

MOVERS

Jim Peacock, chief scientist, Canberra, Australia



2002-06: President, Australian Academy of Science, Canberra, Australia
1978-2003: Chief of Plant Industry, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Canberra, Australia

A delayed train helped Jim Peacock become one of Australia's leading life scientists. Arriving late at the University of Sydney, the education major found that his first choice of degree, the teaching of economics, was oversubscribed. He was advised to pursue his alternative options, botany and zoology, and is glad he did.

After gaining a PhD in genetics from the University of Sydney, he worked with noted *Drosophila* geneticist Ed Novitski at the University of Oregon in Eugene, then completed his training with an introduction to molecular biology at Oak Ridge National Laboratory in Tennessee. He returned to Australia to fulfil an obligation to his postdoc funder, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), but found that his work in plant science lacked the cutting-edge genetic tools being developed elsewhere for *Drosophila* research.

Peacock took the initiative and applied the molecular tools of *Drosophila* genetics to plant research. He became chief of the CSIRO's plant-industry division, and, with his colleagues, deciphered the sequence of corn (maize) transposons — genetic sequences that can be rearranged during replication.

Peacock held his CSIRO post for 26 years, and built the division up from 300 to 900 people. He also presided over the development of Australia's first — and so far only — transgenic crop. The genetically modified cotton is less susceptible to pests and is now used in several other countries. "It was a chance to relay fundamental discoveries into Australia's agriculture," he says.

After four years as president of the Australian Academy of Science, Peacock was chosen to become chief scientist of Australia. This position will allow him to guide government research investments, which he hopes will include more support for basic work. "I'm sympathetic to the pressures for results-based work, but there needs to be a proper balance," he says. He believes his experience with the controversies of genetic engineering have prepared him well to discuss hot topics such as exploring nuclear power as a source of energy.

Peacock doesn't duck controversial issues, notes CSIRO chief executive Geoff Garrett. "He has the interest, expertise and capability not only on plant science and agribusiness, but also across a broad range of science," he says.

Peacock's current passion is promoting science literacy in society. He's started taking advantage of his background in education to develop primary-school programmes and to interest young students in science. ■

Virginia Gewin

BRICKS & MORTAR

Science without the red tape

In 2000, in the wake of a period of political instability in Chile, a group of biologists and physicists came together to found an unusual institute. The Center for Scientific Studies (CECS) is based in the town of Valdivia, 800 km south of Santiago. One of the founders' initial hopes, says centre director Claudio Bunster, was that they might help redirect the efforts of Chilean military men and effect societal change by "forging links between civilians and the military through science". Now, for example, military officers fly converted anti-submarine aircraft for the centre's scientific missions to the Antarctic.

Bunster has an idealistic outlook, in part because his institute is small and relatively bureaucracy-free. When CECS biologists needed more time and money to finish a new genetics building, the institute's climatologists and glaciologists simply delayed their trip to the Antarctic for a year. This sort of compromise could be rather tricky in a typical university setting.

Major areas of focus at the CECS include biophysics, theoretical physics, and glaciology and climate change. Despite their disparate subject areas, CECS scientists often find ways to collaborate. One Antarctic mission run by glaciologists inspired biologists to search for

extremophiles in a 4,000-metre-high salt lake in northern Chile.

The centre also boasts a milestone for South American biology: the continent's first certified transgenic mouse facility. Typically, such mice are imported, but CECS scientists have now bred their first transgenic mouse. Without proper sanitary and certified facilities, Chilean scientists can't design model animals or take a greater role in the community of mouse researchers, notes CECS biologist Marcelo Rubinstein. "We were completely lacking the technological capabilities," he says. The facility will house mice designed to model conditions ranging from obesity to neurological disorders.

The Chilean government provided one-third of the core funding for the CECS; the rest came from the World Bank's Millennium Science Initiative, the Fundación Andes and the Howard Hughes Medical Institute. The centre's yearly budget is just US\$8 million.

In 1999, the CECS had 20 scientists, including graduate students; it now has 80, one-third of whom are foreigners. Bunster intends the centre to grow only another 20% at most. To retain the centre's soul, he plans to keep it small, agile and, as much as possible, bureaucracy-free. ■

Gene Russo

GRADUATE JOURNAL

Bowled over (but not out)

Next week are our assessments as first-year graduate students. I hope to make the transition from what Oxford calls 'probationer research student' to fully fledged DPhil status.

During the past few weeks I have written and rewritten a literature review, trying to condense many papers into a few thousand words. I have also struggled with computer graphics and animation while trying to make a slide show of my work that would neither send the audience to sleep nor make them wonder whether somebody had slipped something into their morning coffee.

During this time, I've had a welcome distraction in the form of the Promega Plant Sciences cricket team. I've had a great time playing as the 11th man (or, as I like to call it, 1st woman). Although some may find it patronizing, I enjoy being cheered for doing even the slightest thing right, such as passing the ball to the correct player. I wish I could enjoy the same feeling in the lab when I manage to get a clean blot or contamination-free agar plates.

Sometimes, though, lab life does mirror life on the pitch. You may not get the results you want, but you give it your all, you have fun, and the people with whom you share your experience make it all worthwhile. The trouble is, science is not a game: you need results. ■

Mhairi Dupré is a first-year PhD student in evolutionary developmental biology at the University of Oxford, UK.