

CHEMICAL HERITAGE FOUNDATION

**SHI HUANG**

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview  
Conducted by

Helene L. Cohen

at

The Burnham Institute  
La Jolla, California

on

19-21 January 2000

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



Shi Huang

## 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.

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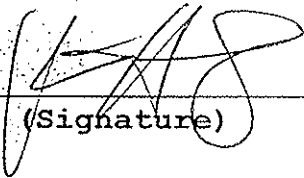
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THE REGENTS OF THE UNIVERSITY  
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(Signature)

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La Jolla, California 92037

Date

1/19/2000

Date

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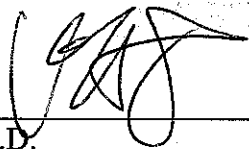
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## SHI HUANG

1961 Born in Dalian, People's Republic of China on 26 October

### Education

1983 B.S., Fudan University  
1988 Ph.D., University of California, Davis

### Professional Experience

1989-1992 University of California, San Diego, Department of Pathology and  
Department of Medicine  
Postdoctoral Fellow

1992-1998 Burnham Institute, La Jolla, California  
Assistant Professor

1998-present Associate Professor

### Honors

1993-1997 Pew Scholar in the Biomedical Sciences

### Selected Publication

- Buyse, I.M. et al., 1996. Physical mapping of the retinoblastoma-interacting zinc finger gene *RIZ* to D1S228 on chromosome 1p36. *Genomics* 34:119-21.
- Mock, B.A. et al., 1996. *RIZ* maps to distal chromosome 4 near genes involved in tumorigenesis and nerve degeneration. *Mammalian Genome* 7:637.
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- Xie, M. et al., 1997. Transcriptional repression mediated by the PR domain zinc finger gene *RIZ*. *Journal of Biological Chemistry* 272:26360-66.

- He, L. et al., 1998. *RIZ1*, but not the alternative *RIZ2* product of the same gene, is underexpressed in breast cancer and forced *RIZ1* expression causes G2/M cell cycle arrest and/or apoptosis. *Cancer Research* 58:4238-44.
- Huang, S. et al., 1998. The PR domain of the Rb-binding zinc finger gene *RIZ1* is a protein-binding interface and is related to the SET domain functioning in chromatin mediated gene expression. *Journal of Biological Chemistry* 273:15933-40.
- Huang, S. et al., 1999. The retinoblastoma-protein interacting zinc finger gene *RIZ* in 1p36-linked cancers. (invited review) *Frontiers of Bioscience* 4:528-32.
- Jiang, G.L. et al., 1999. Decreased *RIZ1* expression but not *RIZ2* in hepatoma and suppression of hepatoma tumorigenicity by *RIZ1*. *International Journal of Cancer* 83:541-47.
- Jiang, G.L. and S. Huang, 2000. The yin-yang of PR domain family genes in tumorigenesis. (invited review) *Histology and Histopathology* 15:109-17.
- Fang, W. et al., in press. Mapping of a minimal deleted region in human hepatocellular carcinoma to 1p36.13-p36.23 and mutational analysis of the *RIZ* gene localized to the region. *Genes, Chromosomes, and Cancer*.

## ABSTRACT

**Shi Huang** was born in Dalian, in the north of China. His mother was a doctor assigned to a military base there, but his father, also a doctor, had been assigned to another base in Beijing. Because this was during the Cultural Revolution, Huang's parents were assigned from time to time to other locations, to "serve the peasants." Huang was sent during those times to his grandparents' house in Wuhan, once when he was about six for a year or so; and his younger brother was sent to relatives in Shanghai. This practice was common at the time in China. When he was seven or eight Huang and his mother moved to Beijing to be with Huang's father. Huang's mother found a job in a hospital nearby, and Huang's father was a microbiologist on the military base. Life in the compound, according to Huang, contained most things people needed, so except for school he seldom ventured outside the walls.

In school he did well, being attracted to painting, mathematics, and ping pong. He remembers school as being a school mostly for peasants, so not difficult; he had to learn a lot of political tracts, how to march, and how to work in the fields. He finished his school in Beijing and then went to Shanghai for college. He would have preferred the art academy, but he failed its entrance exam and decided to study genetic engineering instead. The Chinese recognized that at time the United States was superior in science, and many university students wanted to attend American or European graduate schools. He did well on his exam for the graduate program and was selected to participate in the CUSBEA (China-U.S. Biochemistry Examination and Application) program. This was a joint program between China and U.S. professors. Huang studied English for a year at the Guangzhou English Language Center, where he also learned something of American culture and prepared to apply to U.S. graduate schools.

He joined John W.B. Hershey's laboratory at the University of California at Davis; there he used a gel electrophoresis assay to study RNA protein interactions. He met his wife, Chen Ruo Ping, who had come to the U.S. on the CUSBEA program as well. She works for a start-up pharmaceutical company, and the Huangs have two children. Huang accepted a postdoc in the Wen-Hwa Lee laboratory at University of California at San Diego, where he initiated a project to express the *Rb* protein in bacteria. From there he was invited to join the Burnham Institute in La Jolla, California, where he continues his work on RIZ as a tumor suppressor gene and of course continues the scientist's continual search for funding.

## 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:** Huang's office, Burnham Institute, La Jolla, California.

**Dates, length of sessions:** January 19, 2000 (114 minutes); January 20, 2000 (111); January 21, 2000 (73).

**Total number of recorded hours:** 5

**Persons present during interview:** Huang 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 Huang 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 Huang'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 Huang's childhood in China and continuing through his undergraduate work at Fudan University, his graduate work at University of California, Davis, his postdoc at University of California, San Diego, and the establishment of his own laboratory at the Burnham Institute. Major topics discussed include his childhood and education during the Chinese Cultural Revolution, his continuing research on *RIZ* and the PR gene group, and his personal philosophy of life.

#### 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.

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

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

## TABLE OF CONTENTS

Early Years	1
Family background. Huang's early years in Beijing and Wuhan. His father's career in microbiology. Early schooling during the Cultural Revolution. Growing up in a military compound. Chinese educational system. Huang's extracurricular interests. Early aptitude for mathematics. Interest in ping pong. Decision to pursue science.	
University Years	21
Attends Fudan University in Shanghai. Wants to study in the United States. Studies English at the Guangzhou English Language Center.	
Graduate School in the United States	31
Joins John W.B. Hershey laboratory at University of California, at Davis, where he uses a gel electrophoresis assay to study RNA protein interactions. Meets his future wife, Chen Ruo Ping. Accepts a postdoc in the Wen-Hwa Lee laboratory at University of California, San Diego. Initiates a project to express the <i>Rb</i> protein in bacteria. Joins the Burnham Institute in La Jolla, California.	
Life As a Scientist	47
Huang's personal philosophy of life and capacity for hard work. His wife's education and career. Division of household tasks. His leisure activities. His work on <i>E2F</i> , <i>Rb</i> , and <i>RIZ</i> . Establishes that <i>RIZ</i> is a tumor suppressor gene--Decision to conduct research in an area in which there is little competition. The desire for recognition as a motive for scientific research. Funding difficulties. Writing articles for scientific journals. Working at a private rather than a public institution. A typical workday managing a laboratory. Racial composition of the staff at Burnham Institute. Competition in science. Huang's laboratory's contribution to understanding cancer and possible applications of his research. Future plans. Differences between American and Chinese definitions of success and Huang's personal philosophy of success.	
Index	89

## INDEX

### A

Arena Pharmaceuticals, 46

### B

Beijing, China, 1, 5, 6, 7, 8, 9, 11, 13, 19,  
21, 22, 23, 24, 27, 31, 43, 44, 45  
Boston, Massachusetts, 36  
*BRCA1*, 74, 76  
Burnham Institute, 39, 55

### C

CATIC. *See* China National Aero-  
Technology Import and Export  
Corporation  
Central Academy of Art, 20  
Chen, Ruo Ping (wife), 28, 36, 46, 66, 84  
Chen, Xing Qiu (father-in-law), 28, 36, 46,  
48  
China National Aero-Technology Import  
and Export Corporation, 5  
China-U.S. Biochemistry Examination and  
Application, 26, 36, 46  
Chinese-- Academy of Military Medicine, 2  
Cold Spring Harbor Laboratory, 51, 61  
Confucius, 42, 87  
Cultural Revolution, 3, 9, 10, 11, 13, 22, 23,  
27  
CUSBEA. *See* China-U.S. Biochemistry  
Examination and Application

### D

Dalian, China, 1, 2  
Dartmouth College, 29  
Deng Xiaoping, 20  
DNA, 33, 83  
*Drosophila*, 38

### E

*E1A*, 72, 73, 78  
*E2F*, 50, 52, 73

*EMBO*. *See* European Molecular Biology  
Organization  
*European Molecular Biology Organization*,  
38, 51

### G

Gainesville, Florida, 62, 63  
Great Leap Forward, 1  
Guangzhou English Language Center, 26  
Guangzhou, China, 26, 28, 46

### H

Harbin, China, 2  
Harlow, Edward L., 72  
Harvard University, 29, 62  
Harvard University Medical School, 51  
He Fei, 23  
Hershey, John W.B., 31, 32, 33, 38, 54, 55,  
68  
Huang, Ce (father), 1, 43  
Huang, Guo Yu (paternal grandfather), 3  
Huang, Matthew (son), 16, 35, 45, 65, 84  
Huang, Samuel (son), 5, 16, 35, 45, 65, 84  
Huang, Wei (brother), 3, 43

### I

immunofluorescent, 8

### K

Korean War, 2

### L

Lane, David, 52  
Lee, Wen-Hwa, 37  
Levine, Arnold, 52

### M

Manchuria, 2  
Mao, Ze-dong, 7, 10  
*MDS1-EVI 1*, 76, 79

Mencius, 42, 43

## N

National Academy of Sciences, 22, 36  
National Institutes of Health, 56, 57  
Nevens, Joseph R., 73  
NIH. *See* National Institutes of Health  
Nobel Prize, 52

## O

oncogenes, 75

## P

*p53*, 52, 53, 76  
Peng, Jing Min (mother), 1, 41, 43  
Peng, Shan Tian (maternal grandfather), 4  
Pew Scholars in the Biomedical Sciences,  
54, 57, 63  
Ping-Pong, 10, 12, 16, 17, 18, 19, 28, 34, 43  
PR-minus, 75, 76  
PR-plus, 75, 76, 79

## R

*Rb*(*tumor suppressor*), 37, 38, 39, 50, 51,  
52, 72, 73, 74, 75, 78, 79  
ribonucleic acid, 33, 49  
*RIZ*, 50, 51, 53, 74, 75, 76, 77, 78, 79  
RNA. *See* ribonucleic acid  
Rosenfeld, Jeffrey, 36

## S

Salk Institute for Biological Studies, 46  
San Antonio, Texas, 39  
San Diego Museum of Art, 16  
Shanghai, China, 7, 13, 21, 22, 23, 27, 28,  
31, 45  
Shanxi Province, 7

## T

Taiwan, 5, 38  
Tan, C. C. (Tan Jiazhen), 22  
Taoism, 43

## U

UCSD. *See* University of California at San  
Diego  
University of California at Davis, 29, 30,  
31, 32, 36  
University of California at Irvine, 29  
University of California at San Diego, 35,  
36, 40, 58  
University of Florida, 62  
University of Utah, 29

## V

Vical Incorporated, 46

## W

Wistar Institute, 61  
Wu, Ray, 26, 31  
Wuhan, China, 3, 6, 7, 24, 41, 43

## X

Xia, Xiao Yu (paternal grandmother), 3

## Y

Ye, Ying Geng (mother-in-law), 48

## Z

Zhong Yang Mei Shu Xue Yuan. *See*  
Central Academy of Art  
Zhu, Hua Xiu (maternal grandmother), 4