

CHEMICAL HERITAGE FOUNDATION

JONATHAN S. STAMLER

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Helene L. Cohen

at

Duke University
Durham, North Carolina

on

16-18 October 2000

From the Original Collection of the University of California, Los Angeles



Jonathan S. Stamler

ACKNOWLEDGEMENT

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Marnie Berkowitz, Consultant to the Chemical Heritage Foundation. B.A., Classical Languages and Literatures, University of Minnesota; Ford Foundation Fellowship, Classical Languages and Literatures, University of Chicago.

David J. Caruso, Program Manager, Oral History, Chemical Heritage Foundation. B.A., History of Science, Medicine, and Technology, Johns Hopkins University; PhD., Science and Technology Studies, Cornell University.

UNIVERSITY OF CALIFORNIA, LOS ANGELES

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Interviewee agrees to participate in a series of University-conducted tape-recorded interviews, commencing on or about October 16, 2000, and tentatively entitled "Interview with Jonathan S. Stamler". This Agreement relates to any and all materials originating from the interviews, namely the tape recordings of the interviews and a written manuscript prepared from the tapes, hereinafter collectively called "the Work."

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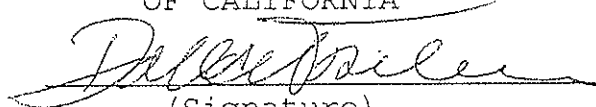
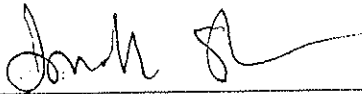
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Howard Hughes Medical Institute
Pulmonary and Cardiovascular Divisions
Duke University Medical Center
Box 2612, Room 321, MSRB
Durham, North Carolina 27710

University and Interviewee have executed this Agreement on the date first written above.

INTERVIEWEE

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA



(Signature)

(Signature)

Jonathan S. Stamler
(Typed Name)

Dale E. Treleven
(Typed Name)

Howard Hughes Medical Institute
Pulmonary and Cardiovascular
(Address)

Director, Oral History Program
(Title)

Durham, North Carolina 27710

Date 11-22-00

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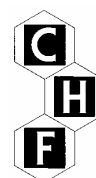
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JONATHAN S. STAMLER

1959 Born in Wallingford, England on 23 June

Education

1981 B.A., Brandeis University
1985 M.D., Mount Sinai School of Medicine

Professional Experience

Harvard Medical School
1992 Instructor in Medicine
1993 Assistant Professor in Medicine

Duke University
1993-1995 Associate Professor in Medicine and Assistant Professor of Cell Biology
1995 Adjunct Faculty Member of Toxicology
1996-present Professor of Medicine
1999-present Professor of Biochemistry

Howard Hughes Medical Institute
1997-present Associate Investigator

Honors

1993-1997 Pew Scholar in the Biomedical Sciences
1997 Howard Hughes Medical Institute Associate Investigator

Selected Publications

Arnelle, D. et al., 1997. Diethyl dithiocarbamate induced decomposition of S-nitrosothiols. *Nitric Oxide: Biological Chemistry* 1:56-64.
Stamler, J. et al., 1997. (SNO) signals: Translocation, regulation and a consensus motif. *Neuron* 18:691-96.
Creager, M. et al., 1997. N-Acetylcysteine does not influence the activity of endothelium-derived relaxing factor in vivo. *Hypertension* 29(2):668-72.
Lipton, S. et al., 1997. Dual actions of homocysteine at the NMDA receptor. *Proceedings of*

- the National Academy of Science, USA 94:5923-28.*
- Stamler, J. et al., 1997. Blood flow regulation by S-nitrosohemoglobin in the physiological oxygen gradient. *Science* 276:2034-37.
- Mannick, J. et al., 1997. Nitric oxide inhibits *Fas*-induced apoptosis. *Biological Chemistry* 272:24125-128.
- Abraham, R. et al., 1998. Cyclic GMP is a second messenger by which nitric oxide inhibits diaphragm contraction. *Computer Biochemical Physiology* 119:177-83.
- Reid, M. et al., 1998. Nitric oxide modulates excitation-contraction coupling in the diaphragm. *Computer Biochemical Physiology* 119:211-18.
- Pawloski, J. et al., 1998. Cell-free and erythrocytic S-nitrosohemoglobin inhibits human platelet aggregation. *Circulation* 97:263-67.
- Chen, L. et al., 1998. Effects of the NO donor S-nitroso-N-acetylcysteine on contractile function of normal and ischemia/reperfused skeletal muscle. *Journal of Applied Physiology*, 321:211-16.
- Gow, A. and J. Stamler, 1998. Reactions between nitric oxide and hemoglobin under physiological conditions. *Nature* 391:169-73.
- Xu, L. et al., 1998. Poly S-nitrosylation activates the cardiac Ca release channel (ryanodine receptor). *Science* 278:234-37.

ABSTRACT

Jonathan S. Stamler, the oldest of four children, was born and spent his first eleven years in Wallingford, near Oxford, England. His father's family had escaped to England before the start of World War II, and his mother's family fled first to Belgium and then to the United States. While Stamler's father was on a Fulbright to Brandeis and Harvard universities he met Stamler's mother, and they married and moved back to England. Stamler's father founded a Zionist-oriented college, called Carmel College, and the family lived in England until Jonathan was about eleven. Then they moved to Israel, where the senior Stamler worked for a wealthy Iranian. At about the time he was leaving for college, his family moved to Miami and then to New York City. Stamler was, by his own admission, an unenthusiastic student, but he played tennis, was selected for the national junior team in Israel and played in the Davis Cup. Despite academic challenges in his junior and senior years of high school, Stamler was accepted at Brandeis University, where he wanted only to continue his tennis career. After a freshman hazing incident left him with a bad hand injury, he lost a year of tennis. He decided that the only way to pass the time was to study, and by his sophomore year he was pre-med. He finished Phi Beta Kappa. He wanted to be in New York City, so he applied and was accepted to Mt. Sinai School of Medicine. He found his preceptor, Ray Matta, a superb clinician and cardiologist, one who inspired Stamler to go into cardiology himself. While doing his residency at Brigham and Women's Hospital, he read about free radicals and started doing research on them in his own time. Eventually he came upon nitric oxide, which is still his area of interest. He was denied a cardiology fellowship, but Roland Ingram, chief of pulmonary at Brigham gave him one and said he could use it in cardiology. He also got a cardiology fellowship from West Roxbury VA Hospital, so he spent four years doing two fellowships. During that time he married, and he and his wife had two children. In addition to being an assistant professor at Harvard and to doing research, Stamler co-founded a private company. He was recruited by Duke University, where he has appointments in both pulmonary and cardiology; he received tenure in two years. He has always sought answers to things that puzzle him, and he found that research was the place for him, not the clinic. He continues to work with nitric oxide, to write grants, to publish, and to attempt to balance his career with his family life.

UCLA INTERVIEW HISTORY

INTERVIEWER:

Helene L. Cohen, Interviewer, UCLA Oral History Program. B.S., Nursing, UCLA; P.N.P., University of California, San Diego/UCLA; M.A., Theater, San Diego State University.

TIME AND SETTING OF INTERVIEW:

Place: Stamler's office, Duke University.

Dates, length of sessions: October 16, 2000 (121 minutes); October 17, 2000 (96); October 18, 2000 (90).

Total number of recorded hours: 5.12

Persons present during interview: Stamler and Cohen.

CONDUCT OF INTERVIEW:

This interview is one in a series with Pew Scholars in the Biomedical Sciences conducted by the UCLA Oral History Program in conjunction with the Pew Charitable Trusts's Pew Scholars in the Biomedical Sciences Oral History and Archives Project. The project has been designed to document the backgrounds, education, and research of biomedical scientists awarded four-year Pew scholarships since 1988.

To provide an overall framework for project interviews, the director of the UCLA Oral History Program and three UCLA faculty project consultants developed a topic outline. In preparing for this interview, Cohen held a telephone preinterview conversation with Stamler to obtain written background information (curriculum vitae, copies of published articles, etc.) and agree on an interviewing schedule. She also reviewed prior Pew scholars' interviews and the documentation in Stamler's file at the Pew Scholars Program office in San Francisco, including his proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members. For technical background, Cohen consulted J.D. Watson et al., *Molecular Biology of the Gene*. 4th ed. Menlo Park, California: Benjamin/Cummings, 1987; Bruce Alberts et al., *Molecular Biology of the Cell*. 3rd ed. New York: Garland, 1994; Horace F. Judson, *The Eighth Day of Creation*. New York: Simon and Schuster, 1979; and recent issues of *Science* and *Nature*.

The interview is organized chronologically, beginning with Stamler's childhood in Wallingford, England, and continuing through his undergraduate work at Brandeis University, his medical work at Mount Sinai School of Medicine, his residency at Brigham and Women's Hospital, and the establishment of his own lab at Duke University. Major topics discussed include his receiving his clinical and research training at separate institutions, his current research on nitric oxide, and the nature of competition and collaboration in science.

ORIGINAL EDITING:

Deborah Kolosolva, editorial assistant, edited the interview. She checked the verbatim transcript of the interview against the original tape recordings, edited for punctuation, paragraphing, and spelling, and verified proper names. Words and phrases inserted by the editor have been bracketed.

Stamler did not review the transcript and therefore some names and dates have not been verified. He wished to append the following note: "I have not been able to bring myself to review the transcript, and I find the thought very difficult. Although I have answered questions in good faith, I hope that I did not say anything that was either incorrect or embarrassing to me or others and that my words will not be misconstrued."

William Van Benschoten, senior writer, prepared the table of contents and the biographical summary. Victoria Simmons prepared the interview history. Romi Keerbs compiled the index.

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