

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Report on further correspondence and papers of

DAVID KEILIN

(1887-1963)

biologist

deposited in

Cambridge University Library

Reproduced for the Contemporary Scientific Archives Centre

(CSAC 118/9/86)

by

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

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CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE
under the guidance of the Royal Society's
British National Committee for the History of Science, Medicine and Technology

Supplementary catalogue of papers and correspondence of

DAVID KEILIN FRS

(1887 - 1963)

Material additional to CSAC 3/73

Compiled by

Jeannine Alton and Peter Harper

Deposited in the University Library Cambridge

1986

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GENERAL INTRODUCTION

PROVENANCE

The material was received from Mrs. Joan Whiteley (Keilin's daughter) at various dates June-December 1986. Although the collection is essentially additional to that catalogued in 1973 (CSAC 3/73) it also incorporates documents relating to the Molteno Institute Cambridge (item 6 of the 1973 catalogue) previously retained in family hands.

DESCRIPTION OF THE COLLECTION

The supplementary collection is particularly strong on biographical material relating to Keilin and his family, and includes several accounts, translations, summaries, explanatory notes and identifications prepared by Mrs. Whiteley.

There is documentation for the early life and work in Paris of Keilin, his wife Anna and his sister Marie (both doctors), and more sparsely of other members of their families. Of some interest are the sequences of letters written to Keilin by his wife from Manchester during the First World War, and by his daughter from Leeds during the Second World War, when each was pursuing a medical career. None of Keilin's replies to his wife survive but his frequent letters to Joan (A.73-A.78) are very interesting for their news of his research ideas and Cambridge affairs as well as for the picture they convey of his struggles with ill-health and his unassuming and endearing personality. The documentary record in Section A is complemented by photographs assembled in Section E.

Section B contains a little research material for the Cambridge period and some useful additional documentation for Keilin's long connection with the Molteno Institute before, during and following his appointments as Quick Professor and Director. The material held back from the 1973 collection is incorporated here.

Section C (Lectures and Publications) is chiefly of interest for Keilin's draft review for Nature of a book by Warburg (C.3) and for its extensive drafts and correspondence for his own book The history of cell respiration and cytochrome left unfinished at his death, completed by his daughter and published in 1966.

Section D (Correspondence), though slight, includes some exchanges with A. Szent-Györgyi and O. Warburg. Section E contains several interesting photographs of all aspects of Keilin's life, work, colleagues and family from 1907 to shortly before his death. Many of these were assembled and re-photographed by Mrs. Whiteley and bear dates and identifications by her.

ACKNOWLEDGEMENTS

Our main thanks are to Mrs. Whiteley for her care in assembling, translating and identifying the material. We also acknowledge with thanks the help of Dr. G.C. Stone (Hertford College, Oxford) in deciphering and translating documents in Polish and Russian.

J.B. Alton

P. Harper

Oxford 1986

SECTION A BIOGRAPHICAL AND PERSONAL A.1 - A.87

- A.1 -A.7 Biographical tributes and information
- A.8 -A.40 Career and honours
- A.41-A.87 Family letters and material
- | | |
|------------------------------|-----------|
| Anna Keilin | A.41-A.55 |
| Joan Keilin (later Whiteley) | A.56-A.80 |
| Other relatives and friends | A.81-A.87 |

BIOGRAPHICAL TRIBUTES AND INFORMATION

- A.1 Keilin's own account of his scientific activity. 5pp., n.d., probably 1945 (work with Y.L. Wang on leguminous plants).
- A.2 Miscellaneous biographical notes prepared after Keilin's death, by J. Keilin, P. Tate.
- A.3 Accounts prepared by Mrs. Whiteley (J. Keilin) for the present collection.
- 'Corrigendum to obituary notices'
- 'Student Days in Paris: before and after'
- 'Dr. Marie Keilin' (Keilin's sister, Mania)
- List of addresses in Paris and Cambridge occupied at various times by David and Anna.
- A.4, A.5 Family trees and information assembled by Mrs. Whiteley for the present collection.
- A.4 David Keilin. Family tree, outline of life, recollections of other members of the family contributed by various relatives.
- A.5 Anna Keilin (née Hershlik). Family tree, outline of life.

Biographical and personal

A.6, A.7

Published accounts.

A.6 'Keilin, cytochrome and the concept of a respiratory chain', by E.F. Hartree, in Of Oxygen, Fuels and Living Matter, 1981.

A.7 'Keilin and the Molteno', by M.F. Perutz, The Cambridge Review, October 1986.

CAREER AND HONOURS

A.8

Early life and career

Residence certificate issued by Warsaw police, 1896.

School report, 1904.

Two documents relating to military service, 1908, the second issued at Imperial Russian Consulate, Paris, deferring call-up until end of university studies but not beyond age of 27.

Russian passport, issued 1911 and used to 1921, with visas for Britain, 1915, and return to Paris for doctorate 1917. Keilin is recorded on the passport as travelling with his sister, Hena (Niusha).

A.9

Liège University, 1905

Certificate of study; admission card to Botanical Gardens.

Biographical and personal

A.10-A.13

Paris

A.10 Personal documents.

Residence certificate, 1905, with later additions 1908, 1911.

Marriage certificates, July and September 1913.

Letter, 1915, from J. Verne.

A.11 Certificates of study, 1908 Zoology, Embryology; 1909 Botany; 1912 Geology.

A.12 Diplôme de Licencié ès Sciences.

Miscellaneous receipts and forms re certificates and dues.

A.13 Doctorate, 1917. Includes application for visa, supporting letter from G.H.F. Nuttall, arrangements made by M. Caullery, doctorate certificate (mention très honorable).

Also included in folder is letter to Keilin, 1918, with news of teachers and friends.

A.14

Cambridge, 1918

Miscellaneous biographical items, residence and military certificates, invitations, research and personal.

A.15

Election to Royal Society, 1928

Letter of congratulation (only one survives), fee receipts.

A.16

Miscellaneous items, 1920s, 1930s

National Portrait Gallery; passport; press cutting; Certificate of registration for Stephanie ('Shifra') Hershlik, who came to Britain to live with her daughter and son-in-law, 1921.

Biographical and personal

A.17

Miscellaneous items, 1940s

Card from colleagues in Paris, 1943.

Telegram from J. Needham urging Keilin to apply for Chair of Biochemistry, Cambridge, 1943.

Request (declined) to become first President of the newly-formed Society for General Microbiology, 1944.

Letter from M. Caullery on Keilin's election as membre correspondant, Académie des Sciences, 1947.

List of guests invited to Garden Party at Keilin's home on the occasion of the First International Congress of Biochemistry at Cambridge, 1949.

A.18

Miscellaneous items, 1950s

Copley medal (one letter only), 1951.

Offer (declined) of election as Fellow, Royal Society of Arts, 1952.

Correspondence re Hon. Doctorate, University of Liège, 1952.

Greetings card from 'reunion of former Molteno and Cambridge biochemists', Shanghai, 1959.

A.19

Miscellaneous shorter items.

Biographical and personal

A.20-A.40 Keilin's death

Letters of condolence, written jointly or separately to Anna and Joan Keilin, a few with replies.

A.20	A	A.29	L
A.21	Ba-Bi	A.30	Ma
A.22	Bl-Bu	A.31	Me-Mu
A.23	C	A.32	N-O
A.24	D-E	A.33	P-Q
A.25	F	A.34	R
A.26	G	A.35	Sa-Sl
A.27	H	A.36	Sm-Sz
A.28	I-J-K	A.37	T

A 38 U-Z

A.39 Lists compiled by Joan Keilin of those from whom letters were received; drafts of replies by Anna and Joan Keilin.

A.40 Will, Estate account, assets and liabilities.

Biographical and personal

FAMILY LETTERS AND MATERIAL

Anna Keilin, née Hershlik

A.41-A.44

Early life in Poland (documents in Russian).

A.41 Birth certificate, 1886; and French translation, 1906.
Residence certificate for 'Shifra' (Stephanie) Hershlik (mother), certifying her as a Russian citizen in town of Velun, Poland.
See also A.16.

A.42 School leaving certificates of Lycée at Lodz, 1902, and addendum, 1905, re qualification as primary school teacher; and French translation, 1906.

A.43 Diploma as primary school teacher, Lodz, June 1905, with photograph.

A.44 Certificate of examination in Latin taken at boys' school, Lodz, August 1905, with photograph. (Latin was not taught to girls at that date.)

A.45, A.46

Paris

A.45 Dispense de grade, 1906.

Doctorate, 1915.

Testimonials to medical studies, 1915, 1916.

Receipts and dues.

A.46 Residence certificate, 1906, and later amendments.

Russian passport issued 1905, with travel pass, 1913, as loose document, and entry authorisation for Britain, 1915.

Biographical and personal

A.47-A.55

Britain

A.47 Documents relating to medical career, 1915-20.

Includes testimonials for Anna Keilin from Manchester Northern Hospital, Charing Cross Hospital, St. Mark's Hospital; brief correspondence re post at Cambridge, 1918; receipts and dues.

Also included is certificate of pass in medicine, Society of Apothecaries, London, March 1920, and letter to David Keilin about medical studies, undated but one month before Apothecaries examination. Letter is in Polish, with résumé translation and notes contributed by Mrs. Whiteley, December 1986.

Letters to David Keilin, 1915-17.

With the exception of letters written from Paris in 1915 and included at A.48, the correspondence is addressed to David Keilin in Cambridge and sent from Manchester where Anna Keilin was working at the Manchester Northern Hospital for Women and Children. It consists of letters, postcards and telegrams, some on hospital headed paper; a card or letter was sent almost daily and sometimes more than once a day. Almost all are in Polish with occasional phrases in French and more rarely in English. There is one letter in Russian. The content is mainly personal, but includes several references to life in Manchester and to Anna Keilin's professional work at the hospital.

A.48 1915 3 April, from David to Anna Keilin describing early days in Cambridge; 30 April, 31 May, Anna to David. All in Polish. Letters of 3 April, 31 May have résumé translations and notes contributed by Mrs. Whiteley, December 1986.

1916 July, August.

A.49 1916 September.

A.50 1916 October. Includes letter, 11 October, in French, to 'Mon cher maître' re a publication by Anna Keilin.

A.51 1916 November.

Continued

Biographical and personal

- A.52 1916 December. Includes draft applications and requests for testimonials, in English and French, for a post in 'un hôpital Londonien' [Charing Cross], and a Christmas letter of family news from sister- and brother-in-law, Edzia and Horace Havre, working in Portugal.
- A.53 Undated and fragmentary letters, probably 1916.
- A.54 1917 January.
- A.55 1917 February.

Joan Keilin, later Whiteley

Letters to her parents, written regularly during clinical medical training at Leeds, 1942-45, and undated. Content is mainly personal, but with frequent reference to course of study, lectures, operations and treatment, as well as details of wartime life in Leeds and some information on Cambridge affairs.

- A.56 1942 April, September, October.
- A.57 1942 November, December.
- A.58 1943 January, February. Letter of 22 February describes a weekend visit to H.A. Krebs and family at Sheffield.
- A.59 1943 March, April.
- A.60 1943 May.
- A.61 1943 June, July.
- A.62 1943 August.
- A.63 1943 September, October.
- A.64 1943 November, December.
- A.65 1944 January, February

Continued

Biographical and personal

- A.66 1944 March-May.
- A.67 1944 June, July. Includes description of military casualties treated at Leeds.
- A.68 1944 August, September.
- A.69 1944 October, November.
- A.70 1945 January, February, April.
- A.71, A.72 Undated or fragmentary letters.

Letters from Keilin to his daughter, with an occasional note by Anna, 1942-44. The content is mainly personal but with frequent reference to research in hand or planned, meetings and discussions, publications by Keilin and Joan Keilin, appointments and news of colleagues at Cambridge and elsewhere. Some letters include a few sentences in Polish, and some are written when Keilin was confined to bed during his regular attacks of asthma.

The sequence provides a detailed and endearing picture of Keilin's personality and activities.

- A.73 1942 January, April, September.
- A.74 1942 October-December.
- A.75 1943 January-March.
- A.76 1943 April-July.
- A.77 1943 August, October, December.
- A.78 1944 August. Undated and fragmentary letters.

Biographical and personal

- A.79 Telegram and letters from Anna to David Keilin, August 1943, from Leeds. In Polish.

Two letters from Anna to Joan Keilin, April 1943, September 1944. In English.
- A.80 Miscellaneous later letters home written during holidays or conferences abroad, 1961, 1967.

Other relatives and friends

Most of these letters and cards are in Russian or Polish, and have translations, paraphrases, identifications or notes added by Mrs. Whiteley.

- A.81 Entin, Dunia (Keilin's sister) and Mordecai, 1928, 1937.
Included here is Keilin's 1960 waiver of claim to the estate of his sister and family, most of whom died in the Warsaw Ghetto, in favour of his niece Irena Mitelman.
- A.82 Havre, Edzia (Keilin's sister) and Horace, 1943, 1944 and n.d.
- A.83 Keilin, Marie (Mania, Keilin's sister), 1923, 1924, 1944.
- A.84 Keilin, Motia (brother) and Genia, 1925, 1938.
- A.85 Keilin, Paňka, 1925.
- A.86 Miscellaneous postcards, 1915-17, from family and friends, with notes and possible identifications by Mrs. Whiteley.

Biographical and personal

A.87	Letters, cards, etc. from friends:	
	Filitz, J.	1918
	Heyman, S.	1943
	Ivanoff, S. and M.	1916, 1918, 1944. Includes photograph.
	Kopeć	1932, 1937
	? Pavlovski	1928

SECTION B THE MOLTEÑO INSTITUTE, CAMBRIDGE B.1 - B.34

B.1 -B.13 Research and teaching

B.14-B.34 History and administration

See A.7 for an account of Keilin's long involvement with the Molteno.

RESEARCH AND TEACHING

- B.1 Exercise book (covers detached) with some loose pages intercalated. Both ends of book used.
Experiments, results, graphs, most in Keilin's hand but some by another. Some pages bear dates, November-December 1930, February 1931, January 1932.
- B.2 Small red notebook of miscellaneous content. Only one page dated 'VII 1935'.
Includes list of 53 matters to be investigated, experiments to do, ideas or notes on cytochrome and oxidases; list of 21 similar notes for research on several topics; list of 9 similar 'Experiments on Respiration of Ascaris Parasites'; list of 9 'Collaborative problems'. At rear of book, similar lists of 13 and 11 topics, and miscellaneous other notes.
- B.3 Small notebook of miscellaneous content, bibliographical references, addresses, etc. At rear of book a few later notes, 1968, by Mrs. Keilin.
- B.4 Small loose-leaf notebook, n.d.
Mainly chemical formulae and molecules.
- B.5 Miscellaneous notes, graphs, etc. on haemoglobin.
- B.6 Notes on 'Estimation of haem capacity of proteins'.
- B.7 Notes and graphs on cytochrome c.
- B.8 Miscellaneous notes.

The Molteno Institute, Cambridge

- B.9 Ms. lecture on 'Porphyrin' variously paginated, some pages dated 1943, 1944.
- B.10 Examination questions set by Keilin.
List of lectures given by Keilin at Cambridge, 1937-58.
- B.11-B.13 Theses.
- B.11 1928. Keilin's report.
1929. Keilin's report on doctorate thesis by A. Szent-Györgyi 'On the function of peroxidase systems'.
- B.12 n.d. early 1930s. Keilin's report on thesis by N.U. Meldrum.
1939.
- B.13 1959. Ms. notes and comments.
n.d. Notes and comments by Keilin, Hartree and Dixon.

HISTORY AND ADMINISTRATION

- B.14 (Part only) letter to G.H.F. Nuttall re Keilin's work, from U.S. Department of Agriculture, 1917, perhaps related to offer of post.
- B.15 Grant applications and research reports to Medical Grant Committee and Medical Research Council for Keilin's work as assistant to Nuttall, 1922-29. Report for 1925 records discovery of cytochrome. Folder includes card from Nuttall, 1929.
- B.16 'Regarding Parasitology'
Memorandum by Nuttall on the history and future of the journal, January 1932. Keilin and E. Hindle took over editorial responsibility from that date.

The Molteno Institute, Cambridge

- B.17 Correspondence with Medical Research Council and Rockefeller Foundation re support from the Foundation for Keilin's work, 1932; press-cutting re gift.
See also B.21.
- B.18 Keilin's letter re death of first Secretary-Librarian of Molteno, and support for family, 1934.
- B.19 Notes from J. Gray on research projects and personnel at Department of Zoology, n.d., 1930s.
- B.20 Letter from I. Molteno, 1940.
- B.21 Correspondence with Rockefeller Foundation re help for refugee scientist (1942) and re five-year grant for Keilin's research (1947).
- B.22 Photocopy of Keilin's letter to Medical Research Council re support for molecular biology and work of M.F. Perutz and J.C. Kendrew in Cambridge, 1947.
- B.23 Brief correspondence only re Nuttall Memorial Celebration, 1951.
- B.24 Correspondence, 1950-51, re Keilin's Report on 'The Molteno Institute of Biology and Parasitology', prepared for Cambridge University General Board and relating to the future of the Institute. A copy of the report, and of Keilin's circulation list, are included.
- B.25 Keilin's carbons of letters to others, setting forth his views on the qualities looked for in the head of a parasitology department, 1951.
- B.26 Keilin's carbons of letters re his forthcoming (October 1952) retirement as Quick Professor and as Director of the Molteno, election of successors and his future research plans, April, June 1952.

The Moltano Institute, Cambridge

- B.27 Five bundles of ms. notes by Keilin, prepared as aide-mémoires for discussions with Secretary of Faculties, and with N.M.V. Rothschild, re affairs of the Moltano. All bear dates on verso attributed by Mrs. Whiteley from Keilin's private diaries June-July 1952.
- B.28 Notes for Keilin's speech at celebration of hundredth birthday of C. Warburton at Moltano, 1954. Also included here are brief letter and photograph from Warburton to Mrs. Keilin, 1954.
- B.29 Brief correspondence re Keilin's retirement research at Moltano, financial statements of Nuffield Grant expenditure, 1955, 1956.
- B.30 Papers, 1962, re future of the Moltano and proposed discontinuance of the Quick Professorship, all heavily annotated by Keilin.
- B.31 Continuing correspondence, 1963, re Moltano and Quick Professorship and meeting of General Board, 13 February 1963, which Keilin attended by invitation and at which he died. Includes miscellaneous ms. notes prepared for the meeting.
- B.32 Miscellaneous undated notes and jottings, mainly about the Moltano and its activities, but also includes 4pp. notes probably prepared for Council of the Royal Society.
- B.33 Reports of the Quick Professor of Biology, 1931-34, 1934-37, 1937-40, 1943-46, 1945, 1946-49, lists of publications.
- B.34 Miscellaneous printed matter on the history of the Moltano, its publications, and on Nuttall.

SECTION C LECTURES AND PUBLICATIONS C.1 - C.32

Many of the documents have attributions or annotations added by Mrs. Whiteley.

- C.1 'Preparation of Cytochrome c', collaborative paper with E.F. Hartree, published in Biochemical Preparations, 2, 1949, under the title 'Cytochrome c'.
4pp. typescript with ms. corrections.
- C.2 'Effect of low temperature on the absorption spectra of haemo-
proteins ...', collaborative paper with E.F. Hartree, published in
Nature, 164, 1949.
9pp. typescript with ms. corrections.
- C.3 Review of O.H. Warburg: Schwermetalle als Wirkungsgruppe
von Fermenten, published in Nature, 165, 1950.
8pp. '2nd draft', 6pp. list of 29 points of disagreement, headed
'Warburg', letter from Nature re review, 1949.
Also included in folder is Keilin's copy of Warburg's 1929 papers
on oxidation, bound together and with many annotations by Keilin.
- C.4 'Cytochrome', collaborative paper with E.C. Slater, published
in Brit. Med. Bull., 9, 1953.
24pp. typescript.
- C.5 'Cytochrome', 6pp. typescript with a few ms. corrections for a
paper; note by Mrs. Whiteley suggests a relation to collaborative
paper with A. Tissières published as 'Haemoglobin in moulds'
(Nature, 172, 1953). 2 copies with different ms. corrections.
- C.6 Miscellaneous typescript and ms. draft, incomplete, for 'Distribution
and diversity of haemoglobin' (Acta. Biochim. Polonica, 1956).

Lectures and publications

C.7-C.30 The History of Cell Respiration and Cytochrome

Keilin's posthumous book, prepared for publication by his daughter, C.U.P.;
1966.

Drafts

This material is mainly typescript, copied up by Keilin's daughter from his notes or earlier drafts, and usually bearing ms. indications by her of where the material was to be, or had been, incorporated in the book. Many of the texts are very heavily annotated or revised by her. There are also some ms. notes, comments or suggestions in the hands of E.F. Hartree and E.C. Slater. A few of Keilin's own ms. or typescript notes survive.

- C.7 Plans and outlines for book, some under original title 'Respiration and metallo-protein catalysts' (see 1953 correspondence with C.U.P. at C.24), material for introduction.
- C.8 Ideas for mottoes.
- C.9 Chapter 1.
- C.10 Chapter 2.
- C.11 Chapter 3.
- C.12 Chapter 4.
- C.13 Chapter 5.
- C.14 Chapter 6.
- C.15 Chapter 7. Chapter including discussion of work by Warburg. Multiple drafts and revisions.

Lectures and publications

- C.16 Chapter 8.
- C.17 Chapter 9.
- C.18 Chapter 10.
- C.19 Chapter 11.
- C.20 Chapter 12.
- C.21 Chapter 14.
- C.22, C.23 Bibliographical and other notes, several in Keilin's hand (Joan Keilin's lists enclosed).
2 folders.

Correspondence

Except for C.24, correspondence is conducted with Joan Keilin.

- C.24 Correspondence and contract with C.U.P., 1953, for book under its original title Respiration and metallo-protein catalysts, later amended to The History of Cell Respiration and Cytochrome.
- C.25, C.26 Correspondence with C.U.P. re publication, publicity, reviews, U.S. publication, etc. Includes correspondence with Nature, 1968.
- C.25 1964-66 C.26 1967-69, 1975
- C.27 Correspondence with colleagues re book, 1964, 1965.
- C.28 Correspondence with colleagues, readers and reviewers, 1965-67.

Lectures and publications

- C.29 Publicity material, extensive lists of names and addresses for circulation.
- C.30 Reviews.
- C.31 Invitations to lecture, letters of thanks.

Royal Academy of Netherlands 1938; Harvard 1949; University of London 1952; John Ray Society Cambridge 1954; Natural Science Club Cambridge 1954; History of Science Committee Cambridge 1954; Leeuwenhoek Lecture 1959.
- C.32 Correspondence with publishers and editors.

Invitation to write book on Cytochrome and Other Enzymes of Respiration, 1939; Nature, 1954; Science Progress, 1961.

Correspondence

- | | | |
|------|---|----------------|
| D.12 | Holiday, E.R. | 1951 |
| D.13 | Institut International de Chimie-Solvay
Invitation (declined) to 5th meeting, Brussels; includes programme,
list of participants. | 1934 |
| D.14 | Kapitza, P.
Text of Keilin's telegram recommending treatment for hepatitis. | 1945 |
| D.15 | Laidlaw, P.P.
Preparation of cytochrome <u>c</u> . | 1935, 1936 |
| D.16 | Lichtenthaeler, C.
Book on cytochrome. | 1947 |
| D.17 | Medical Research Council
Letter of thanks at end of service. | 1946 |
| D.18 | Meldrum, N.U.
Card only, 1933; later correspondence is with Meldrum's uncle
and publisher <u>re</u> possible reprinting of his book on cellular
respiration.

Also included here is note by D.E.H. Whiteley, 1986, on the
Meldrum family. | 1933, 1944 |
| D.19 | Mellanby, E. | 1952 |
| D.20 | Pope, W.J.
Keilin's draft letter only, on diphtheria toxin. | n.d., pre-1919 |
| D.21 | Quastel, J.H. | 1941 |
| D.22 | Sherrington, C.S. | 1938 |

Correspondence

- | | | |
|------|--|---------------|
| D.23 | Stern, K.G. | 1938 |
| D.24 | Szent-Györgyi, A.
Research and publications, mainly on fumaric, pyruvic and oxaloacetic acids. | 1932, 1936 |
| D.25 | Thorson, G.
Research at Marine Biology Laboratory, Copenhagen. | 1960 |
| D.26 | Virtanen, A.I.
Haemoglobin research. | 1945 |
| D.27 | Warburg, O.H. and others
Includes Keilin's letter of congratulations on Warburg's Nobel Prize for 1931; programme of conference on oxidation at Heidelberg, March 1932 (Keilin spoke on cytochrome) and correspondence arising; research, specimens, meeting. Also includes letter from G. Millikan while working in Warburg's Institute, 1934, and Keilin's recommendation of Warburg for Hon. Fellowship of Chemical Society, 1938.
Correspondence 1946 is with F.J. Philpot on Warburg's postwar situation. | 1931-38, 1946 |
| D.28 | Letters of congratulation to colleagues on honours and awards, and/or their replies. Various dates 1944-53 and undated. | |
| D.29 | Brief correspondence, 1945, 1960, on books and reprints. | |

Photographs

- E.10 B. Straub; A. Szent-Györgyi and family; H. Tamiya; Y.L. Wang.
- E.11 C. Warburton (2 photographs, one 1934 when Warburton, who lived to celebrate his centenary, was eighty); Weinberg; T.S. Work.

Keilin in laboratory

- E.12 Six photographs including Quick Laboratory in Medical Museum before move to the Molteno in 1921; 'Chemical Room' 1930s; with equipment; in laboratory 'office' 1960s.

Keilin with colleagues

- E.13 Seven photographs, with M. Dixon, E.F. Hartree, E.C. Slater, J. Parizek, and on an expedition from Molteno early 1920s.
- E.14 Receiving honorary degree, Utrecht, 1956.

FAMILY AND PERSONAL

- E.15 Student days in Paris, 1907-13
Five postcards of groups, some including Marie (Mania) and Niussha Keilin.
Photograph of Anna, David and Niussha Keilin, 1913
- E.16 Family and friends.
Keilin's parents; sisters Dunia, Marie 1915, 1964; group in Warsaw 1936 (Motia, Dunia, Niussha and others); Ivanoff and Picado (Paris c.1912).
- E.17 Keilin.
Photocopies of early photograph in school uniform, c.1897, and in Paris, c.1912; Cambridge 1919; at home (three photographs 1950s).
- E.18 Three photographs of Keilin at home with Anna, Joan, Ann Bishop.

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