

Applied Genomics in Energy – A Workshop for Collaboration

June 23, 2015 8:30am-2:00pm
Hotel Arts 119, 12 Ave SW, Calgary, T2R 0G8

Description

Genome Canada is launching a national research funding initiative called ‘2015 Large Scale Applied Research Program: *Natural Resources and the Environment: Sector Challenges – Genomic Solutions*’ (2015 LSARP). 2015 LSARP aims to support applied genomics research that address challenges and opportunities in Canada’s natural resources including interactions between natural resources and the environment, thereby contributing to the Canadian bio-economy and the wellbeing of Canadians.

The workshop, organized by Genome Alberta, Genome BC and the Petroleum Technology Alliance of Canada (PTAC), will bring together key end users and partners for potential research projects; inform them about opportunities for collaboration; and solicit interest in the 2015 LSARP initiative.

Objectives

- Introduce stakeholders to Genome Canada’s ‘2015 Large Scale Applied Research Program: *Natural Resources and the Environment: Sector Challenges – Genomic Solutions*’ (2015 LSARP)
- Showcase previous successes in industry-academic partnership
- Describe the user-engagement process in new partnerships
- Verify existing and identify new industry research priorities
- Solicit support and eventual commitment from users to develop projects for 2015 LSARP

Contributors

Genome Canada is a not-for-profit organization that acts as a catalyst for developing and applying genomics and genomic-based technologies to create economic and social benefits for Canadians. Genome Canada connects ideas and people across public and private sectors to find new uses for genomics; invest in large-scale science and technology to fuel innovation; and translate discoveries into applications, new technologies, societal impacts and solutions across key sectors of national importance including health, agriculture, forestry, fisheries & aquaculture, energy, mining, and the environment. To ensure effective management and monitoring of Genome Canada funded projects, centres have been established in each region across Canada including Genome Alberta, Genome Atlantic, Genome British Columbia, Genome Prairie, Genome Quebec and the Ontario Genomics Institute. The Centres facilitate access to leading edge technology for researchers, allow for different approaches to project development and fundraising, and provide opportunities for public outreach programs at a regional level. Please view www.genomecanada.ca for more information.

Petroleum Technology Alliance of Canada’s (PTAC) mission is to facilitate innovation, collaborative research and technology development, demonstrations and deployment for a responsible Canadian hydrocarbon energy industry. Please view www.ptac.org for more information.



GenomeCanada



PTAC

Agenda

8:30- 8:45	Opening Remarks Welcome and introduction of Speakers	Gijs van Rooijen Chief Scientific Officer Genome Alberta
8:45-9:15	Introduction Introduction of stakeholders to Genome Canada's 2015 LSARP	Cindy Bell, Executive Vice President, Genome Canada
9:15-10:00	Keynote Presentation Collaboration and innovation in the oil sands: past, present, and future	Dan Wicklum. Chief Executive Officer, COSIA
10:00-10:30	Coffee & Networking	
10:30-11:00	Research Priorities Recap priorities set in the Energy and Mining Sector Strategy, genomics success stories	Andrew Stephens, Genome Alberta Board Chair, Former Energy Executive
11:00-11:30	2 Minute Introductory Statements	Poster Leaders
11:30-12:15	Poster Review Post-it® note exercise to indicate interest in each area	All
12:15-1:00	Lunch	
1:00-1:45	Soliciting Support and Developing Project Ideas Open discussion of emerging proposals around a poster for each research topic	Tom Jack
1:45-2:00	Summary Identify next steps towards the development of industry-academic partnerships	All

Contact Information

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Cindy L. Bell, Ph.D.

Executive Vice-President, Corporate Development
Genome Canada

Bio



Cindy Bell joined Genome Canada in August 2000. From 2000-2008 she held the position of Vice-President, Genomics Programs in which she was responsible for providing policy and strategic advice on scientific and other aspects of Genome Canada's programs. This included overseeing and managing the peer review process used to establish the research program of Genome Canada. In her role as Executive Vice-

President, Corporate Development she provides leadership in the development and implementation of strategic initiatives, partnerships and approaches to enhance Genome Canada's business model and secure funding to support genomics research in Canada.

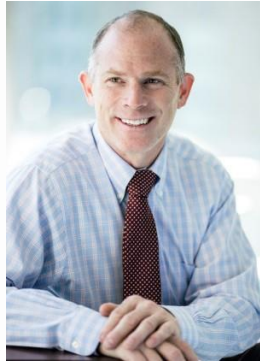
Prior to joining Genome Canada, Dr. Bell was a Deputy Director in Programs Branch at the Canadian Institutes of Health Research from 1994 to 2000. At CIHR she managed a number of research programs and was involved in policy development and implementation.

From 1986 to 1994, Dr. Bell was a researcher at the University of California, Riverside. Her research focused on investigating the basic defect in the genetic disease, Cystic Fibrosis. She obtained her Ph.D. in Genetics from McGill University in 1986.

Dan Wicklum, Ph.D.

Chief Executive
Canada's Oil Sands Innovation Alliance

Bio



Dan Wicklum is the Chief Executive of COSIA (Canada's Oil Sands Innovation Alliance), a position he took in March, 2012. COSIA was set up by industry to enable responsible and sustainable growth of Canada's oil sands while delivering accelerated improvement in environmental performance through collaborative action and innovation. To date, COSIA's member companies have shared 777 technologies worth over \$950 million. Its member companies are now actively working on 225 joint industry projects worth \$450 million across COSIA's four Environmental Priority Areas – land, water, tailings and greenhouses gasses. Dan serves on the Board of the Climate Change and Emissions Management Corporation (CCEMC).

Prior to joining COSIA, Dan occupied various senior positions for Environment Canada and Natural Resources Canada, including Director General of Wildlife and Landscape Science, Director General of Water Science and Technology, and Director of Strategic Alliances. He was a Senior Policy Advisor to the Canadian Federal Minister of Natural Resources and the Government House Leader, and he launched and was the Executive Director of The Canadian Forest Innovation Council.

Dan has a Ph.D. in Aquatic Ecology (University of Montana, 1998) and was also a Research Assistant Professor at the University of Montana.

Dan was also a linebacker for the 1988 Grey Cup Champions, the Winnipeg Blue Bombers.

Abstract

Collaboration and innovation in the oil sands: past, present and future

- Background on COSIA, primary motivation for its establishment
- Importance of “open innovation” to improve environmental performance of the industry while recognizing the competitive nature of the industry
- Opportunities for academia and industry to work together to advance the economic and environmental goals of the oil/gas industry
- Examples of biological based COSIA/Member company based initiatives that have been launched under the COSIA umbrella
- Outlook for the future

Andrew Stephens

Chair of the Board
Genome Alberta

Bio



Andrew Stephens retired from Suncor as Senior Vice-President, Business Services early in 2012. In that Executive Leadership Team role, he led Suncor's information, supply chain and field logistics services. As a member of the Executive Leadership Team, Mr. Stephens also contributed to the strategic leadership of the Company.

Mr. Stephens began his career in 1977 as a Process Engineer with Gulf Oil Canada at the Port Moody refinery. After joining Petro-Canada (now Suncor) as a Project Engineer in 1979, Mr. Stephens held senior leadership roles in the Upstream, Downstream and Shared Services areas. He served as an Officer of the Corporation beginning in 1993.

Mr. Stephens holds a Bachelor of Applied Science degree in Chemical Engineering from the University of Waterloo. He is a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

Mr. Stephens has served on the Board and as President of the Youth Science Canada, and is a past Chair of the Energy Council of Canada. He currently serves as Chair of the Board for two not-for-profit organizations: Beverage Container Management Board; and Genome Alberta.

Abstract

The Genomic Enterprise engaged in an extensive consultation process with industry stakeholders to identify the challenges and opportunities in the energy sector and how genomics can provide the solutions. This resulted in the development of Genome Canada's sector strategy: Advancing Canada's Energy and Mining Sector through State-of-the-Art Genomics Applications.

This collaborative initiative will guide genomics research and innovation investments, identify and leverage existing sector strengths, and foster integration of genomics into existing and future energy operations as well as impact regulations for environmental and industrial performance and provide societal benefits. Genomics can move the energy sector beyond the limitations of traditional physical and chemical solutions to optimize processes, address environmental issues, meet regulatory requirements, mitigate risk, and support responsible and sustainable business practices.

Canada's plentiful natural resources, skillsets and networks provides the backdrop for implementing a robust genomics strategy to lead the world in achieving a more sustainable future.

Thomas R. Jack, Ph.D. FCIC

University of Calgary

Bio



Tom Jack received his Ph.D. in Inorganic Chemistry and Organometallic Chemistry from the University of Toronto in 1975. He then proceeded to do his post-doctoral fellowship in Bioengineering at the University of Western Ontario. After spending four years as a Professor of Chemistry with the University of Toronto, he joined BC Research as a Petroleum Microbiologist in 1980.

Tom joined the NOVA Research & Technology Centre as its first scientist in 1981 and stayed for twenty-five years leading research and technology programs in Enhanced Oil Recovery, Corrosion and Environmental Stewardship for companies in the NOVA group including Husky Oil, NOVA Gas Transmission, Foothills Pipelines, TransCanada Pipelines and NOVA Chemicals. During this time he was elected a Fellow of the Chemical Institute of Canada and received an Alberta Premier's Award of Excellence and the NOVA Chemicals President's Responsible Care Award for work on the impact of ethylene on crops and authored or co-authored more than 200 proprietary reports, invented 7 patents and had more than 100 publications in the scientific and technical literature.

He retired in 2005 and subsequently has been associated with the University of Calgary as an Adjunct Professor, Research Associate and Sessional Lecturer.

His recent academic activities include lecturing the "Corrosion Science for the Pipeline Industry" Graduate course at the University of Calgary, participating as an External Examiner for Ph.D. in Chemical and Materials Engineering at the University of Alberta, reviewing scientific journals such as Corrosion and research proposals for various agencies, as well as accumulating nine publications and presentations in the scientific and technical literature in 2014/2015.

Tom's recent professional activities include being a member of the Organizing Committee for Banff Pipeline Workshop as well as receiving the Technical Achievement Award from the National Association of Corrosion Engineers in 2013. Tom has also been an active member/facilitator for many industry workshops such as the Energy and Mining Strategy Workshop, Workshop on Microbially Influenced Corrosion, Workshop on the Future of Genomics Research in the Hydrocarbon Sector, and the National Workshop to develop an NSERC Research Network Proposal for Pipeline Integrity.