Catalogue of the papers and correspondence of

ALBERT CHARLES CHIBNALL FRS

(1894 - 1988)

Compiled by Peter Harper and Timothy E. Powell

Deposited in Cambridge University Library

NCUACS 33/1/92

All rights reserved University of Bath 1992

> The work of the National Cataloguing Unit for the Archives of Contemporary Scientists, and the production of this catalogue, are made possible by the support of the following societies and organisations:

> > E P Abraham Cephalosporin Fund The Biochemical Society The British Library The Geological Society The Institute of Physics The Royal Society The Royal Society of Chemistry The Society of Chemical Industry The Wellcome Trust The Wolfson Foundation

1

Items Page LIST OF CONTENTS GENERAL INTRODUCTION 3 BIOGRAPHICAL AND AUTOBIOGRAPHICAL A.1-A.41 SECTION A 7 RESEARCH B.1-B.21 SECTION B 12 C.1-C.28 LECTURES AND PUBLICATIONS SECTION C 14 D.1-D.31 SOCIETIES AND ORGANISATIONS SECTION D 17 VISITS AND CONFERENCES E.1-E.21 23 SECTION E F.1-F.158 SECTION F CORRESPONDENCE 26

INDEX OF CORRESPONDENTS

47

GENERAL INTRODUCTION

PROVENANCE

The papers were received from Professor Chibnall's widow, Dr Marjorie Chibnall FBA, in September 1991.

OUTLINE OF THE CAREER OF A C CHIBNALL

Albert Charles Chibnall, an outstanding figure in British biochemistry, was born in London on 28 January 1894. Educated at St Paul's School, 1907-12, and Clare College Cambridge, 1912-14, he served throughout the First World War, first in the Army Service Corps, transferring to the Royal Flying Corps in 1917. In 1919 he returned to academic life as a research student at Imperial College London, working with S B Schryver, Professor of Plant Biochemistry in the Botany Department, on the nitrogenous constituents of green leaves. The direction of his postwar career was confirmed by the two years, 1922-24, he spent at the Connecticut Agricultural Experiment Station, New Haven. Here he worked in the laboratory of the American plant biochemist T B Osborne whose influence was such that Chibnall continued to turn to him for advice until his death in 1929. Osborne's research assistant, and Chibnall's contemporary, H B Vickery, became a lifelong friend. In 1938 Chibnall returned to New Haven to deliver Yale University's Silliman Lectures which were published the following year as Protein metabolism in the plant.

On his return to England in 1924 Chibnall worked on plant protein metabolism in J C Drummond's biochemical laboratory at University College London, initially supported by the Department

of Scientific and Industrial Research. After a period of uncertainty when DSIR support ended suddenly in 1926, Imperial Chemical Industries stepped in to support his research at UCL and this support continued when Chibnall returned to Imperial College in 1929 as Professor of Biochemistry in succession to Schryver. With ICI support he was able to embark on a substantial programme of research in plant biochemistry as the acknowledged leader in the field, specialising in fatty and nitrogenous substances of leaves and the chemical structure of proteins. It was during this period that Chibnall collaborated with the Bristol physicist S H Piper on the chemistry of plant and insect waxes. Another significant collaboration was between Chibnall's laboratory and that of W T Astbury at Leeds University. Their mutual interest in plant protein fibres led to an investigation of possible commercial production by ICI.

In 1943 Chibnall moved to Cambridge as the Sir William Dunn Professor of Biochemistry in succession to F G Hopkins. However he became convinced that a plant biochemist was not the right person to direct medical teaching in the department of Biochemistry at Cambridge, and that unless a second chair could be founded it was his duty to resign and make way for a medically qualified biochemist. He resigned in September 1949. One of his last official duties was to preside over the First International Congress of Biochemistry held in Cambridge in 1949. After his resignation Chibnall retained a small laboratory where he continued his protein research, especially in support of F Sanger's insulin work, until 1958. During these years Chibnall made a considerable contribution to the work of the Agricultural Research Council preparing reports, visiting research centres and serving on committees; he was a member of Council, 1947-57. Chibnall's later years were largely devoted to historical studies and his publications include Richard de Badew and the University of Cambridge, 1315-1340 and Sherington - Fiefs and Fields of a Buckinghamshire Village. He died on 10 January 1988 aged 93.

DESCRIPTION OF THE COLLECTION

The material is presented in the order given in the List of Contents. The collection includes significant biographical material and records of Chibnall's research, lectures and publications, societies and organisations, and visits and conferences. Chibnall's general scientific correspondence is particularly extensive and important.

Section A, Biographical and autobiographical, is especially noteworthy for the five volumes of unfinished family and personal history. There is also documentation of Chibnall's First World War service including photographs, and correspondence relating to the Sir William Dunn Professorship in 1943.

Section B, Research, comprises seven binders of notes covering the period 1925-37, and correspondence and papers relating to plant-protein fibres research, 1935-41, and insulin research 1951-58.

Section C, Lectures and publications, includes material relating to Chibnall's Silliman Lectures at Yale University in 1938 and the book based on them. There is also a little documentation of the 1942 Royal Society Bakerian Lecture and the 1945 Procter Memorial Lecture.

5

Section D, Societies and organisations, includes records of Chibnall's work for the Agricultural Research Council. Particularly well documented are the wartime reports he prepared on the direct use of leaf protein in human nutrition and protein supplies for forage. There is a little correspondence with Lord Rothschild and W K Slater, Chairman and Secretary of the ARC, respectively, and reports of a The International Union of number of visits to ARC research centres. Biochemistry is represented by correspondence and papers relating to its formation including documents circulated by C R Harington, Chairman of the International Committee established at the First International Congress of Biochemistry in 1949. There is also documentation of a further wartime report prepared by Chibnall, on human protein requirements and supplies, for the Scientific Committee on Food Policy of the War Cabinet.

Section E, Visits and conferences, is important for the records of the First International Congress of Biochemistry. There are correspondence about arrangements, committee papers, draft proceedings of opening and closing sessions and letters of thanks from participants.

Section F, Correspondence, is by far the largest in the collection. There are sequences of correspondence, sometimes extending over several decades, with plant biochemists and protein chemists in Britain and overseas, especially the USA and Scandinavia. There are particularly noteworthy sequences of correspondence with W T Astbury, K Bailey, R K Cannan, H J Channon, C S Hanes, K U Linderstrom-Lang, K P G Link, T B Osborne, S H Piper, R R Porter, F Sanger, R L M Synge, H B Vickery and A I Virtanen.

> Peter Harper Timothy E Powell BATH 1992

SECTION A BIOGRAPHICAL AND AUTOBIOGRAPHICAL A.1 - A.41

Obituaries and tributes

- A.1 Memoir by R L M Synge and E F Williams, <u>Biographical</u> Memoirs of Fellows of the Royal Society, <u>35</u>, 1990).
- A.2 The Times, 20 January 1988.

The Biochemist, August 1988.

A.3 Memorial Service, Clare College Chapel, Cambridge, 5 March 1988.

Order of service.

Address by Lord Ashby as published in The Cambridge Review, June 1988.

Autobiographical writings

- A.4-A.8 5 volumes of typescript family history and memoirs.
- A.9 'The road to Cambridge', <u>Annual Review of Biochemistry</u>, 35 (1966).

'50 years ago The isolation of asparagine and glutamine from proteins', <u>Trends in Biochemical Sciences</u>, 7 (1982). See also F.33.

'Early days in biochemistry', issued in photocopy by the Biochemical Society, 1987.

A.10 Interviews, 1983-84.

Correspondence with N Morgan, Wellcome Institute for the History of Medicine, <u>re</u> arrangements for interviews, transcript of 'interview with Prof A C Chibnall October 8th 1983 on the development of biochemistry'.

Biographical and autobiographical

Career, honours and awards

A.11-A.14	First World War service.
A.11	'Flying instruction' booklet inscribed 'A C Chibnall Capt'.
A.12	'Training brigade transfer card' with date of posting to Royal Flying Corps (30.10.17), and history of training.
A.13	'Pilots flying log book'. Records flights December 1917- August 1918.
A.14	'Squadron orders' by Major J O Archer commanding Artillery Observation School RAF, Almaza, 3 May 1918. Records Chibnall qualified to wear wings from 1 May.
A.15	University College, London.
	Letter of appointment (on the recommendation of J C Drummond) as honorary research assistant in the Department of Biochemistry, 21 July 1925.
	Letter from ICI offering 'the position at University College in connection with the Research Council', 14 June 1929.
	Letters of thanks for contribution to University College's centenary appeal, March 1931.
A.16-A.18	Imperial College London.
A.16	Letter of appointment as Assistant Professor of Biochemistry, 29 January 1930, conditions of appointment, terms of agreement, etc.
A.17	Application for appointment as Reader, March 1931. Not proceeded with on the grounds Chibnall was already doing the same job as his predecessor who had been a full professor

Application for appointment as a full professor, 1936-37.

Biographical and autobiographical

A.18 Correspondence and papers re College business, 1939, 1942-43.

Correspondence re resignation from Professorship on election to Cambridge Biochemistry Chair, 1943-44.

Invitation to serve as a College representative on the University Board of Advisors in respect of a new Chair in Biochemistry, 11 February 1955.

- A.19-A.22 University of Cambridge.
- A.19 Exhibition, Clare College 1912.

Conferment of ScD 1931.

- A.20-A.22 Sir William Dunn Professorship of Biochemistry 1943.
- A.20 Correspondence re candidature; invitation, acceptance.
- A.21, A.22 Letters of congratulation. In alphabetical order. 2 folders.
- A.23 Consultancies.

Wellcome Research Institution 1946.

Imperial Chemical Industries (ICI) Limited 1949, 1953.

A.24 Honorary fellowship, Royal Society of Edinburgh 1953.
 Fellowship of Imperial College, London 1961.
 Honorary D.Sc St Andrews University 1971.
 Fellowship of Society of Antiquaries of London 1978.

9

Biographical and autobiographical

- A.24... Congratulations on 60 years of membership of Royal Society of Chemistry. Nd.
- A.25 80th birthday, 1974.

Menu, seating plan, list of participants at birthday dinner; letters from those unable to attend, etc. See also A.41.

A.26 90th birthday, 1984.

Menu and seating plan for birthday dinner; letters from those unable to attend.

A.27 Miscellaneous personal correspondence, letters of thanks in reply to Chibnall's letters of congratulation, sympathy etc.

Photographs

- A.28-A.37 First World War service.
- A.28-A.33 Army Service Corps Mechanical Transport Section (ASC MT) 1914-17.

Photographs of Chibnall, fellow officers and soldiers, camps at Holcombe near Radstock, Mudros Bay in Lemnos, on board ship, etc. Many identified and dated on verso. 6 folders.

- A.34,A.35 Royal Flying Corps (RFC) 1917-18.
- A.34 Chibnall, fellow officers, aircraft on ground, two crash landings 'lst solo flight on DH6 29.12.17' and 'last solo flight Orfordness 12 Nov 1918'.

Biographical and autobiographical

A.35	Aerial photographs including Chibnall in RE8 over pyramids, inscribed 'A fake - 2 photos superimposed'.
A.36	Album purchased in Cairo and used for ASC MT and RFC photographs. Towards rear of album are a few photographs of Clare College rowing 1912-13 and Henley 1914.
A.37	Small format 'Snapshots' album for aerial photographs of aeroplanes in flight. ?Photographs taken through gunsights during training.
A.38	Yale University 1922-24.
	Scientific colleagues including H B Vickery, Connecticut Agricultural Experiment Station, Chibnall's lodgings in New Haven.
A.39	E Winterstein, Zurich, July 1935.
	W W C Topley, nd (died 1944).
	D N Pryanishnikov, nd (died 1948).
	J L Baker, nd (died 1958).
. 10	Twinity College Dinner let International Congress of
A.40	Trinity College Dinner, 1st International Congress of Biochemistry, Cambridge, 1949.
	Dinner for Sir Paul Fildes, Lincoln College Oxford, 10 February 1962.
A.41	Chibnall's eightieth birthday. 1974.
	In conversation with R Hill; R R Porter in foreground.

11

SECTION B	RESEARCH B.1 - B.21
B.1	Binder of research notes inscribed 'Protein III' on spine. 1925.
в.2	Binder of research notes inscribed 'Leaf Fats I' on spine. 1926-27. Index at front. Related correspondence intercalated and at rear.
в.3	Binder of research notes. 1927-29. Related correspondence intercalated.
в.4	Binder of research notes, 1928. Related correspondence intercalated and at rear.
в.5	Binder of research notes inscribed on front cover 'apples'. c.1930. Index at front.
в.6	Binder of research notes inscribed on front cover 'Runner Bean. Book I'. 1931-32.
в.7	Binder of research notes inscribed on spine 'Phrenosin'. 1934-37. References (with index) at rear.
в.8-в.19	Correspondence and papers <u>re</u> possible commercial production by ICI of plant-protein fibres. 1935-41, 1978.
	See also correspondence with W T Astbury in Section F.
в.8-в.12	'Fibre Research I'. Contents of folder so inscribed divided into five for ease of reference. 1935-40.

Research

- B.13-B.19 'Fibre Research II Patents'. Contents of folder so inscribed divided into six for ease of reference. 1935-41, 1978.
- B.20, B.21 Correspondence re insulin research supported by Eli Lilly and Company 1951-58. 2 folders.

SECTION C	LECTURES AND PUBLICATIONS C.1 - C.28
C.1, C.2	The Silliman Memorial Lectures on 'Protein Metabolism in the Plant', Yale University, October 1938.
	See also correspondence with H B Vickery in Section F.
C.1	Invitation; correspondence re arrangements, etc.
C.2	Notice of lectures; press release; Chibnall's opening remarks.
c.3 - c.10	Protein metabolism in plants, Yale University Press 1939, reprinted 1964. Polish edition 1952.
	The book was based on Chibnall's Silliman Lectures.
C.3 - C.5	Correspondence with Yale University Press, 1938-68.
C.3	1938. Includes agreement between author and publisher.
C.4	1939.
C.5	1941-42, 1944-47, 1963-68. Includes preface to second printing by H B Vickery.
C.6	Letters of thanks for complimentary copies, 1939.
C.7	Printer's proofs of illustrations.
C.8	Reviews.
c.9	Royalty statements.
C.10	Correspondence re Polish edition 1950-53.

Lectures and publications

C.11, C.12	'Amino Acid Analysis and the Structure of Proteins', Royal Society Bakerian Lecture, 1942.		
c.11	31pp typescript; 2pp summary.		
C.12	Extracts from the literature.		
C.13,- C.16	2nd Procter Memorial Lecture on 'The Contribution of the Analytical Chemist to the Problem of Protein Structure', International Society of Leather Trades' Chemists, 21 September 1945.		
C.13	Correspondence re arrangements.		
C.14	July 1945 number of Society's Journal with lecture announcement; January 1946 number of Journal with lecture text.		
C.15	Procter Memorial issue (March 1928) of Society's Journal.		
C.16	Resumé of lecture (2pp typescript); ms notes.		
C.17	Invitation to lecture from Society of Dyers and Colourists (declined), 1945.		
<u>`</u>	'The composition and structure of proteins'.		
	2pp typescript 'resumé' only, with ms inscription 'Lecture given at Utrecht in 1946 or 1947. Procter Lecture with slight additions'.		
C.18, C.19	Lectures on proteins given in Denmark and Sweden, May 1948. 2 folders.		
C.20	Reviews. Various dates 1937-66.		

C.21

Lectures and publications

H W Dudley. R S Hutton. W K Slater. See also D.1, F.12, F.45. C.22 - C.26 Chibnall's collected scientific papers. 5 volumes. C.27,C.28 Photocopies of items missing from collected series. 2 folders.

Obituaries. Not all by Chibnall.

SECTION D

D. 1 - D.12 AGRICULTURAL RESEARCH COUNCIL (ARC).
D.13, D.14 BIOCHEMICAL SOCIETY
D.15 - D.21 BRITISH EGG MARKETING BOARD
D.22 - D.27 INTERNATIONAL UNION OF BIOCHEMISTRY (IUB)
D.28 MACAULAY INSTITUTE FOR SOIL RESEARCH
D.29, D.30 ROYAL SOCIETY

SOCIETIES AND ORGANISATIONS D.1 - D.31

D.31 SCIENTIFIC COMMITTEE ON FOOD POLICY OF THE WAR CABINET.

Societies and organisations

AGRICULTURAL RESEARCH COUNCIL (ARC)

various dates 1940-76

Chibnall was associated with the ARC over many years in a variety of capacities including preparing reports, visiting research centres and service on committees. He was a member of Council, 1947-57.

D.1 General and personal correspondence, various dates 1947-70

Includes invitation to serve on Council, letters of thanks for service. Chibnall's letter of 25 September 1957 gives the background to his decision to withdraw from ARC activities. 1970 item is Chibnall's obituary of W K Slater, Secretary ARC 1949-60, for <u>Chemistry in</u> Britain.

D.2 - D.9 'A.R.C. Pirie's Grass Work'. Contents of folder so inscribed divided into eight for ease of reference. 1940-42, 1955, 1976.

Chibnall prepared a report for the ARC and Department of Scientific and Industrial Research on a proposal by N W Pirie (March 1941) for the direct use of leaf proteins in human nutrition.

- D.2 D.5 Correspondence and papers re grass-protein, Pirie's proposal, Chibnall's report, etc., 1940-42. 4 folders.
- D.6 Copies of Chibnall's report, etc.
- D.7, D.8 Ms notes, background material re leaf protein. 2 folders.
- D.9 Later material re Pirie, 1955, 1976.
- D.10 Report on protein supplies for livestock, 1941.

The report was commissioned by W W C Topley, Secretary ARC.

Correspondence, copies of report, comments on report.

Societies and organisations

D.11 Correspondence with Lord Rothschild, 1948-53.

Rothschild was Chairman of the ARC, 1948-58.

Folder includes notes headed 'Rothschild', probably prepared for meeting between Chibnall and Rothschild on ARC business c.1949, memorandum on 'the production and consumption of biochemists' by N W Pirie, 29 May 1950, and report 'of a discussion on marginal land in Shropshire'.

D.12 Visits to ARC research centres, 1952, 1953, 1955.

Reports on visits to Hannah Dairy Research Institute, 1952; universities and research institutes in Scotland, 1953; and Long Ashton and Scotland, 1955.

Folder also includes itinerary and report on visits by C S Hanes, 1955.

See also D.28.

BIOCHEMICAL SOCIETY

various dates 1940-84

- D.13 Chibnall's resignation as Honorary Secretary, 1940.
- D.14 Correspondence <u>re</u> silver salver presented by the Society to Sir Arthur Harden in 1937, April - October 1968; photograph of salver.

Correspondence \underline{re} honorary membership and 500th meeting, 1969.

Correspondence with Honorary Archivist, 1978-79, and Executive Secretary, 1980 and 1984.

Societies and organisations

BRITISH EGG MARKETING BOARD

1960-70

Chibnall surveyed poultry research requirements for the Board and recommended the setting up of a Scientific Advisory Committee.

- D.15,D.16 Correspondence and papers <u>re</u> visits to research centres, 1960. 2 folders.
- D.17 Ms notes and drafts.
- D.18 Copy of Chibnall's report, 2 November 1960.
- D.19 Printed and duplicated background material.
- D.20 Correspondence and papers, 1964, 1966.

1966 material relates to symposium on 'Environmental control in poultry production', Harper Adams Agricultural College, Newport, Shropshire.

D.21 The Scientific Advisory Committee of the British Egg Marketing Board 1961-70. Printed booklet.

INTERNATIONAL UNION OF BIOCHEMISTRY (IUB)

D.22 - D.25 Correspondence and papers re formation of the IUB, 1949-52. 4 folders.

Includes documents circulated by C R Harington, Chairman of the International Committee established at the First International Congress of Biochemistry in 1949. See E.8.

Societies and organisations

D.26 Programmes, correspondence <u>re</u> arrangements etc., for 2nd International Congress of Biochemistry, Paris, 21-27 July 1952.

D.27 Invitation to make contribution to section on chemical aspects of polypeptide and protein structure, of the 3rd International Congress of Biochemistry, Brussels, 1955.

MACAULAY INSTITUTE FOR SOIL RESEARCH

1954-55, 1958

Chibnall visited the Institute in the course of his work for the ARC. See D.1 - D.12.

D.28 Correspondence with scientific staff re research, etc.

ROYAL SOCIETY

1945, 1950

D.29 Agricultural Science Committee.

Chibnall agreed to serve on the Agricultural Science Committee in June 1945.

Correspondence, memorandum re position of agricultural science in the Royal Society, January-February, June 1945.

D.30 Elections, 1950.

Societies and organisations

SCIENTIFIC COMMITTEE ON FOOD POLICY OF THE WAR CABINET 1941

Chibnall prepared a report on human protein requirements and supplies.

D.31

Copy of report, brief correspondence, etc. 1941.

SECTION E	VISITS AND CONFERENCES	E.1 - E.21
E.l	Joint meeting Biochemical Society and Société o Chimie Biologique, London, 10 November 1945.	le
	Letters of thanks; English version of speech b R Fabre.	уу
E.2 - E.17	lst International Congress of Biochemistry, Car 19-25 August 1949. Chibnall was President of Congress.	nbridge the
	For 2nd International Congress, Paris, 1952 and 3rd International Congress, Brussels, 1955, see D.27.	
E.2, E.3	General correspondence and papers <u>re</u> arrangement 1949-50.	nts,
E.2	1949 February - October. Includes corresponde participation of Soviet biochemists.	ence <u>re</u>
E.3	1950 September, nd. Undated items include 'L. German biochemists approved by Dr Blount'.	ist of
E.4 - E.8	Committee papers.	
E.4, E.5	Executive Committee, 1948-50. 2 folders.	
E.6	Congress Committee, 1948-49.	
E.7	Scientific Meetings Sub-Committee, 1948-49.	
E.8	International Committee, 1949-50.	
	Correspondence and papers <u>re</u> future internatio organisation of biochemistry. See D.22 - D.2	
E.9	Correspondence and papers <u>re</u> honorary degrees conferred on members of the Congress by Cambri University, 1948-49.	dge

Visits and conferences

E.10	Programme and list of members. Printed booklet.
E.ll	Chibnall's opening address as President.
E.12	Congress Dinner, Trinity College.
	Menu, plan of tables, Chibnall's speech. For photographs see A.40.
E.13	Draft proceedings for closing session of Congress.
E.14	Chemistry & Industry, 15 October 1949. With report of Congress proceedings.
E.15	Report of Opening & Concluding Sessions and Three Lectures. Printed for the Biochemical Society 1950.
E.16, E.17	Letters of thanks from Congress members. 2 folders.
E.18 - E.20	9th Council of the Institut International de Chimie Solvay on proteins, Brussels, 6-14 April 1953. Chibnall was invited to present a report to the Council on the chemical constitution of proteins.
E.18, E.19	Correspondence and papers re arrangements. 2 folders
E.20	Chibnall's ms notes on proceedings. Includes notes headed 'My paper', 'Theorell', Pederssen', 'Anson's paper', 'Synge's Paper', 'Lang's Introduction' and 'Lang's paper'.

E.21

Visits and conferences

Gordon Research Conference on 'Lipid metabolism', Meriden, New Hampshire, 16-20 August 1971.

Brief correspondence re arrangements, list of participants etc.

SECTION F

CORRESPONDENCE

F.1 - F.158

F.1

1973, 1975

Brief social correspondence. Includes lp ms note by Chibnall on Ashby's career.

F.2 - F.8

Astbury, W T

Ashby, E

1933-45,1961,1976-77

Astbury was an x-ray crystallographer in the Textile Physics Laboratory at Leeds University who collaborated with Chibnall (and Chibnall's research student Kenneth Bailey \underline{qv}) on protein structure research. The commercial possibilities of plant-protein fibres were investigated in conjunction with ICI (see also B.8-B.19).

Correspondence on research and publications.

- F.2 1933-34.
- F.3 1935 January-June.
- F.4 1935 July, August.
- F.5 1935 October-December.
- F.6 1936-39.
- F.7 1940-43, 1945.
- F.8 1961, 1976-77.

1961. Bailey's tribute to Astbury at the Memorial Service, Emmanuel Church, Leeds, 15 June.

1976-77. Correspondence <u>re</u> history of protein chemistry, protein fibres.

F. 9-F.11	Bacon, J S D	1938-56.1974
	Recommendations and appointments.	
F.9	1938-40. Recommendations from F G	Hopkins.
F.10	1945-47. Includes progress report on ARC project (investigations of carbohydrate fractions of grass), by Bacon and D J Bell, September 1946.	
F.11	1955-56, 1974.	
F.12-F.17	Bailey, K	1932-67 <mark>,</mark> 1978
	Bailey became a research student in C laboratory in 1933. In September 19 a Rockefeller Foundation grant to wor laboratory as a member of W T Astbury Chibnall wrote the Royal Society memo (Biographical Memoirs of Fellows of t Society, 10, 1964) Personal and scientific correspondence	35 he accepted k in Chibnall's 's team. hr of Bailey he Royal
F.12	1932, 1934, 1935,1939 (six letters on Harvard Medical School).	research from
F.13	1944-49. Includes Bailey's report o carried out during the tenure of an I 1945-47'.	
F.14	1955,1959,1961,1962. 1961 item is 1 N F Astbury with reminiscences of his	

Correspondence

Correspondence and papers <u>re</u> Chibnall's Royal Society memoir of Bailey.

F.15

Invitation to write memoir and material assembled for it: list of publications, Bailey's Royal Society personal record, printed obituaries, memorial service, list of references to Bailey in the Council Minutes, Trinity College Cambridge, note by Bailey 'The Trinity Picture Scheme', 1953 (on system of hiring pictures for undergraduate rooms), Bailey's tribute to Astbury at memorial service, 1961 (see also F.8).

F.16

Correspondence from colleagues and friends of Bailey, and their recollections of him. 1963-64. In alphabetical order:

M L Anson J T Edsall R H Hopkins C M Kay J Lugg H Neurath S V Perry A Pollard J C Ruëgg R G Westall

Also comments on Chibnall's draft of Royal Society memoir by S V Perry and F G Young.

F.17

Letters of thanks to Chibnall for Royal Society memoir, some with further recollections of Bailey. 1964-65,1967. In alphabetical order:

J D Ferry C M Kay H Neurath S V Perry A Pollard K Schmid F G Young

Also letter from Perry, 1978.

28

F.18	re Baker, J L	1958
	Letters in reply to Chibnall's reques in preparing obituary of Baker; obit and G C Jones. See also A.39.	
F.19	Buston, H W	1957-58,1964-65
	Buston was a colleague of Chibnall's College.	at Imperial
	Imperial College news, reminiscences.	
F.20-F.25	Cannan, R K	1930-54,1971-77
	Cannan was a colleague of Chibnall's laboratory at University College Lond became Professor of Biochemistry in t University College of Medicine.	on. In 1930 he
	Personal and scientific correspondence	e.
F.20	1930-33, ?1937, 1939.	
F.21	1940-41.	
F.22	1942.	
F.23	1943-45.	
F.24	1946-49, 1953-54.	
F.25	1971,1973,1977. Includes obituary as Cannan who died in 1971. 1977 correct J T Edsall who was writing the biograp the National Academy of Sciences.	spondence is from

F.26,	F.27		Channon, H J	1930-42,1977
			Channon was a colleague of Chibnall's laboratory at University College Lond Leeds University in 1927 and became H Biochemistry at Liverpool in 1932.	lon. He moved to
F.26			1930-35. Includes correspondence <u>re</u> proposed joint discussion between Biochemical and Chemical Societies.	
F.27			1938, 1940, 1942, 1977. Also includ of Channon (died 1979).	des obituaries
F.28			Clarke, H T	1933-54
Chibnall initiated the correspondence after read Clarke's paper on labile sulphur in protein in t Journal of Biological Chemistry.				
			Includes Clarke's 'preliminary notes' of carboxymethoxylamine, July 1936.	on the preparation
F.29			Cori, C F	1946, 1948-49
			Brief correspondence <u>re</u> visits to Eng for International Congress of Biocher See also E.16.	
F.30			Drummond, J C	c.1954
			Draft of Royal Society obituary notic obituary notice was prepared by F G Y	
F.31-	F.33		Edsall, J T	1949-65,1977-84
F.31			1949-52. Chiefly <u>re</u> visits and cons International Congress of Biochemists 75th anniversary meeting of American 1951; Edsall's Fulbright Professors 1952.	ry, 1949; Chemical Society,

F. 32	1954, 1956, 1958, 1960. Chiefly <u>re</u> Chibnall's visits to USA and Edsall's to Cambridge.			
	1962, 1964-65. Chiefly re Kenneth Ba	52, 1964-65. Chiefly <u>re</u> Kenneth Bailey.		
F.33	Chibnall's article 'The isolation of a	977-78, 1981-82, 1984. Includes typscript draft of nibnall's article 'The isolation of asparagine and lutamine from proteins', <u>Trends in Biochemical</u> <u>ciences</u> , <u>7</u> , (1982). See also A.9.		
F.34,F.35	Eglinton, G	1959-61,1963,1967, 1976, nd.		
	Department (later Professor of Chemist	ton was a member of the Glasgow University Chemistry tment (later Professor of Chemistry at Bristol). spondence is <u>re</u> research on chemistry of waxes and all's specimen collection.		
F.34	1959-61. 1959 correspondence is with R A Raphael, Regius Professor of Chemistry at Glasgow.			
F.35	1963, 1967, 1973, nd. Includes data and printed background material.			
F.36	Finch, G I	1953,1956,1958		
	Finch was a colleague at Imperial College (Professor of Applied Physical Chemistry 1936-52) who became Director of the National Chemical Laboratory of India, Poona.			
	Correspondence 1956 is re visit to Ind	lia by Chibnall.		
F.37	Fowden, L	various dates 1964-81		

F.38	Fruton, J S	various dates 1951-80
F.39,F.40	Grodsky, G M	1953-57,1960-61,1983
	Grodsky came from Berkeley in 1954 for research with Chibnall.	r postdoctoral
F.39	1953-54.	
F.40	1955-57, 1960-61, 1983. Includes cop 'Report of work at Cambridge Universit Correspondence 1960 is <u>re</u> visit to US	ty (Oct.1954-Oct.1955)'.
F.41-F.44	Hanes, C S	1951-80
	Born in Canada, Hanes did PhD research and made his career there, (Reader in and Director of ARC Unit) before return 1951 as Professor of Biochemistry, Unit	Plant Biochemistry rning to Canada in
	Personal and scientific correspondence	e.
F.41	1951-54.	
F.42	1955-56, 1958-59.	
F.43	1960-61, 1963-65, 1967.	
F.44	1970-74, 1976-80. Includes Hanes's of publications to 1976.	cv and list of
F.45	re Harington, C R	1972-73
	<u>re</u> obituary notices of Harington (died	a 1972).
F.46	Hird, F J R	1949-57,1968,1984
	Hird came from Australia to work in Claboratory, 1949-51.	hibnall's

Correspondence

F.47,F.48	Hopkins, F G	1920,1930,1932,c.1943
	Hopkins was the first Professor of Bi Cambridge, and Chibnall's predecessor Dunn Professor. Chibnall appears to little material from Hopkins. See a	as the Sir William have inherited a
F.47	1920. Application of part of the estate of Sir William Dunn towards the foundation and endowment of a School of Biochemistry at Cambridge.	
	Letters from Chairman of the Dunn Com of the Medical Research Council to th <u>re</u> Dunn benefaction, text of the 'pro newspaper-cutting etc.	ne Vice Chancellor
F.48	1930, 1932, c.1943. Includes lp note 'University Department of Biochemistry Sir William Dunn Institute' c.1943.	
F.49	Jordan, R C	various dates 1932-67
	Jordan was a research student of Chibnall's at Imperial College.	
F.50	Kay, H D	1941-45,1958
F.51	Kolattukudy, P E	1964-79
	Kolattukudy worked at the Connecticut Agricultural Experiment Station on plant waxes. Includes Chibnall's foreword to book on chemistry and biochemistry of natural waxes edited by Kolattukudy.	
F.52	Krebs, H A	1937-53,1963
	Includes Krebs's survey of his research work in respect of Royal Society candidature, 1945.	

33

Correspondence

		1052 72
F.53-F.56	Leggett Bailey, J	1952-73
	Leggett Bailey worked with Chibnall in Cambridge in the early 1950s.	
	Research, recommendations and appoints	ments.
F.53	1952-54.	
F.54	1955.	
F.55	1958-59.	
F.56	1961-64, 1966-67, 1971, 1973.	
F.57-F.60	Linderstrøm-Lang, K U	1945-59
	Linderstrøm-Lang was Director of the Laboratory, Copenhagen.	Carlsberg
	Research, visits and conferences.	
F.57	1945-47.	
F.58	1948.	
F.59	1949-52.	
F.60	1958-59. Includes reprint of J T Edsall's obituary of Linderstrøm-Lang (died 1959) for <u>Advances in</u> Protein Chemistry.	
F.61-F.67	Link, K P G	various dates 1924-84
	Link was a biochemist at the University of Wisconsin, famous for his work on anticoagulants including the rat poison warfarin.	

Personal and scientific correspondence.

F.61

Correspondence

1924, 1930, 1932, 1935, 1938-39.

1948. F.62 F.63 1952-53,1955. F.64 1960-68. 1970-76, 1978, 1984. F.65 F.66 Press-cuttings, reprints. Booklet comprising memorial service, biographical F.67 memoir, etc. 1930-34,1943,1955 F.68 Martin, C J On his retirement from the Directorship of the Lister Institute in 1930, Martin accepted an invitation to take temporary control of the Institute of Animal Nutrition, University of Adelaide. He initiated the correspondence shortly before his departure for Australia. Includes obituary notice and order of memorial service. For Chibnall's reminiscences of Martin, see F.73. 1970-74 F.69 Martin, J 1974-76 F.70 Meinwald, J Chemistry of waxes.

Correspondence

F.71	Mendel, L B	1931-34, 1953	
	Chibnall was formally attached to Me of Physiological Chemistry at Yale d as visiting worker in New Haven, Con though his principal association was	uring his two years necticut, 1922-24,	
	Includes correspondence 1933 re running of British Biochemical Journal and American Journal of Biological Chemistry. 1953 letter is from A Neuberger to whom Chibnall had shown the 1933 correspondence.		
F.72	Moore, S	1950-56, 1972-81	
	Principally re Moore's visits to Cam	bridge.	
F. 73	Neuberger, A	1941-42,1946-47,1974 1976	
	Research, recommendation, reminiscen	ces.	
F.74	Nicholson, D C	various dates 1946-82	
	Nicholson began as a laboratory assistant in C laboratory at Imperial College in 1935. He J PhD at Leeds University on Chibnall's recommer made his career at King's College (London) Med		
	Recommendations.		
F.75-F.79	Osborne, T B	1923-37, 1965	
	Chibnall worked under Osborne at the Experiment Station in New Haven, 192 world's leading authority on plant p 1920 had initiated work on leaf prot particular research interest at that considered his association with Osbo importance to the development of his research, and continued to turn to C Osborne's death in 1929. The mater of Chibnall's letters to Osborne.	2-24. Osborne was the proteins who from about eins, Chibnall's time. Chibnall orne of fundamental s career in scientific osborne for advice until	

Correspondence

F.75	1923. Letter from Osborne to Chibnall's father, 1 June, with draft reply. Osborne's letter includes a glowing appraisal of Chibnall as a young scientist.
F.76	1923-25.
F.77	1926. Principally <u>re</u> Chibnall's prospects after the withdrawal of support for his work by the Department of Scientific and Industrial Research (DSIR). Osborne offered to assist by approaching a US organisation, the International Education Board, on his behalf, and Chibnall drew up a programme of research for submission to the Board.

- F.78 1927-28. Principally <u>re</u> proposal by the Director, Sir John Russell, to establish a plant biochemistry laboratory for Chibnall at the Rothamsted Experimental Station. Chibnall visited America in May 1927 to discuss the proposal with Osborne but it came to nothing.
- F.79 1929-37, 1965. Includes letter from H B Vickery, 29 January 1929, announcing Osborne's death, correspondence from his widow, and telegram, 1937, announcing her death.

1965 letter is from DSIR with information about Chibnall's DSIR awards in the 1920s.

F.80-F.91 Piper, S H

1929-39, 1953

Piper was a Bristol physicist most of whose work was in the field of x-rays. He was closely associated with Chibnall in experiments on the synthesis and crystal spacing of the wax constituents of apples, forage grasses, and other natural products.

Scientific correspondence and data.

37

Correspondence

F.80	1929. The first letter in the file is from Piper to 'Dr Channon'. Data includes 'Melting points of hydrocarbons as observed by Prof. Francis'.
F.81	1930.
F.82	1931. Includes 'Data for the acids C_{26} and higher'.
F.83	1932.
F.84	1933. Includes recommendation.
F.85	1934.
F.86	1935.
F.87	1936-37, 1939. Includes recommendation.
F.88	1953.
	Also includes obituary c.1962.
F.89-F.91	Data. 3 folders.
F.92-F.95	Porter, R R various dates 1945-83
	Porter graduated in biochemistry at Liverpool University in 1939 and after a year's research there joined the army. He served until December 1945, rising to the rank of major. He approached Chibnall in August 1945 about the possibility of being accepted as a research student in biochemistry when he was demobilised. He started work in Cambridge in January 1946 with F Sanger (qv) as his supervisor.

38

continued...

Correspondence

F.92-F.95 cont'd			
	Porter subsequently became Professor of Biochemistry at Oxford, and was awarded the 1972 Nobel Prize for Medicine for work on the structure of antibody molecules.		
	Research and career.		
F.92	1945. Includes recommendation from H J Channon.		
F.93	1946-49. Includes research programme, 19 September 1946, and proposed plan of work on structure of antibodies and structure of diphtheria toxin, c.1948-49.		
F.94	1953, 1955-56, 1959. Recommendations and appointments. Includes note by Porter on his work since 1946, c.1956.		
F.95	1964-73, 1981, 1983. Chiefly Porter's letters of thanks in reply to Chibnall's congratulations on various honours and awards.		
F.96, F.97	Pryanishnikov, D N 1939,1945-49		
F.96	1939, 1945. Includes invitation to contribute to Pryanishnikov's eightieth birthday festschrift, 22 June 1945.		
F.97	1946-49. Includes draft of Chibnall's contribution.		
F.98, F.99	Rees, M W various dates 1951-79		
	Rees was Chibnall's research assistant over many years at Imperial College and Cambridge.		
F.98	1951-52, 1954-55.		
F.99	1962-63, 1975, 1979. Includes obituary of Rees (died 1978) by R L M Synge.		

39

Correspondence

F.100	Robinson, R	various dates 1933-75
	Principally research but includes correseries of taped interviews with promine (including Chibnall) sponsored by Shell	ent scientists
F.lol	Roche, J	1946-49
F.102, F.103	Sanger, F	various dates 1952-85
F.102	1952-58. Recommendations; award of for Chemistry to Sanger. Includes Ker appreciation in <u>Chemistry and Industry</u>	nneth Bailey's
F.103	1970-85. Sanger's letters of thanks a congratulations on various honours and the 1980 Nobel Prize for Chemistry); of for Sanger's Cambridge honorary degree historical note by Sanger about his cla free amino groups of insulin' (Biochem 1945), 23 January 1985. The note began my PhD degree in 1943 I started working who had come to Cambridge as the note Department of Biochemistry'.	awards (including order of proceedings , 1983, and 2pp assic paper 'The <u>ical Journal</u> , <u>39</u> , ins: 'After completing g with A C Chibnall,
F.104-F.106	Schmid, K	various dates 1947-85
	Schmid came from Switzerland in 1947 to in Chibnall's laboratory.	o work for a year
F.104	1947.	
F.105	1949-59.	
F.106	1960, 1967, 1970-72, 1984-85	

40

Correspondence

F.107, F.108	Spahr, P-F	1953-58
	Spahr came from Switzerland in 1954 to a year in Chibnall's laboratory. His was renewed for a second year.	
F.107	1953-56.	
F.108	1957-58.	
F.109	Stenhagen, E	1946-52
	Research on long-chain compounds.	
F.110-F.113	Synge, R L M	1939-56, 1974
	Research, publications, recommendations	S.
F.110	1939-40. Includes typescript of paper (with A J P Martin) 'Some applications of periodic acid to the study of the hydrooxyamino-acids of protein hydrolysates'.	
F.111	1941-42.	
F.112	1943-44, 1946, 1949-50. In a letter of 29 January 1943 Chibnall writes: 'I have watched his [Synge's] research since the days when he was a student in Hopkin's laboratory at Cambridge and I don't think I have been privileged to be concerned with any protein research which has given me greater pleasure than that which Synge has carried out in collaboration with Martin in Leeds'.	
F.113	1951-54, 1956, 1974.	
F.114, F.115	Tiselius, A	1946-50,1957,1961
	Research, visits, international organi biochemistry.	sation of

Correspondence

F.114 1946-47. 1948-50, 1957, 1961. F.115 1955-57, 1961 F.116 Tracey, M V 1948-49 F.117 Tréfouël, J re International Congress of Biochemistry. 1950-65 F.118-F.123 Tristram, G R After a first degree in biochemistry and research at Liverpool University, Tristram joined Chibnall's protein team at Imperial College in 1937. In 1950 he moved to St Andrew's University (Biochemistry Chair 1966). Research and career. F.118 1950-51. F.119 1952. F.120 1953. Includes Tristram's notes on d-glutamic acid in F.121 1954. β -lactoglobulin dated 28 November 1945 and sent to Chibnall 18 May 1954. 1955-57. F.122 1959-60,1962,1964-65. F.123

Correspondence

F.124-F.147	Vickery, H B	1925-81
	Vickery became an assistant in T B O laboratory at the Connecticut Agricu Station in 1921. He spent the rest life there, becoming Chief Biochemiss retirement in 1928. During Chibna Osborne's laboratory, 1922-24, they friendship which influenced the cours scientific work. Vickery was instru- Chibnall's 1938 Silliman Lectures at in the lectures' preparation.	ltural Experiment of his professional t on Osborne's ll's stay in formed a lifelong se of their umental in arranging
	Research, publications, visits.	
F.124	1925, 1927-29.	
F.125	1930.	
F.126	1931.	
F.127	1932.	
F.128	1933.	
F.129	1934.	
F.130	1935 January-March. Includes corres invitation to deliver Silliman Lectur	
F.131	1935 April-June.	

F.132 1935 July-December. 43

1925-81

Correspondence

F.133	1936.
F.134	1937. <u>Re</u> preparation of Silliman Lectures.
F.135	1938 January-March. <u>Re</u> preparation of Silliman Lectures.
F.136	1938 April-June. <u>Re</u> preparation of Silliman Lectures.
F.137	1938 July, September, December. <u>Re</u> preparation of Silliman Lectures, publication of lectures, etc. Includes data.
F.138 8	1939. <u>Re</u> publication of Silliman Lectures, etc.
F.139	1940.
F.140	1941.
F.141	1942.
F.142	1943, 1945-47.
F.143	1949-50. Includes correspondence with H B Hartley <u>re</u> origin of the word 'protein'.
F.144	1951, 1953.
F.145	1954-55, 1957-58.
F.146	1964-65, 1968, 1971-73.

Correspondence

F.147	Reprint of 'A chemist among plants' by (Annual Review of Plant Physiology, 23) typescript draft and reprint of biogra of Vickery (died 1978) by I Zelitch. the draft to Chibnall in 1981.	8, 1972); phical memoir
F.148-F.150	Virtanen, A I	various dates 1933-54
	Virtanen was Director of the Biochemic Helsinki.	cal Institute,
F.148	1933, 1937-39. Principally <u>re</u> invitation to Chibnall to visit Finland in September 1939.	
F.149	1945-46, 1949, 1954. Includes invita to contribute to a festschrift on the Virtanen's sixtieth birthday.	ation, 3 May 1954, occasion of
F.150	Documents <u>re</u> scientific controversy be and P W Wilson on the elucidation of h fixation. See also F.155.	etween Virtanen Diological nitrogen
F.151	Wain, R L	1973-74, 1977
	Includes reprints of Wain's Royal Soci visits to Mexico and China.	lety reports on
F.152	Westall, R G	1953, 1963, 1971, 1974
	Westall worked in Chibnall's laborator College from about 1930-31. Westall 27 September 1963 provides recollection Bailey (\underline{qv}) at Imperial College.	's letter of

45

Correspondence

F.153, F.154	Williams, E F	various dates 1939-81
	Williams became Chibnall's assistant joined J C Drummond's laboratory at London. He moved to Imperial Colle Chibnall and subsequently became J S Director of Research.	University College, ge and Cambridge with
F.153	1939, 1943-45, 1947.	
F.154	1950, 1963, 1971-72, 1974-75, 1981. letter of 12 November 1963 provides Kenneth Bailey (<u>qv</u>) at Imperial Coll	recollections of
F.155	Wilson, P W.	1939,1946,1953,1955
	Principally <u>re</u> disagreement with A I	Virtanen (<u>qv</u>).
F.156, F.157	Wiltshire, G H	1950-58
	After undergraduate studies at Cambr undertook research with Chbinall bef Chester Beatty Research Institute in period at the Rothamsted Experimenta to Rhodesia in 1957.	ore moving to the 1950. After a
F.156	1950-53.	
F.157	1954-58.	
F.158	Yemm, E W	1948-49, 1958-60
	Includes Chibnall's 'Report on the w	ork of Dr E W Yemm'.

INDEX OF CORRESPONDENTS

ACLAND, L H D	B.8-B.11
ADCOCK, Sir Frank (Ezra)	E.16
ADDISON, Christopher, 1st Viscount	E.16
AGRICULTURAL RESEARCH COUNCIL (ARC)	D.1-D.12,F.9
ALEXANDER, William Gemmell	D.1
AMERICAN CHEMICAL SOCIETY	F.51
AMORY, Derek Heathcoat Amory, 1st Viscount	D.1
ANDERSON, R J	C.4
ANSELL, G B	D.14
ANSON, Mortimer Louis (Tim)	F.16
APPLETON, Sir Edward Victor	D.3-D.5
ASHBY, A W	D.3,D.4
ASHBY, Eric, Baron	F.1
ASTBURY, N F	F.14
ASTBURY, William Thomas	B.10,B.18,F.2-F.8,F.13
ATKIN, W R	C.13
BACON, John Stanley Durrant	F.9-F.11
BAILEY, Kenneth	F.12-F.17 See also F.8,F.32,F.152 F.154
PATTITE Sir James	F.5

BAILLIE, Sir James BAIRD, D K

52, **F.**5

B.11

Index of correspondents

BAKER, Julian Levett	See F.18
BAKER, L C	E.16
BARCROFT, Sir Joseph	D.3,D.4
BEHRENS, Otto K	B.21
BELL, D J	See F.10
BENIANS, E A	F.31
BIOCHEMICAL SOCIETY	D.13,D.14, E.1
BISCEGLIE, Vincenzo	E.16
BISHOP, Laurence R	F.18
BLACKMAN, Vernon Herbert	A.17
BLIX, Gunnar	E.16
BOERI, Enzo	E.16
BRAGG, Sir William Henry	D.31
BRAND, E	E.2
BRISCOE, H V A	A.21
BRITISH EGG MARKETING BOARD	D.15-D.21
BRITISH LEATHER MANUFACTURERS' RESEARCH ASSOCIATION	F.120
BROOKS, Frederick Tom	A.21
BUSTON, H W	F.19

CANADIAN JOURNAL OF BIOCHEMISTRY AND PHYSIOLOGY F.43

CANNAN, Robert Keith	F.20-F.25
CHALLENGER, Frederick	F. 74
CHANNON, Harold John	A.25,B.2,B.3,F.26,F.27, F.92 See also F.80
CHAPMAN, Sydney	A.18
CHEMICAL SOCIETY	F.102
CHERBULIEZ, E	F.107
CHIBNALL, George William	F. 75
CHICK, Dame Harriette	F.68
CLARKE, Hans T	F.28 See also C.1
CLEMO, G R	C.10
COLMAN, Sir Jeremiah	F.47
COOK, Sir James Wilfred	A.21
CORI, Carl Ferdinand	E.16,F.29
COURTOIS, J E	D.26
COX, Sir (Ernest) Gordon	C.21,D.1
CROMWELL, B T	A.21
CRUZ-COKE, E	E.16
CUTHBERTSON, Sir David (Paton)	A.25,A.27,F.54
CUTHBERTSON, W F J	D.14

DALE, Sir Henry (Hallett)	F.111
DAMODARAN, Manayth	C.6
DE KOCK, P C	D.28
DENT, Charles Enrique	F.152 See also F.156
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH	D.2,F.9,F.79,F.111
DESNUELLE, P	E.16
DICKENS, Frank	D.25,E.2,E.3,E.8
DIXEY, R N	D.3,D.4
DIXON, Malcolm	A.21,A.26
DODGSON, K S	D.14
DONALDSON, Norman V	C.3-C.5,C.10
DRUMMOND, Sir Jack Cecil	D.3,D.9 See also F.30
DRURY, A N	F.112
DUNN, Max S	E.16
EDSALL, John Tileston	F.16,F.25,F.31-F.33,F.108
EGGLETON, Philip	F.26
EGLINTON, Geoffrey	F.34,F.35,F.70
ERDTMAN, Holger	E.16

Index of correspondents

EVANS,	Sir Charles	(Arthur)	Lovatt	A.21
EVANS,	William Char	les		A.27

E.1,E.2,E.8 FABRE, René See also D.26 F.8 FARRELL, C J в.3 FEIN-CHEMIE GMBH TÜBINGEN F.17 FERRY, John D E.16 FILDES, Sir Paul (Gordon) F.36 FINCH, George Ingle F.47 FLETCHER, Sir Walter Morley C.6 FOREMAN, F W B.8, B.9, B.13 FOSTER, B W A.26,F.37 FOWDEN, Leslie B.3,F.87 FRANCIS, F See also F.80 E.18 FREDERICQ, E D.26 FROMAGEOT, C F.38 FRUTON, Joseph Stewart D.1 FRYER, Sir John Claud Fortescue

GARTON, George Alan	A.27
GARION, GEOIGE AIGH	
GELL, Philip George Houthem	F.120
GIBSON, Charles Stanley	A.21
GRAHAM BROWN, Thomas	F.49
GRAVE, W W	E.9,E.16
GRAY, Sir James	A.20,A.21
GREENWALD, Isidor	F.24
GREGORY, Frederick Gugenheim	F.97
GREGORY, Roderic Alfred	D.15
GRODSKY, Gerold Morton	F.39,F.40
GROVER, C E	A.25
GULLAND, John Masson	F.26
GUTHRIE, W K C	E.9
HAAS, Paul	A.21,C.6

HAAS, Paul	A.21/0.0
HADDOW, Sir Alexander	F.156
HAMILTON, R J	F.34
HAMMOND, John	See D.29
HAMOIR, G	E.16
HANES, Charles Samuel	A.21,C.4,D.12,F.41-F.44 F.55
HAPPOLD, Frank Charles	A.21

Index of correspondents

D.14 HARDEN, Eric J D.22-D.25,E.8,F.26,F.93 HARINGTON, Sir Charles Robert F.94,F.115 D.15 HARPER ADAMS AGRICULTURAL COLLEGE See also D.20 A.26 HARTLEY, Brian Selby G.34 HARTLEY, G S F.143 HARTLEY, Sir Harold (Brewer) E.16 HARTLEY, Sir Percival C.13 HARVEY, A F.107,F.108 HASTINGS, A Baird D.16 HEAD, M J A.20,A.21 HELE, T S D.14 HENTON, A I P F.93 HERRALD, F J C D.3, D.4, D.29 HILL, Archibald Vivian B.2 HINES, A.25,F.46 HIRD, Frank John Raymond F.143 HOLMBERG, Arne F.9,F.12,F.46 HOPKINS, Sir Frederick Gowland E.16 HOPKINS, Jessie Anne, Lady F.16 HOPKINS, Reginald Haydn

HULME, A C	D.2
HUNNEMAN, D H	F.35
IMPERIAL CHEMICAL INDUSTRIES LIMITED	A.23,B.8-B.12,B.13-B.19 D.5,F.5
INTERNATIONAL SOCIETY OF LEATHER TRADES' CHEMISTS	C.13
INTERNATIONAL UNION OF BIOCHEMISTRY (IUB)	D.22-D.27
IRVING, J T	A.21
	3
JACOBSEN, C F	F.58
JONES, G Cecil	F.18
JORDAN, Ronald Charles	F.49
KAMM, Edward D	в.2
KAY, Cyril M	A.25,F.16,F.17,F.99
KAY, Herbert Davenport	C.21,F.50
KEILIN, Anna	A.27
KENNAWAY, Sir Ernest Laurence	A.21
KENT-JONES, D W	E.16
KERMACK, William Ogilvy	F.54
KIDD, Franklin	D.2
KING, C G	A.21

KLEINZELLER, Arnost	A.25
KNIGHT, Alex H	D.28
KNOWLES, N R	D.20
KOLATTUKUDY, Pappachan E	A.25,F.51
KON, George Armand Robert	A.21
KON, S K	D.16
KREBS, Sir Hans (Adolf)	A.27,F.10,F.52
KROLL, Harry	F.38
LAMPITT, L H	E.2
LAW, John H	E.21
LEGGETT BAILEY, John	F.53-F.56
LESSING, R	A.21
LEWIN, J	E.18
LEWIS, Dyfed	D.15
LEWIS, Howard B	C.6
ELI LILLY AND COMPANY	B.21
LILLY, J K	B.21
LINDERSTRØM-LANG, Kaj Ulrik	E.16,F.57-F.60
LINK, Karl Paul Gerhardt	F.61-F.67
LINSTEAD, Sir (Reginald) Patrick	A.24
LOW, Rosemary	E.16

LOWE,	Charles U	F.99
LUCK,	J Murray	D.24,D.25
LUGG,	JWH	A.21,A.25,F.16

MACAULAY INSTITUTE FOR SOIL RESEARCH	D.28
McCANDLISH, D	C.13
McLEAN, Andrew	в.12
MARRACK, John R	A.22
MARTIN, Sir Charles (James)	F.68
MARTIN, John	F.69
MEDICAL RESEARCH COUNCIL	F.93,F.112
MEINWALD, Jerrold	F.70
MENDEL, Lafayette B	C.1,F.71
MENZIES, R C	в.3
MITCHELL, Joseph Stanley	B.21
MOORE, Stanford	A.25,E.17,F.53,F.54
MORGAN, Neil	A.10
MORGAN, Walter Thomas James	D.14
MORRIS, C J O	F.156
MORRIS, Charles Richard, Baron	F.13,F.122

NATIONAL INSTITUTE FOR RESEA	ARCH IN DAIRYING	D.16
NATIONAL INSTITUTE OF POULTE	RY HUSBANDRY	D.15
NEEDHAM, Joseph		A.22,E.2
NEMCHINOV, V S		F.96,F.97
NEUBERGER, Albert		D.14,F.45,F.71,F.73
NEURATH, Hans		F.16,F.42
NICHOLSON, Dennis C		F.74
NORTHUMBERLAND, Hugh Algerno lOth Duke	on Percy,	D.1
OGG, Sir William Gammie		F.97
OLBY, Robert C		F.8
OPARIN, Alexandr Ivanovich		E.2
OSBORNE, Elizabeth A		F.79
OSBORNE, Thomas Burr		F.75-F.79
OSVALD, Hugo		F.97
OXFORD UNIVERSITY PRESS		C.4
PANTIN, Carl Frederick Abel		A.22
PAGE, Irvine H		A.22
PEARSALL, William Harold		D.11
PERRY, Samuel Victor		F.16,F.17

Index of correspondents

D.25,E.17,F.102 PETERS, Sir Rudolph (Albert) F.120 PHILLIPS, H C.6 PHILLIPS, Thomas G F.102 PICKERING, Sir George (White) B.3,F.80-F.91 PIPER, Stephen Harvey D.3-D.5,D.9,D.11 PIRIE, Norman Wingate See also F.156 A.22 PITT-RIVERS, Rosalind Venetia F.104 PLATTNER, Pl. A C.6,E.17 PLIMMER, R H A C.10 PODGORSKI, Ignacy C.6,F.16,F.17 POLLARD, Alfred E.17 POLONOVSKI, M F.46 POMERAT, Gerard R A.26, F.14, F.16, F.92-F.95 PORTER, Rodney Robert F.96,F.97 PRYANISHNIKOV, Dmitri Nikolaievich D.27 PUTZEYS, P F.34 RAPHAEL, Ralph Alexander E.9,E.17 RAVEN, Charles Earle

REES, Maurice William

A.25, F.98, F.99

58

<u>_60</u> 59

REIFER, I	C.10
ROBINSON, Sir Robert	F.51,F.100
ROBSON, W	E.1
ROCKEFELLER FOUNDATION	F.3
ROCHE, Jean	E.17,F.101 See also D.26
ROSE, William C	A.22,C.6
ROTHSCHILD, Nathaniel Mayer Victor, Baron	A.22,D.11,F.94
ROUGHTON, Francis John Worsley	F.31
ROYAL SOCIETY	D.29,D.30,F.13,F.15
RÜEGG, J C	F.16
RUHLAND, W	C.6
RUSSELL, Sir (Edward) John	F.78
SALISBURY, Sir Edward James	See D.29
SANGER, Frederick	F.102
SCARFF, R W	F.156
SCHMID, Karl	A.25,F.17,F.104-F.106
SCHOELLER, A	B.3,B.4
SIMONSEN, Sir John Lionel	F.122
SIMPSON, William L	F.105

66 .

SKENE, M	A.22
SLADE, R E	A.22
SLATER, Sir William (Kershaw)	D.1,F.98,F.121 See also D.5
SMITH, Elliott Dunlap	C.1
SMITH, J A B	A.25
SMITH, J C	F.87,F.88
SOCIETY OF DYERS AND COLOURISTS	C.17
SPAHR, Pierre-François	A.25,F.107,F.108
SPILLERS LIMITED	D.16
STEIN, William Howard	F.72
STENHAGEN, Einar	F.109
STEVEN, Frank	F.123
STEWARD, F C	F.144
SVEDBERG, The	F.114
SYNGE, Richard Laurence Millington	F.110-F.113 See also F.114
TEMPERTON, H	D.15

TEMPERTON, H	D. 15
TERROINE, E	E.17
THEORELL, Axel Hugo Theodor	D.22,E.17
THIRKILL, Sir Henry	A.22

THOMPSON, E O P	A.25
THOMSON, Sir George (Paget)	A.22
TIMMERMANS, Jean	E.18
TISDALE, W E	F.2
TISELIUS, Arne	E.8,E.17,F.114,F.115 See also D.25
TOPLEY, William Whiteman Carlton	D.10
TRACEY, Michael V	F.116
TRAILL, David	В.10-В.12
TREFOUEL, Jacques	F.117
TREFOUEL, Thérèse	E.17
TRENDS IN BIOCHEMICAL SCIENCES	F.33
TREVELYAN, George Macauley	E.17
TRISTRAM, G R	F.118-F.123
TROTTER, Michael D	F.121
TWENTYMAN, Edward	A.22
TYLER, Cyril	D.16
TYNDALL, Arthur Mannering	F.83,F.84
VAN FLEET, D S	F.55
VAN SLYKE, Donald D	B.20,F.41

VENN, John A	A.20
VICKERY, Hubert Bradford	F.79,F.124-F.147
VIRTANEN, Artturi Ilmari	E.17,F.148-F.150
WAIN, Ralph Louis	F.151
WALLACE, Thomas	A.22
WARREN, Charles H	C.1,C.4
WATSON, S J	D.5
WEATHERSTON, Iain	F.70
WEBB, Edwin Clifford	A.25
WEIR, J	A.22,B.10,B.11
WELLCOME RESEARCH INSTITUTION	A.23
WESSELY, F	E.17
WESTALL, Roland G	C.6,F.16,F.152
WHITELEY, Joan E (née Keilin)	A.25
WHITTAKER, John MacNaghten	F.14
WILLIAMS, Ernest Frank (Bill)	F.153,F.154
WILSDEN, B H	A.22,B.11,F.111
WILSON, Perry William	F.155 See also F.150

Index of correspondents

WILTSHIRE, G H F.156,F.157 WOOL INDUSTRIES RESEARCH ASSOCIATION B.11,F.111 WOOLTON, Frederick James Marquis, 1st Earl D.1 WURMSER, René E.17

 YALE UNIVERSITY PRESS
 C.3-C.5,C.10

 YEMM, Edmund William
 C.6,F.158

 YOUNG, E Gordon
 A.22

 YOUNG, Sir Frank (George)
 A.22,A.25,A.26,B.9,D.13

 F.16,F.17,F.53,F.107
 See also D.23,F.31,F.146

ZELITCH, Israel

F.51,F.147