

Innovatis

Ernest C. Manning Awards Foundation



2012 Gala tickets and table sponsorships now available

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Wednesday
October 17, 2012
Ottawa Convention Centre
6:00pm

31st Annual National
Innovation Awards Gala

Ernest C. Manning Awards Foundation

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Foundation Trustee Lisa Samson, managing partner of StrategyCorp's Ottawa office, will once again chair the Ottawa gala steering committee. Lisa is well-known in Ottawa and Calgary circles as a strategic consultant, communications expert and project manager. Lisa and her committee are now reaching out to organizations selling gala and table sponsorships. "The 2010 gala was the first year the Foundation sold tickets. Lisa and her team did an outstanding job and helped sellout the gala. We are indebted to her and her committee for their continued support," said John Read, Foundation chairman. "We are looking forward to being back in our Nation's Capital Ottawa again this year to introduce the 2012 Manning Award winners," he said. *(see page 4)*

2012 Gala tickets and table sponsorships now available

For tickets and info, contact info@manningawards.ca or call 403-930-IDEA (4332).

Senator Pamela Wallin gala dinner chair

For the fourth consecutive year, Senator Pamela Wallin, O.C., S.O.M. will act as Honorary Dinner Chair of the Ernest C. Manning Awards Foundation Annual National Innovation Awards Gala. Senator Wallin has been an important champion of innovation in Canada and the Foundation.

Thank you Frank



Calgary neurosurgeon Dr. Frank LeBlanc, former Chair of the Ernest C. Manning Awards

Foundation's selection committee from 1991 to 2012, has been appointed a Trustee of the Foundation.

Dr. LeBlanc first became involved with the Ernest C. Manning Awards Foundation in 1987 when well-known Calgary business leader, the late Harley Hotchkiss, then

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And here they are... introducing 8 inspiring young Canadians

The Ernest C. Manning Awards Foundation is proud to present the eight 2012 winners of the Foundation's Young Canadian Awards.

by Dick Wilson (Trustee)

The Manning Awards Foundation began its 20 year relationship with the Canada-Wide Science Fair when The Foundation's founder, the late David E. Mitchell, O.C. realized the national awards program was incomplete without adding a youth component. After students were informally polled as to what would be meaningful, the two-tiered cash awards were implemented, along with the opportunity for the young winners to network through attendance at the annual Awards Gala held in a major city each year.

Students also benefit through a heightened awareness among the growing number of prior Manning laureates and the Manning pan-Canadian 'family' of sponsors, academics, and national selection committee members, all of whom share a passion for innovation and recognize the value of encouraging bright minds.

The 2012 winners, just like the prior 19 years, are a compilation of scientific and engineering achievement in various aspects of Health, Energy, Environment, and Resource Development as well as basic Discovery and Innovative approaches.

President Dave Mitchell, Trustee Dick Wilson and Selection Committee Chair Dr. Robert Fournier attended the 2012 Canada Wide Science Fair and acted as judges of more than 80 submissions by the students.

"These young Canadians have known success, and will stimulate others to become curious, to develop passion, to question what is and to imagine what can be. It is innovation that we encourage and applaud...at all age levels," says Foundation President David B. Mitchell.

Manning Young Canadian Innovation Award winners received \$4,500 each and invitations to attend the 31st annual national innovation Awards gala in Ottawa this October as guests of the Foundation.

Be sure to read the story about each student's project at www.manningawards.ca



Eric LeGresley, 15, from Chilliwack, BC developed an algorithm that provides accurate, cost-efficient pre-screening of proposed antivirals,

thereby significantly reducing the 'speculative advance phase' that leads to the mandatory testing trials and eventual approvals process. This is critical when attempting to deliver an antiviral to prevent a pandemic like H1N1. "The most pressing scientific issue of the day is the threat of a flu pandemic due to the H5N1 virus as it is resistant to all currently available antivirals. I first became interested in antivirals following the 2009 H1N1 pandemic flu, says the grade 11 student. "This kind of research is exciting because you can see its significance for the real world," he says. Eric is part of a research group at Simon Fraser University.



Kelcie Miller-Anderson, 17, from Calgary, AB treated waste samples from the toxic tailings ponds of Canada's massive oilsands production with

a residual fungus from the production of Oyster mushrooms. The vegetative part of the fungus would release enzymes that enable the breakdown of hydrocarbons and transformed into fungal sugars. Her research showed a substantial reduction of petroleum hydrocarbons, naphthenic acids and pH levels and an enhanced sodium absorption ratio of both

the tailings and the tailings pond water – all major challenges to successful remediation.

Kelcie spent last summer volunteering in Spain in an English immersion program with youth from around the world. Next year, she plans on studying environmental sciences majoring in land reclamation.



Adelina Cozma, 17, from Richmond Hill, ON has a growing passion for neuroscience research. Her project investi-

gated the brain's spatio-temporal learning dynamics, using magnetoencephalography and magnetic resonance imaging, and correlated the findings with results from augmentative training, which had been accomplished through her three innovatively developed software programs. The insights of Adelina's work have the potential to further improve language abilities and provide progressive feedback that can track the learning process. This system may also be a key in assisting persons recuperating from stroke and brain injury or with disabilities like autism, dyslexia and Alzheimer's disease.

Adelina is a student researcher in the Department of Neurology at Toronto's world-famous Hospital for Sick Children. She is involved in French tutoring, enjoys playing tennis, reading and the Science Olympics.



Carlos Xu, 16, from Vancouver, BC used his mathematical models of the gravitomagnetic current, and field, inside a neutron star and

challenged previous research that suggested gravitomagnetic fields (gravity that behaves like magnets) from companion stars will be repelled. It turns out that the field generates

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And here they are... introducing 8 inspiring young Canadians

a current that induces another field in the same direction as the previous one such that the net effect is magnified attraction, not repulsion. The Grade 11 student at Vancouver's St. George's School, who is a first-time Science Fair participant, says he expresses his artistic ideas by playing the violin. "I secretly dream of owning a Stradivarius," he says.

Winners of Manning Innovation Achievement Awards

Recipients of Manning Innovation Achievement Awards each received \$500.00. Be sure to read the descriptions of their awards at www.manningawards.ca



Jocelyn Tanton, from Fernie, BC earned kudos for developing a customized bowling ball ramp attached to a specialized wheelchair for

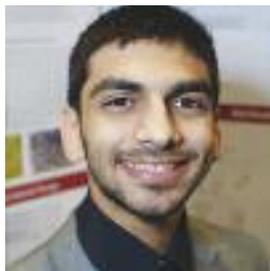
a friend born with Arthrogyriposis, a debilitating condition that results in fixation of the joints and severely limits body movement. The grade 11 student who attends The Fernie Academy, loves travelling, skiing, hiking, music, singing, playing piano, and volunteering. Math is her favorite subject "I would love to have a future career that involves math and helping people in developing countries who are less fortunate than myself," she says.



Zeyu Liu, 16, of Calgary, designed a simple, low-cost electromagnetic bearing system that delivers the efficiencies and benefits of

industrial electromagnetic bearing to consumer applications by replacing inefficient conventional bearings. "My involvement in the RIM/ShadEntrepreneurship Cup made me

recognize that combining our technical skills and creativity can impact society. Along the same lines, my projects focus on engineering and technology that can benefit man-kind in practical ways," says the Sir Winston Churchill High School student.



Usman Kamran, 17, of Fort McMurray, AB investigated the potential for conversion of sound (acoustic pressure waves) into a useable form of

energy. The grade 12 student from Westwood Community High School has a keen interest in photovoltaic cells and their renewable energy potential. He is president of the school's Robotics Club and, in his spare time, learned Arduino-based programming. "This project was inspired by a desire to find a creative means to transform acoustic pressure waves into usable form. If further developed, this new technique could mark a paradigm shift in extracting acoustic-based energy," he says. Aside from science, Usman enjoys reading, volunteering and playing basketball.



The team of **Diana Bark and Neesha Persad**, grade 11 students from Edmonton, AB researched the merits of the reintroduction of PTEN, a

tumour suppressor, to reduce the migratory and invasive potential of metastatic melanoma cells.

Diana who is from Korea says her two loves are biology and French. "I first was introduced to the world of research through the Heritage Youth Researcher Summer program, and have also participated in the Gene Researcher for a Week program," she says. Diana plans to pursue an MD/PhD. Neesha, a competitive swimmer who enjoys playing the piano has done research with Persad laboratory, "performing very fascinating experiments," she says.

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Thank you Frank

Chairman of the Awards Selection Committee, invited him to join the committee.

Dr. LeBlanc became Chairman of the Selection Committee in 1991. He built a distinguished panel of jurors from across Canada to carefully review the nominations each year and to select the four Manning Awards recipients. In 2010, Dr. LeBlanc decided it was time to turn over the leadership of the Selection Committee but continued to serve on it.

Now Dr. LeBlanc will take on a new role as a Foundation Trustee. "We are indebted to Frank for his enormous generosity and personal commitment to Canadian innovators and the Ernest C. Manning Awards Foundation," said Chairman John Read. "We are proud to announce Frank will continue to provide his valuable leadership, support and advice as a Trustee of the Foundation effective June 1, 2012," he said.

A tribute dinner was held for Frank at the conclusion of the 2012 Selection Committee meetings to thank him for his long service and to welcome him to the Board. "I first became interested in innovation when I became a neurosurgeon in 1967," says Dr. LeBlanc, "I watched the world of surgery change because of innovations whether they were new mechanical devices we could implant or new neurodiagnostic devices. It has been my avocation to champion Canadian innovators and I look forward to continued involvement with the Foundation as a Trustee," he said.

Dr. LeBlanc's distinguished career includes serving as Chief of Neurosurgery at the Foothills Medical Centre; serving as Associate Dean of Clinical Affairs for University of Calgary's Faculty of Medicine; several foreign assignments including acting as Inaugural Chairman, Department of Neurosciences, King Faisal Specialist Hospital & Research Center, Riyadh, Kingdom of Saudi Arabia.



Foundation News

Chapter Nomination Events

This year's 2012 Manning Award nominees have been receiving lots of attention across Canada thanks to Manning Award Chapter Chairs **Murray Goldberg**, BC, **Robin Winsor**, Southern Alberta, **Harry Schulz**, Manitoba, **Gary Svoboda**, Waterloo, **Don Duval**, Toronto, **Pierre Boursassa**, Quebec and **Wayd McNally**, Atlantic Canada. Chapter recognition events included acknowledging BC nominees in the BC's Legislature thanks to Deputy Speaker Linda Reid, MLA, Richmond East and Chapters hosting large gatherings where nominees spoke about their innovations. Nominees were introduced and recognized at a sold-out gathering of business leaders in Winnipeg, and a large conference of innovators and entrepreneurs in Quebec.

Congratulations Toronto Chapter Chair Don Duval

Toronto Chapter Chair Don Duval, takes over as CEO of The Northern Centre for Advanced Technology Inc. (NORCAT) July 9th. Don was formerly with MaRS Discovery District in Toronto. (www.norcat.org)

A Special Thanks to Our 2012 Gala Steering Committee

A shout out of thanks to the distinguished members of the Ottawa gala steering committee: **Suzanne Corbeil**, Executive Director, U15 – Group of Research Universities; **Blair Dickerson** VP, External Relations and Communications, Natural Science and Engineering Research Council of Canada; **Paula Dunlop**, Director, Public Affairs and Strategy, Canadian Gas Association, **Steven Hogue**, Associate Director, Federal Relations, Pfizer Canada; **Francesca Iacurto**, Director, Government Relations, Business Development Bank of Canada; **Jay Ingram**, Science Communicator; **Paul Ledwell**, Executive VP, Public Policy Forum, **Pierre Normand**, Vice-President, External Relations and Communications, Canada Foundation for Innovation, **John Reid**, President and Chief Executive Officer, CATA Alliance, **Lisa Samson** (Committee Chair), Principal, StrategyCorp; and, **Alana Porter**, StrategyCorp.



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The Foundation thanks its Regional Chapter Chairs

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The Foundation thanks its Selection Committee

Committee chair: Dr. Robert O. Fournier, Professor of Oceanography, Dalhousie University • Committee members: Michel David, P.Eng., Consultant, Hudson, PQ • Dr. Morley Hollenberg, Professor, Faculty of Medicine, University of Calgary • Jessie Inman MBA Chief Executive Officer, Confederation Centre of the Arts in Charlottetown, PEI., • Dr. Philippe Kruchten, P.Eng., Professor, Dept. of Electrical and Computer Engineering, University of British Columbia • Dr. Janet Ronsky, P.Eng., director of the Centre for Bioengineering Research and Education, Schulich School of Engineering and Canada Research Chair in Biomedical Engineering, University of Calgary.



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