June 4, 2010

From the Desk of the President

On June 15th, 2010 my term begins as the president of the Canadian National Proteomics Network (CNPN). I will be replacing the accomplished Dr. Guy Poirier who presided over the CNPN since the its incorporation in the fall of 2008. I would like to thank Guy for his outstanding work to develop and promote the CNPN.

As the new president, I will continue to emphasize the CNPN's important role as a cooperative national research network and its mandate to promote proteomics education, training and research in Canada. One of my objectives is to raise the CNPN's standing among the research and education community. My hope is to attract new members from various disciplines, including medicine and biology. I will also focus to improve the access to education and training in proteomics by organizing hands-on and web-based workshops. To ensure publicity and long-term sustainability of the society, we need to increase the involvement of industrial sponsors and attract international meetings to Canada. Finally, during my tenure as president of the CNPN, I plan to continue development of a national strategy to promote Canadian proteomics research and facilitate international collaborations on large-scale projects such as the Human Proteomics Project.

Dr. Christoph Borchers, U Victoria, Genome BC Proteomics Centre

Special points of interest:

* CNPN Symposium
* Canadian Initiatives for Human Proteome nitiative
* Board of Directors

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Membership

Any organization is only as strong as the support of the membership. The CNPN. As of the 2010 symposium, CNPN has 107 active members from Academia, Government and Industry. Current members consist of P.I's, students, government research scientists and vendors, and covers the entire spectrum of interests from Mass Spec hardware, applications development to clinical research.

Canadian science has a history of hitting above our weight. The post genomic era is rife with opportunities where it is better to be smart than big. To do that we must band together as a group to find purchase on the slippery funding landscape. Student members have access to several Student Travel Awards. Presentation experience at major conferences can transform a career.

You can make a difference. We urge you to take a moment and add your voice to the CNPN. Become a member, develop your contacts, and become part of a proteomic success story in Canada

http://www.cnpn.ca/membership/membership.html

Upcoming Meetings:

HUPO 2010 September 19—23 Sydney, Australia

CNPN April 2011, Alberta (Proposed)

ETP 2011, Boston MA, Spring 2011

Human Proteome Project

The ultimate goal of the Human Proteome Project (HPP) is the determination and characterization of the entire complement of proteins encoded by the human genome. A task of this magnitude will require the cooperation and collaboration of the global proteomics community. A white paper was published in August 2008, and a HPP working group was established at a Kick off meeting in January 2010.

There are 219 or so cell types and 21,000 genes in the human body. Current and advancing technological advances are creating the opportunity for unprecedented cellular function. Ultimately a resource of immediate applicability will be available to clinical and basic science communities in a format that insures reliable short term applicability to clinical outcomes.

Parallel to the establishment of tissue based projects is the development of standardized protocol for the calibration, collection and evaluation of data. Validated techniques for handling of various sample types, profiling and enrichment practices must include comprehensive checks and standards and built in redundancies.

Canada has an important role to play in addressing this challenge. It has been suggested that at times it can be advantageous to be smart rather than big. We are investigating several opportunities where we can make our collective contribution. The four potential areas of research are outlined below.

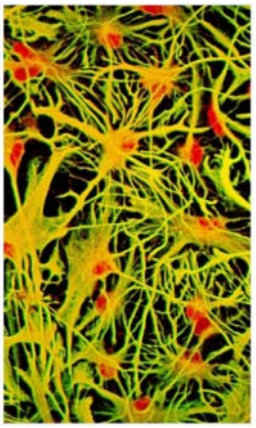
Pierre Legrain is current HPP project manager. Following the independent presentation sessions, he led a panel discussion to encourage input by those in attendance. Ultimately, it will not be up to the CNPN executive to decide the direction of the Canadian HPP project. Rather the membership as a group are charged with the selection task. We encourage all interested in the future of proteomic research to participate.

For a copy of the complete white paper, go to the link below to download a complete version.

http://www.hupo.org/research/hpp/

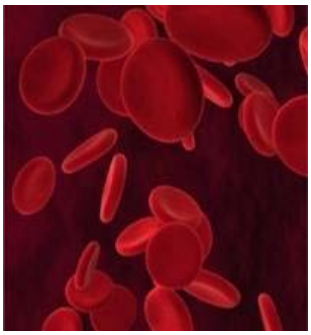
Neurobiology: John Kelly, NRC Ottawa

Diseases of aging are the number one health issue for Canadians and will be for the foreseeable future. One in three Canadians will suffer from a neurological or psychiatric disorder in their lifetime and the associated economic burden is greater than either cardiovascular disease or cancer. Neurobiology represents an area of untapped potential for Canadian proteomics researchers. This potential arises from both the excellence of neuroscience research in Canada and the fact that neuroproteomics is an emergent field here and indeed worldwide.



Blood and Blood Cells: Juergen Kast, UBC

Blood is commonly used for diagnostic purposes. Current blood tests quantify several soluble proteins, but only sub-classify and count blood cells. With evidence mounting that proteome analysis of blood cells is now feasible, establishing a coordinated, large-scale effort dedicated to this task is timely. Accounting for 1% of blood's volume, leukocytes link blood to the immune system and play crucial roles in many diseases. Studying the proteomes of these and other blood cells in health and disease will help uncover mechanisms of disease progression and establish novel diagnostic assays. True to this vision, the blood session saw presentations that outlined critical lessons learned in setting up large-scale studies of disease proteomes, highlighted the significance of immunopeptidomics and degradomics, and emphasized new insights into mechanisms of hematopoietic stem cell development and organ failure gained by proteomics.



New Canadian Funding Highlights

Genome Canada announces 2010 competition for Science and Technology Innovation Centre

Award Presentation: John Bergeron

CNPN Award for Outstanding Contribution and leadership to the Canadian proteomic Community

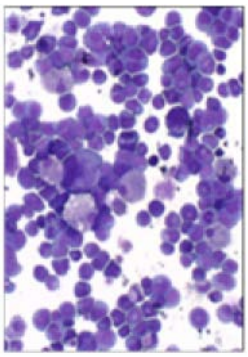
Dr. J.J.M. Bergeron is a leader in the development and dissemination of proteomic techniques and is considered one of Canada's leading cell biologists.

He is a Fellow of the Royal Society of Canada, recipient of the McLaughlin Gold Medal from this Society for important research of sustained excellence in any branch of medical sciences.

He was the Chair of the Scientific and Organizing Committees of past HUPO World Congresses, a member of its council and past Co-Chair of its International Liver proteome Project, Chair of the Mouse Models of Human Disease efforts in proteomics and President of Human Proteome Organization from 2003-2006.

Stem Cells: Pierre Thibault, Université de Montréal

This session featured distinguished speakers and world leaders in stem cell biology to discuss key paradigms in cell expansion, self-renewal and cell therapy. A particular emphasis was be placed on hematopoietic stem cells. Invited speakers include Dr. Sauvageau (U. de Montréal) who highlighted the significance of phosphoproteomics analyses of leukemia stems cells in identifying regulators of stem cell self-renewal and Brian Raught (U. Toronto) who presented novel mass spectrometry tools to study protein SUMOylation and its impact in leukemia research. This session also presented studies from Dr. Janetta Bijl (HMR research Center), Dr. Annie Bourdeau (Sunnybrooke research Institute), Dr. Manuel Buscarlet (U. de Montréal) and Dr. Cyrus Khandanpour (IRCM) who described different facets of proteomics and its importance in the expanding field of stem cell research.

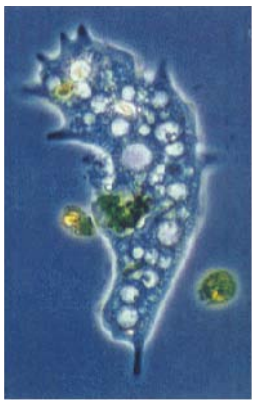


Personalized Medicine:Tommy Nilsson, McGill University

Cancer is often discovered only after symptoms drive a patient to a physicians office. Solid tumor diagnosis relies on physical and pathological evaluation of biopsied tissue. Such techniques tell little of the underlying molecular pathways of the disease state.

Comprehensive understanding of an individual's health and disease state will soon be a cornerstone of more effective treatment as well as patient response. Many efficacious drugs are off the market due to the response of a small minority of patients.

Four presentations discussed the personalized medicine concept from the perspective of bioinformatics, antigen presentation following infection, glycoprotein presentation in plasma for cancer diagnosis and SRM strategies for the determination of truncated parathyroid hormone assays.



Student Travel Awards

Genome Canada and Genome BC offer travel assistance for students to travel to important conferences.

Genome Canada generously funded travel awards in the amount of $250 to 20 students to attend the CNPN 2010 symposium. http://www.cnpn.ca/events/events/award.html

Through a generous contribution from Genome BC, the BC Proteomics Network has been able to offer student travel awards of $1000 to 7 students to attend the CNPN 2010 symposium. http://bcpn.ca/

We would like to thank our sponsors

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New board Member as of June 4
Dr. Peter Lewis, AVPR, University of Toronto