

1995

Frank Solomon

Frank Solomon, Professor of Biology at MIT, will become the next ASCB Education Committee Chair, succeeding Robert Bloodgood of the University of Virginia. Incoming ASCB President J. Michael Bishop asked Solomon to chair the Committee with the hope that Solomon will build on the excellent education program already established by the ASCB, specifically by examining issues of undergraduate and graduate education.

Solomon is well-known for his talent in and commitment to teaching, and chairs MIT's Graduate Committee. In his experience at MIT, Solomon has learned that it is critically important to look at what students do as undergraduates when designing an effective graduate level curriculum. During his tenure as ASCB Education Committee Chair, Solomon hopes that the Committee will aggressively analyze the question "how are we training people, and for what?" Solomon believes that in the future, undergraduate and graduate science education curricula must prepare students for a broader range of career choices than just academic research. He hopes that ASCB members will contribute their own experience with undergraduate and graduate training programs to the Education Committee.

As a high school student in Seattle, Solomon got his first laboratory job making media and washing plates in the Genetics Department at the University of Washington. He went on to attend Harvard, graduating in 1964 in History. His thesis on "The Fugitive Poets: Agrarian Thought in the Twentieth Century" cured him of any desire to become a historian. During the next year, living in Berkeley and supporting himself by working in laboratories, his interests returned to biology.

Solomon went to Brandeis for graduate work and did his thesis research with William Jencks. Solomon found Jencks to be an "extraordinary scientist and teacher" who was patient with his lack of background and supportive of his students' developing independence. Solomon received his Ph.D. in Biochemistry in 1970, writing his thesis on "Studies on the Mechanism of Coenzyme A Transferase." Following a year as Postdoctoral Fellow at Philadelphia's Institute for Cancer Research, Solomon, a conscientious objector, moved to Switzerland, where he was exposed to cell biology for the first time.

Solomon returned to the United States and settled at MIT in 1974 where he has been ever since. MIT is a "terrific place to be a biologist because of the qualities of the students and of the faculty."

In his lab, Solomon studies the intracellular determinants of differentiated cell morphology and the mechanisms of their expression: how cells organize their cytoplasm to produce differentiated morphology and motility. Since all cellular asymmetries depend upon diverse arrangements of a discrete and conserved repertoire of cytoskeletal elements, Solomon and colleagues are looking at how cells specify and assemble appropriate cytoskeletal structures. They approach this question by analyzing cytoskeletal

structure and function in both animal cells and yeast. Solomon's lab selected animal cell systems that represent accessible differentiation pathways displaying dramatic changes in morphology and because they can be analyzed at the molecular level. Their experiments in yeast use genetic techniques both to identify interactions that may regulate microtubule assembly, and to test models for specifying microtubule organization.

Solomon's commitment to and excellence in science are not lost on his colleagues. His friend and fellow MIT faculty member Phil Sharp says that Solomon, "has been a wonderful colleague for 20 years and his science is excellent. I have watched him interact closely with his students and he makes himself available to them to help with any of their problems, both personal and professional. There is no amount of work he will not do to advance his profession and students."

Colleague Lorraine Pillus commented that "the atmosphere he creates is one focused on goodwill, great wit, and rigorous science...He cares deeply about scientific and social justice, cares that have strengthened those around him and the graduate program at MIT."

Solomon is married and is father to two children.