

May 21st, 2009
Calgary, Alberta / Atlanta Georgia
For Immediate Release

Genomics for a Greener World

With the Alberta Government's May 20th announcement of its contribution towards 2 new genomics projects, Genome Alberta has completed the a public-private funding package and is pleased to announce these new and very special projects that will play a leading role in genomic research.

Helping Energy Extraction Become a Little Bit Greener:

Deep inside the world's hydrocarbon deposits are naturally occurring microbes that have been hard at work for untold years. These microbes have the potential to make it easier and more efficient to pull oil out of conventional wells, remove the bitumen from the oil sands, and clean up tailings ponds. A team led by Dr. Gerrit Voordouw of the University of Calgary now has a total of 11.6 million dollars to work on the project which will sample and explore the biological processes at work in oil wells, oils sands, tailings ponds, and coal beds. At the core of this project is the analysis of the sequencing data with the goal of understanding and exploiting the biological processes at work in hydrocarbon reserves. The project hopes to decrease water use, lower the emission of greenhouse gases, and enhance the extraction of clean burning natural gas from coal beds.

Green and Natural Plant Factories:

"Plants are the world's best chemists. They can synthesize an immense diversity of molecules. We're going to identify the genes from more than 75 plants that make those plants produce valuable compounds." says Dr. Peter Facchini of the University of Calgary. He along with Project Co-leader Dr. Vince Martin from Concordia University has assembled a team of plant biochemists, metabolic modelers, bioinformaticians, and synthetic biologists to harness the potential of plants with high medicinal and industrial value. The initiative will discover plant genes that can be sequenced and used in yeast to produce industrial-scale volumes of biologically derived chemicals including pharmaceuticals, food products, and insecticides. Dubbed PhytoMetaSyn, the project is worth 13.6 million dollars and will use state-of-the-art metabolomic, genomic, and bioinformatic technologies over the next 4 years to develop the science and commercial potential of synthetic plant biology.

A Funding Leader:

Genome Alberta is excited to have put together 2 such outstanding projects which cross over disciplines and borders. With partners, participants, and supporters from across Canada and into the United States these projects will enhance Genome Alberta's role as an organization which can initiate, fund, and manage large scale genomics projects. Doctors Facchini, Martin, and Voordouw are leaders in their respective fields and Genome Alberta is looking forward to working with them over the next few years.

Further Information and Interviews:

To arrange an interview in person or by phone with any of the project leaders, or with Dr. Gijs van Rooijen the Chief Scientific Officer with Genome Alberta, please contact:

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BACKGROUND INFORMATION:

- Genome Alberta made the announcement from the world's largest biotechnology convention, BIO2009, being held in Atlanta, Georgia.
- Genome Alberta is a not-for-profit organization based in Calgary which initiates, funds, and manages large-scale projects in genomics and other related 'omic' areas.
- Genome Alberta is one of 6 similar Genome Centres across Canada funded in part by Industry Canada through Genome Canada.
- These 2 projects are worth a total of 25.2 million dollars over approximately 4 years.
- Genome Alberta was officially launched in 2006 and since then has invested approximately 17 million dollars in salaries and benefits and 7 million dollars in consumables and equipment.
- A more complete description of the projects can be found at
 - <http://genomealberta.ca/research/projects/environment/PhytoMetaSyn.aspx>
 - http://genomealberta.ca/research/new_initiatives/oil_sands/
- Major funding for the projects has come from Industry Canada through Genome Canada and the Government of Alberta through Alberta Advanced Education and Technology.
- These projects were reviewed by an International Science Panel and Genome Alberta's future role will include monitoring the project finances, milestones and reviewing the science.
- The official titles for the projects are:
 - *Metagenomics for Greener Production and Extraction of Hydrocarbon Energy*
 - *Synthetic Biosystems for the Production of High-Value Plant Metabolites*
- Genome Alberta also runs the popular 'Genomics' application on Facebook, maintains a blog, and can be found on Twitter as @mikesgene