CHEMICAL HERITAGE FOUNDATION

FRANK A. LASKI

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview Conducted by

Steven J. Novak

at

University of California, Los Angeles Los Angeles, California

on

13 May 1993 and 19, 26 May 1994

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

ACKNOWLEDGEMENT

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REFORMATTING:

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UNIVERSITY OF CALIFORNIA, LOS ANGELES

Oral History Interview Agreement No. R940525

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day of , 1994, by and between
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having an address at University of California, Los Angeles,
Department of Biology, 405 S. Hilgard Avenue, Los Angeles,
California, 90024-1570, hereinafter called "Interviewee."

Interviewee agrees to participate in a series of University-conducted tape-recorded interviews, commencing on or about May 13, 1994, and tentatively entitled "Interview with Frank A. Laski". 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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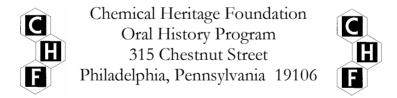
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FRANK A. LASKI

1956	Born in Detroit, Michigan on 13 June
Education	
1977 1983	B.G.S., University of Michigan Ph.D., Massachusetts Institute of Technology
Professional Experience	
1984-1988	University of California, Berkeley Postdoctoral Fellow
1988-present	University of California, Los Angeles, Department of Biology and Molecular Biology Institute Assistant Professor
<u>Honors</u>	
1984	Postdoctoral Fellowship, National Institutes of Health
1984-1987	Exxon Education Foundation Fellow of the Life Sciences Research Foundation
1988-1993	National Institutes of Health Grant
1989	Career Development Award, Jonsson Comprehensive Cancer Center, University of California, Los Angeles
1993-1997	National Institutes of Health Grant
1990-1992	Basil O'Connor Starter Scholar Research Award Fellow of the
1770 1772	March of Dimes
1990-1994	Pew Scholar in the Biomedical Sciences

Selected Publications

- Laski, F. and E.N. Jackson, 1982. Maturation cleavage of bacteriophage P22 DNA in the absence of DNA packing. *Journal of Molecular Biology*, 154:565-79.
- Laski, F.A. et al., 1982. Expression of a X. laevis tRNA (Tyr) gene in mammalian cells. *Nucleic Acids Research*, 10:4609-26.
- Laski, F.A. et al., 1982. An amber suppressor tRNA gene derived by site specific mutagenesis: Cloning and function in mammalian cells. *Proceedings of the National Academy of Sciences*

- USA, 79:5813-17.
- Laski, F.A. et al., 1983. In vitro transcription and splicing of a tRNA (Tyr) gene in a Hela cell lysate. *Journal of Biological Chemistry*, 258:11974-80.
- Laski, F.A. et al., 1984. Synthesis of an ochre suppressor tRNA gene and expression in mammalian cells. *The EMBO Journal*, 3:2445-52.
- Laski, F.A. et al., 1986. Tissue specificity of *Drosophila* P element transposition is regulated at the level of mRNA splicing. *Cell*, 44:7-19.
- Laski, F.A. and G.M. Rubin, 1989. Analysis of the *cis*-acting requirements for germline-specific splicing of the P element ORF2-ORF3 intron. *Genes and Development*, 3:720-28.
- Laski, F.A. et al., 1989. Construction, function and stable transformation of a tRNA nonsense suppressing gene in *Drosophila melanogaster*. *Proceedings of the National Academy of Sciences USA*, 86:6696-98.

ABSTRACT

Frank A. Laski was born in Detroit, Michigan; he grew up in Oak Park, a suburb of Detroit until about high-school age, when his family moved to Southfield, another suburb. His father's parents and sisters perished in a concentration camp in WWII; his mother's family in Berlin obtained false papers to survive the war. Laski's father and uncle survived the concentration camp and were sent to Louisville, where Laski's father met and married Eva Marx, who also had moved to Louisville after the war. Laski's parents and his uncle moved to Detroit, where they established a prosperous heating business. Laski has one older brother and a younger sister. He had a happy childhood and liked school. He attended a summer camp each year from an early age and eventually worked at the camp. He discovered in high school that he liked science. He attended the University of Michigan, where he obtained a BS in general studies, a major that allowed him to concentrate on science; he worked in Ethel Noland Jackson's lab as an undergraduate. He became very excited about recombinant DNA and knew that his future lay with genetics. Laski entered Massachusetts Institute of Technology for his Ph.D. He worked there in Phillip A. Sharp's lab, where he learned to clone adenovirus; spliced introns; and eventually passed his oral exams. After receiving his Ph.D. he took a postdoc in Gerald M. Rubin's lab at the University of California at Berkeley, working on the relationship between P elements and germline tissue. He then accepted an assistant professorship at the Department of Biology and at the Molecular Biology Institute at the University of California at Los Angeles, where he remains today. His work encompasses bacteriophage packaging; transfer RNA; Drosophila ovaries; P elements; oogenesis; and genetic mutations in Drosophila. He has won many awards and has published many articles

UCLA INTERVIEW HISTORY

INTERVIEWER:

Steven J. Novak, Senior Editor, UCLA Oral History Program. B.A., History, University of Colorado; Ph.D., History, University of California, Berkeley; M.B.A., UCLA Graduate School of Management.

TIME AND SETTING OF INTERVIEW:

Place: Laski's office, UCLA.

Dates, length of sessions: May 13, 1993 (109 minutes); May 19, 1994 (111); May 26, 1994 (130).

Total number of recorded hours: 5.8

Persons present during interview: Laski and Novak.

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 History Program and three UCLA faculty consultants developed a topic outline. In preparing for this interview, Novak held a preinterview conversation with Laski to obtain written background information (curriculum vitae, copies of published articles, etc.) and to agree on an interviewing schedule. He also reviewed prior Pew scholars' interviews and the documentation in Laski'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, Novak 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 Laski's childhood in Oak Park, Michigan, and continuing with his education at the University of Michigan, his graduate work at Massachusetts Institute of Technology, his postdoc at the University of California, Berkeley, and the setup of his own lab at UCLA. Major topics discussed include bacteriophage packaging, transfer RNA, Drosophila P elements, oogenesis and genetic mutations in *Drosophila*, and the training and funding of scientists.

ORIGINAL EDITING:

Betsy Ryan, 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.

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

Novak prepared the table of contents and index. Ryan compiled the biographical summary.

Kristian London, editorial assistant, assembled the interview history.

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Early Years 1

Born and grows up in suburb of Detroit, Michigan to parents who were survivors of Holocaust. One older brother, one younger sister. Father establishes his own business with Laski's uncle. After father's death, mother remarried Arnold Shay. Good public school education. Camp important during summers. Likes school; does well without trying until high school, when he buckles down.

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Undergraduate Years

Attends University of Michigan, majoring in general studies. Spends spare time with friends from camp; loves Ann Arbor. Takes biology and loves it, particularly genetics. Likes factual work. Hears debate between Jonathan King and David Baltimore about the ethics of recombinant DNA. Takes a course on recombinant DNA. Majors in general studies to concentrate on science. Works in the Ethel Noland Jackson lab on bacteriophage P22 morphogenesis. Learns transduction procedures.

Graduate Years 22

Enters graduate school at Massachusetts Institute of Technology (MIT). The MIT Program. Desire to switch to eukaryotic research. Works in the Phillip A. Sharp lab learning to clone adenovirus. Splicing introns. Passing oral examinations. Social life.

Life in the Lab

Debate over the potential hazards of working with recombinant DNA. How graduate students at MIT accepted to work in a lab. Learning to write scientific papers. Balancing the need for lab's productivity against graduate students' needs to complete their projects. Role of transfer RNA (tRNA) in translating nucleic acids into proteins. Stop codons and nonsense mutations. Necessity of producing nonlethal mutations. Use of nonsense-suppressing tRNA to create conditional-lethal mutations. Trying to mutate the anti-codon of a *Xenopus* tRNA gene.

Postgraduate Years 50

Takes postdoc with Gerald M. Rubin at the University of California at Berkeley to work on P elements. Rubin's lab management. Studies relationship between P elements and germline tissue--Roger E. Karess's work on P element transposase--Hypothesis that splicing of messenger RNA occurs only in germline tissue. Germline splicing regulation.

Faculty Years at UCLA

Studying formation of the ovary in *Drosophila*--Maintaining the fly stock—The spread of P elements in wild fruit flies--Interest in germarium; how protein localization causes intracellular differentiation; homebox genes. Discovers the

bric-à-brac gene; defects in bric-à-brac cause homeotic mutation in the fly. Further research on bric-à-brac. Competition and collaboration in Laski's present research--Getting articles accepted for publication. Plans to stay with Drosophila system--What Laski most likes and dislikes about being a principal investigator.

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