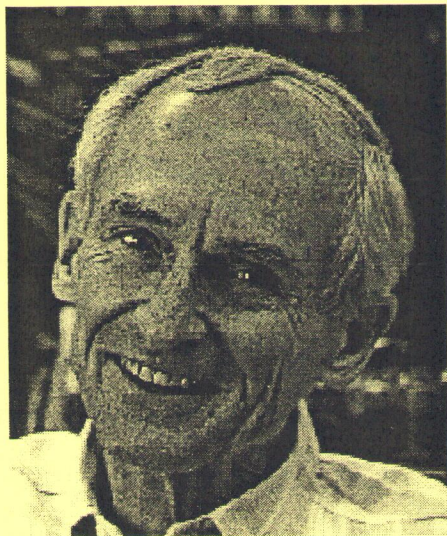


INDIANA UNIVERSITY DEPARTMENT OF BIOLOGY

THE SONNEBORN LECTURE 2001



DAVID M. PRESCOTT

“The Wisdom of Ciliate DNA”

Tuesday, September 25, 4:00 PM
Jordan Hall A100

David M. Prescott is both a Distinguished Professor and a University President's Teaching Scholar in the Department of MCD-Biology at the University of Colorado in Boulder. Dr. Prescott received his BA (Biology) from Wesleyan University and his PhD (Biology) from the University of California, Berkeley.

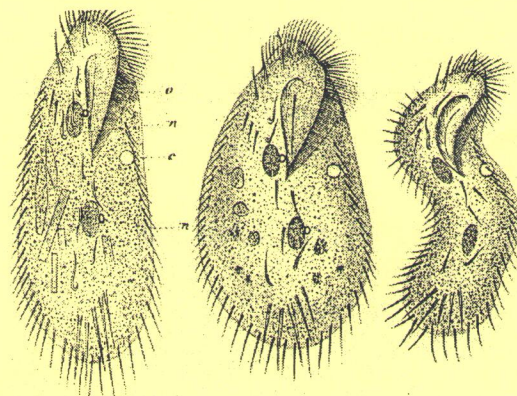
Dr. Prescott has earned numerous awards and honors for both his research and teaching. He has been a member of the National Academy of Sciences since 1974. He has received the Teacher Recognition Award given by the students of the University of Colorado, the Hazel Barnes Prize for outstanding teaching, research and scholarship, and William Briggs Award for excellence in combining research and teaching. He is the author or co-author of over 200 research and review articles and five books.

Dr. Prescott's research interests include the biology of cancer, regulation of cell

reproduction, chromosome replication and the structure and function of chromosomes and genes.

To address these interests, he has focused his studies on ciliated protozoa. These organisms display bizarre features that make them particularly useful to study problems pertaining to the organization of DNA sequences in a chromosome and in individual genes. During each life cycle, ciliated protozoa define each gene by cutting it out of the chromosome and eliminating all DNA sequences that are not genes, and then adding telomeres to each gene. These manipulations that the organism carries out on its own genome provide the opportunity to study a group of interrelated phenomena about DNA, including the role of gene scrambling in evolution, sequence-specific cutting and splicing of DNA, telomere synthesis, DNA replication, arrangement of genes and other sequences in chromosomes, DNA transcription, and control of gene copy number. Dr. Prescott's work has contributed key insights into all of these phenomena.

Dr. Prescott is also noted for his mentoring of undergraduate researchers. Prescott states "I like working with students in the lab. It's very refreshing. Teaching in the lab is the most important kind of teaching I do. Socratic teaching is, in my view, the best way, and I can do that in the lab." Lab teaching, he says, teaches students to think, to take a hypothesis, test it, conduct the procedures, analyze the data, and apply the data to the original hypothesis. "It's a process of learning to think."



Oxytricha fallax
