

MOVERS

Arthur Ellis, vice-chancellor for research, University of California, San Diego



2002-06: Director, chemistry division, National Science Foundation

1986-2006: Meloche-Bascom professor of chemistry, University of Wisconsin-Madison

1977-86: Assistant, associate, and professor of chemistry, University of Wisconsin-Madison

Chemistry played a major role in Arthur Ellis's life from an early age. As a child he could regularly be found experimenting with his chemistry set, but it was his high-school and college teachers that he credits as his true source of inspiration. As a result, Ellis's career has combined a zeal for chemistry with a desire to see the subject promoted and well taught.

Following his degree in chemistry, Ellis began his graduate career at the Massachusetts Institute of Technology in Cambridge, where he set about trying to build better solar panels by optimizing semiconductors and electrolytes. His graduate work earned Ellis the first of nine patents — and the luxury of going straight from graduate training into an assistant professorship at the University of Wisconsin in Madison. There his passion for teaching his subject quickly came to the fore, as he sought ways to bring the latest research to life in the classroom. In one demonstration, for instance, he levitated magnets using liquid nitrogen-cooled superconductors. "We can't have a static curriculum when research is so dynamic," he says.

Ellis's strong feelings about research and education, particularly the state of US chemistry training, finally led him to get involved in science policy. "After many years happily conducting my research and teaching, all the vectors lined up to do something different," he says. As a result, Ellis became director of the chemistry division at the National Science Foundation (NSF) in 2002.

Originally due to stay at the NSF for two years, Ellis ended up holding the position for four. While there, he helped to set up a number of initiatives. These included Chemical Bonding Centers, which support long-term projects intended to transform chemistry research; Discovery Corps Fellowships, which support nontraditional postdocs and sabbaticals directed at service-oriented projects; and undergraduate research collaboratives, which enable college students to gain experience in chemical research.

This month, Ellis arrived at the University of California, San Diego, to be its vice-chancellor for research. The university was keen to make use of Ellis's wide-ranging experience, says Marsha Chandler, its senior vice-chancellor for academic affairs. Ellis thinks his NSF experience will help him align his budget with university priorities. "I want to help create conditions that allow innovative ideas to bubble up from the campus and to take the university to the next level of research and education," he says. ■

Virginia Gewin

BRICKS & MORTAR

The mouse house

Early next year, Canada will open the doors on what it hopes will become a one-stop shop for mouse geneticists. The Toronto Centre for Phenogenomics (TCP) will house a range of imaging instruments, Canada's largest mouse colony and a cryobank, which together should make it one of the top locations for studying mouse models of human disease.

Affectionately nicknamed the mouse house, the Can\$63-million (US\$56-million) building will play host to some 300 researchers. They will generate mutant mice and work on phenotyping, behavioural analysis, imaging pathology and the cryopreservation of tissues. The human diseases that can be investigated using the mouse models range from diabetes and cancer to childhood conditions and women's health issues.

The TCP will become the new home to the mouse strains currently housed at its four sponsors: Mount Sinai Hospital, the Hospital for Sick Children, St Michael's Hospital and the University Health Network. This will free up space at the hospitals for other research.

But few of the researchers at these institutes will follow their rodent charges to the Toronto facility. Instead, the TCP aims to be a hub

of tools, technologies and services — previously available only on a piecemeal basis — and will house up to 200,000 mice.

At the TCP's core lies the Mouse Imaging Centre. Sealed in a room lined with 130 tonnes of steel is a 7.3-tesla magnetic resonance imaging machine that has been custom developed to image up to 19 live mice at a time. It also features optical projection tomography machines, which will allow researchers to create high-resolution three-dimensional images of transparent tissues, such as mouse embryos.

And at the Canadian Mouse Mutant Repository, sperm, ovaries, embryos and other non-germline tissue DNA will be held in cryopreservation. Colin McKerlie, who will oversee the repository and is currently the TCP's interim chief executive, is enthusiastic about the ways in which the tissue bank will help researchers. As well as being a useful resource, it should allow researchers to participate in international initiatives, he says.

With its state-of-the-art facilities, the opening of the TCP should have its investigators grinning like cats, as the first mice move in. ■

Hannah Hoag

GRADUATE JOURNAL

Farewell to the hive

I'm fortunate to have a supervisor who encourages her students to attend conferences. For me, conferences epitomize the idea of a scientific community where ideas are shared and debated. By presenting my work and gradually getting to know people, I feel increasingly at home in the community — or, to borrow a term from subjects of my research, the hive. When the hive gathers, anything can happen, from heated disputes between former pals to collaborations between strange bedfellows.

But for some of us, the hive is not for ever. At a conference last month, I faced the inevitable questions about my future plans. With graduation in sight, this was the ideal time to fish for postdoc positions. But instead I found myself telling colleagues about my intention to pursue a career outside research. I was met with everything from encouragement to awkward silences and downright incredulity, as if a life outside the hive could not be imagined, much less endured.

Leaving the hive is scary. Not many scientists will admit to considering alternatives, perhaps for fear of seeming less passionate about science. The conference atmosphere reminded me about my fascination for science. But it also encouraged me to look for a job where the things that I love about conferences — broad perspectives, interaction and communication — are everyday fare. ■

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