

CHEMICAL HERITAGE FOUNDATION

P. TODD STUKENBERG

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Nicole Nelson

at

University of Virginia Medical School
Charlottesville, Virginia

on

8 and 9 December 2008

(With Subsequent Corrections and Additions)

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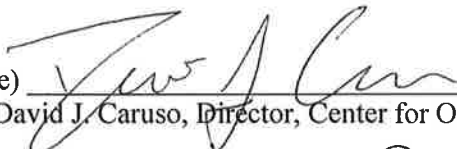


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P. TODD STUKENBERG

1964 Born in Syracuse, New York on 16 September

Education

1986 B.A., Colgate University
1993 Ph.D., Cornell University Medical College

Professional Experience

1997-2000 Harvard Medical School
Postdoctorate, Cell Biology, under Marc W. Kirschner

2000-2004 University of Virginia School of Medicine
Assistant Professor, Biochemistry and Molecular Genetics

2004-present Associate Professor, Biochemistry and Molecular Genetics

Honors

1992,1993 Charles DeVineau Symposia Winner, Cornell University Medical School
1994-1997 NIH-NRSA Postdoctoral Trainee
1997-2000 Charles A. King Trust Fellow
2001-2004 Pew Scholar in the Biomedical Sciences

ABSTRACT

P. Todd Stukenberg grew up mostly in Rochester, New York, one of three children. His father worked for Xerox Corporation; his family had a background in and love of art. He always liked science and was good at it. Wanting a liberal arts college in a small city, he attended Colgate University, where he designed his own molecular biology curriculum. During this time he had a seminal lab experience working in Ken Burns' lab at Cornell Medical School in New York City. He did a joint PhD at Memorial Sloan-Kettering Cancer Center and Cornell University Medical College, where he discovered sliding clamps while working in Michael O'Donnell's lab. For postdoctoral work he entered Marc Kirschner's lab, which had just moved from San Francisco to Harvard University. His research there was into Cdc2, purifying MPF. He patented *in vitro* expression cloning. He began his still-continuing work on Aurora B and kinetochore complex Ndc80 and collaborated on Pin1 with Kun Ping Lu.

Stukenberg accepted a job offer from the University of Virginia (UVA). Believing yeast training to be important, he established a friendship and collaboration with Daniel Burke. He found that Ndc80 complex worked well in *Xenopus* and developed the use of egg extracts. He has found the quality of life at UVA less stressful and more rewarding than at Harvard. Of course, publishing and funding remain constant concerns.

During the interview Stukenberg discusses the Pew Scholars application and meetings, as well as the Pew's monetary and non-monetary rewards. He describes clamp innovation; he explains why he promotes Aurora B as a new class of oncogenes. He explains how kinetochore is involved in binding microtubules and sending a spindle checkpoint signal, for which he has coined the phrase "ionic spaghetti." He talks about Hill models and the importance of MCAK and the other proteins, *viz.* Isis, Kf2, TD-60, and Polo. He has established a collaboration with Tarun Kapoor. He attributes some of his insights to his wife's work in patterning, and he mentions his young son.

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