

Robert C. Olby Collection
1951-1963
Mss.B.OL1

American Philosophical Society
6/2003
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Summary Information

Repository	American Philosophical Society
Creator	Olby, Robert C. (Robert Cecil), 1933-
Title	Robert C. Olby Collection
Date [inclusive]	1951-1963
Call number	Mss.B.OL1
Extent	0.25 Linear feet
Location	LH-B-21-8
Language	English
Abstract	<p>The historian of science Robert C. Olby is a graduate of University College London and Oxford. Best known for his work on the history of genetics, especially the Bateson school, and for his study of the early history of molecular biology, Olby is currently a Research Professor in the History and Philosophy of Science at the University of Pittsburgh. He is the author of <i>The Origins of Mendelism</i> (1966), <i>Charles Darwin</i> (1967), <i>The Path to the Double Helix</i> (1974), and the <i>Norton History of Biology</i>. His current research is focused on the conceptual foundations of modern sensory neurophysiology and an intellectual biography of Francis Crick. The Olby Collection contains about 150 photocopies of correspondence and documents collected by Olby during research for <i>The Path to the Double Helix</i>. Among these is a copy of a manuscript by F. C. Crick and James D. Watson, "The Complementary Structure of Deoxyribonucleic Acid," prepared while Watson was at CalTech.</p>

Preferred Citation

Cite as: Robert C. Olby Collection, American Philosophical Society.

Background note

A graduate of the University College London and Oxford, Robert C. Olby (b. 1933) earned a reputation as an innovative historian of genetics with the publication of first book *The Origins of Mendelism* in 1966. When a former undergraduate friend of his, John Preble, suggested that he study the history of molecular biology, Olby gained an introduction to Francis Crick, the British biophysicist and co-discoverer of the structure of DNA, who became both a scientific informant and close friend. Olby's *The Path to the Double Helix* (1974) provided an overview of the intellectual and institutional background that resulted in Watson and Crick's "physical and chemical account of the gene." In his introduction, Olby stated simply that his hope was that the book would "afford the historian, sociologist and scientist a guide to the source material relating to the origins of molecular biology, with special reference to DNA," but in fact it presented a masterful use of both primary written sources and oral histories. Ironically, Olby claimed that as a student at the University College London in the fifties, he could not remember hearing the word DNA ever being uttered.

Olby taught history of science at the University of Leeds from 1969-1993 and in the department of the History and Philosophy of Science at the University of Pittsburgh from 1994-2001, where he remains as Research Professor.

Scope & content

The Olby Collection (23 folders, approximately 97 items) is comprised almost entirely of photocopies of correspondence from scientists involved in the discovery of the double helical structure of DNA in 1953. The correspondents include Sydney Brenner, Francis Crick, Max Delbruck, Rosalind Franklin, Roger Herriott, Alfred Hershey, Salvadore Luria, Heinrich Matthaei, Matthew Meselson, Linus Pauling, Alexander Rich, and James Watson. The topics discussed within the correspondence include but are not limited to the structure of DNA, Pauling's theory, RNA backbone, Jonathan Warner, and the RNA central code.

Administrative Information

Publication Information

American Philosophical Society 6/2003

Provenance

Acquisition Information

Gift of Robert C. Olby, June 1969 and October 1970 (acc. No. 1976-344ms and 1976-345ms).

Indexing Terms

Personal Name(s)

- Brenner, Sydney
- Crick, Francis, 1916-2004
- Delbrück, Max
- Franklin, Rosalind, 1920-1958
- Gamow, George, 1904-1968
- Herriott, Roger Moss, 1908-
- Hershey, A. D., (Alfred Day), 1908-
- Luria, S. E., (Salvador Edward), 1912-1991
- Matthaei, Heinrich
- Nirenberg, Marshall W.
- Pauling, Linus, 1901-1994
- Rich, Alexander
- Watson, James Dewey, 1928-

Subject(s)

- DNA--Structure
- Genetics
- Molecular biology--History

Other Finding Aids

The Robert Olby Papers are briefly described in Bentley Glass' *A Guide to the Genetics Collections of the APS*.

Other Descriptive Information

This collection of letters, documents, and biographical information represents some of the materials Olby had gathered for his noted book *The Path to the Double Helix* (1974).

Other Descriptive Information

This collection contains materials which relate to the history of genetics.

Author	Format	Date
Brenner, Sydney	Correspondence (1 item)	1960
Crick, Francis H. C.	Correspondence (14 items)	1955-1963
Crick, Francis H. C. and Watson, James D. -- The Complementary Structure of Deoxyribonucleic Acid	Manuscripts (28 pages)	n.d.
Delbruck, Max	Correspondence (2 items)	1953-1955
Franklin, Rosalind	Correspondence (1 item)	1958
Gamow, George	Correspondence (13 items)	1955-1962
Herriott, Roger Moss	Correspondence (1 item)	1951
Hershey, Alfred Day	Correspondence (1 item)	1951

Luria, Salvador Edward	Correspondence (2 items)	1952-1953
Matthaei, Heinrich	Correspondence (8 items)	1960, n.d.
Meselson, Matthew	Correspondence (1 item)	1961
Olby, Robert Cecil -- Summary of Events Leading to Solution of DNA Structure	Manuscripts (9 pages)	n.d.
Pauling, Linus	Correspondence (1 item)	1953
Rich, Alexander	Correspondence (18 items)	1956-1963
Watson, James D.	Correspondence (5 items)	1953-1955

Bibliography

Olby, Robert C., *The Origins of Mendelism* (London: Constable, 1966). **Call no.:** 575.1 OL1o.

Olby, Robert C., *The Path to the Double Helix* (Seattle: Univ. of Washington, 1974). **Call no.:** 574.19 OL1p.

Collection Inventory

Robert C. Olby Collection	1951-1963	0.25 lin. feet Box 1
Brenner, Sydney TLS Cy to Matthew Meselson Regarding work of Jacques Monod and Francois Jacob.	1960 May 7	1 item
Indexing Terms		
Subject(s)		
Biochemistry and organic chemistry Cytogenetics Jacob, Francois Molecular genetics Monod, Jacques		
Crick, Francis H. C.	1955-1963	14.0 Item(s)
Crick, Francis, 1916-2004 Folder 1 Existance of deoxy-uracil in DNA; experiments on Collagen; new structure for polyglycine.	1955-1956	6 items
Crick, Francis, 1916-2004 Folder 2 Polynucleotides; poly A; poly I + poly C; angle of hydroge hydrogen bond; DNA and RNA.	1957-1960	7 items
Crick, Francis, 1916-2004 Folder 3. TLS Cy to Alex Rich	1963 April 24	1 item

Robert C. Olby Collection

Re: Rich's manuscript for *Nature*

Crick, Francis, 1916-2004 Watson, James n.d. 28.0 p.

D., 1928-

The Complimentary Structure of
Deoxyribonucleic Acid

Prepared while Watson was at California Institute of Technology.

Indexing Terms

Subject(s)

Biochemistry and organic chemistry

Molecular genetics

Unpublished manuscripts, notes, etc.

Delbruck, Max	1953-1955	2.0 Item(s)
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Delbrück, Max	1953 April 14	1 item
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Folder 1. TLS Cy to J. D. Watson

DNA structure

Delbrück, Max	1955 November 9	1 item
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Folder 2. TLS Cy to Alex and Jane Rich

Rundle's RNA structure

Franklin, Rosalind, 1920-1958	1958 March 16	1 item
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ALS Cy to Alex Rich

Regarding tobacco mosaic virus (TMV).

Indexing Terms

Robert C. Olby Collection

Subject(s)

Biographical and personal data
 Cytogenetics
 Laboratory techniques, equipment
 Molecular genetics

Gamow, George	1955-1962	13.0 Item(s)
Gamow, George, 1904-1968 Folder 1. ALS Cy to Alex Rich	1955-1956	8 items
Discusses his book; trouble with proteins; divorce; research questions; official club circular; helix vs. solenoid entanglement of chromosomes.		
Gamow, George, 1904-1968 Folder 2. ALS Cy to Alex Rich	1958-1962	5 items
On writing books; son Igor; soliciting opinion on the latest pronouncement by Francis Crick, Barnett, Brenner, and Watts-Tobin concerning "The General Nature of the Genetic Code."		
Herriott, Roger M. TLS Cy to Alfred D. Hershey	1951 November 16	1 item
Amino acids in the phage but not in the ghosts; centrifugation of the ghosts; his own virus problem.		

Indexing Terms**Subject(s)**

Bacteriophage and viral genetics
 Biochemistry and organic chemistry
 Hershey, Alfred Day
 Laboratory techniques, equipment

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Molecular genetics

Hershey, A. D., (Alfred Day), 1908-	1951 November 20	1 item
TL Cy to Roger M. Herriott		

Results of the S 35 experiments; addressing Herriott's idea about the nucleic acid and Hershey's own opinion about intracellular phage.

Indexing Terms**Subject(s)**

Bacteriophage and viral genetics
 Herriott, Roger Moss
 Molecular genetics

Luria, S. E., (Salvador Edward), 1912-1991	1952-1953	2 items
Correspondence		

S35 and protein and DNA; Linus Pauling's theory.

Indexing Terms**Subject(s)**

Biochemistry and organic chemistry
 Conferences and symposia
 Cytogenetics
 Molecular genetics
 Pauling, Linus

Matthaei, Heinrich	1960, n.d.	8 items
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Robert C. Olby Collection

Correspondence

Materials obtained by Heinrich Matthaei, a coworker with Dr. Marshall W. Nirenberg, who won the Nobel prize for the discovery of DNA and collected by Olby for his book, *The Path to the Double Helix*

Indexing Terms**Subject(s)**

Biochemistry and organic chemistry
 Crick, Francis H. C.
 Cytogenetics
 History of biology, especially genetics
 Mendel, Gregor
 Molecular genetics
 Nirenberg, Marshall
 Unpublished manuscripts, notes, etc.
 Watson, James D.

Meselson, Matthew

1961 February 15

1 item

TL Cy to Sydney Brenner and F. Jacob

Regarding *The Unstable Intermediate* manuscript.

Indexing Terms**Subject(s)**

Biochemistry and organic chemistry
 Brenner, Sydney
 Editorial matters
 Jacob, Francois

Robert C. Olby Collection

Molecular genetics

Unpublished manuscripts, notes, etc. -- The Unstable Intermediate

Olby, Robert C. (Robert Cecil), 1933- n.d. 9.0 p.

Summary of Events Leading to Solution of
DNA Structure

10-page timeline.

Indexing Terms

Subject(s)

Biochemistry and organic chemistry

History of biology, especially genetics

Molecular genetics

Unpublished manuscripts, notes, etc.

Pauling, Linus, 1901-1994 1953 March 5 1 item

TLS Cy to Dr. James Watson

Protein conference and Pauling's new structure for the nucleic acids.

Indexing Terms

Subject(s)

Biochemistry and organic chemistry

Conferences and symposia

Cytogenetics

Delbruck, Max

Molecular genetics

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Watson, James D.

Rich, Alexander	1956-1963	18.0 Item(s)
Rich, Alexander Folder 1	1956-1957	8 items
RNA backbone; WC structure for DNA; p32 labelling; measurements on various muscle protein fractions; the prospect of DNA's coding for RNA; collagen model; DNA synthesizing system; creating new polymers;		
Rich, Alexander Folder 2. TL Cy to F. H. C. Crick	1957-1961	7 items
System polyinosinic acid plus polycytidylic acid; poly A coordinates; Russian collagen article; Maurice's DNA coordinates; Pauling-Coring models; Nirenberg system;		
Rich, Alexander Folder 3. TL Cy to F. H. C. Crick	1962-1963	3 items
Jonathan Warner; polyribosomes; mixed crystals; NMR study of cytidine and deoxycytidine; structure of the guanine-cytosine crystal; finding another complex; in vitro incubation experiments with polyribosomes.		
Watson, James D.	1953-1955	5.0 Item(s)
Watson, James Dewey, 1928- Folder 1	1953 March	2 items
Pauling's seminar.		
Watson, James Dewey, 1928- Folder 2. ALS Cy to Alex Rich	1955 March 9	1 item
RNA central code		
Watson, James Dewey, 1928- Miscellaneous Notes	n.d.	2 items