.36, F.123, F.124
MILLS, A. K.	F.143, F.144
MILLS, Colin F.	J.467, J.903
MILLWARD, D.	J.919
MILMANN, L. S.	J.920
MINISTRY OF HEALTH	G.129
MINISTRY OF OVERSEAS DEVELOPMENT INTERNATIONAL RECRUITMENT UNIT	G.129
MIRSKY, Alfred E.	C.23
MISTRY, S. P.	C.182
MITCHELL, Joseph Stanley	H.128
MITCHELL, M. L.	J.501
MITCHELL, Peter Dennis	J.468, J.565
MODEL, Alfred	J.469
MODI, V. V.	J.915
MOE, Henry Allen	C.132
MÖLLENDORFF, Wilhelm von	A.403
MÖLLER, Jens	See J.931
MOLLISON, Patrick Loudon	G.181
MOMMAERTS, W. F. H. M.	H.288
MONGUIÓ, J.	A.520
MONOD, Jacques	F.73, J.470
MOON, Sun Myung	See G.108
MOORE, Stanford	A.702, J.471
MOORE, Thomas (Tommy)	A.446, A.490, A.583, J.289, J.919
MORALES, Manuel F.	F.29, J.891
MORAN, T.	B.34, G.72
MORGAN, E. James	D.37

MYRBÄCK, Karl

Index of correspondents

MORGAN, H. G.	C.142
MORGAN, Howard E.	J.472
MORGAN, Patricia	E.474
MORGAN, Walter Thomas James	A.515
MORIN, Robert J.	G.14
MORRIS, Harold P.	F.182, F.210, J.910 See also F.160
MORRIS, Robert	G.73
MORTON, Richard Alan	A.443, A.446, A.490, A.568, A.583, A.601, C.22, G.177, J.468, J.473
MORTON, Robert K.	A.583, C.163, F.72
MOSELEY, B. E.	G.215
MOSER, Sir Claus (Adolf)	E.460
MOSES, V.	C.4
MOSS, Karen M.	C.179, J.924
MOTHES, Hilda	J.474
MOTHES, Kurt	A.583, A.632, A.670, A.702, F.212, G.82–G.84, G.142, H.59 See also F.343, J.474
MOTTRAM, Vernon Henry	See E.179
MOTZ, Hans	A.583 See also D.116
MOULT, F. H.	J.397
MOWBRAY, Jain	J.355
MÜLLHOFER, Gerd	J.919
MULLIKEN, Robert Sanderson	G.106
MULVIHILL, John J.	H.91
MUNTZ, John A.	J.890
MUNZ, Walter (formerly MÜNZESHEIMER)	A.510
MURALT, Alexander von	A.670, E.185
MURRAY, Keith Anderson Hope, Baron	C.271 See also C.197
MÜTING, D.	A.670, F.236
MYNANT, N. B.	J.475

D.15, H.286

NEUBERT, Kurt

Index of correspondents

NACHMANSOHN, David	A.471, A.584, A.671, A.703, F.10, F.43, F.70, F.89, J.70, J.476-J.485A See also E.125-E.127, F.234
NADKARNI, G. B.	J.903
NAFTALIN, Lionel	A.584, A.601, J.197, J.486- J.488
NAIDU, N. Chandrasekharam	J.916
NAJJAR, Victor A.	F.117, H.331, H.377, H.378
NAKAI, Junnosuke	F.335
NASCHOLD, Frieder	F.287
NASSAU, Erich	A.521, A.584, F.93
NATIONAL ACADEMY OF SCIENCES	A.605, G.130, G.131
NATIONAL ASSOCIATION FOR THE CARE AND RESETTLEMENT OF OFFENDERS	E.475
NATIONAL COAL BOARD RESEARCH LABORATORY	J.906
NATIONAL SCIENCE FOUNDATION	G.132
NATURE	A.27, A.437, A.440, A.1233, E.236, E.244-E.247, H.96, H.97 H.380-H.387
NEAME, K. D.	J.904, J.905
NEEDHAM, Dorothy Mary Moyle	A.500, A.584, F.17, G.172, G.173, G.177, J.489
NEEDHAM, Joseph	J.490 See also G.21
NEGELEIN, Erwin	J.791
NEIL, Eric	See D.171
NEKHOROCHEFF, J.	J.890
NEUBERG, Carl	A.27, A.506, J.491
NEUBERG, Gertrude	A.870, E.120
NEUBERG, Irene	J.492
NEUBERGER, Albert	A.447, A.504, A.568, A.584, A.601, A.703, G.40, G.92, G.101, J.349, J.493 See also G.126

F.50

NEUDOERFFER, T. S.	F.219
NEUHAUS, Rolf	E.136, E.180, E.299
NEUMANN, H.	B.35
NEUMANN, W.	F.50
NEUMEISTER, Hanna	E.447
NEUNHOFFER, O.	J.494
NEURATH, Hans	J.160
NEUZIL, Eugène	A.610, A.703, J.495
NEWSHOLME, Eric Arthur	A.639, D.507, G.32, J.496- J.499, J.609, J.664
NEW SCIENTIST	E.223
NEWTON, W. H.	A.447
NICHOLAS, D. J. Donald	A.568, A.584
NICOLAYSEN, Ragnar	A.34, A.500, F.20, J.890
NIEMEYER, Hermann	J.908
NISMAN, B.	B.75
NISSEN, Rudolf	A.32
NOBLE, Ernest P.	J.500
NOBLE, R. L.	J.860
NOLAN, J. V.	J.909
NORD, F. F.	J.614, J.615
NORDAL, A.	F.20
nordmann, R.	C.180
NORRINGTON, Sir Arthur (Lionel Pugh)	A.574, A.584, A.628, A.703, C.24, C.207, C.322, C.377, J.368, J.864 See also C.263, C.266
NORTH, Antony Charles Thomas	See C.227
NORTHAM, R. H.	A.559, A.560, A.703
NORTHUMBERLAND, Hugh Algernon Percy, Duke of	G.6
NORTON, George	A.703
NORTON, Trude	A.703
NOSSAL, Peter M.	A.31, A.501, J.324, J.350, J.501-J.503

NOVELLI, G.

Index of correspondents

David

J.398

NOWINSKI, Wiktor W.	A.36, A.500, F.125, F.153, J.504
NOWOTNY, O. H.	H.334
NUFFIELD FOUNDATION	G.45, G.133-G.135
NÜLSEN, Franz	A.804-A.819, A.828-A.834, A.836-A.838, A.840, A.845- A.847, A.850, A.853, A.860 See also A.863
NUÑEZ de CASTRO, Ignacio	J.505
NUTRITION SOCIETY	G.136
OAKESHOTT, Sir Walter (Fraser)	J.506
OBERDISSE, K.	F.71
O'BRIEN, Daniel P.	A.428, B.41, J.692
O'BRIEN, J. R. Percy	A.491, C.84, C.370, C.374, J.335, J.507, J.542, J.859
OCHOA, Severo	A.472, A.605, A.704, D.38, F.11, F.43, F.185, J.508-J.511
OCKWELL, Andrew	E.476
O'GORMAN, G.	C.159
OGG, Sir William Gammie	A.513
OGSTON, Alexander George	A.584, A.704, A.1188, C.10, C.102, C.184, C.186, C.338, G.177, J.76, J.206, J.512-J.515 See also J.572
OLBY, Robert C.	J.516
OLDFIELD, Richard Charles	C.298
OLIPHANT, Sir Mark (Marcus Laurence Elwin)	J.86
OLIVER, Ivan T.	F.285, J.517
OLIVER, Wade	F.8, F.9
OLSON, Robert Eugene	C.163, C.164, D.172, F.105, F.183, F.240, F.246, J.40, J.518-J.520 See also F.117

OMNIHEALTH	G.137
ONTKO, Joseph A.	D.203, J.521
OPARIN, A. I.	J.522
OPARINA, Nina Petrovna	J.522
OPIE, Lionel Henry	D.61, D.267-D.270, J.523- J.530
OPPENHEIMER, Carl	J.879
ORD, Margery G.	C.102
orden pour le mérite für wissenschaften und künste	G.138-G.152
ÖRSTRÖM, Åke	D.20, D.21, J.879
ORTEN, James M.	J.895, J.896
OSTER, Hans	J.531
OSTER, Jack H.	A.521
OSTERN, Pawel	J.532 See also A.465
OSUJI, Godson	H.346
OTTOLENGHI, Celestina	C.169, D.83
OTTOVA, Ludmila	J.902
OXFORD MAGAZINE	C.28, C.228, C.267, C.329- C.334
OXFORD UNIVERSITY PRESS (see also CLARENDON PRESS OXFORD)	E.154-E.157, H.250, H.390- H.392
OXFORDSHIRE PROBATION AND AFTER-CARE SERVICE	E.477

PAGE, Irwine H.	A.512, A.566
PALACIOS, Rafael	F.333
PALLADIN,	See F.5
PANETH, Friedrich Adolf	B.30
PAOLINI DEL VECCHIO, Eugenio E. de	F.230
PAPA, Sergio	F.171, F.208
PAPPENHEIMER, John R.	F.175

PAQUET, Robert J.	J.916
PARKE, Dennis V.	H.444
PARKER, lan	D.253
PARKES, Sir Alan Sterling	J.907
PARKES, G. D.	A.584
PARNAS, J. K.	A.465
PARPART, Arthur K.	J.201
PARRY, John H.	H.163
PARRY-JONES, W. LI.	E.478
PARSONS, Dennis S.	C.102, C.224
PASCAUD, M.	C.180
PASSMORE, R.	J.900
PASSONNEAU, Janet V.	J.533
PASTERNAK, Charles A.	A.584, A.704
PATERSON, C. H.	C.67, C.87, C.94, C.98, C.101, C.109, C.115, C.192, C.193, C.238, C.261, C.271, C.339, C.340, C.344, C.345, C.347-C.349, C.351, J.658 See also C.104, C.219, C.269, C.332, C.358
PATMORE, J. A.	See G.238
PATON, Sir William (Drummond Macdonald)	A.601, A.704, C.208, C.263, C.264, C.371, E.130, J.73, J.549 See also C.223, C.269, C.277
PATRICK, William	D.505
PATTERSON, Tom J. S.	J.683
PAUL, Doris	A.704
PAUL, John	G.130, G.193, G.194
PAULING, Linus	J.534
PAULSEN, Andreas	F.51
PAULUS, Henry	D.508
PAYNE, Jack M.	G.11
PEACOCKE, Arthur Robert	B.15
PEARCE, P. J.	J.916

PEA	ARSALL, William Harold	A.504
PEA	ART, Sir (William) Stanley	J.909
PEC	CHSTEIN, J.	E.437, E.478
PEE	L, John	J.909
PEI	ERLS, Eugenia, Lady	See J.535
PEII	ERLS, Sir Rudolf (Ernst)	C.298, G.73 See also E.210
PEL	С, В.	C.172
PEN	NDL, Martin	J.536
PEN	NNIAL, Ralph	F.196, F.211
PEN	NNINGTON, R. J.	J.895
PEN	NROSE, Lionel Sharples	See E.200
PER	KINS, John Richard	J.537
PER	LMANN, Gertrude E.	F.30
PÉR	ON, Fernand G.	J.538
PER	RIN, Sir Michael (Willcox)	C.160
PER	RY, Samuel Victor	A.704, G.179, J.339, J.378
PER	RUTZ, Max Ferdinand	A.601, C.14, C.213, E.441, J.442, J.539, J.565
PET	ER, Albert	A.402
PÉT	ERFI, Tibor	J.875
PET	ERS, Sir Rudolph (Albert)	A.27, A.28, A.31, A.556, A.558, A.568, A.574, A.584, C.84, G.176, G.177, H.101, J.89, J.176, J.310, J.379, J.402, J.433, J.540-J.544, J.734, J.854, J.855 See also A.421, C.335
PET	TERSEN, George Bouet	A.584, J.171, J.545-J.547
PET	THIG, R.	F.278
PET	IT, Marie-Anne	C.189
PET	TRIDES, P.	E.60
PET	TTE, Dirk	E.185, F.287, J.548
PET	TTERSEN, Max	J.928
PFE	EIFFER, E. F.	F.300

PFEIFFER, Heinrich	E.76, E.83
PFIZER GROUP	J.549
PHEAR, Elizabeth	B.90
PHILLIPS, Charles Garrett	A.584, A.704, E.200
PHILLIPS, Sir David (Chilton)	C.213-C.222, C.224, C.226- C.228, G.40, G.163, G.176, G.177, G.179, G.180, J.246, J.539 See also G.43
PHILLIPSON, Andrew Tindal	J.550
PHILPOT, Flora ('Flops')	J.793
PHIZACKERLEY, Patrick John Ruthron	H.383, J.551, J.644
PICHOTKA, Joseph	J.552
PICKARD-CAMBRIDGE, Sir Arthur (Wallace)	A.438
PICKERING, Sir George White	A.566, C.110, C.116, C.185, C.198, C.202, C.203, C.238, C.266, J.5, J.97, J.136, J.206, J.518, J.553, J.554, J.659, J.825, J.859
PICKERING, Mary Carola, Lady	A.704
PICKFORD, Mary	J.926
PIERCY, William Piercy, Baron	C.84
PIERPOINT, W. Stanley	A.671, J.555
PIKE, John E.	J.920
PILON, Huguette	H.282
PILSTRÖM, Lars	C.178
PINCUS, Gregory	D.129
PINES, A. Leon	E.412
PINTO, Ruy E.	F.145
PIRIE, Antoinette	A.566, C.3, C.114, C.115, C.352, G.82, G.136, J.229, J.556
PIRIE, Norman Wingate (Bill)	A.497, G.158, J.557, J.704
PITTENDRIGH, Colin S.	J.739
PITTS, Robert Franklin	F.175, J.558-J.560, J.812
PLANCK, Max	A.27

PLANT, Ilse	A.1022
PLASKETT, Harry Hemley	A.584, C.61, C.62
PLATTS, Margaret	A.566
PLAUT, Gerhard W. E.	F.304
POCCHIARI, Francesco	C.164
POETHEN, H.	J.897
POGELL, Burton M.	F.117, J.561
POGSON, C. I.	G.32
POHL, Robert	A.402
POLLOCK, Martin Rivers	G.73, G.167, J.132
POLONOVSKI, Jacques	F.73, F.122
POLONOVSKI, Michel	A.501
PÖLS, Werner	E.291
POMERAT, Gerard R.	A.472, A.476, A.507, A.556, A.584, B.45-B.51, C.129-C.136, C.138, F.8, F.9, J.147, J.381, J.502
PONTECORVO, Guido	A.601, J.562 See also D.469
POON, Philip	C.181
POORTMANS, Jacques R.	F.229, F.298, F.335
POPJÁK, George Joseph	C.62, G.180, G.181, J.563 See also C.60
POPPER, Hans	F.89, H.403
POPPER, Sir Karl (Raimund)	A.671, A.704, J.564-J.567
PORTEOUS, John Wardman	J.568, J.569 See also D.445
PORTER, Sir George	E.355
PORTER, Helen Kemp	A.623, C.162
PORTER, J. R.	F.33
PORTER, M. F.	See J.913
PORTER, Rodney Robert	A.626, A.704, B.98, C.369- C.372, G.156, G.180, J.570
POSENER, L. N.	J.16
POSTGATE, John R.	C.158, J.905

A.490, A.584
A.704, F.34, J.571-J.574 See also B.43
C.174
J.929
J.930
A.584, A.623, C.165, F.57, F.182, J.575
J.576
J.289
A.601, C.91, C.111, C.200, C.205-C.211, C.215, C.216, C.219-C.228, C.369, C.371, F.266, J.114 See also C.203, C.247, C.295, C.322
E.478 See also E.396
A.1025
A.1025
J.577
C.16
A.506
D.335, D.336, D.338, J.578
F.263
C.376
G.153
J.209
A.501
G.153
G.16, J.850
A.508, A.584, B.70, E.201

QUAGLIARIELLO, Ernesto	F.158, F.197, F.207, F.208, J.579 See also F.171
QUAGLIARIELLO, Gaetano	A.28, A.469, F.18, J.580
QUARRELL, A. G.	A.497
QUASTEL, Juda Hirsch	A.31, A.429, A.497, A.568, A.585, A.704, G.170, J.278,

QUAYLE, John Rodney

A.639, A.704, C.35, D.51,
D.509, G.183, G.184, J.315,

J.586-J.591 See also A.6

J.435, J.581-J.585

QUINTON, Anthony Meredith, Baron A.704, C.377

RABIN, Brian Robert	H.437, J.28
RACAH, G.	F.126, G.103
RACE, Robert Russell	A.494
RACKER, Efraim	A.585, F.121, J.592
RADDA, György Károly	See C.224, D.63
RADO, Richard	A.443, A.501, A.585, A.705, J.593
RAGGETT, Peter Rufus	J.594
RÄIHÄ, Niels	F.201
RAIJMAN, Luisa Judit	J.595-J.598 See also D.203, D.353

RAILING, Clare A.432, A.490

RAINE, D. Noel G.204-G.206

See also G.202

RAINSBURY, Rebecca G.220-G.223, J.599, J.600
RAISON, Timothy (Hugh Francis) C.332

RAISON, Timothy (Hugh Francis)

C.332

RAISTRICK, Harold

B.32, B.34

RAJA YOGA CENTRE G.153
RAMAN, Sir C. Venkata A.30

RAMSAY MEMORIAL FELLOWSHIP TRUST G.153

RANDALL, Sir John (Turton)	A.566, C.212
RANDLE, Sir Philip John	A.620, A.643, A.705, D.369, D.512, F.258, H.431, J.190, J.250, J.496, J.497, J.601 See also A.1239, C.119, G.18
RANKS HOVIS McDOUGALL	J.602
RAO, G. S.	G.130
RAO, K. Vasudeva	J.931
RAPER, Henry Stanley	A.447
RAPOPORT, Sam. M.	A.29, E.54, F.97, J.603
RASMUSSEN, Howard	D.454, J.911
RASMUSSEN, Ulla	J.910
RASPÉ, Gerhard	J.636, J.637, J.639
RATHBONE, Eleanor	A.775, B.79
RATHBONE, Leon	C.162
RAUCH, Sigurd	F.75, F.76, J.907
RAY, Ruth E.	J.901
READING, H. W.	J.902
RECKNAGEL, Richard O.	C.165
REDCLIFFE-MAUD, John Primatt, Baron	B.33
REDFEARN, E. R.	J.900
REED, Lester James	F.155, J.604
REES, Merlyn	See E.460
REEVES, Richard E.	J.923
REHDER, Marie Luise	A.31, A.705, A.891, E.180
REHM, Warren S.	J.277
REHN, Eduard	A.27, A.28, A.31
REICH, Edward	E.184
REICHARDT, Armin	J.918
REICHELT, K. L.	D.88, F.203
REICHERT, T.	A.28
REICHSTEIN, T.	A.503
REID, Eric	F.323
REID, John V. O.	H.428

REID, Lynne M.	F.346
REID, R. L.	C.160, D.64
REID, Robert A.	H.443
REINER, E.	A.585
REINERT, Harald	J.549
REINZ, Max	J.874
REGENSBURGER, R. (née Oppenheimer)	A.494
RELMAN, Arnold S.	E.479, E.493, F.262
REMMER, H.	F.97, F.307
RENOLD, Albert E.	F.128, J.845
RENSHAW, Charles C.	H.400
RENTHE-FINK, Barbara von	E.479
research society on alcoholism	G.153
REYERO, Cristina	C.167
REYNOLDS, C. H.	F.191, H.434
RICHARDS, Peter	F.297, J.926
RICHARDSON, George Barclay	H.391
RICHET, Gabriel	F.19
RICHMOND, Jonas E.	F.182, F.218
RICHTER, Derek	A.585, F.47, F.72, F.328, J.119, J.616, J.880
RICHTER, Dietmar	J.400
RICHTER, J. F. P.	J.315
RIECHERT, Tr.	J.212
RIETZ, Werner	See E.479
RIMINGTON, Claude	A.506, G.28, G.167
RITTENBERG, David	A.585, B.71 See also C.160
RITTMAN, Trude	A.705
RIVERS, J. P. W.	C.170
ROBBIE, W. A.	J.883
ROBBINS, Lionel Charles, Baron	G.238
ROBB-SMITH, Alastair Hamish Tioreach	A.585, C.376, E.23, J.403, J.605

ROBERTS, Irene S.	J.884
ROBERTS, Michael B. V.	H.297-H.301
ROBERTS, Philip J.	C.172
ROBERTS, S. Colin	H.250
ROBERTSON CENTRE.	E.480
ROBERTSON, Hamish A.	F.222
ROBERTSON, John Monteath	A.447
ROBERTSON, Sir Rutherford (Ness)	E.198, G.173, G.179
ROBICHON-SZULMAJSTER, H. de	C.158
ROBICSEK, Francis	A.685, F.314 See also A.37
ROBIN, Eugene D.	F.241, J.755, J.756, J.915
ROBINSON, Donald S.	A.705, G.180, G.183, G.184, J.366, J.367, J.606
ROBINSON, F. A.	J.735
ROBINSON, J. R.	G.154, J.888
ROBINSON, Neville	A.705
ROBINSON, Sir Robert	A.557, A.585, A.601, J.982
ROBSON, W.	G.21
ROCHE, Jean	A.30, A.507, C.158, F.73, F.7 J.607
ROCKEFELLER FOUNDATION	A.27, A.428, A.436, A.472, A.476, B.17, B.18, B.41-B.52, B.65, C.129-C.139, D.30, E.198, E.202
RODAHL, Kaare	C.169
RODBELL, Martin	D.86 See also E.200
RODD, E. H.	H.115
ROGERS, Anne M. T.	E.481
ROGERS, Howard J.	J.616
ROLDAN, Alicia	C.173
ROLLESTON, Francis Stopford	F.220, J.608-J.610 See also C.19

RONA, Peter	J.870, J.874
RONAYNE, J.	J.611
RÖNTGEN, William Conrad	See E.130
ROPER, Joseph Alan	J.612
ROSBAUD, Paul	H.302
ROSE, D. P.	H.71
ROSE, E. A.	G.234
ROSE, Steven P. R.	H.281, J.613-J.616
ROSENBAUM, Käte	A.1034
ROSENBERG, Dora A.	A.516
ROSENBERG, H.	A.443, A.447, A.518
ROSENBERG, Harry	A.585, J.914
ROSENBERG, Jean	A.451
ROSENBLUETH, Arturo	A.613
ROSENFELD, L.	D.110
ROSENHEAD, Jonathan	G.74
ROSENHEIM, M. L.	G.40
ROSENSTEIN, Gertrud	A.787, A.805
ROSENSTEIN, Werner A.	A.787, A.805
ROSENSTOCK, Werner	G.18, G.233-G.235, G.238
ROSENTHAL, Thomas Gabriel	J.439
ROSS, Brian D.	A.705, C.117, D.83, G.13, J.617, J.924
ROSS, P. S.	C.282, C.283
ROSS, Walter A.	A.31, A.501, A.566, A.585, A.633, A.640
ROSSI, Ettore A.	A.32, F.255
ROSSI-FANELLI, A.	F.61, J.893 See also G.5
ROSSITER, R. J.	See J.902
ROSSOW, Walter	A.705
ROTBLAT, Joseph	G.153

J.375
A.477, A.511, A.601, G.6, J.19, J.618-J.623, J.665
A.508, A.585, J.623
A.610
C.168
E.141, E.143-E.148, E.156, E.237, H.198
A.1008
D.331, G.184, J.624
J.625
A.705, J.626
J.924
J.894
A.592
A.424, A.436, A.444-A.448, A.567, A.568, A.598-A.601, A.602, A.609, G.154-G.189
G.190
A.650
A.607, A.628, G.191
D.308, G.71, J.625-J.630 See also D.80, D.97
F.49
A.494, F.142, J.631
A.540, J.871, J.879
A.505
C.283
J.316
C.380-C.389
G.130, G.131
J.757, J.759
G.202, G.203, G.205, D.186, J.632, J.633

SABIN, Albert B.	F.234
SADDLER, Hugh	G.74
SÁEZ TORMO, Guillermo	J.634
SAFFRAN, Murray	E.44
SALAMAN, Redcliffe Nathan	A.31, A.427, A.447, A.501, A.1029, J.493, J.877
SALISBURY, Sir Edward (James)	A.586, A.601
SALISBURY, Robert Arthur James Gascoyne Cecil, 5th Marquis	A.569
SALOMON, Kurt	A.511
SALOMON, Michel	H.404, H.405
SALONEN, Neil Albert	G.113-G.115
SALZBURG, Peter	A.1031, A.1032
SAMBROOK, lan	J.914
SAMSON, Frederick E.	J.596
SANADI, D. Rao	H.374 See also F.206
SANDERS, Benjamin E.	F.182
SANDERS, J. N.	See C.225
SANDERS, R.	A.793
SANDFORD, Sir Folliott Herbert	C.10, C.24, C.78, C.84, C.92, C.101, C.105, C.106, C.194, C.197, C.199, C.219-C.224, C.227, C.272, C.275, C.282, C.334, C.342, C.344, C.345, C.349, C.353, C.356, C.358, J.372, J.383, J.388
SANDFORD, K. S.	See C.86
SANDHEIM, Henry G.	A.633
SANDSON, John I.	A.684
SANGER, Frederick	G.172
SANWAL, G. G.	C.170
SAPAG-HAGAR, M.	J.921, J.930
SAREEN, K. N.	C.173
SARGANT, D. G.	H.36

SARGEANT, K.	D.213, G.128
SARIS, Nils-Erik	F.270
SARRE, H. J.	F.49
SARTRE, Jean-Paul	A.943
SAUNDERS, B. C.	J.882
SAUNDERS, J. T.	D.13
SAVER, Jeffrey L.	E.501
SAZ, Howard Jay	A.497, J.635
SCARBOROUGH, Harold	J.210
SCHAEFER, Hans	E.448
SCHAUR, R. Jorg	J.919
SCHEIN, Philip S.	C.168
SCHERING AG.	J.636-J.640
SCHETTLER, Gotthard	E.265-E.267, E.434
SCHIFFMANN, Y.	H.352
SCHILD, Heinz	J.899
SCHIMASSEK, Hans	E.119, J.55, J.641
SCHINDLER, Dali	F.269
SCHLESINGER, Max	A.1032, A.1033, A.1038
SCHLITTLER, E.	F.90
SCHLOSSMANN, H. A.	A.497
SCHMID, Roswitha	E.149-E.153
SCHMIDT, F. W.	D.91
SCHMIDT, Gerhard	A.510, J.797
SCHMIDT, G. M. J.	F.94
SCHMIDT-NIELSSEN, Bodil	F.178, J.365
SCHMIDT-NIELSON, Knut	E. 196 See also F.138
SCHMITT, Francis O.	A.505, F.71
SCHMITZ, Birgit	E.481
SCHOELLER, W.	J.870
SCHOENHEIMER, Rudolf	J.642
SCHOENTAL, Regina	D.245, J.643

SCHOFFENIELS, E.	H.94
SCHOLZ, Roland	J.909, J.915
SCHÖNBECK, Fritz	A.501
SCHÖNBERG, Alexander	G.233
SCHRAGENHEIM, Erika see KOENIGSFELD	
SCHRAGENHEIM, Ilse	A.507, A.586, A.791, F.139
SCHRAM, Mildred W. S.	F.4
SCHREIBER, Gerhard	D.203
SCHULTZE, M. O.	F.36
SCHUREK, H. J.	C.169
SCHÜTTE, E.	E.174
SCHUTZ, F.	A.447
SCHWARTZ, Helen M.	F.241, J.904
SCHWARTZ, Theodore B.	F.83
SCHWARZ, Erwin	F.94
SCHWEITZER, Alfred	A.443, A.447, A.1031
SCIENCE RESEARCH COUNCIL	G.192-G.201
SCORNIK, Oscar	C.182
SCOTT, C. M.	A.504
SCOTT, Sir Ronald Bodley	H.392
SCRUTTON, Michael Christopher	D.88, D.423, J.644-J.647
SEAMAN, Gerald R.	F.124
SECKEL, Grete	F.14, F.43
SEEBOHM, Hans-Bernhard	J.821
SEGAL, Harold L.	F.155, F.184
SEIFRIZ, William	J.888
SELDIN, Donald W.	F.267, F.295, F.337, H.64
SELKURT, Ewald E.	J.798
SELLINGER, Otto Z.	D.424
SELYE, Hans	E.412, J.648-J.650
SEMENZA, Giorgio	A.673, H.423, J.651
SENDROY, Julius	A.516, A.586, J.882

SEUBERT, W.	J.913
SEUFERT, C. D.	F.297
SEVERIN, S. Evgenii	J.653
SEVERINA, Irena	J.652
SHALEK, Robert J.	A.36
SHAPIRO, Graham A.	H.298, H.299
SHAW, G. K.	J.931
SHAW, Henry	J.112
SHELDON, W.	A.706, G.97
SHELLEY, Julian H.	E.36, E.37, J.80
SHEMIN, David	A.485, A.497, E.53
SHERLOCK, Sheila	B.90
SHERWOOD, Hilda (formerly SC	HWEITZER) A.501
SHILLINGFORD, John P.	J.527
SHILO, M.	See J.654
SHILS, Edward	A.1081
SHIPP, Joseph C.	J.655, J.845
SHOPE, Robert	F.39
SHOTTON, Frederick William	J.154
SICÉ, Jean	D.385
SIEBERT, Günther	J.912
SIEFF, Marcus Joseph, Baron	A.707, G.242, J.113
SIES, Claudia	E.407
SIES, Helmut	A.1272, F.301, F.341, J.656
SILBERBACH, Alfred	A.494
SIMESEN, M. G.	See J.907
SIMÕES, Manuel Sobrinho	A.586 See also F.145
SIMOLA, P.	J.879
SIMON, Charlotte, Lady	A.586
SIMON, Ernst	A.501, J.657 See also F.234
SIMON, Sir Francis (Eugen)	A.447, A.503, J.460, J.887

SMITH, Arnold Jeffrey

Index of correspondents

SIMPSON, C. J. S. M.	G.117
SIMPSON, Esther	A.447, A.497, A.566, A.568, A.586, A.601, A.623, A.707, B.79, G.1, G.216-G.219, G.233, G.234, J.333
SIMPSON, J. R.	B.73
SIMS, Geoffrey Donald	B.103
SINCLAIR, Hugh Macdonald	A.508, A.555, A.586, A.707, C.94, C.95, G.136, J.658- J.661
SINGER, Aubrey E.	H.276
SINGER, Thomas P.	J.662
SINGH, Prikhshayat	C.180
SINSKEY, A. J.	See D.455
SIPERSTEIN, Marvin D.	J.904, J.913
SIRONVAL, C.	J.140
SISAKYAN, H. M.	G.155
SKETCHER, R. D.	J.630
SKIDMORE, lan Frederick	J.663
SKIDMORE, Janice (née ROBINSON)	J.663, J.664
SKUTSCH, O.	G.233
SLAPAK, Maurice	F.244
SLATER, Edward Charles (Bill)	A.674, A.707, D.272, F.65, F.148, F.171, F.207, G.177-G.179, G.182, H.307-H.310, J.113, J.665-J.667, J.743
SLATER, Trevor F.	D.538, J.668-J.670
SLATER, Sir William (Kershaw)	A.477-A.480, A.490, A.568, A.569, A.586, B.85, G.6, J.91
SLOTTA, Karl H.	E.201, F.181
SLY, Michael R.	C.172
SMELLIE, R. M. S.	G.41-G.43
SMILEY, N. B.	C,86-C.88, C.92
SMITH, A. David	J.73

J.671

SMITH, D. F. G.	J.914
SMITH, Emil L.	A.497
SMITH, Kenneth Manley	C.187, G.165
SMITH, Lloyd Hollingsworth	J.672
SMITH, Richard M.	D.425
SMITH, R. L.	G.73
SMITH, R. M.	J.925
SMITH, Robert H.	G.104
SMITH, Roger	C.117
SMITH, Wilson	A.586
SMITHIES, Oliver	B.15, J.926
SMYTH, David Henry	A.601, A.626, B.32, B.91, C.372, H.430, J.179, J.673- J.675 See also B.11, E.252
SNART, Ronald	F.258
SNELL, Esmond E.	H.293, H.294
SNELL, Keith	J.676
SNELL, Michael E.	J.917
SOBERON, Guillermo	A.36, F.100, F.344, J.677
SOCIETA ITALIANA DI BIOLOGIA SPERIMENTALE	G.214
SOCIETA ITALIANA PER IL PROGRESSO DELLE SCIENZE	A.671
SOCIETY FOR EXPERIMENTAL BIOLOGY	G.214
SOCIETY FOR GENERAL MICROBIOLOGY	G.215
SOCIETY FOR THE PROTECTION OF LEARNING	B.79, G.216-G.219
SODA, Kenji	J.928
SÖLING, Hans-Dieter	A.707, F.200, F.297, J.678
SOLS, Alberto	C.178, D.50, D.455, F.184, J.679
ŠORM, František	F.173
SOUTHWOOD, Sir (Thomas) Richard (Edmund)	A.707
SPALDING, D. B.	A.942

SPANNER, Douglas C.	J.889
SPARROW, John Hanbury Angus	C.224
SPATZ, H.	A.508
SPEAKE, Roy N.	J.680
SPEAKMAN, J. C.	A.522, A.593
SPECIAL COMMISSION ON INTERNAL POLLUTION (SCIP)	G.220-G.232, J.599, J.600
SPEER, Julius	F.214
SPENCE, J. C.	J.881
SPICER, Arnold	J.602, J.831
SPINKS, Alfred	C.163, J.680
SPITZER, Judy A.	F.139
SPIVEY, H. Olin	J.926
SPRINGER, Konrad F.	A.707, H.411
SPRINGER-VERLAG	H.410-H.414
SPRINSON, David B.	A.586, F.183, F.195, J.343, J.909
SPRY, Marion (née STUBBS)	A.707 See also C.121
SRERE, Paul A.	A.620, A.707, F.169, F.308, F.336, J.681, J.682, J.754, J.756, J.759 See also F.86
STACEY, Maurice	A.517, A.586, A.601, B.35, J.64
STADTMAN, Thressa	J.400
STAFFORD, Godfrey	A.707
STAHL, Egon	C.163, E.60
STAIB, W.	F.269, G.68, J.918
STALLWORTHY, Sir John	A.707, G.191
STANLEY, Wendell M.	A.507, F.99
STANTON, Richard	H.334-H.341
STAPLETON, Thomas	A.566, F.285
STARLING, Ernest	J.683
START, Carole	J.684

index of correspondents	
STARZL, Thomas E.	F.251, J.685
STAUDINGER, Hermann	A.511
STAUDINGER, Magda	J.686
STEHR, Werner-Rüdiger	A.888, A.891
STEIN, William Howard	C.166
STEINBERG, Frederick W.	A.1009, F.153
STEINER, Ena	A.793
STENT, Gunther S.	E.389
STEPHENSON, Sir Francis	A.497
STEPHENSON, Marjory	A.443, A.448, D.13, J.687 J.690
STERN, Erich	A.501, A.586, F.14, J.691
STERN, Joseph R.	A.485, A.494, A.586, F.11 F.87, H.382, J.690, J.692- J.695
STERN, Kurt G.	A.485, A.510, F.11
STERNHEIMER, Richard	J.696
STETTEN, De Witt, Jr.	F.91 See also F.47
STEVENS, G. J.	D.13
STEVENS, Sir Roger Bentham	J.606
STEVENS, T. S.	D.37
STEVENSON, Freda K.	G.174
STEVENSON, Lloyd G.	F.2
STEWARD, F. C.	F.139, J.231, J.895
STEWART, C. A.	A.566
STEWART, H. B.	J.903
STEWART, Sir Michael	C.125-C.127, F.229
STEWART, Peter M.	C.179
STICKLAND, L. H.	A.508, A.586
STILL, Jack	J.697
STIRPE, F. (Enzo)	H.341
STOCKEN, Lloyd A.	C 102, J.43, J.271
STOKES, R. H.	J.889, J.890
STONER, Edmund Clifton	A.497 See also B.65

A.497, A.566, A.586, A.707, J.698
F.194
D.128
D.163
E.196
J.699
E.481
E.481
A.31
See F.301
J.930
A.613, D.79, F.157
J.912
A.707
A.707, C.176
E.252, F.190, F.191
F.38
J.380
E.217
C.372
A.586, A.601, E.203
J.870
F.203
J.911
A.707
J.700
A.31, A.449, A.501, G.29, H.22, J.152, J.701
F.36
E.20
A.27, A.420, J.702-J.705 See also E.46-E.50

TEMPEST, D. W.

TEPPERMAN, Jay

TENBY, Gwilym Lloyd, 1st Viscount

Index of correspondents

SZILARD, Leo	J.706
SZIRMAI, Endre	J.706-J.709 See also A.19
TABOR, Herbert	J.756
TADMOR, Shlomo	F.234
TAEGTMEYER, Heinrich	A.708
TAGER, Joseph M.	A.521, A.708, D.232, E.8, F.171, F.202, F.207, F.208, F.274, F.275, F.301, J.710 See also F.158
TAKEDA, Yoshiro	C.166
TALALAY, Paul	D.23, F.334 See also J.923
TAMIYA, Nobuo	J.711
TANAKA, Takehiko	C.167
TARNOWSKI, W.	J.926
TATE, P.	A.503
TATEISHI, Noriko	A.708
TATIBANA, Masamiti	C.182, J.922
TAYEAU, Francis	A.30, A.610, A.708, F.145
TAYLOR, Gordon Rattray	A.1166, E.197
TAYLOR, Norman F.	C.4, C.165
TAYLOR, T. Geoffrey	J.918
TAYLOR, W.	J.924
TAYLOR, William H.	C.165, H.327
TAYO, F. M.	C.172
TEICH, M.	J.712
TEMMEN, Lüder	J.920

G.128

G.88

D.129

THOMSON, Scott

Index of correspondents

TERNER, Charles (formerly Karl)	A.490, A.566, A.587, A.675, A.708, E.7, F.350, J.713-J.715
TEUTSCH, Champion T.	E.412, E.481
THALGOTT, Elisabeth	E.181
THAMES VALLEY POLICE	E.481
THANNHAUSER, Siegfried J.	A.410, A.421, A.466, A.501, J.716, J.717 See also A.423, F.49
THEORELL, (Axel) Hugh (Teodor)	A.30, A.31, A.539, C.160, C.371, E.185
THIEDEN, H. I. D.	D.256
THILOT, Fritz	J.875
THIMANN, Kenneth V.	J.575
THINK TANK see CENTRAL POLICY REVIEW STAFF	
THOM, Alexander	C.265 See also C.342
THOMAS, David Brian	J.718
THOMAS, Helmut	F.300
THOMAS, J.	J.922
THOMAS JEFFERSON RESEARCH CENTRE	E.482-E.489
THOMAS, Karl	A.451, A.452, J.50A, J.229, J.870
THOMAS, Keith	C.331, C.332
THOMAS, Stanley L.	A.494
THOMAS, W. Harford	G.217, H.135
THOMASIUS, Rudolf	A.708, A.908, A.918-A.920
THOMPSON, Allan D.	J.719
THOMPSON, Sir Harold (Warris)	C.166
THOMPSON, Penelope, Lady	A.708
THOMPSON, Robert Henry Stewart	A.497, A.568, A.587, C.84, G.176, G.182
THOMPSON, William B.	A.491, A.587
THOMSON, Sir (Arthur) Landsborough	A.501, A.587, B.65, J.33, J.151, J.293, J.294, J.380, J.502
THOMSON, Sir George (Paget)	E.130

C.159

THORNTON-DUESBERY, Julian Percy	C.225, C.227
THORPE, W. V.	A.490, A.587
THRING, M. W.	A.497
THURMAN, Ronald G.	J.720
TIDOW, Georg	A.31, A.466, A.503, A.587, A.891, J.721-J.725
TIMMERMANS, J.	F.18
TINBERGEN, Jan	E.398
TINBERGEN, Nikolaas	A.708, C.207, E.38, E.398, J.726
TINGUY, Eliane de	C.178
TIPTON, K. F.	C.171, J.922
TISCHLER, Marc E.	J.727
TISCHLER, Max	J.728
TISDALE, W. E.	A.436, B.42, B.43
TITTMAR, Heinz	H.434
TIZARD, Sir (John) Peter (Mills)	E.490
TODD, Alexander Robertus, Baron	A.587, A.601, C.60, G.138, J.586, J.729
TOIVONEN, N. J.	H.31
TOŠIĆ, J.	A.443, A.448, A.1010, D.36
TOTTMAR, Olof	C.171
TOUSTER, Oscar	F.106, J.236
TOWNES, Charles Hard	See E.441
TRAMS, Eberhard G.	J.664
TRAUBE, Bertram	A.875
TRAUBE, Elli Trombetta	A.792
TRAUBE, Isidor	J.730-J.733 See also J.167
TRAUBE, Klaus	A.874
TRAUBE, Moritz	A.792
TREBLE, Donald H.	J.734
TREBST, A.	E.184
TREFQUEL, Jacques	F.4, J.770

TREMOLIERES, J.	J.226
TRENDS IN BIOCHEMICAL SCIENCES (TIBS)	A.453, H.415, H.416, J.834
TRIKOJUS, Victor M.	J.65
TRISTRAM, G. R.	A.491
TRITSCH, Mark	E.491
TROWELL, O. A.	A.491
TRUEMAN, Sir Arthur Elijah	A.478
TRUSLOW, John B.	A.36, F.70, F.99
TSAI, Hsin	H.344
TUNBRIDGE, R. E.	A.507
TURNER, A. E.	J.615
TURNER, Gerard L'E.	E.130
TURNER, Kenneth	A.587
TURNER, W. E. V. S.	A.521
TURPIN, Kenneth Charlton	C.7, C.63, C.64, C.68, C.77, C.86, C.87, C.94, C.335, C.336, J.513, J.551
TWYFORD LABORATORIES	J.735
TYLER, Barrie W.	J.736
TYRRELL, David Arthur John	G.175

UHLENBROEK, J. H.	See J.901
ULLRICH, Karl J.	J.737, J.900
UMBREIT, Wayne W.	B.73 See also F.39
underwood, A. H.	C.20
UNGER, Roger H.	F.169, J.681
UNILEVER RESEARCH LABORATORY	J.738
UO, Junko Margaret	J.739, J.740
UPJOHN COMPANY	J.741
URI, N.	A.566
URQUHART, R. M.	A.587, C.272
UTTER, Merton F.	D.294, F.269, H.291, J.324, J.742, J.754, J.783

VAIL, William J.	D.328
VAIZEY, John Ernest, Baron	C.301
VALLEE, Bert Lester	C.158
VAN DE KAMER, J. H.	J.892
VAN DEN BERG, C. J.	C.165
VAN DEN BERGH, S. G.	H.344
VAN DER AUE, O. E.	J.50A
VANE, John Robert	G.180
VAN ENGELEN, Henry	G.108, G.110
VAN HEYNINGEN, W. E. (Kits)	A.555, A.709, J.878, J.883
VAN NIEL, C. B. (Kees)	A.31, A.448, G.6, J.381
VAN ROSSUM, George Donald Victor	J.743
VAN SLYKE, Donald D.	A.422, J.871
VAN WYK, Johan	C.171, E.366 See also F.218
VARLEY, George Copley	C.203, C.204, C.368
VAUGHAN, Dame Janet (Maria)	A.708, C.107, J.379
VEALE, Sir Douglas	A.28, A.556-A.560, A.587, C.59-C.62, C.66-C.69, C.76- C.78, C.87, C.88, C.94, C.95, C.98, C.129, C.130, C.190- C.193, C.212, C.336-C.338, J.514, J.659
VEECH, Richard Lewis (Bud)	A.708, D.306, D.316, E.306, F.347, J.744-J.763 See also F.245
VELINSKY, S.	E.491
VELOSO, Dulce	J.750, J.759-J.761, J.764
VENKTESH, P.	C.173
VENNESLAND, Birgit	E.30, J.765, J.766
VENNING, G. R.	J.901
VENTLING, Christa (née Dierks)	J.767
VERKADE, P. E.	J.873
VERNON, C. A.	G.158
VESTLING, Carl S.	F.91, F.250, H.303
VICK, Sir Francis Arthur	F.101, J.296, J.297

VICKERS, H. R.	J.905
VICKERY, H. B.	J.768
VIEIRA, Otilia Lopes	J.769
VIGNAIS, Paulette M.	J.770, J.771
VIGNAIS, Pierre V.	J.770, J.771
VIGNEAUD, Vincent du	F.3, F.15
VILLEE, Claude A.	G.116
VILLET, Ruxton H.	J.772-J.774
VIÑA, José (Pepe)	A.30, A.708, E.429, J.634
VINAY, Patrick	H.85, J.559, J.775 See also D.409-D.414
VINCENT, Ewart Albert	C.372
VINE, J.	J.776
VIRDEN, R.	D.83
VIRTANEN, Artturi Ilmari	A.494, F.107, J.777 See also H.31
VISSCHER, Maurice B.	F.36
VISSER, N.	J.922
VOGT, Marthe	A.494
VON DEN VELDEN, R.	J.875
VON HOLT, Claus	F.121
VON WARTBURG, Jean-Pierre	J.913, J.914
VONWILLER, Paul	H.18
VRBA, Rudolf	H.60
VULOVIĆ, Divna M.	J. <i>77</i> 8

WADDINGTON, Conrad Hal	G.199
	See also C.193, C.194
WADSÖ, Ingemar	F.255
WAELSCH, Heinrich	A.497, A.588, F.10, G.91, J.779

WAGER, Lawrence Rickard C.189, C.196, C.198, C.298 See also C.193, C.351

WAGNER, Jindrich	J.227
WAGNER, Richard	J.899
WAIN, Ralph Louis	G.178
WAKIL, Salih J.	E.374, F.254
WAKSMAN, Selman A.	A.605 See also A.487
WALD, George	A.470, A.476, A.566, J.780 See also A.485, F.88, H.164
WALDENSTRÖM, Jan Gosta	See J.892
WALEY, Mary	A.588
WALEY, Stephen	D.166
WALKER, Deryck G.	C.172, G.29, G.32
WALKER, Peter Gordon	J.781
WALKER, T. K.	A.508
WALLACE, John Campbell	J.782-J.787
WALLACE, Patricia G.	J.788
WALLACE, Thomas	A.494, A.588
WALLING, Cheves	A.486
WALSER, Mackenzie	J.789, J.790
WALSH, Christopher	D.510
WALDSCHMIDT-LEITZ,	J.869
WARBURG, Eric M.	A.676, E.182, E.398
WARBURG, Otto Heinrich	A.27, A.408, J.791-J.794 See also A.413, A.456-A.458, A.467, A.1123-A.1130, E.131- E.190, H.1-H.4, H.9, H.17, H.397
WARBURG, R. J.	E.183
WARD, Adrian P.	C.165
WARD, Basil Robert	C.60-C.62, C.67, C.71, C.72 See also C.82
WARDER, Michael Young	G.106-G.112
WARDLAW, W.	A.568
WAREING, P. F.	See G.174
WARNER, G.	C.118, C.361
WARNOCK, Dame (Helen) Mary	See C.329

WARREN, Kenneth S.	C.139
WARREN, Shields	J.798
WATERFIELD, Sir (Alexander) Percival	C.196, C.197
WATERLOW, John Conrad	A.42, J.2, J.658, J.795
WATKINS, John M.	H.407
WATSON, James Dewey	See E.191-E.194
WATTS, Reginald W. E.	G.202-G.205
WAYNE, Sir Edward (Johnson)	A.436, A.588, A.593, A.640, A.710, B.1, C.161, D.12, D.13 See also A.27, B.42, J.894
WAYNE, Nan, Lady	A.593, A.1011
WEATHERALL, David John	A.1239, C.118-C.121, C.360, C.361, G.130, G,131, J.796
WEAVER, Warren	B.43-B.47, B.50, J.502 See also E.1, F.8
WEBER, Annemarie	J.720
WEBER, Catherine	A.1272
WEBER, George	F.103, F.104, F.115, F.116, F.127, F.146, F.150, F.160, F.177, F.193, F.210, F.224, F.225, F.239, F.247, F.261, F.277, F.294, F.306, F.327, J.979-J.804
WEBER, Gregorio	J.102, J.805
WEBER, Hans Hermann	A.468, E.119, F.58, F.205, J.50A, J.806, J.807
WEBER, Morton M.	J.561
WEBSTER, Charles	J.808
WEBSTER, George C.	F.92
WEBSTER, Leslie T.	J.809
WEDDING, R. T.	F.165
WEICKER, Lowell	See A.420
WEIDEMANN, Maurice John	J.810-J.814
WEIDENFELD, Arthur George, Baron	J.439
WEIL, Alfred J.	A.511
WEIL, Ludwig	J.815

	WEIL-MALHERBE, Hans	A.443, A.448, A.494, A.588, A.710, D.13, F.139, H.430, J.744, J.748, J.815-J.818 See also B.79, G.1
	WEINER, M. W.	C.176
	WEINHOUSE, Adele Klein	E.455, E.491
	WEINHOUSE, Sidney	A.501, F.146, J.646, J.756, J.819 See also F.12
	WEIR, Donald G.	J.820
1	WEISGAL, Meyer W.	F.93
	WEISS, Joseph	A.509, A.588
	WEISSENBERG, Karl	J.821
	WEITZMAN, Peter David Jacob	J.822
	WEIZMANN, Chaim	A.427, J.823
	WEIZMANN INSTITUTE OF SCIENCE	G.239-G.242
	WELCH, Arnold D.	A.501, A.574, A.588, B.74, G.172, J.482, J.824
	WELLCOME TRUST	C.19, C.20, C.75-C.79
	WELLS, A. Q.	C.376
	WELLS, Charles	J.432
	WELLS, William W.	E.45
	WELT, Louis Gordon	J.825
	WENTWORTH, R. A. D.	F.151
	WENZEL, M.	F.270
	WERKMAN, C. H.	F.3, J.826
	WERLE, E.	F.19
	WERTH, Gertrud	J.827
	WERTHEIMER, H. E.	A.514, F.79, F.93, G.102, G.104
	WEST, D. J.	E.491
	WEST, Harry F.	J.898
	WESTENBRINK, H. G. K.	A.457, A.458, A.460, A.505, J.201, J.616, J.878
	WESTPHAL, Otto	F.179 See also E.75

G.130, J.828-J.830 See also D.88, D.396

WHATLEY, Frederick Robert

WHEARE, Sir Kenneth Clinton	C.92, C.220, C.221
WHELAN, William J.	A.612, F.128, F.140, F.181, F.226, H.348, H.415, H.416, J.831-J.836
WHELDRAKE, John Frederick	J.837
WHITE, Sir Frederick William George	J.513
WHITEHEAD, David	C.160
WHITEHOUSE, Michael W.	C.180, J.594
WHITELEY, Hubert	A.491, A.588
WHITING, Geoffrey C.	J.928
WHITLEY, Edward	C.32
WHITNEY, David C.	H.359
WHITTAKER, John Macnaghten	A.31, A.501, A.558, A.588, A.710, B.50, B.102, B.104, F.24 See also B.52
WHITTAKER, Victor P.	D.66
WHITTAM, Ronald	A.30, A.453, A.588, A.640, A.710, J.838 See also J.899
WHITTERIDGE, David	C.362
WIAME, J. M.	J.894
WIDMANN, Ernst	J.879
WIEDEMANN, Werner	E.286
WIELAND, Heinrich	J.839
WIELAND, Otto	A.633, F.214, J.840
WIELAND, Th.	A.453, E.265
WIGGLESWORTH, Sir Vincent (Brian)	E.183
WIGNER, Eugene Paul	G.111, G.112
WIJERATNE, P. B.	G.106, G.107, G.110, G.111, G.114-G.116
WILCKEN, D. E. L.	J.923
WILKE, Ursula	A.522, A.588
WILKIE, Douglas R.	J.906, J.921
WILKIE, John	A.497
WILKINS, Maurice Hugh Frederick	J.841

WILKINSON, Sir Denys (Haigh)	C.265, C.271, C.299 See also C.269
WILKINSON, J. F.	J.902
WILLGERODT, Hans	E.397
WILLIAMS, Sir Alwyn	C.372
WILLIAMS, Arthur W.	C.166
WILLIAMS, D. C.	J.905
WILLIAMS, Sir Edgar (Trevor)	C.255
WILLIAMS, George Ronald	J.842
WILLIAMS, John F.	J.843
WILLIAMS, P. O.	C.19, C.20, C.84
WILLIAMS, R. B.	J.885
WILLIAMS, R. L.	J.915
WILLIAMS, R. Tecwyn	A.490, A.588, F.175, G.21, J.884
WILLIAMS, Robert Joseph Paton	C.329 See also G.177
WILLIAMS, Roger D.	F.153
WILLIAMS, Roger John	B.71
WILLIAMS, Trevor IIItyd	H.330
WILLIAMS-ASHMAN, William	E.184
WILLIAMSON, Dermot (Derek) Hedley	C.143 See also C.167
WILLIAMSON, John Richard	F.130, F.357, J.844-J.848
WILLIS, Peggie	A.510, A.588
WILLMS, B.	F.200
WILSON, Andrew	See B.36, J.882
WILSON, Sir Charles Haynes	J.354, J.829
WILSON, D. Wright	A.507, F.12, F.35
WILSON, David F.	D.232, D.316, J.849
WILSON, E. O.	See G.132
WILSON, Graham M.	A.588, C.158
WILSON, lan	G.131
WILSON, Perry W.	J.883
WILSON, Thomas Hastings	A.494, A.501, A.710, F.347, J.850, J.851

WINBURN, Jay Te, III	C.168
WIND, Edgar	C.377
WIND, Margaret	A.640, C.377
WINDHAGER, Erich E.	F.259
WINDMUELLER, Herbert G.	J.929
WINNICK, Theodore	F.94
WINTERSTEIN, Alfred	A.501
WINZLER, Richard J.	F.164
WINZLER, Richard W.	F.32, F.83
WISE, George S.	G.102
WISEMAN, Gerald	A.501, A.566, A.588
WISLICKI, L.	J.876
WISNER, Frank B.	J.921
WITKOP, Bernhard	J.839
WITTENBERG de LEVY, Erika	A.518
WITTMANN, H. G.	C.14
WITTS, Leslie John	A.566, A.588, J.431, J.927
WITZSTROCK, Gerhard	H.424
WIXOM, Robert L.	F.248
WNUK-LIPINSKI, Christa von	A.856
WOJTCZAK, Anna B.	See D.263
WOLF, H. U.	H.345
WOLF, Stewart	J.756
WOLFF, K. D.	F.326
WOLFFENSTEIN, Erich	A.494, A.1012, A.1013
WOLFFENSTEIN, Marianne see INSTONES	
WOLLENSAK, J.	E.288
WOLLHEIM, Claes	C.167
WOLLHEIM, E.	A.520
WOLPERT, Lewis	H.62
WOLSTENHOLME, Sir Gordon (Ethelbert Ward)	A.497, A.574, A.588, A.710, E.252, G.219
WOOD, Harland Goff	A.710, E.27, F.14, J.742, J.852
WOODBINE, Malcolm	A.588

WOODS, Donald Devereux	A.113, A.510, C.70, C.89, C.90, C.102, C.183, C.184, C.217, C.278, C.298, C.338, C.343, C.377, D.13, G.59, J.5, J.97, J.131, J.137, J.37, J.384, J.589, J.621, J.828, J.853-J.858, J.860 See also A.1209, C.86
WOODS, Hubert Frank	C.181, J.859
WOOLLEY, D. Wayne	J.856
WORK, Elizabeth	J.886
WORK, Thomas S.	G.23, G.47A, J.6
WORLD PEACE CONGRESS	G.243
WORMALL, Arthur	A.448, A.520, A.588, J.96
WREDE, F.	A.468
WRIGHT,	J.872
WRIGHT, Barbara E.	J.931
WRIGHT, G. Payling	A.443, A.588, J.873
WRIGHT, Sir Norman Charles	A.588
WRIGHT, Samson	A.443, A.497
WURMSER, René	A.571
WÜTHRICH, Ruth	E.492
WYCKOFF, Ralph Walter Graystone	J.151
WYNDER, Ernst D.	C.177
WYNDHAM, C. H.	C.162
WYN JONES, Richard Gareth	J.860

YAGIL, Gad	J.860A
YATES, John E.	D.102
YELLOWLEES, Sir Henry	E.492
YOUNG, Sir Frank (George)	A.443, A.448, A.456, A.503, A.588, A.601, A.710, C.160, C.342, D.21, G.177, J.176, J.313, J.338, J.426, J.614, J.861-J.865

ZVEGINTZOV, M.

Index of correspondents

YOUNG, John Zachary	J.866
YOUNG, Leslie	A.490, A.566, A.588, B.19, J.407
YUDKIN, John	A.448, A.494, A.710, J.867
YUDKIN, Michael D.	A.710, C.54

ZAHLTEN, Rainer N.	F.337
ZAKRZEWSKI, K.	F.148
ZAMECNIK, Paul C.	D.164, J.672
ZANDER, Grete	A.548, A.588
ZANDER, Michael	E.492
ZANDER, Walter	A.28, A.548, A.588, A.710, A.1043, F.94, G.98-G.101, J.493
ZANDER, Wolfgang	E.393
ZELLER, Albert	J.884
ZEPPEZAUER, M.	E.60
ZEUTHEN, Erik	D.164
ZIONIST ORGANISATION	A.430
ZÖLLNER, Fr.	A.28, A.31, A.527
ZOTTERMAN, Yngve	E.199
ZUCKERMAN, Harriet	E.237
ZUCKERMAN, Solly, Baron	A.517, A.568, A.588, A.601, G.183, J.868

A.588