

**Jack Schultz papers, 1920-1971**  
**1920-1971**  
**Mss.Ms.Coll.27**

American Philosophical Society  
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## Summary Information

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<b>Repository</b>	American Philosophical Society
<b>Creator</b>	Schultz, Jack, 1904-1971.
<b>Title</b>	Jack Schultz papers, 1920-1971
<b>Date [inclusive]</b>	1920-1971
<b>Call number</b>	Mss.Ms.Coll.27
<b>Extent</b>	27.5 Linear feet Ca. 25,000 items
<b>Extent</b>	27.5 linear feet.
<b>Location</b>	LH-B-39-1
<b>Language</b>	English
<b>Container</b>	1-55
<b>Abstract</b>	<p>This collection includes correspondence (18.5 boxes), manuscripts (lectures and articles), research grant material, research data, and some personal notes from his graduate school days. There is significant material relating to his participation in professional organizations such as the American Society of Naturalists (President, 1968), Genetics Society of America (President, 1963), National Research Council, and the National Science Foundation.</p>

## Background note

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Geneticist and biochemist Jack Schultz centered his career on the study of the nature and function of the gene, chemical genetics of *Drosophila*, cytochemical and nutritional techniques, cytochemistry of growth, and the pattern of human chromosomes. Schultz obtained his A.B., A.M., and Ph.D. (1929) from Columbia University, where he was the last graduate student to get his doctorate under T. H. Morgan. He also worked with Morgan at the California Institute of Technology, 1929-1936 and 1941-1942. As a Rockefeller Foundation fellow in 1937-1939, he worked under Torbjörn Caspersson at the Karolinska Institutet in Stockholm, Sweden. The remainder of his career was spent at the Institute for Cancer Research, Philadelphia, Pennsylvania, where he was Senior member and head of the Department of Genetics and Cytochemistry, 1943-1957, and Chairman of the Division of Biology, 1957-1969. Much of his tenure at the Institute was spent as an administrator, rather than on original research. He had much success in choosing, encouraging, and stimulating a brilliant research staff. He did not publish prolifically, relying more on lectures and informal discussions.

## Administrative Information

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### Publication Information

American Philosophical Society

## Provenance

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### Acquisition Information

Presented by Helen Redfield Schultz and accessioned, 12/--/1983 (1984 9ms).

## Indexing Terms

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### Corporate Name(s)

- American Society of Naturalists.
- Columbia University.
- Genetics Society of America.
- Institute for Cancer Research (Philadelphia, Pa.).
- National Research Council (U.S.). Committee for Research in Problems of Sex.
- National Science Foundation, U.S.

### Genre(s)

- Articles.
- Lectures.

### Personal Name(s)

- Beadle, George Wells, 1903-1989
- Briggs, R. W., (Robert W.)
- Caspersson, Torbjörn, (Torbjörn Oskar), 1910-1997
- Cooper, Kenneth Willard

- Darlington, C. D., (Cyril Dean), 1903-1981
- Demerec, M., (Milislav), 1895-1966
- Dobzhansky, Theodosius Grigorievich, 1900-1975
- Ephrussi, Boris, 1901-1979
- Fabergé, Alexander C.
- Hadorn, Ernst, 1902-
- Haldane, J. B. S. (John Burdon Sanderson), 1892-1964
- Hecht, Selig, 1892-1947
- Klein, George, 1925-
- Lewis, Edward B., 1920-
- Morgan, Thomas Hunt, 1866-1945
- Muller, H. J., (Hermann Joseph), 1890-1967
- Rudkin, George T.
- Stadler, L. J., (Lewis John), 1896-1954
- Ward, George

### Subject(s)

- Biochemical genetics.
- Biology.
- Cytochemistry.
- Cytology.
- Drosophila.
- Genetics.
- Human chromosomes.

### Other Descriptive Information

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Jack Schultz was the last graduate student to earn his doctorate under Thomas H. Morgan at Columbia (1929), joining his mentor at the new biology division at the California Institute of Technology (1929-1936, 1940-1942). Although trained as a geneticist, Schultz began combining classical *Drosophila* genetics with gene chemistry as early as 1930, when American genetics and biochemistry had little common ground. He also appreciated the significance of nucleic acids in heredity at a time when the protein view of the gene was dominant.

These research interests led Schultz in 1936 to a long-term collaboration with the Swedish biochemist Torbjorn Caspersson on studies of nucleic acids in relation to genetics, and to Schultz's move to the Department of Genetics and Cytochemistry at the Institute for Cancer Research in Philadelphia (1943-1969). His research program was therefore an important link between classical and molecular genetics, and between pure and applied research.

Raised in New York's intellectual milieu, Schultz's temperament inclined him toward synthesis of scientific knowledge. His strength lay in organizing research and in identifying original problems and

researchers. He did not enjoy writing, and did not publish or correspond prolifically; the Schultz Papers reflects this pattern in his career.

Author	Format	Date	Language
Alexander, Jerome, b. 1876 ( <i>On genes as colloids.</i> )	Correspondence (29 items)	1941-1946	English
American Cancer Society ( <i>Includes information on lectures, research data, grants, and the Scientific Review Committee.</i> )	Records (3 folders)	1945-1970	English
American Institute for Biological Sciences ( <i>Includes information on lectures, research data, and grants.</i> )	Records (2 folders)	1962-1970	English
American Society of Naturalists ( <i>Includes information on conferences and symposia, committee activities, publications, and educational matters.</i> )	Records (3 folders)	1963-1971	English
Beadle, George Wells, 1903-1989 ( <i>Includes correspondence regarding molecular genetics, the history of genetics, biochemistry, drosophila genetics, Columbia University, Thomas H.</i>	Correspondence (2 folders)	1946-1970	English

*Morgan, graduate study,  
and recommendations.)*

Bonner, David	Correspondence (4 items)	1948-1962	English
Bonner, James Frederick, 1910-1996	Correspondence (5 items)	1954-1969	English
Caspersson, Torbjorn Oskar, 1910-1997 ( <i>In 1936 Schultz and Swedish biochemist Caspersson began a long-term collaboration on studies of nucleic acids in relation to genetics. The collaboration grew into a life-long friendship, and continued through correspondence, visits, and exchange of research assistants. The folders contain letters, lectures, and reports, describing their collaboration on genetics and nucleic acids. The pre-1950s material is of special significance, documenting Caspersson's frustrations while working against the mainstream of protein research. The files contain interesting information about other institutions of the life</i>	Correspondence (11 folders)	1937-1970	English



*sciences, other research programs, and science in Europe during the war. Together, these records comprise an important chapter in the history of biochemistry, biophysics, genetics, and molecular biology.)*

Demerec, M. (Milislav), 1895-1966 ( <i>On drosophila genetics, Cold Spring Harbor, molecular biology.</i> )	Correspondence (2 folders)	1929-1966	English
Dobzhansky, Theodosius Grigorievich, 1900-1975 ( <i>Includes correspondence regarding drosophila genetics, California Institute of Technology, population genetics, Columbia University, conferences and symposia, Cold Spring Harbor Laboratory, and World War II.</i> )	Correspondence (3 folders)	1929-1969	English
Ephrussi, Boris, 1901-1971 ( <i>Includes correspondence regarding drosophila genetics, publications, conferences, and cytogenetics.</i> )	Correspondence (11 items)	1934-1968	French

Genetics Society of America ( <i>Contains information on publications, referee's reports, notes, lectures, research data, and grants. Includes folders regarding the American Institute of Biological Sciences, committees, membership information, officer files, and miscellaneous materials.</i> )	Records (32 folders)	1926-1971	English
Haldane, J. B. S. (John Burdon Sanderson), 1892-1964 ( <i>Includes correspondence regarding lectures, publications, human genetics, genetics of plants, drosophila genetics, and displaced German scholars.</i> )	Correspondence (4 items)	1933-1936, n.d.	English
Hollaender, Alexander, 1898-1986	Correspondence (12 items)	1944-1969	English
Lederberg, Joshua	Correspondence (4 items)	1958-1967	English
McClintock, Barbara, 1902-1992	Correspondence (3 items)	1942-1951	English
Mazia, Daniel, 1912-1996 ( <i>On nucleic acids.</i> )	Correspondence (11 items)	1941-1970	English

Mirsky, Alfred E. ( <i>Primarily correspondence related to the journal The Cell.</i> )	Correspondence (3 folders)	1948-1963	English
Monod, Jacques ( <i>Wedding invitations (2 copies).</i> )	Correspondence (2 items)	1938	French
Morgan, Thomas Hunt, 1866-1945 ( <i>Includes correspondence regarding molecular genetics, physiology, drosophila genetics, fellowships, conferences, and lectures.</i> )	Correspondence (2 folders)	1929-1943	English
Muller, H. J. (Hermann Joseph), 1890-1967 ( <i>Includes correspondence regarding drosophila genetics, Cold Spring Harbor Laboratory, World War II, radiation genetics.</i> )	Correspondence (18 items)	1941-1967	English
National Academy of Sciences ( <i>Includes information on lectures, research data, and grants.</i> )	Records (24 items)	1963-1970	English
National Institutes of Health ( <i>Includes information on lectures, research data, and grants.</i> )	Records (34 items)	1948-1965	English
National Research Council ( <i>Contains information</i>	Records (5 folders)	1927-1970	English

*on committee activities, conferences and symposia, lectures, research data, and grants. Includes information from the Committee on Growth and a Fellowship in Biological Sciences.)*

Rockefeller Foundation ( <i>Includes information on lectures, research data, and grants.</i> )	Records (5 items)	1934-1950, n.d.	English
Sonneborn, Tracy M., 1905-1981 ( <i>Scientific correspondence.</i> )	Correspondence (16 items)	1945-1969	English
Stern, Curt, 1902-1981 ( <i>Includes correspondence regarding drosophila genetics, displaced German scholars, International Congress of Genetics, human genetics, radiation genetics.</i> )	Correspondence (21 items)	1930-1969	English
Stern, Kurt Guenter ( <i>On physico-chemical genetics.</i> )	Correspondence (11 items)	1944-1951	English
Sutton, Eileen ( <i>On nucleic acids and chromosomes.</i> )	Correspondence (12 items)	1940-1943	English
Tatum, Edward Lawrie, 1909-1975	Correspondence (12 items)	1945-1969	English

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**Additional Biographical Notes:**

Torbjorn O. Caspersson studied medicine and biophysics at the University of Stockholm in the 1930s, becoming a lecturer in biochemistry at the chemistry division of the Karolinska Institute (1937-1942), and professor of medical cell research and genetics in 1944. That same year a special research institution was created, the Nobel Institute for Medical Cell Research and Genetics, which soon after was supplemented by the Wallenberg Laboratory of Experimental Cell Research; Caspersson was director of both institutions.

Although he worked within a medical institutional context, Caspersson's research program focused on fundamental aspects of cytogenetics, with a special emphasis on precise spectroscopic measurements. In the 1930s and 1940s, long before the race along the path to the double helix had begun, Caspersson promoted the genetic significance of nucleic acids. Combining his knowledge of cell biology and biochemistry with accurate spectroscopic observations of nucleic acids in living cells, Caspersson concluded in the late 1930s that nucleic acids were somehow involved in protein synthesis, an unorthodox view at a time when protein chemistry dominated the chemical approach to heredity.

Some of this important work was done during a two-year collaboration with Jack Schultz in Stockholm. The collaboration with Schultz, which grew into a life-long friendship, continued through correspondence, visits, and exchange of research assistants. After Schultz left abruptly at the outbreak of the war in 1939, Caspersson attempted to join Warren H. Lewis's cytology laboratory at Johns Hopkins as a Rockefeller Fellow.

## Other Descriptive Information

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

Author	Format	Date
American Society of Human Genetics	Records (1 folder)	1948-1963
American Society of Naturalists	Records (3 folders)	1963-1971
Beadle, George Wells	Correspondence (2 folders)	1946-1970
Briggs, Robert W.	Correspondence (15 items)	1943-1949
Caspersson, Torbjorn	Correspondence (11 folders)	1939-1970

Cooper, Kenneth Willard	Correspondence (2 folders)	1949-1968
Darlington, Cyril Dean	Correspondence (1 item)	1933
Demerec, Milislav	Correspondence (2 folders)	1929-1966
Dobzhansky, Theodosius	Correspondence (3 folders)	1929-1969
Ephrussi, Boris	Correspondence (11 items)	1934-1968
Faberge, Alexander Cyril	Correspondence (3 folders)	1945-1970
Genetics Society of America	Records (32 folders)	1926-1971
Hadorn, Ernst	Correspondence (31 items)	1954-1970
Haldane, John Burdon Sanderson	Correspondence (4 items)	1933-1936
Hecht, Selig	Correspondence (5 items)	1930-1940
Klein, George	Correspondence (3 folders)	1950-1961
Lewis, Edward B.	Correspondence (17 items)	1951-1969
Morgan, Thomas Hunt	Correspondence (2 folders)	1929-1943
Muller, Hermann Joseph	Correspondence (18 items)	1941-1967
National Research Council	Records (5 folders)	1927-1929, 1933-1970
National Science Foundation	Records (9 folders)	Circa 1956-1969
Schultz, Jack	Manuscripts (7 boxes)	1920-1971

Stadler, Lewis John	Correspondence (2 folders)	1941-1951
Stern, Curt	Correspondence (21 items)	1930-1969
Sturtevant, Alfred Henry	Correspondence (20 items)	1938-1966
Wald, George	Correspondence (8 items)	1935-1969

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## Selected Inventory from Genetics Subject Guide

## Collection Inventory

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**Selected Inventory from Genetics Subject Guide**


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Alexander, Jerome	1941-1946	Correspondence ( 29 items )
American Cancer Society	1945-1970	Records ( 3 folders )
American Institute for Biological Sciences	1962-1970	Records ( 2 folders )
American Society of Human Genetics	1948-1963	Records ( 1 folder )
American Society of Naturalists	1963-1971	Records ( 3 folders )
Beadle, George Wells	1946-1970	Correspondence ( 2 folders )
Bonner, David	1948-1962	Correspondence ( 4 items )
Bonner, James Frederick	1954-1969	Correspondence ( 5 items )
Bridges, Calvin Blackman	n.d.	3.0 Item(s)
Briggs, Robert W.	1943-1949	Correspondence ( 15 items )
Caspersson, Torbjorn	1939-1970	Correspondence ( 11 folders )

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## Selected Inventory from Genetics Subject Guide

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Cooper, Kenneth Willard	1949-1968	Correspondence ( 2 folders )
Darlington, Cyril Dean	1933	Correspondence ( 1 item )
Demerec, Milislav	1929-1966	Correspondence ( 2 folders )
Dobzhansky, Theodosius	1929-1969	Correspondence ( 3 folders )
Ephrussi, Boris	1934-1968	Correspondence ( 11 items )
Faberge, Alexander Cyril	1945-1970	Correspondence ( 3 folders )
Genetics Society of America	1926-1971	Records ( 32 folders )
Hadorn, Ernst	1954-1970	Correspondence ( 31 items )
Haldane, John Burdon Sanderson	1933-1936	Correspondence ( 4 items )
Hecht, Selig	1930-1940	Correspondence ( 5 items )
Hollaender, Alexander	1944-1969	Correspondence ( 12 items )
Klein, George	1950-1961	Correspondence ( 3 folders )
Lederberg, Joshua	1958-1967	Correspondence ( 4 items )

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## Selected Inventory from Genetics Subject Guide

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Lewis, Edward B.	1951-1969	Correspondence ( 17 items )
Mazia, Daniel	1941-1970	Correspondence ( 11 items )
McClintock, Barbara	1942-1951	Correspondence ( 3 items )
Mirsky, Alfred E.	1948-1963	Correspondence ( 3 folders )
Monod, Jacques	1938	Correspondence ( 2 items )
Morgan, Thomas Hunt	1929-1943	Correspondence ( 2 folders )
Muller, Hermann Joseph	1941-1967	Correspondence ( 18 items )
National Academy of Sciences	1963-1970	Records ( 24 items )
National Institutes of Health	1948-1965	Records ( 34 items )
National Research Council	1927-1929, 1933-1970	Records ( 5 folders )
National Science Foundation	Circa 1956-1969	Records ( 9 folders )
Rockefeller Foundation	1934-1950, n.d.	Records ( 5 items )
Schultz, Jack	1920-1971	Manuscripts ( 7 boxes )

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Selected Inventory from Genetics Subject Guide

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Sonneborn, Tracy M.	1945-1969	Correspondence ( 16 items )
Stadler, Lewis John	1941-1951	Correspondence ( 2 folders )
Stern, Curt	1930-1969	Correspondence ( 21 items )
Stern, Kurt Guenter	1944-1951	Correspondence ( 11 items )
Sturtevant, Alfred Henry	1938-1966	Correspondence ( 20 items )
Sutton, Eileen	1940-1943	Correspondence ( 12 items )
Tatum, Edward Lawrie	1945-1969	Correspondence ( 12 items )
Wald, George	1935-1969	Correspondence ( 8 items )

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