

## CIC/SCI Canada Awards Honour Contributions in Chemical Industry

**December 18, 2013** - SCI Canada, the business forum of the Chemical Institute of Canada will host its annual awards dinner in Toronto on April 3, 2014. The event is in recognition of those who have made outstanding contributions to the chemical industry. Join us at this influential event to celebrate the achievements of your colleagues.

The UK-based Society for Chemical Industry (SCI) and the Chemical Institute of Canada (CIC) signed an agreement in October 2012 in which the SCI Canada Section merged with the CIC Economics and Business Management (EBM) Division. The merged association is now SCI Canada, the business forum of the CIC. “The strategic merger has enabled CIC to strengthen its growing relationships with industry leaders and has ultimately raised the profile of the CIC/SCI Awards Dinner,” David Fung, Chair CIC.

The new forum expands on SCI’s “where science meets business” mandate, by enhancing connections between industry and chemical science and engineering professionals. The forum is also an opportunity for SCI Canada to connect with CIC members from across the country, and to build on the traditional awards program run by SCI Canada.

SCI Canada rewards excellence in the field of chemistry and the chemical industry by presenting awards to industry and academic leaders for outstanding achievements they have made in business development. “Once again our awards will recognize top achievers and leaders in their chemical sectors. The awards dinner is a prestigious event where we honour these individuals.” David Beckman, Chair, SCI Canada. In addition, SCI Canada recognizes the highest performing graduating undergraduate students each year in biochemistry, chemical engineering and chemistry from universities across Canada.

The 2014 awards will be given to Richard Paton, Chemistry Industry Association of Canada, winner of the Canada Medal; Jean-François Huc, BioAmber, winner of the International Award; Robert Graham, Ensyn Corporation, winner of the Purvis Memorial Award; Grant Allen, University of Toronto, winner of the LeSueur Memorial Award; Franco Berruti, Western University, winner of the Kalev Pugi Award; and Gregory Penner, NeoVentures Biotechnology Inc., winner of the Julia Levy Award. Further information on the award winners can be found attached.

The awards reception and dinner will be preceded by the fourth annual afternoon Clean, Green and Sustainable Chemistry Seminar series, featuring leaders from industry. Reflecting the SCI motto of “where science meets business,” seminar speakers will focus on successes in the chemical industry. Introduced in 2011, the afternoon seminar will continue to provide a stimulating panel discussion along with valuable networking opportunities.

Registration and additional information can be found at [www.cheminst.ca/sci\\_awards](http://www.cheminst.ca/sci_awards).

**WHEN:** Thursday, April 3, 2014 - Seminar - 13:00, Reception - 18:00, Dinner - 19:00,  
**WHERE:** Hyatt Regency Hotel, 370 King St. W., Toronto, Ont.

**For more information contact:**

Michelle Payne  
Chemical Institute of Canada  
(613)232-6252, ext. 235  
[mpayne@cheminst.ca](mailto:mpayne@cheminst.ca)

## 2014 CIC/SCI Award Winners

### CANADA MEDAL

*This award is presented for outstanding service to a Canadian industry that is based on chemistry for its processes and/or services.*

#### **Richard Paton**

Richard Paton, awarded the 2014 Canada Medal, is the President and CEO of the Chemistry Industry Association of Canada (CIAC). CIAC provides strong leadership and plays a critical role in informing the economic, environmental, safety and societal approach undertaken by participants in chemical production and the industrial chemical marketplace.

Paton has provided strategic leadership for the last 17 years and is, in good measure, responsible for the success of and respect for the CIAC. An example of which, is that Canada, once again, led the world in raising the commitment level of Canadian Responsible Care® by redesigning the program and incorporating sustainability initiatives into its basic structure in 2010.

The CIAC 2012, three-year strategic plan (a process created by Paton) acknowledged that the conversion of biomass into industrial chemicals will become increasingly significant given Canada's position in the diverse biomass feedstock and traditional petrochemical clusters.

Under Paton's guidance, an outreach program of increased visibility within decision making circles is being implemented on an ongoing basis and has resulted in a continued growth in respect, from both politicians and civil servants, as well as, an improved understanding of chemical industry issues.

### INTERNATIONAL AWARD

*This award is given to acknowledge outstanding service to an industry that is based on chemistry for its processes and/or services, in the international sphere.*

#### **Jean-François (J-F) Huc**

Jean-François (J-F) Huc, President and CEO of BioAmber, the 2014 winner of SCI Canada's International Award, is widely recognised as one of Canada's most innovative business leaders. He successfully leveraged international technology, business, and financial partnerships to revolutionize the way everyday products are made using chemistry inspired by nature.

Huc is a Canadian who acquired a US-developed technology for converting glucose to bio-based succinic acid using industrial biotechnology. He scaled up the process in France; commercialized it in Canada and funded it with the help of Wall Street investors, a Japanese corporate partner, and support from Canadian federal and provincial funding organizations. He recruited a corporate team from around the world; established international R&D and product development partnerships and found a global market for his products.

Huc is a great example of a Canadian entrepreneur who took a start-up company to international commercial success using a global, open innovation approach to commercialisation.

## **PURVIS MEMORIAL AWARD**

*This award is given for a major contribution to development and implementation of strategies, which have resulted in the strengthening of Canadian industry or academic or research institutions in the field of chemistry.*

### **Robert Graham**

Robert Graham, winner of the 2014 Purvis Memorial Award, is the founder, Chairman and CEO of Ensyn Corporation (Ensyn), a privately-held producer of renewable fuels and chemicals from cellulosic, non-food biomass. Ensyn applies a patented technology to convert cellulosic biomass to a liquid petroleum-replacement that can be used for heating, transportation fuel or power generation.

Graham conceived and developed Ensyn's core technology, Rapid Thermal Processing™, or RTP™, while earning a Ph.D. at the University of Western Ontario in the early 1980s. The essence of this early work was to demonstrate that very fast thermal conversion of carbon-based feedstocks, with inert heat carriers, could produce high yields of higher value products and lower production costs.

Graham has led Ensyn since its initial incorporation in 1984 and has successfully commercialised his technology in three different industries – renewable liquid fuels, petroleum upgrading and food. Ensyn is currently in the process of building a significant renewable liquid fuels business in North America and internationally. As part of this mission, in late 2012, Graham established a joint venture with Fibria Celulose from Brazil, the world's largest market pulp producer.

Ensyn has a strong financial record, having returned more than 200% of funds raised to investors, an equally strong intellectual property position and major global potential.

## **LESUEUR MEMORIAL AWARD**

*This award is given for developing technical excellence, in either a university/research institute or industrial setting in Canada.*

### **D. Grant Allen**

D. Grant Allen, winner of the 2014 LeSueur Memorial Award, is a Professor and Chair of the Department of Chemical Engineering and Applied Chemistry at the University of Toronto.

Allen's area of research is environmental bioprocess engineering, with particular application to the treatment of aqueous and gaseous emissions and in adding value to wastes by utilizing them for the production of energy, materials and chemicals. He received considerable support and collaborated with the Pulp and Paper industry and led several environmental research consortia involving both faculty and students from a range of disciplines and industrial partners from Canada and abroad (e.g. USA, Brazil, Japan, Sweden, Finland and New Zealand).

Allen's applied research in the areas of waste treatment technologies has seen significant shifts in sector process approaches, such as minimization of organochlorine contaminants, use of biofiltration for air emissions, and the emergence of anaerobic digestion as a viable, large-scale solution to pulp and paper effluent treatment. Most recently, he has focused on using bioprocessing to produce value-added materials and energy from waste, including the development of algae biofilm bioreactors to generate biofuel from carbon dioxide and wastewater, and extracting adhesives and surfactants from waste biosludge.

## **KALEV PUGI AWARD**

*The award is presented to an individual or a team for specific R&D projects, performed during the previous 10-15 years, that embody the qualities of creativity and determination, good experimental design and project management, and which have had a significant beneficial impact on the sponsoring company or on society.*

### **Franco Berruti**

Franco Berruti, professor in the department of Chemical and Biochemical Engineering at London's Western University, is being honoured with the Kalev Pugi Award in April 2014. In 2008, Berruti, citing his personal focus on sustainability issues, stepped down as Dean of Engineering to create, with his colleague Dr. Briens, the Institute for Chemicals and Fuels from Alternative Resources (ICFAR) at Western, of which he is the founding Director.

ICFAR's Research & Development is in the production of renewable fuels and chemicals, heavy oil conversion and sustainable technologies. The Institute works closely with many industry partners and government agencies, nationally and internationally, with the objective of bringing technologies to market. Franco leads the Canadian Integrated Pyrolysis Platform of the BioFuelNet Network of Centres of Excellence, which focuses on the conversion of residues into biofuels and bioproducts. Special partnerships include Ontario's Bioindustrial Innovation Centre, FPInnovations, Agriculture and Agri-Food Canada, and Natural Resources Canada.

Earlier in his career, Berruti was instrumental in creating a spin-off company, Agri-Therm Inc., to commercialise the energy-efficient, mobile pyrolysis equipment used to process biomass into bio-products that he and Briens developed.

## **JULIA LEVY AWARD**

*This award recognizes successful commercialization of innovation in Canada, in the field of bio-medical science and engineering, with a particular focus on the synergistic relationship between university and business.*

### **Gregory Penner**

Gregory Penner won the 2014 Julia Levy Award, for successfully commercialising his research on aptamers by selling the world's first commercial, aptamer based, mycotoxin diagnostic test kit. Aptamers are oligonucleic acid or peptide molecules that bind to a specific target molecule.

Penner and his colleague, Ximena Vedoya, developed aptamers to identify the various proteins in wheat flour, both quantitatively and qualitatively. Wheat flour has huge variability, dependant on varieties and growing conditions, taste and how it performs in bread making. There have been sales to Grupo Bimbo in Mexico, the world's largest bakery, Canada Bread, Health Canada, and testing laboratories in the U.S., U.K. and China. As part of the commercialisation process, the NeoVentures team trained all research staff at Grupo Bimbo.

There are many potential applications for aptamers, several of which are covered by current projects with international partners. These include higher sensitivity in cancer detection, greater sensitivity of detection of small molecules in food and heavy metals in ground water and rapid detection of antibiotic resistant bacteria. These and other projects promise fresh business opportunities for further commercialisation. NeoVentures can now claim to be an emerging leader of this broad aptamer technology.