

CHEMICAL HERITAGE FOUNDATION

**TIMOTHY L. MANSER**

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview  
Conducted by

Arnold Thackray and M. Susan Lindee

at

Princeton University  
Princeton, New Jersey

on

18 October 1990

(With Subsequent Corrections and Additions)

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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 Pew Biomedical Scholar Advisory Committee members.



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## TIMOTHY L. MANSER

1955 Born in New York, New York on August 27

### Education

1977 BA, Biology, University of California - San Diego

1982 PhD, Biology, University of Utah

### Professional Experience

1982-1985 Massachusetts Institute of Technology, Cambridge, MA  
Post-Doctorate, Biology

1985-Present Princeton University, Princeton, NJ  
Assistant Professor, Molecular Biology

### Honors

1982 Gowar Champion Award Postdoctoral Fellowship, Damon Runyon-Walter Winchell Cancer Fund

1983 American Cancer Society Postdoctoral Fellowship

1985 The Medical Foundation Postdoctoral Fellowship

1986 Pew Scholar in the Biomedical Sciences Award

## ABSTRACT

**Timothy L. Manser** grew up in Phoenix, Arizona, one of two children. His father was a lawyer and his mother mostly a housewife. He liked school; though he says the schools were not very good, he did have a good biology teacher in high school. His family vacationed in San Diego, California, where he developed an interest in oceanography.

Manser majored in biology at University of California, San Diego, chosen for its good programs as well as its proximity to the beach and surfing. He worked on *Dictyostelium* in William Loomis' lab. For graduate school he chose University of Utah. He went through a number of rotations, finally settling in Raymond Gesteland's lab. Influenced by Martin Rechsteiner, Manser began work in small nuclear RNAs focusing on the genes that encoded these RNAs in humans. When he had had enough of DNA cloning and sequencing of genes he decided to switch fields to immunology. Relying on Gesteland's recommendation, he took a postdoc at Massachusetts Institute of Technology (MIT) with Malcolm Gefter who had been trained as a Biochemist. Manser's first job was at Princeton University, where he has continued his work, begun in Malcolm Gefter's lab at MIT, on B cells.

Manser laments the current state of funding for science: too little, too devoted to applied science, too competitive, too political. He says the need for short-term productivity (i.e. publications) promotes inaccuracy, oversimplification, and even falsification. He found that the Pew Scholars Program in the Biomedical Sciences award often has to be used for lab maintenance rather than for innovation or daring science, unless the recipient already has large funding. He thinks occasionally about changing fields to neurobiology; he is also considering going into administration as a way to encourage young scientists. He discusses balancing home life with life in the lab and his wife's career sacrifices.

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<p>Born in Manhattan, New York. One younger brother. Father lawyer, mother guidance counselor and housewife. Moved to Binghamton, New York, then Phoenix, Arizona. Public schools. Vacations in San Diego, California; interest in oceanography. High-school biology teacher.</p>	
College Years	5
<p>Entered University of California, San Diego, majoring at first in bioengineering, then biology. Worked on <i>Dictyostelium</i> in William Loomis' lab Surfing and skiing. Funding. Brother's parallel career in developmental genetics in <i>C. elegans</i> at University of Colorado. Parents' later work. Religion and belief.</p>	
Graduate School Years	12
<p>Melvin Simon recommended University of Utah. Long hours in lab; only recreation skiing. Rotations. Raymond Gesteland's lab and Howard Hughes Medical Institute money gave independence. Martin Rechsteiner's lab provoked interest in small nuclear RNAs. Joan Steitz and RNA splicing. Lots of clones from library from Thomas Maniatis. Published. Found molecular evolution boring so went into immunology.</p>	
Postdoctoral Work	17
<p>Sent by Gesteland to Malcolm Gefter's lab at Massachusetts Institute of Technology (MIT) to learn immunology. Marriage. Funding from American Cancer Society and Medical Foundation. Field difficult. B-cell analysis. Publishing. Oversimplification and falsification. Hurry to publish yielding inaccuracy. Uncertainty endemic in science. Took another year in postdoc. Published more, attended more meetings, talked to more people to prepare for own lab.</p>	
First Job	22
<p>Immunology mostly in medical schools; had to look for places with molecular biology and biochemical recombinant DNA labs. Help from Arnold Levine and Thomas Shenk. Now interested in concepts, not technology. Field requires everything from cell biology to whole animal scientists. Some good immunology places; institutional politics; intellectual community.</p>	
General Thoughts	26
<p>Funding; Pew Scholars Program in the Biomedical Sciences Award. Decrease in funding, increase in competition for funds. Good people leaving for private sector or going into industry from beginning. Grant-writing helps one think out experiment. Too much money going to applied science. Science contributions no longer large, just incremental. Innovation possible only if lab has enough money. Home life and hours in lab. Wife's education, career.</p>	
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