

[<< back](#) 

1997

Ira Mellman

Ira Mellman is as known for his eclectic interests as he is for his science. Mellman grew up in a politically charged household, went to college determined to become a musician, became interested in science hoping to teach biology at a small liberal arts college, and finally became a researcher at Yale University.

Mellman grew up in New York where his father (whose political involvement started at CCNY in the 1930s in the American Youth Congress, a communist front organization) worked for the New York Democratic Party. "My father had two phones in the house and was often on both. I would answer one phone and turn to my father on the other phone and say 'Dad, it's Moynihan.'" He describes this atmosphere as simply a part of growing up.

Mellman went to Oberlin College in Ohio because of its renowned music program, which allows students to become immersed in music. Mellman hoped to become a professional clarinetist, but he quickly learned that there were others who were more committed and willing to practice longer. Mellman never quite gave up his music, but as a college student in the 70s explored everything from Russian history to art conservation.

Mellman's father thought it was "important to be knowledgeable about science but equally important to not make a career out of it." Mellman recalls learning from David Miller, a young faculty member and early mentor, two important truths: "science is fun, and science can be a highly social activity." The nonexistence of graduate students at a small liberal arts college allowed Miller to use his undergraduates to serve as researchers. Miller and his students took field trips to Ann Arbor to use equipment at the University of Michigan, discussed research articles, and worked as colleagues. Miller and Mellman developed an enduring friendship. Miller recalls of Mellman: "I remember one day when he came by the lab when I was making fungi cultures and he was fascinated that one could manipulate pure cell cultures." Soon Mellman and Miller turned their attention to the study of *Chlamydomonas*.

Mellman and Miller first demonstrated the existence of a hydroxypoline-rich protein in cell walls called extensin. "We actually did a credible piece of work that resulted in my first publication in the *Journal of Cell Biology*," Mellman recalls. That paper is perhaps equally famous for a footnote regarding the algae called *Chlamydomonas gymnogama*, which shed their cell walls after mating and secrete a dense mucilage. The footnote read, "sex and slime seem to be related throughout the entire plant and animal kingdoms."

It was at Oberlin that Mellman says he learned that "one should be serious and committed about what one is doing, but one should also have a way to enjoy it, because it is the only way to maintain some spark of creativity and intellectual awareness." He notes that he has tried to never take himself too seriously and is often the first to poke fun at himself.

When Mellman graduated from Oberlin and went to the University of California at Berkeley to pursue graduate studies, his goal was to eventually return to the idyllic world of Oberlin to teach. When he arrived at Berkeley, Howard Schachman was Chairman of the Department of Molecular Biology, and Marc Kirschner and John Gerhart were young faculty members, with Kirschner visiting summers from Princeton. With Kirschner, Mellman worked measuring the length of microtubules when they depolymerize. He recalls that "at the end of the year I went to Marc, threw my work down on the desk and said I hope I never see another cytoskeletal element as long as I live." Mellman characterizes this moment as his "crisis of relevance" and transferred to Yale where he joined the Department of Human Genetics.

At the time of his move to Yale, Mellman was considering medical school, but decided that it wasn't for him when he observed that medical students "were all looking forward to getting their hands on the cadavers," which did not appeal to him at all. Thus he satisfied his interest in science by finding his way to a graduate seminar given by George Palade in large part because of Mellman's earlier work on *Chlamydomonas*.

After finishing at Yale, instead of returning to Oberlin, Mellman took a postdoc at Rockefeller where he worked with the late Zanvil Cohn on receptor-mediated endocytosis, efforts which ultimately lead to the discovery of endosomes and the purification and cloning of the first immunoglobulin FC receptor. At the conclusion of his work at Rockefeller, which Mellman "loved", he returned to Yale, in great part because of Palade's promise that Ari Helenius would be joining the expanding cell biology department there.

When Helenius and Mellman came to Yale they decided to fuse their labs to the point of sharing a desk, in what has been an unusually enduring partnership of 16 years. "In addition to Ari being my best friend, he is my mentor," says Mellman emphatically and with some nostalgia on the eve of Helenius' move to Switzerland. Mellman and Helenius have tried to take a creative approach to their work and have had fun

along the way. Helenius explains that he and Mellman are "very different people, but we have complemented each other. It is more than just science, our families are very close as well". Mellman notes gratefully that the environment at Yale has been "terrifically supportive" of their joint and unorthodox approach to work, which early on resulted in the definition of endosomes. Mellman now focuses on molecular sorting in polarized cells and in cells of immune systems. Looking at the cell biology of the immune response has provided Mellman the opportunity to work with a strong and active group of Yale immunologists, which Mellman has enjoyed greatly.

Despite Helenius' departure, Mellman has decided to stay at Yale, in great part because of his hopes for the Medical School under the new Dean, former FDA Administrator David Kessler. "I thought of leaving Yale, but I was so impressed with Kessler and his approach that I decided to stay", Mellman says. Mellman is particularly attracted to Kessler's bottom-up management approach, which strongly supports creativity. Expanding on his own management philosophy, Mellman says, "science at this level is a management issue. You have to learn how to motivate people to do their best." He prefers emphasis on group effort as the best approach to preparing students and postdocs for their own careers, and as a more elective approach to solving problems that have become "too complex for solution by any one person." Mellman has also recently accomplished a consolidation of graduate programs at Yale into the new program in Biological and Biomedical Sciences (BBS).

Mellman recently completed a three-year term on the ASCB Council and served on the Nominating Committee this year and on the Program Committee for the 1997 Annual Meeting. He is still faithful to his first love, music, performing regularly with fellow Yale faculty and students in a rock group "The Cellmates," which played at the ASCB Annual Meeting in 1995.

Mellman and his wife of 20 years, Margaret Moench, live in Guilford, Connecticut with their three children, Peter, Alexander (Sasha), and Katharine, as well as three large dogs, three cats, a guinea pig, and a horse. Peter is headed to his father's alma mater, Oberlin, in the fall, and hopes to study clarinet and history, but definitely not science. Ontogeny does recapitulate phylogeny.