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Mike Sheetz grew up in Midland, Michigan, "a Dow Chemical Town," where his father was a Ph.D. chemist. "It was expected that children of Dow chemists would become chemists and that is the path I went down." As it turned out, he is the "black sheep" of his family because he went into an academic career in cell biology and not chemistry. He started by studying chemistry at Albion College, a small school in Michigan, where he received an academic fellowship. He chose Albion because it was small and had a reasonable chemistry department. He thinks such a small school did a better job of preparing him for a career in science. "I was able to work on my own research project and was given the opportunity to work independently." He finds that students who go to small colleges are more likely to go into research because of the one-on-one attention they receive. Sheetz received his Ph.D. from the California Institute of Technology, went on to a postdoc at the University of California, San Diego, took his first faculty appointment at the University of Connecticut, Farmington, and became professor at Washington University in St. Louis before accepting the Cell Biology Chairmanship he currently holds at Duke.

In Connecticut, Sheetz conducted research on membrane structure as a junior faculty member. He then went on sabbatical and worked in Jim Spudich's lab at Stanford where he developed in vitro motility assays. When he went back to Connecticut, Sheetz worked with Tom Reese, Bruce Schnapp, and Ron Vale at Woods Hole to identify the motor for axonal transport. Sheetz describes the Woods Hole facility as "a melting pot where about 400 scientists come over the summer to exchange ideas. I am also inspired by the students who are there working around the clock on their research." Following his work in Connecticut, he moved to St. Louis where Phil Stahl was chair of the Cell Biology department. Sheetz enjoyed working on various aspects of microtubule dependent motility. It was then that he had the opportunity to move from Washington University to Duke to participate in the reorganization of the basic sciences, resulting in the two-fold expansion of the Cell Biology Department. "This was a unique opportunity because there was a big interest in revising and realigning the school's research capabilities. Since I have been there, they have replaced all of the basic science chairs and recruited close to sixty faculty." Sheetz reformed the Cell Biology department when he came to Duke and now focuses on cell, developmental biology and organ physiology. "We are interested in the function of cells and how cells come to develop organs and how a mature organ functions physiologically."

When asked about the atmosphere in his department, Sheetz says he has tried to keep down walls both physically and psychologically and he encourages interchange between labs and the breaking down of barriers between disciplines. Vann Bennett, a professor in Sheetz's department, says, "Mike has created a very supportive environment in the department." One way he has made the department more collegial was through the use of "chalk talks" where scientists talk about their work without slides. Sheetz says he tries to emphasize an interchange of ideas in the hope of creating an environment where cell biologists can quickly move from idea to execution. One example of the sharing that goes on in his department is the Laser Tweezers equipment which is used by several departments. "This sharing and collegiality is critical for the rapid advancement in science in this area."

The focus of much of Sheetz's work is in the area of cell migration. He explains that new findings which have recently been published relate to the question of how a cell organizes itself in the process of migration. Cells need to move from one point to another in an organism and Sheetz is trying to determine how they activate the motor and how they control which direction they move in. "One of the components which hasn't been heretofore recognized is force. On the basis of our recent studies we suggest that cells are able to detect how rigid the matrix molecule is and understand what force the cell should generate to try to move that object. Cells will build a strong contact to rigid objects, much as a rock climber will reach out and grab onto a rock and determine if that rock is stationary or not and if it is use that rock to pull himself forward."

Sheetz has also devoted significant time to public policy advocacy on behalf of science and cell biology in particular. He is currently concluding a three-year term as of one the ASCB's two representatives to the Federation of American Societies for Experimental Biology (FASEB) Board of Directors (the other is Bill Brinkley). Sheetz took on this role in the hope of helping bring the various societies together in the public policy arena. He believes that it is important for the biomedical research societies to speak with one unified voice when dealing with the federal government. Sheetz would like to see more scientists trying to influence public policy and thinks "the real challenge is to become involved at a level that will allow ASCB's missions to become part of FASEB's missions which will help us push our agendas ahead." Sheetz has been especially pleased with the proactive nature of the ASCB from a political point of view where it has been trying to address matters of public policy in an innovative approach. John Burness, Senior Vice President for Public Affairs at Duke, says, "Mike is not only a first class research scientist but he combines with it a perceptiveness about science policy and the realities of the politics of Washington that I have found to be rare among faculty in my twenty-five years of experience at leading research universities." As Sheetz concludes his term on the FASEB Board, he hopes that others will step up and become involved in this arena.

Sheetz has been a member of the ASCB since the mid 70's and has watched it grow from his first meeting in San Diego where 1,500 people participated, to this year's with over 10,000 in attendance. "I think the future is even brighter in the sense that we have a lot of tools now with which to look at cells which allow us to ask very important questions about how things function." This enthusiasm invigorates scientists to come together and discuss their work at the ASCB Annual Meeting.

When asked what he feels are the greatest obstacles confronting scientists today, Sheetz responds that over population has forced scientists to fight for resources. This gets in the way of the collaboration that he has tried to promote. He worries that these issues cause students to be disaffected with science and pushes them to consider alternative careers. He has seen some of his Ph.D.s go into law and banking. "I don't think this all together bad. We have to prepare students broadly for a variety of careers." Sheetz would prefer the European model where most Ph.D.s do not go into research, but are trained more broadly for their careers, and he thinks that is where we are headed. "We need to keep those who are dedicated and working hard for the right reason in the field and they need to realize that it is a true privilege to be able to do what it is that we do."

Mike Sheetz has made a career out of doing outstanding research while working to develop his field both on a local level and on a national level. He came into science "because of a nerdy approach to things," and confesses that his work is his hobby. "I used to play with wood working, but I enjoy working in the lab. In terms of relaxation it's as relaxing to do an experiment as it is to hit a golf ball." He does run 25-30 miles a week, mostly in Duke Forest, near his home. Running in the forest has been curtailed this year due to the destruction wrought by Hurricane Fran. Sheetz says running helps him concentrate on his work and tires him out enough so that he is forced to sit down and do his writing. Sheetz and his wife Kathy have three children: a daughter who is in high school, a son who is attending Duke Medical School, and another daughter who is studying law at UC Davis.