CHEMICAL HERITAGE FOUNDATION

JOCHEN BUCK

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Andrea R. Maestrejuan

at

Cornell University Medical College
New York, New York

on

14-16 December 1998

ACKNOWLEDGEMENT

This oral history is part of a series supported by a grant from the Pew Charitable Trusts based on the Pew Scholars Program in the Biomedical Sciences. This collection is an important resource for the history of biomedicine, recording the life and careers of young, distinguished biomedical scientists and of the Pew Scholars Program in the Biomedical Sciences Advisory Committee members.

From the original collection at the Center for Oral History Research, UCLA Library, UCLA.

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REFORMATTING:

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

Oral History Interview Agreement No. T0126992

This Interview Agreement is made and entered into this 27th day of January, 1998 by and between THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a California corporation, on behalf of the Oral History Program at the UCLA campus, hereinafter called "University," and JOCHEN BUCK, having an address at Cornell University Medical College, Department of Pharmacology, 1300 York Avenue, New York, New York 10021, hereinafter called "Interviewee."

Interviewee agrees to participate in a series of University-conducted tape-recorded interviews, commencing on or about December 14, 1998, and tentatively entitled "Interview with Jochen Buck". 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."

In consideration of the mutual covenants, conditions, and terms set forth below, the parties hereto hereby agree as follows:

1. Interviewee irrevocably assigns to University all his copyright, title and interest in and to the Work. This assignment applies to University, its successors, and assigns, for and during the existence of the copyright and all renewals and extensions thereof.

2. By virtue of this assignment, University will have the right to use the Work for any research, educational, or other purpose, including electronic reproduction, that University may deem appropriate.

3. Interviewee acknowledges that he will receive no remuneration or compensation for his participation in the interviews or for the rights assigned hereunder.

4. Interviewee will receive from University, free of charge, one bound copy of the typewritten manuscript of the interviews.

5. To insure against substantive error or misquotation, Interviewee will have the right to review the manuscript before it is put into final form. University therefore will send Interviewee a copy of the edited transcript for review and comment. Interviewee will return transcript and comments to University within 30 days of receipt of the transcript. In the event that Interviewee does not respond within 30 days, University will assume that Interviewee has given full approval of the transcript.

6. All notices and other official correspondence concerning this Agreement will be sent to the following:

If to University:
Office of Research Administration
University of California, Los Angeles
P.O. Box 951406
Los Angeles, California 90095-1406

Attention: _____

If to Interviewee:
Jochen Buck
Cornell University Medical College
Department of Pharmacology
1300 York Avenue
New York, New York 10021

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

INTERVIEWEE

J. Buck
(Signature)

Jochen Buck
(Typed Name)

Cornell University Medical College

Department of Pharmacology
(Address)

1300 York Avenue

New York, New York 10021

Date 12/14/98

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

Dale E. Treleven
(Signature)

Dale E. Treleven
(Typed Name)

Director, Oral History Program
(Title)

Date 1/27/99

Pew Scholars in the Biomedical Sciences

Chemical Heritage Foundation Internet Posting Release Form

I, Jochen Buck, M.D., Ph.D., hereby request that my wishes be followed as per the checked selection below with regards to posting portions of the digital copy of the audio-taped interview of me and the related written transcript on the internet for non-commercial, educational use only.

Please check one:

a. _____ **No restrictions for Internet Posting.**
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b. X **Semi-restricted Internet Postings** (My review of the material intended to post is required.)

c. _____ **Restricted access.** (Do not post.)

This constitutes my entire and complete understanding.

J. Buck
Jochen Buck, M.D., Ph.D.

2/13/08
Date

Chemical Heritage Foundation
Oral History Program
315 Chestnut Street
Philadelphia, Pennsylvania 19106

JOCHEN BUCK

1956 Born in Reutlingen, Germany on 6 August

Education

1984 M.D., University of Tübingen
1985 Ph.D., University of Tübingen

Professional Experience

Memorial Sloan-Kettering Cancer Center, Department of Immunology
1985 Postdoctoral Research Fellow
1987 Postdoctoral Research Associate

Cornell University Medical College, Department of Pharmacology
1992 Assistant Professor
1997 Associate Professor

Honors

1987 Clinical Research Award, Norman and Rosita Winston Foundation
1993-1997 Pew Scholar in the Biomedical Sciences
1998 Hirschl/Weill Caulier Medical Scholar

Selected Publications

Dannecker, G.J. et al., 1985. The combined effect of interferon-beta and cytostatic drugs on human tumor cell lines in vitro. *Journal of Interferon Research* 5:541-50.

Buck, J. et al., 1987. Specific uptake of m- [125I] -iodobenzylguanidine in the human neuroblastoma cell line SK-N-SH. *Cancer Research* 45:6366-70.

Buck, J. et al., 1990. Retinol is essential for the growth of activated human B Cells. *Journal of Experimental Medicine* 171:1613-24.

Nocka, K. et al., 1990. Candidate ligand for the c-kit transmembrane receptor: KL, a fibroblast-derived growth factor stimulates mast cells and erythroid progenitors. *European Molecular Biology Organization Journal* 9:3287-94.

Buck, J. et al., 1991. Intracellular signaling by 14-hydroxy-1, 14-retro-retinol. *Science* 254:1654-56.

Buck, J. et al., 1993. Anhydroretinol: A naturally occurring inhibitor of lymphocyte

physiology. *Journal of Experimental Medicine* 178:675-80.
Derguini, F. et al., 1995. 13, 14-dihydroxy-retinol, a new bioactive retinol metabolite. *Journal of Biological Chemistry* 270:18875-80.
Grün, F. et al., 1996. Retinol dehydratase from Spodoptera frugiperda synthesizes growth suppressive anhydroretinol. *Journal of Biological Chemistry* 271:16135-38.
Chen, Y. et al., 1997. Requirement of vitamin A in the activation of resting fibroblasts. *Proceedings of the National Academy of Sciences USA* 94:10205-8.
Vakiani, E. et al., 1998. Substrate specificity and kinetic mechanism of the insect sulfotransferase, retinol dehydratase. *Journal of Biological Chemistry* 273 :35381-87.
Buck, J. et al., 1999. Cytosolic adenylyl cyclase defines a unique signaling molecule in mammals. *Proceedings of the National Academy of Sciences USA* 96:79-84.
Chen, Y. et al., 1999. Anhydroretinol induces oxidative stress and cell death. *Cancer Research* 59:3985-90.

ABSTRACT

Jochen Buck was born and grew up in Reutlingen, Germany, in the Swabian Alb. His father was a teacher of science in the *Gymnasium*. His mother, a housewife, came from a middle-class family of butchers, and Jochen might have been expected to follow in the family business. Instead, he became interested in politics early, as a result perhaps of the Vietnam War. Instead of performing his national service in the army, he became a conscientious objector, working with disabled youths. His early interest in mathematics waned, and he decided to become a doctor. But in medical school at the University of Tübingen, he discovered that he loved scientific research; and he added to his MD studies a PhD, with his dissertation dealing with interferon. He worked in Ulrich Hammerling's lab, where he localized cell growth caused by autocrine growth factor. He accepted a postdoctoral position at Memorial Sloan-Kettering Cancer Center, working with Vitamin A and discovering retro-retinoids. He stayed at Sloan-Kettering for a few years until accepting an assistant professorship at Cornell University Medical College. He is now an associate at Cornell, where his lab and Lonny Levin's share space and where he and Levin work together on adenylyl cyclase. He lives in New York City with his wife, Chantal Duteau-Buck, and two children. He has won several awards and continues to publish articles.

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, 1986; M.A., History, University of California, Riverside, 1991; C.Phil., History, University of California, Riverside.

TIME AND SETTING OF INTERVIEW:

Place: Buck's office, Cornell University Medical College.

Dates, length of sessions: December 14, 1998 (130 minutes); December 15, 1998 (121) ; December 16, 1998 (99).

Total number of recorded hours: 5.85.

Persons present during interview: Buck 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 Buck 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 his 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, Maestrejuan consulted J.D. Watson et al., *Molecular Biology of the Gene.* 4th ed. Menlo Park, CA: Benjamin/Cummings, 1987; Bruce Alberts et al., *Molecular Biology of the Cell.* 3rd ed. New York: Garland, 1994.

The interview is organized chronologically, beginning with Buck's childhood in Reutlingen, Germany, and continuing through his undergraduate and graduate work at the University of Tübingen, his residency at the Children's Hospital of the University of Tübingen, his postdoc at Memorial Sloan-Kettering Cancer Center, and the establishment of his own lab at Cornell University Medical College. Major topics discussed include his political activism in Germany, his work on pediatric oncology, his discovery of retro-retinoids, and his scientific collaborations.

ORIGINAL EDITING:

Ji Young Kwon, 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.

Buck reviewed the transcript. He verified proper names and made minor corrections and additions.

William Van Benschoten, editor, prepared the table of contents and the index. Kwon compiled the biographical summary and interview history.

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