CANADA

New Research Chairs Mean Brain Gain for Universities

A national program to hire 2000 senior scientists and rising stars is luring top foreign talent to Canada—including some expatriates

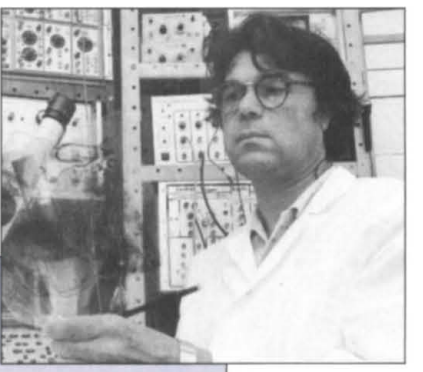
OTTAWA—When Ze'ev Seltzer got an offer last year to join a group at the University of Toronto, the pain researcher at Hebrew University in Jerusalem jumped at the chance. Canada, he says, is an emerging "superpower in pain research."

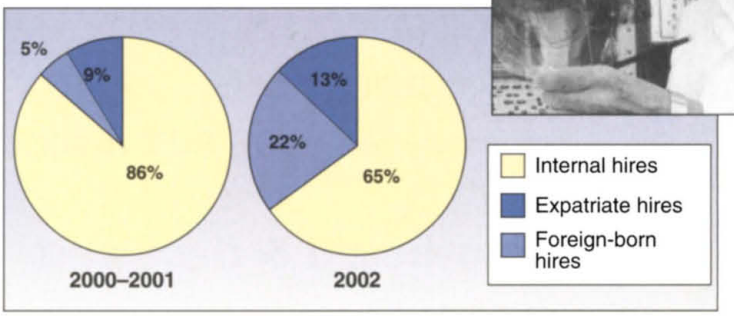
Seltzer isn't alone in making the trek to The Great White North. Last month, the government announced that 35% of the latest hires under the Canadian Research Chairs (CRC) program—some 43 of 123 scientists—were lured from abroad (see graphic). That's a much higher percentage than in the previous six rounds, when only 85 of 623 appointees came from outside Canada. The shift suggests that the government's $585 million program is finally meeting one of its major goals: to help reverse a brain drain that had been sapping Canadian science (*Science*, 22 October 1999, p. 651).

The program, launched 3 years ago, is expected to fund 2000 research chairs over 5 to 7 years at 61 Canadian universities. The chairs are divided into two tiers, one for senior scientists and a second for rising stars. The hirings must be linked to an institution's strategic plan, which includes targeting areas for special emphasis. "Research is all about critical mass," says Alan Bernstein, president of the Canadian Institutes of Health Research (CIHR), from which CRC winners draw operating grants. "It's all about having [people] down the hall you can talk to."

As a Tier 1 chair in comparative pain genetics, the 54-year-old Seltzer will earn $910,000 over 7 years and will be freed from his teaching duties. Like all chair recipients, Seltzer also is entitled to a sizable grant from the Canada Foundation for Innovation (CFI) and the provincial government to help set up his lab. The attractive package helped convince his wife to abandon a thriving architectural design career and make a new home in Toronto with their 11-year-old daughter. Now, Seltzer is busy integrating more than 2 decades of work on why people who lose a tooth or a limb still feel phantom pain from the missing body part into a hunt for a gene that predisposes some people to various types of chronic pain.

The program is also luring expatriates: Some 16 of the 43 recent appointees are heading back north of the 49th parallel from jobs in the United States. Among them is biochemist David Granville of the Scripps Research Institute in San Diego, California. As a Tier 2 chair in cardiovascular biochemistry at the University of British Columbia in Vancouver, the 32-year-old Granville receives a 5-year, $325,000 salary. Although that's a bit less than his current salary, Granville says that the chance to work in a lab with all the equipment needed for his research sold him on the move. "I think I'll be better equipped" to explore the pathways that regulate cell death, he says, thanks to infrastructure and research funding from CFI, CIHR, the Heart and Stroke Foundation of Canada, the Michael Smith Foundation for Health Research, and various provincial bodies.





Northern flow. Canada's research chairs program is attracting more foreign scientists such as Israel's Ze'ev Seltzer.

That's also the case for University of Budapest mathematician Karoly Bezdek, currently on leave at Cornell University. His Tier 1 chair will allow him to help establish a center for computational discrete geometry at the University of Calgary in Alberta—one equipped with high-performance computers and a bevy of graduate students.

The CRC program might be rearranging the intellectual map in certain fields. In August, Stephen Saideman left Texas Tech University to accept a Tier 2 chair in international security and ethnic conflict at McGill University in Montreal. The program is helping make Montreal a "magnet" for researchers and graduate students in international relations, he says. "The heaviest hitters in the field, professors at Berkeley and Stanford, have sent me e-mails pushing their graduate students. I never had that at Texas Tech," says Saideman, 36, who studies the social, economic, and political fallout caused by politicians who whip up ethnic fervor during election campaigns.

CRC officials say they aren't surprised that the chairs program is finally attracting large numbers of scientists from abroad. Universities initially used the new positions "to retain their stars," says CRC executive director René Durocher. Once that goal was reached, university recruiters felt free to roam the world, homing in on designated fields. "The idea is to get them to grow a critical mass, as opposed to growing in all sectors," says Marc Renaud, president of the Social Sciences and Humanities Research Council and chair of the CRC steering committee. "The more you showcase yourself as the best in an area, the more likely you are to attract students and funds."

Other institutions have gone a step further. In addition to concentrating on strategic areas such as bioinformatics, renaissance studies, and the social determinants of health, McGill officials also pledged to recruit all of the university's 171 appointees from outside. "That's a real challenge," admits provost and vice principal (academic) Luc Vinet. "But as the chairs program gets better and better known, recruiting abroad gets easier."

As the CRC program nears its midpoint, officials are more convinced than ever that it's helping Canada climb back into the upper scientific echelon. "All of a sudden, Canada is getting pretty hot, and we're not used to that," says CFI president David Strangway, recounting a visit to Australia in which science officials there told him they "are losing people to Canada because of the things going on there."

The final step, Strangway says, is a proposal before the cabinet to hike the number of graduate students in universities. If that program takes off, he says, "then we will never, ever look back."

—WAYNE KONDRO

Wayne Kondro writes from Ottawa.

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