

CHEMICAL HERITAGE FOUNDATION

**YURI A. LAZEBNIK**

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview  
Conducted by

Helene L. Cohen

at

Cold Spring Harbor Laboratory  
Cold Spring Harbor, New York

on

18, 19, and 20 April 2001

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

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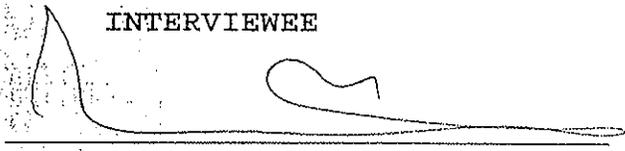
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INTERVIEWEE

THE REGENTS OF THE UNIVERSITY  
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## YURI A. LAZEBNIK

1958 Born in Severomorsk, Russia, on 3 February

### Education

1981 M.S., Biology/Biochemistry, St. Petersburg State University  
1986 Ph.D., Biochemistry, St. Petersburg State University

### Professional Experience

1991 Centre d'Études Nucléaire, Fontenay-aux-Roses, France  
Fellow, UNESCO Human Genome Program

1991-1994 Johns Hopkins University, Baltimore, Maryland  
Fellow

1986-1991 Institute of Cytology of the Academy of Sciences of the USSR,  
St. Petersburg, Russia  
Research Associate

1994-1998 Cold Spring Harbor Laboratory, New York  
Assistant Investigator  
1998-1999 Associate Investigator  
1999-present Associate Professor

### Honors

1991 Fellowship, UNESCO Human Genome Program  
1994 Postdoctoral First Prize, Johns Hopkins University  
1995 Pew Scholarship in the Biomedical Sciences

### Selected Publications

Y.A. Lazebnik et al., 1992. Drop-delay measurement using enzyme-coated particles. *Cytometry* 13:649-52.

Y.A. Lazebnik et al., 1993. A model system for analysis of the active phase of apoptosis. *Journal of Cell Biology* 123 :7-22.

Lazebnik, Y.A et al., 1994. Cleavage of poly(ADP-ribose) polymerase by a proteinase with

- properties like ICE. *Nature* 371: 346–47.
- D.W. Nicholson et al., 1995. Identification of the ICE/CED-3 protease responsible for inactivation of poly(ADP-ribose) polymerase during apoptosis. *Nature* 367:37-43.
- Faleiro, L., R. et al., 1997. Multiple species of CPP32 and Mch2 are the major active caspases present in apoptotic cells. *European Molecular Biology Organization Journal* 16: 2271–81.
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- Rodriguez, J. and Y. Lazebnik. 1999. Caspase-9 and APAF-1 form an active holoenzyme. *Genes & Development* 13:3179-84.
- J. Rodriguez et al., 2000. Caspase phosphorylation, cell death, and species variability. *Science* 287:1363a.
- Duelli, D. and Y. Lazebnik, 2000. Primary cells inhibit oncogene-dependent apoptosis. *Nature Cell Biology* 2:859-62.
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## ABSTRACT

**Yuri A. Lazebnik** was born in Severomorsk, Russia. After his parents' divorce, his mother moved with him to Leningrad (now St. Petersburg), but after she became ill, he was raised, for a few years, in Shakti by his maternal grandmother before returning to his mother's rearing. His father was in the navy, his mother was the valedictorian of her high school and went to college in Leningrad, training as a mathematician until Lazebnik was born—later she worked whatever jobs she could find. Lazebnik and his mother shared a two-room apartment with another family in a building situated between other buildings that housed various academic departments at the local university. He and his mother did not have much during the Leonid Brezhnev and Mikhail Gorbachev eras; Lazebnik worked regularly through high school and college to support himself and his mother. He was an avid reader, enjoying the works of Jules Verne and other writers, though as a teenager Barry Commoner's *The Closing Circle: Nature, Man, and Technology* truly impacted his beliefs and made Lazebnik consider environmental science as a career.

He joined St. Petersburg State University for his undergraduate degree in biology; he quickly changed his mind from pursuing ecology as a major since he could not find any advisor in that field. He progressed through the typical undergraduate coursework and applied to continue his education as a graduate student in the laboratory of Valerei Yu. Vasiliev. In Vasiliev's lab, Lazebnik's project was to study cell cycle, but in order to study cell cycle he needed a flow cytometer, a device that cost more than most departments' yearly budgets, possibly, according to Lazebnik, even more than the entire university's budget. So since he did not have the funds to purchase such a device he used the informal system of favor-swapping in Russia to obtain the materials he needed to build his own device. Lazebnik undertook postdoctoral studies in the N.N. Nikolskiy laboratory at the Institute of Cytology of the Academy of Sciences, and then a short stint as a visiting scientist at the Commissariat à l'Énergie Atomique in France. Then the August Putsch of 1991 occurred in Moscow, spurring Lazebnik's decision to take a position in the United States; he received much support from William C. Earnshaw who expedited a work visa for Lazebnik. Lazebnik entered the Earnshaw laboratory at Johns Hopkins University in Baltimore, Maryland in November of 1991 and his family followed him the following month; he began his work on apoptosis. From Hopkins he moved on to a position at Cold Spring Harbor in New York.

Throughout the interview Lazebnik reflects on life in Russia during the Brezhnev and Gorbachev years, especially as it compares to his life in the United States. At the end of the interview he talks about his community-service, editorial, and administrative responsibilities; balancing work and family life; his interest in aikido; the "corporatization" of scientific research; patents; and maintaining quality research in his lab. He concludes the interview with a discussion of moral relativism; the ethics of using animals in scientific research; the importance of learning the history of science; and the Pew Scholars Program in the Biomedical Sciences.

## 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:** Lazebnik's office, Cold Spring Harbor Laboratory.

**Dates, length of sessions:** April 18, 2001 (111 minutes); April 19, 2001 (119); April 20, 2001 (119).

**Total number of recorded hours:** 5.82

**Persons present during interview:** Lazebnik 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 Lazebnik 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 Lazebnik'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; and Horace F. Judson, *The Eighth Day of Creation*. New York: Simon and Schuster, 1979; and recent issues of *Science* and *Nature*.

This interview is organized chronologically, beginning with Lazebnik's childhood in Severomorsk, Russia, and continuing through his undergraduate and graduate education at St. Petersburg State University, his postdoc at the Institute of Cytology of the Academy of Sciences, and the establishment of his own lab at Cold Spring Harbor. Major topics discussed include his work in the N.N. Nikolsky lab on cytometry and immunofluorescence, his balancing of work and family, and his current research on apoptosis.

## ORIGINAL EDITING:

Victoria Simmons, 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.

Yuri Lazebnik reviewed the transcript. He reviewed proper names and made minor corrections.

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

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