Vancouver CoastalHealth Research Institute
Healthier lives through discovery

Research Update

Michael Smith Foundation for Health Research Awards

I am pleased to announce and congratulate the following VCHRI investigators who are recipients of four major MSFHR awards: Career Investigator, Research Units, Technology/Methodology Platforms and Team Start-up. Awardees were honoured at a MSFHR awards celebration event November 6, 2007.

Dr. Bernie Bressler,
Vice President Research, VCH
Executive Director, Vancouver Coastal Health Research Institute
Assistant Dean Research, Faculty of Medicine, UBC

Career Investigator Awards

The Career Investigator program emphasizes recruitment of health researchers from outside the province, while also enabling emerging BC researchers to develop their careers here.

A. BIOMEDICAL

Scholar	Project Title	Research Area	Department
Kevin McElwee	Genetics of alopecia areata	Skin Sciences	Dermatology and Skin Science
Senior Scholar	**Project Title**	**Research Area**	**Department**
Brian Christie	Effects of exercise on structural and functional plasticity in the aging hippocampus	Brain Research Centre	(Island Medical Program) Division of Medical Sciences / Cellular and Physiological Sciences
Christopher Ong	Novel strategies for treatment of PTEN deficient prostate cancer	Prostate Centre at VGH/Immunity & Infection Research Centre.	Surgery
Jeremy Seamans	Dopamine modulation of prefrontal cortex network dynamics	Brain Research Centre	Psychiatry

B. CLINICAL

Scholar	Project Title	Research Area	Department
Ben Chew	Novel antimicrobial surface coatings for urologic devices	Prostate Centre at VGH	Urologic Sciences
Brian Kwon	The drainage of cerebrospinal fluid and development of inflammatory biomarkers in acute spinal cord injury	International Collaboration on Repair Discoveries (ICORD)	Orthopaedics
Helen Tremlett	The MaMS Study. Malignancy and MS: Incidence and impact of beta-interferon treatment	Brain Research Centre	Medicine (Neurology)
Senior Scholar	**Project Title**	**Research Area**	**Department**
Janice Eng	Optimizing functional ability in stroke rehabilitation	ICORD/Stroke Research Group	Physical Therapy

Career Investigator Awards, Continued...

C. HEALTH SERVICES

Scholar	Project Title	Research Area	Department
Jude Kornelsen	Practice experiences of rural GP surgeons in British Columbia	Rural Health	Family Practice
Senior Scholar	**Project Title**	**Research Area**	**Department**
Ellen Balka	Health innovation design and evaluation (HeIDE)	Centre for Clinical Epidemiology & Evaluation (C2E2)	(SFU) School of Communication

Research Units Awards

Improving health research productivity
MSFHR's Research Unit program provides human and program infrastructure to improve research productivity. The grant funds units with three to 10 qualified researchers over a four-year award term. (MSFHR is now funding 31 research units over four competitions, for a total commitment of $21.4 million.)

Research Unit	Focus	Leader
Ovarian Cancer Research Unit (OvCaRe)	BC's unique provincial cancer care system – with coordinated diagnosis, treatment and outcome tracking – has made it possible for our province to be a leader in the evolution of improved treatments for a number of different cancers. However, there have been no significant breakthroughs in ovarian cancer treatment for more than a decade. OvCaRe was created by a group of clinicians and scientists with the explicit goal of improving ovarian cancer outcomes by freely sharing data and promoting collaborations within the group and with outside researchers interested in ovarian cancer. OvCaRe has three major goals: to develop diagnostic tests for the most promising tumour markers and offer these tests province wide; to identify novel therapies in laboratories and translate these to the clinic; and to explore markers, diagnostics and potential therapies for ovarian cancers that are unresponsive to current therapies.	**C. Blake Gilks**, MD, Head, Anatomic Pathology, VGH; Professor, Medicine/Pathology and Laboratory Medicine, UBC

Technology/Methodology Platforms

MSFHR has approved funding for the initial development of six provincial health research technology and methodology platforms. Three applications have been approved for immediate implementation: BC BioLibrary, BC Proteomics Network, and Centre for Drug Research and Development. Dr. David Huntsman and Dr. Ian MacKenzie are co-leaders (along with Dr. Peter Watson and Dr. Richard Hegele) of this platform.

Technology / Methodology Platform	Focus	Co-Leaders
BC BioLibrary	This platform provides the governance and operations strategy to support the creation of the BC BioLibrary to ensure that researchers across the province have access to the highest quality biological specimens to support studies to expand our understanding of health, as well as the origins, course and treatment of disease. It brings together a network of advocates, researchers, clinicians, ethicists and information technology professionals whose goal is to improve access to biological specimens, such as tumour samples, within a framework that supports appropriate standards of quality, security, ethics and privacy in relation to the collection, storage and use of these specimens. The goal is to ensure that high quality, standardized biological materials are available to support the full range of research applications, including clinical trials, drug discovery, biomedical imaging technologies, proteomics, genomics, metabolomics and population-based outcome studies.	**David Huntsman**, Associate Professor, Medicine/Pathology and Laboratory Medicine, University of British Columbia; Director, Centre for Translational Genomics, BC Cancer Agency; Provincial Health Services Authority; Vancouver Coastal Health Research Institute **Ian MacKenzie**, Professor, Medicine/Pathology and Laboratory Medicine, University of British Columbia; Investigator, Brain Research Centre and Staff Neuropathologist, Vancouver General Hospital; Vancouver Coastal Health Research Institute

Team Start-up Awards

The Team Start-up Award is a developmental award that provides one-time funding for up to three years to enable researchers involved in multidisciplinary and cross-theme research in British Columbia to coalesce and enhance their capacity to compete successfully for infrastructure and operating funds from provincial, national and/or international sources.

Team	Focus	Leader
Detecting, Treating and Preventing Drug-Related Morbidity: An Emergency Department Based Medication Optimization Program	In Canada, 7.5 per cent of hospital admissions are complicated by an adverse event related to medical care that leads to death, disability, or a prolonged hospital stay. Adverse drug related events (ADREs) represent the most common cause of preventable non-surgical adverse events, with up to 130,000 patients in British Columbia (BC) presenting to Emergency Departments with a symptomatic ADRE. However, there are currently no efficient screening strategies for ADREs. This team is working to develop and evaluate a clinically effective, resource-efficient screening strategy. Once the strategy has been proven effective in an Emergency Department setting, the team aims to adapt it for use in community-based practice, and determine its cost effectiveness in comparison to the current standard of care.	**Corinne Hohl**, MD, Physician and research Investigator, VGH Emergency Department; Emergency Department Research Group; Assistant Professor, Medicine/Surgery, UBC
Spinal Cord Injury Proteomics (SCIP)	Each year, approximately 1,500 Canadians sustain an acute traumatic spinal cord injury (SCI). Disability from an SCI results both from the initial trauma, and secondary cell damage that occurs due to pathophysiological processes after the initial SCI event. Current research suggests that neuroprotective drugs need to be administered early after injury to head off secondary cell damage, yet current diagnostics aren't able to determine and classify the exact severity of the spinal injury within this timeframe. This makes it difficult to predict how much spontaneous recovery can be expected and which treatment strategies will improve functional recovery. Using proteomics technologies, this team is working to identify and validate biomarkers to monitor the severity of spinal cord injuries (SCI), and allow the "real time" ongoing evaluation of candidate drugs in human clinical trials.	**Wolfram Tetzlaff**, MD, PhD, Associate Director, Discovery Science (Rick Hansen Chair), International Collaboration on Repair Discoveries (ICORD); Professor, Dept. of Zoology, UBC; Associate Professor, Dept of Surgery, UBC
Team for Monitoring and Control of Abnormal Brain Dynamics	The majority of treatments for neurological diseases involve drugs. Yet maintaining a steady state of medications in a person's system may not be effective in targeting abnormal brain activity that is transient and oscillating. Therefore, patients may have to continually take drugs for conditions that only manifest themselves intermittently – such as with seizures – or to take drugs that disrupt normal brain activity. With a view to developing non-pharmacological interventions, this team is dedicated to measuring – and ultimately managing – disrupted brain function occurring at short temporal scales. Focusing initially on Parkinson's Disease, the team is working to better pinpoint and understand subtle oscillations in abnormal brain activity, and developing and testing visual stimuli systems that have shown promise in disrupting these abnormal oscillations in the brain. The findings from this research will have broader impact with implications for many brain diseases.	**Martin McKeown**, MD, FRCP(C), Principal Investigator Pacific Parkinson's Research Centre/Brain Research Centre; Associate Professor, Medicine/Neurology, Co-director, Biomedical Signal and Image Computing Lab (BiSICL), UBC

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