Project Backgrounders for Press Releases – TORONTO

The Hospital for Sick Children (SickKids) is an international leader in child health research across the life continuum from fetal origins to adult outcomes, including fundamental discovery, applied research, and outcomes and impact research. Going forward, the Research Institute will be focused in seven theme areas where we are poised to deliver significant progress in priority child health issues such as mental health, obesity, diabetes, asthma, drug discovery for childhood diseases, and health systems research.

In order to enhance integration and promote further cutting-edge science, SickKids is building a new research and education building. This integrated space will foster: the productive exchange between fundamental science, clinical research, leading to innovative research; the training of the next generation of discovery scientists and application scientists across all areas of the hospital; translation of research discoveries into new commercial capacity and into health care system improvements; and, world class science leading to discoveries that improve the health and well being of children and youth. With new facilities and innovative technologies, SickKids will enhance its competitive edge and its current ability to attract world class scientists who contribute to the knowledge economy in Ontario and will train the next generation of knowledge workers.

The Centre for Addiction and Mental Health (CAMH) is Canada's largest mental health and addiction teaching hospital, as well as one of the world's leading research centres in the area of addiction and mental health. CAMH combines clinical care, research, education, policy development and health promotion to transform the lives of people affected by mental health and addiction issues.

CAMH will embark on a large-scale project that will focus on transforming lives across six research themes: Schizophrenia, Mood Disorders, Addictions, Community Health & Knowledge Exchange, Neuroimaging, Pharmacogenetics and Neuroscience. This integrated and pioneering project will address key issues such as: optimizing treatment across mental illness and substance use disorders, including the development of individualized treatment based on molecular genetics; translating discoveries into improved clinical practice, prevention and intervention strategies; reaching out to underserved and understudied communities such as First Nations, remote populations, the workplace, women, the elderly, and children; and reducing the health care costs and social burdens of mental illness and addiction.

The University Health Network drives discoveries to clinical application and uses clinical outcomes to inform research approaches. Funding from the CFI

will be focused on the further development of the Advanced Therapeutics Research Platform (ATPR), with a focus on developing new treatments and cures for diseases including cancer, cardiovascular disease, diabetes/obesity, neurodegenerative diseases and infectious diseases.

Foci include drug development; the development of new imaging technologies to revolutionize the treatment of cancer and other diseases, and; further development of the world-leading regenerative medicine research by enabling new studies of stem cell-derived cell types which have the potential to treat a variety of diseases. The ATRP's integrated research approach will yield new interventions that will lead to effective clinical management of many diseases to result in a better quality of life for patients.

Sunnybrook Health Sciences Centre's Centre for Research in Image-Guided Therapeutics will be unique in Canada. Researchers will develop and test basic science and medical imaging technologies and therapeutics—including new drugs, biological agents and imaging devices—and translate them into the clinic. Clinical areas of focus are cancer, cardiac, musculoskeletal, and stroke and brain disorders.

With the CFI's investment, Sunnybrook will build more than 100,000 square feet of world-class facilities, including Canada's first biomedical device development lab, so that complex medical devices can be built and tested onsite; the world's only magnetic resonance imaging-guided focused ultrasound surgery centre, which will be used to develop and test MRI-guided focused ultrasound devices to treat uterine fibroids and cancer; and a neurointervention centre, which will work to develop better ways to treat stroke and dementia, and to enhance recovery after stroke. Clinical benefits of this research are less invasive and more accurate surgery and treatment monitoring; faster treatment and recovery times; fewer or no post-treatment complications; and lower costs.