



Hamilton Health Sciences

The David Braley Cardiac, Vascular & Stroke Research Institute will be home to two distinguished research teams

- **Population Health Research Institute**
- **Henderson Research Centre**

Population Health Research Institute

The goal of the PHRI is to understand the causes of chronic diseases and how they can be prevented or treated. While its primary role is to provide leadership in international health research, the PHRI also plays an active role in the education of individual researchers, and in building capacity internationally for the development of global research programs.

The PHRI includes a wide range of research personnel including physicians, nurses, epidemiologists, nutrition scientists, research coordinators, biostatisticians, computer programmers, data management assistants and administrative staff.

Specific Priority Programs of the PHRI

- With sponsorship from the World Heart Federation and the World Health Organization (WHO), the PHRI is actively involved in establishing cardiovascular research programs in developing countries, and identifying the causes and treatments for cardiovascular disease.
- An important area of research for the PHRI is explaining the relationship of elevations of blood glucose and cardiovascular disease. Studies are exploring new ways of preventing and treating diabetes.
- Another emerging area of research is the assessment of whether environmental influences during pregnancy and early childhood predispose a child to developing risk factors for cardiovascular disease. This project involves extensive collaboration between pediatricians, cardiologists and epidemiologists.
- Other major programs include: preventing perioperative cardiac events (complications during surgery), new antithrombotics (medications to prevent blood clots) and atrial fibrillation (irregular heart beat), better treatments for heart attacks and unstable angina (chest pain), efficient care for heart failure patients, new approaches to prevention of atherosclerosis (hardening of the arteries) and its complications, and investigating the causes of strokes worldwide.

Henderson Research Centre

Research conducted at the HRC is aimed at reducing death and disability from thrombotic (or blood clotting) diseases by investigating the origins and effects, prevention, diagnosis and treatment of thrombosis and vascular diseases. Research activities focus on heart attacks, stroke and other cardiovascular disorders, as well as blood clotting in deep veins, a problem that can lead to clots in the lung. It covers the entire life cycle, ranging from abnormal blood clotting in pregnancy and the fetus, disorders of infancy and children, through to those of adult and geriatric populations. In addition, problems unique to specific ethnic groups that are particularly prone to vascular disease and thrombosis are investigated.

The Experimental Thrombosis and Atherosclerosis (ETA) program, directed by Dr. Jeffrey Weitz, conducts fundamental research on the relationship between thrombosis, atherosclerosis (hardening of the arteries), diabetes, cancer and inflammation. Their studies include: how arteries and veins become injured and lead to clotting; the effects of diabetes, obesity and cholesterol; the development of tests to monitor or diagnose clotting; and drug treatment of clotting disorders.

*Construction completion timeline for the
David Braley Cardiac, Vascular & Stroke Research Institute*

Completion and move-in will occur in two stages: Stage 1 levels 1, 2 and 3 in February 2009, and Stage 2 levels 0, 4 and 5 in the fall of 2009.