MOVERS

Alan Bernstein, executive director, Global HIV Vaccine Enterprise, Seattle, Washington

2000–07: President, Canadian Institutes of Health Research, Toronto, Canada

1994–2000: Director of research, Samuel Lunenfeld Research Institute of Mount Sinai Hospital; professor of molecular & medical genetics, University of Toronto

1984–1994 Head of molecular and developmental biology, Samuel Lunenfeld Institute

Alan Bernstein made sure he would never be pigeonholed into one discipline — a move that enabled the would-be physicist to make his mark in the biomedical sciences.

As an undergraduate in maths and physics at the University of Toronto, he stumbled across the medical biophysics department. There he met Harold Johns, discoverer of cobalt-60 radiation therapy for cancer, who lured him into the burgeoning field of medical biophysics.

For his PhD, Bernstein worked on mice with defective blood-cell production before realizing that he wanted a solid background in genetics. “Genetics is to biology what mathematics is to physics,” he says. But, he admits, he had no idea that a revolution in biology was imminent.

In London as a postdoc, Bernstein worked on retroviruses at the Imperial Cancer Research Fund. An experiment he did there provided genetic evidence of the first retroviral oncogene, dubbed *src*. Back in Toronto, he determined how the Friend leukaemia virus affects the ability to form new blood cells. His was one of the first labs both to clone a retrovirus and to exploit it as a vector to deliver genes to cells.

In 1984, Bernstein was asked to head the division of cancer research at the newly formed Samuel Lunenfeld Research Institute at Mount Sinai Hospital in Toronto. Instead, he chose to lead the institute's division of molecular and developmental biology, a field he expected would be hot. He spent the next 15 years, including time as Lunenfeld's director, demonstrating how oncogenes control developmental processes.

“Unlike many scientists, Alan doesn't have a comfort zone,” says long-time colleague Janet Rossant, researcher at the Hospital for Sick Children in Toronto. “He's always looking for new scientific directions.” As inaugural president of the Canadian Institutes of Health Research, Bernstein built a US\$1-billion budget combining molecular biology and social-science research agendas.

In January, Bernstein will become the first executive director of the \$750-million Global HIV Vaccine Enterprise, sponsored by the Bill & Melinda Gates Foundation. He takes on the directorship at a crucial time. Merck recently announced that it was dropping the development of what had been considered the most promising HIV vaccine candidate to date. Bernstein believes the way forward is to develop creative routes for collaborations by the vaccine enterprise, scientists and companies in the field. “No group can do this alone,” says Rossant. ■

Virginia Gewin

NETWORKS & SUPPORT

Latin American challenges

Young Latin American biomedical scientists seeking postdoctoral positions abroad face significant funding challenges. True, top graduates from developing countries can often obtain fellowships to work abroad from their countries' national research councils or equivalent organizations. But the stipends are usually lower than those offered by prestigious programmes such as the European Molecular Biology Organization, NATO or the US National Academies. And those three programmes do not accept applications from Latin American citizens.

Fortunately, a few highly selective international programmes fund Latin American citizens. Two examples are the Human Frontier Science Program (HFSP) and the Pew Latin American Fellows Program, both coordinated by Nobel laureate Torsten Wiesel, president emeritus at Rockefeller University, New York. These not only support postdoctoral training but also help young scientists return home.

The difficult transition from postdoc to independent investigator is well known. It can be especially hard for scientists returning to developing countries, where doing research can be frustrating. In Brazil, for example, they face a long wait for reagents that

often cost more than twice the price of those ordered in the United States. Just bringing in scientific equipment and reagents can be a nightmare (S. K. Rehen *Nature* **428**, 601; 2004).

As developing countries are short of money, support from programmes such as the HFSP or Pew can make a world of difference. Pew provides funds for equipment and supplies to set up a laboratory in the country of origin. The HFSP emphasizes interdisciplinary research and focuses on young researchers' careers, offering competitive awards after they return home.

Science in Latin America has grown vigorously in the past decade. The Latin American share of the world's scientific publications increased from 1.8% in 1991–95 to 3.4% in 1999–2003 (M. Hermes-Lima *et al. IUBMB Life* **4**, 199–210; 2007). But its visibility is low, indicating a need to increase the quality of science in general and biomedical sciences in particular. Supporting the initial phases of independent careers is crucial, not only for competitiveness but to prevent a brain drain. ■

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POSTDOC JOURNAL

Meet my lab minion

There comes a point in your academic career when you can employ minions to do menial lab work for you. Sadly, I have yet to reach that point. When I need someone to spend most of their working hours sitting in a magnetically shielded laboratory, coaxing the ancient magnetic signals from three-billion-year-old South African lavas, there's only one person that I can delegate the task to: me. Unfortunately, it's not just a matter of placing my samples in a fancy machine and instantly getting the data I want; every sample has to be measured a dozen times or more, as I attempt to destabilize unwanted overprints with ever-stronger blasts of heat or artificial magnetic fields.

Weeks of repetitive measurements might not sound that intellectually stimulating. But I actually enjoy getting my hands dirty in the lab — I take great satisfaction from the thought that I'm personally uncovering long-buried clues about southern Africa's geological history. Besides, I'm not simply repeating my PhD research. I'm using an unfamiliar machine to analyse ancient lavas with magnetic quirks and subtleties quite different from the much younger sediments I've studied before. Even now, I'm still learning the tricks of my scientific trade, and gaining the broader experience necessary to supervise my future minions effectively, should I ever be given any. ■

Chris Rowan is a postdoctoral student in the geology department at the University of Johannesburg, South Africa.