Heads of new institutes to set tone for Canadian research

There are now names and faces to put to the 13 "virtual" institutes comprising the Canadian Institutes of Health Research (CIHR), the new engine that is supposed to drive medical research in Canada in the new century. Although the institutes assumed the role of the Medical Research Council of Canada last spring, CIHR President Alan Bernstein and Health Minister Allan Rock didn't name the directors until Dec. 4. The individuals appointed as scientific directors form a *Who's Who* from the ranks of Canadian medical and health policy researchers:

- **Jeff Reading**, PhD, University of Manitoba and health research adviser to the Assembly of First Nations: Institute of Aboriginal Peoples' Health;
- **Philip Branton**, PhD, McGill University: Institute of Cancer Research;
- **Bruce McManus**, MD, PhD, University of British Columbia: Institute of Circulatory and Respiratory Health;
- **Roderick McInnes**, MD, PhD, University of Toronto and Hospital for Sick Children: Institute of Genetics;
- **Miriam Stewart**, PhD, University of Alberta: Institute of Gender and Health;
- **Réjean Hébert**, MD, Université de Sherbrooke: Institute of Healthy Aging;
- **Morris Barer**, PhD, MBA, University of British Columbia: Institute of Health Services and Policy Research;
- **John Challis**, PhD, University of Toronto: Institute of Human Development and Child and Youth Health;
- **Bhagirath Singh**, PhD, University of Western Ontario: Institute of Infection and Immunity;
- **Cyril Frank,** MD, University of Calgary: Institute of Musculoskeletal Health and Arthritis;
- **Diane Finegood**, PhD, Simon Fraser University: Institute of Nutrition, Metabolism and Diabetes;
- **Rémi Quirion**, MD, Douglas Hospital of McGill: Institute of Neurosciences, Mental Health and Addiction;
- **John Frank,** MD, Department of Health Sciences, University of Toronto: Institute of Population and Public Health.

In addition to the scientific directors, Dr. Renée Lyons of Dalhousie University was named special adviser to the president on rural health and rehabilitation research. The directors will lead the institutes from their current locations. They will oversee the development of multidisciplinary research involving what the CIHR considers the 4 pillars of research: biomedical, clinical, health systems and services, and social, cultural and other determinants of population health. They are also expected to develop strategic alliances with members of the private, public and voluntary sectors, and to encourage the translation of research results into improved health care.

In coming weeks, the CIHR will name the members of each institute's advisory board. They will have 12 to 15 members and include representatives from groups interested in the practice and outcomes of medical research, from researchers to members of patient groups and voluntary organizations. The call for nominations drew more than 1200 responses. — *Alison Sinclair*, CMAJ

CONFERENCE REPORT

Gene abnormalities may lead to multiple system defects for heart patients

During the Canadian Cardiovascular Society's recent congress in Vancouver, Dr. Arnold Strauss provided a series of vignettes to demonstrate the role of molecular pathogenesis in congenital heart disease. Strauss, a pediatric cardiologist and molecular biologist at Washington University in St. Louis, used DiGeorge syndrome to indicate how a complex abnormality on chromosome 22q11 produces multiple cardiac abnormalities, including truncus arteriosus, tetralogy of Fallot and pulmonary atresia.

This abnormality is also associated with absence of the thymus gland, perturbations in calcium homeostasis and T-cell deficiency. Taken together, these lead to increased susceptibility to infection. Behavioural problems involving psychoses and other psychiatric disturbances occur frequently in patients with this genetic condition.

Strauss said these types of diseases are forcing doctors to think more broadly about patients with heart disease. For instance, pediatric cardiologists have traditionally focused on anatomic diagnoses limited to the cardiovascular system. However, the DiGeorge syndrome is associated with multiple system defects that cross medical disciplines, thus requiring flexibility, lateral thought and a more generalized approach to the patient. Another example of this is the phenotype caused by mutations in the TBX5 gene. Affected patients often exhibit atrial septal defect, and there may be associated abnormalities of the tricuspid valve and a ventricular septal defect, as well as developmental skeletal abnormalities. This molecular information may provide an explanation for some cases of sporadic congenital heart disease and may enhance physicians' ability to make diagnoses.

Strauss's third example was the beta cardiac myosin heavy-chain abnormality discovered in hypertrophic cardiomyopathy.

The theme running through all of these vignettes was Strauss's idea that physicians must begin to think more as developmental biologists and less as technicians who simply focus on anatomic abnormalities of the heart. Indeed, patients with the same apparent anatomic defects may have substantial clinical differences, and the consequences of abnormalities both within and outside the cardiovascular system need to be integrated into their overall care. — *Dr. Paul Armstrong*, an Edmonton cardiologist, and *Dr. Robert Hegele*, who cochaired a symposium at the congress, wrote this article; physicians interested in submitting similar reports should contact John Hoey, 800 663-7336 x2118; hoeyj@cma.ca.