CHEMICAL HERITAGE FOUNDATION

BRENDA L. BASS

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Andrea R. Maestrejuan

at

The University of Utah
Salt Lake City, UT

on

24, 25, 26 July 1995

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

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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 July 24, 1995, and tentatively entitled "Interview with Brenda L. Bass". 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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If to Interviewee:

Brenda L. Bass
University of Utah Medical Center
Department of Biochemistry
50 North Medical Drive
Salt Lake City, Utah 84132

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

INTERVIEWEE

Brenda L Bass
(Signature)

Brenda L. Bass
(Typed Name)

University of Utah Medical Center

Department of Biochemistry

50 North Medical Drive
(Address)

Salt Lake City, UT 84132

Date 8/21/95

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Pew Scholars in the Biomedical Sciences

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Brenda L. Bass

Brenda L. Bass, Ph.D.

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BRENDA L. BASS

1955 Born in Fort Lauderdale, Florida on 5 October

Education

1977 B.A., Colorado College
1985 Ph.D., University of Colorado

Research Appointments

1977-1979 Rush University, Chicago
Research Technician, Rush Medical Center
1979-1980 Colorado College, Colorado
Teaching Assistant
1985-1988 Fred Hutchinson Cancer Research Center, Seattle
Postdoctoral Fellow

Professional Experience

1989-1995 University of Utah, Salt Lake City
Assistant Professor
1995-present University of Utah, Salt Lake City
Associate Professor
1994-present Howard Hughes Medical Institute
Assistant investigator

Honors

1983-1984 Achievement Rewards for College Scientists (ARCS) recipient
1985-1988 Damon Runyon-Walter Winchell Postdoctoral Fellowship
1990-1994 Pew Scholar in the Biomedical Sciences
1991-1996 David and Lucile Packard Foundation fellowship

Selected Publications

Bass, B.L. and T.R. Cech, 1984. Specific interaction between self-splicing RNA of Tetrahymena and its guanosine substrate: Implications for biological catalysis by RNA.

Nature, 308:820-26.
Bass, B.L. and T.R. Cech, 1986. Ribozyme inhibitors: Deoxyguanosine and competitive inhibitors of self-splicing of the Tetrahymena ribosomal ribonucleic acid precursor. *Biochemistry*, 25:4473-77.
Cech, T.R. and B.L. Bass, 1986. Biological catalysis by RNA. *Annual Review of Biochemistry*, 55:599-629.
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Bass, B.L., 1993. RNA editing: New uses for old players in the RNA world. In The RNA World, ed. R. Gesteland and J. Atkins. Cold Spring Harbor, New York: Cold Spring Harbor Laboratory Press, 383-418.
Hough, R.F. and B.L. Bass, 1994. Purification of the Xenopus laevis double-stranded RNA adenosine deaminase. *Journal of Biological Chemistry*, 269: 9933-39.
Bass, B.L. et al., 1994. Binding properties of newly identified Xenopus proteins containing dsRNA-binding motifs. *Current Biology*, 4: 301-14.
Polson, A.G. and B.L. Bass, 1994. Preferential selection of adenosines for modification by double-stranded RNA adenosine deaminase. *EMBO Journal*, 13: 5701-11.
Saccomano, L. and B.L. Bass, 1994. The cytoplasm of Xenopus oocytes contains a factor that protects double-stranded RNA from adenosine to inosine modification. *Molecular and Cellular Biology*, 14: 5425-32.
Bass, B.L., 1995. An I for editing. *Current Biology*, 5:598-600.

ABSTRACT

Brenda L. Bass grew up in the 1960's in Fort Lauderdale, Florida. Her parents were young and had no opportunity to finish college, taking jobs as realtors. As a result, Bass was often cared for by her maternal grandmother, to whom she attributes her independence, her toughness, and her love of the truth. Severely asthmatic and allergic, Bass lived at the Children's Asthma Research Institute and Hospital in Denver, Colorado, from age eleven to age twelve and a half. Here she developed a love for the West and a very different perspective on social conditions in the South, determining that she would always want to live in the West. She returned to Florida to finish her junior high school and high school years. She then attended Emory University for a year, studying English. Dissatisfied with the program, she took a semester off and then transferred to Colorado College, where she planned to study nutritional chemistry. Interest in nutritional chemistry developed into interest in chemistry and ultimately into biochemistry. After obtaining her BA she remained uncertain as to what she wanted to do, and she applied to Rush Medical College in Chicago, Illinois. She walked out of a nutritional chemistry class when the teacher brought out plastic models of foods. She became a research technician at Rush, which she worked at for three years before returning to the University of Colorado, Boulder, to pursue a PhD in biochemistry. There she worked in Thomas R. Cech's lab, focusing on self-splicing RNA and its implications for biological catalysis. When she received her PhD, in 1985, she accepted a post-doc with Harold Weintraub in Seattle, Washington, where she worked at the Fred Hutchinson Cancer Research Center for four years. She then accepted an assistant professorship at the University of Utah, and from 1995 until the present she has been an associate professor there as well as and assistant investigator at Howard Hughes Medical Institute. She has published numerous papers; she is involved in conferences and committees; and her first love remains "the bench."

UCLA INTERVIEW HISTORY

INTERVIEWER:

Andrea R. Maestrejuan, Interviewer, UCLA Oral History Program; B.A., History, University of California, Irvine, 1988; B.S., Biological Sciences, University of California, Irvine, 1988; C.Phil., History, University of California, Riverside.

TIME AND SETTING OF INTERVIEW:

Place: Bass's office, University of Utah.

Dates, length of sessions: July 24, 1995 (83 minutes); July 25, 1995 (81); July 26, 1995 (88).

Total number of recorded hours: 4.2

Persons present during interview: Bass and Maestrejuan.

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, Maestrejuan held a telephone preinterview conversation with Bass 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 Bass's file at the Pew Scholars Program office in San Francisco, including her proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members. For technical background, Maestrejuan consulted J.D. Watson et al., Molecular Biology of the Gene. 4th ed. Menlo Park, CA: Benjamin/Cummings, 1987 and Bruce Alberts et al., Molecular Biology of the Cell. 3d ed. New York: Garland, 1994.

The interview is organized chronologically, beginning with Bass's childhood in Florida and continuing through her education at Colorado College, her graduate work at University of Colorado, her postdoc at Fred Hutchinson Cancer Research Center, and the establishment of her lab at University of Utah. Major topics discussed include biological catalysis by RNA, the discovery of covalent modification of double-stranded RNA substrate during double-stranded RNA unwinding, and Bass's style of research and lab management.

ORIGINAL EDITING:

Vimala Jayanti, editor, 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.

Bass reviewed the transcript. She verified proper names and made minor corrections.

Kristian London, assistant editor, prepared the table of contents, biographical summary, and interview history.

Gregory M. Beyrer, editorial assistant, compiled the index.

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