BIOMEDICINE IN CANADA

Virtual Institutes Gear Up To Do Real Research

Alan Bernstein, president of the new Canadian Institutes of Health Research, wants to improve the quality of research—without a massive new infrastructure

OTTAWA, CANADA—Alan Bernstein has never let administrative duties keep him out of the lab. When he was head of the Samuel Lunenfeld Research Institute at the Mount Sinai Hospital in Toronto, Bernstein, a geneticist, maintained an active research program on new cancer therapies. This spring, when he was offered the job of president of the brand-new Canadian Institutes of Health Research (CIHR)—an Ottawa-based collection of 13 virtual institutes that the government hopes will change the face of Canadian biomedical research—he accepted on one condition: He would work at least 1 day a week in his Lunenfeld lab.

"It's important that the head of the CIHR not only be a scientist, but that he be seen to be scientist," says Bernstein. He believes his ongoing research will not only inform his decisions at CIHR but also send a message that the new, $330 million entity is about doing cutting-edge science, not pushing paper. His good friend Harold Varmus adopted the same strategy when he became head of the U.S. National Institutes of Health in 1993 and set up an intramural lab at the Bethesda, Maryland, campus. "Someone like Alan who's perceived as a scientist, rather than a politician or an administrator, brings a level of credibility to the job that's really important," says Varmus, a Nobelist who left government last December to become president of Memorial-Sloan Kettering Cancer Center in New York City.

Bernstein, 53, is in the enviable position of shaping an entire national research program from scratch. On 7 June the CIHR became the primary source of investigator-initiated extramural grants for the Canadian health sciences. It took over from the country's Medical Research Council (MRC), whose president, Henry Friesen, lobbied hard for CIHR in the hope that it would generate bigger biomedical research budgets and broaden the country's portfolio of health research. So far he's right: In addition to setting up new institutes on population-based and health services research (see table), the government has promised to provide an additional $72 million in fiscal year 2000–01 for electronic links—Web sites, chat rooms, and the like—to connect scientists at all the institutes.

Bernstein hopes to strengthen Canadian biomedical research by earmarking as much as 30% of CIHR's overall budget for targeted research. The approach, new to Canada, would pour money into "very focused, very specific" questions, he explains, in areas such as the vascular complications of diabetes, the genetics of schizophrenia, and the high incidence of suicide among aboriginal peoples. It's a bold and potentially divisive strategy: Traditionally, the MRC spent most of its money on individual investigator grants, and any type of top-down direction was seen by scientists as an unwise intrusion into the untrammeled pursuit of knowledge. "Free spirits chafe at sort of being confined," says Matthew Spence, president of the Alberta Heritage Foundation for Medical Research. "The trick is to have the strategic direction articulated in such a way that the scientific community moves toward it willingly and naturally."

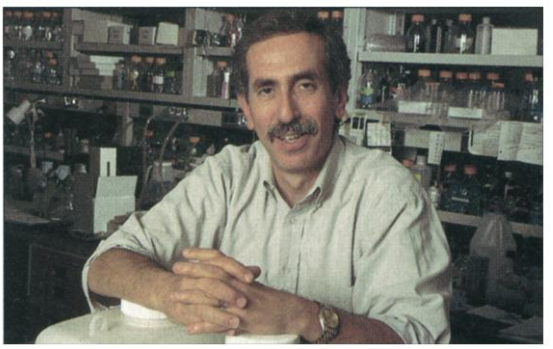
THE CANADIAN INSTITUTES OF HEALTH RESEARCH

- Aboriginal People's Health
- Cancer Research
- Circulatory and Respiratory Health
- Gender and Health
- Genetics
- Health Services and Policy Research
- Healthy Aging
- Human Development and Child and Youth Health
- Infection and Immunity
- Neurosciences, Mental Health, and Addiction
- Musculoskeletal Health and Arthritis
- Nutrition, Metabolism, and Disease
- Population and Public Health

Bernstein believes scientists will embrace such an arrangement once they realize that they'll be setting the agenda. Under the operational model adopted for the CIHR, every Canadian biomedical or health scientist must choose to be linked with one of the 13 institutes. That affiliation allows them, if they so choose, to become involved in crafting a strategic plan that the institute will implement through a series of requests for applications.

Each institute will be based at the home school of its director, who will fill what Bernstein sees as a "half-time job," and observers are anxious to see whether a handful of research-intensive universities will capture the lion's share of the prizes. Bernstein, a Toronto native who has worked in the city for most of his career, says geographic distribution isn't an issue for him; he's more concerned about each institute's ability to move Canadian science into hot new areas. "We haven't done badly," he says. "But we haven't done an A-plus job as a country." All competitions will be administered through centralized peer review at the CIHR head offices in Ottawa.

Colleagues say Bernstein's ability to anticipate trends will help him convince scientists that more strategic research is essential. Bernstein has "a very strong and, indeed, visionary understanding of where biomedical science is going," says Abraham Fuks, dean of medicine at McGill University in Montreal. It doesn't hurt that Bernstein is "hard-nosed" and "bristlingly smart," adds Phil Branton, outgoing McGill University chair of biochemistry and a close friend since the pair studied medical biophysics at the University of Toronto. "He has high international standards and believes there's no reason why Canada shouldn't be playing that game."



Strategic thinker. Alan Bernstein wants part of CIHR budget to explore "very focused" topics.

That game takes money, however. Bernstein says CIHR's budget must be doubled, to 1% of the country's total spending on health care, for Canada to remain globally competitive.

The challenges facing CIHR have also tapped Bernstein's characteristically high level of energy and his sky's-the-limit attitude. He says he doesn't mind adding 1-hour flights between Toronto and Ottawa to his already hectic work schedule, and he plans to continue playing cello in an amateur string quartet to relieve stress. Least of all, he doesn't care if maintaining his lab rattles the cages of Canadian tradition.

"As I keep telling everyone around here, we have no traditions at CIHR," he says. "We are a brand-new organization."

—WAYNE KONDRO

Wayne Kondro writes from Ottawa.

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