



**2014 ERNEST C. MANNING INNOVATION AWARD WINNERS
FROM PEI, QUEBEC, AND ONTARIO
YOUNG CANADIAN AWARD WINNERS FROM ALBERTA, QUEBEC AND ONTARIO.**

CALGARY (Mon. Oct. 6, 2014) – Winners of the 2014 Ernest C. Manning Innovation Awards were announced today by Ernest C. Manning Awards Foundation President Jennifer Diakiw. (www.manningawards.ca)

The 2014 innovators, from Prince Edward Island, Ontario and Quebec, share \$145,000 in prizes. The 2014 Young Canadian Award innovators are from Alberta, Ontario and Quebec share \$16,000 in prizes.

Innovations created by the 2014 Ernest C. Manning Innovation Award winners include:

- a robotic arm device that provides its disabled users with unprecedented independence and autonomy, from drinking a cup of coffee to getting their own glass of water;
- a tunable liquid crystal lens that's perfecting cell-phone pictures and could end up revolutionizing cataract and brain surgery;
- a spill response tool implemented by fire departments, hazmat teams, the Canadian Coastguard and Navy that's better for the environment and human lives; and
- a pioneer approach introduced into the catheter manufacturing process that has reduced the number one complication to patients from IVs - death by blood clot.

The four Young Canadian Innovation Award winners, all students, created inspiring innovations which were showcased earlier this year at the 2014 Canada-Wide Science Fair.

The 2014 Ernest C. Manning Innovation Award recipients are:

Dr. Paul Santerre, Toronto, \$100,000 Principal Award for developing **surface modifying macromolecules**, trademarked as **Endexo™**. Dr. Santerre's pioneer approach introduces surface modifying macromolecules during the catheter manufacturing process and has demonstrated a significant reduction in blood clotting, which is the leading cause of patient complications and death. It is currently on the market in both the Canada and US after receiving Health Canada and FDA approval, and is being tested for use in dialysis circuits for treating end stage renal disease. (www.interfacebiologics.com/)

Dr. Tigran, Galstian, Quebec City, \$25,000 David E. Mitchell Award of Distinction, for innovating and commercializing the **Tunable Crystal Liquid Lens**, an ultra-thin planar component that is composed of two liquid crystal layers secured between glass substrates. The application of an electric field results in an optical lens that can shape, steer and focus light without mechanical movement, making it a cost-effective, better performing application for mobile phone cameras. Currently, the lens is being incorporated in phones in China, with efforts to soon use the lens in North American smartphones, and is being tested for incorporation in into contact lenses and intraocular lenses via cataract surgery and in endoscopy, the study of the brain, in which the lens will be used in a probe-like form to monitor stem cell movement and assist in brain surgery (www.lensvector.com/).

Charles Deguire, Montreal, Quebec, \$10,000 Ernest C. Manning Innovation Award for innovating and commercializing **JACO® Robotic Arm**, a robotic arm device inspired his uncle's struggle with Muscular Dystrophy. Each joint of the robot has all of the sensing capabilities required to interact with its environment, mirroring the same functionality as a user with full upper limb mobility. The robot's lightweight, compact, portable, safe and weatherproof design assures its durability. The JACO® arm has since been used by 100 universities and research labs in 27 countries, including NASA, Toyota and the Netherland's health authority. (<http://kinovarobotics.com/>).

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Glen Cox, Charlottetown, PEI, \$10,000 Ernest C. Manning Innovation Award for innovating and commercializing **The RuptureSeal™**, now the leading spill response tool, adaptable to any surface texture by mechanically fastening to the rupture while it can also be ganged side by side to seal longer ruptures and used by fire departments, hazmat teams and those in the transportation industry, including the Canadian Coastguard and Navy. Since 2012, Glenn has sold close to 11,000 units and introduced it in 33 countries (www.ruptureseal.com/).

The 2014 Young Canadian Award winners are

Daniel McInnis, 16, Ottawa ON, \$4,000 Young Canadian Award for his 2014 Canada-Wide Science Fair project creating a revolutionary, high-resolution, cost-effective 3D scanner that makes the prosthetic-fitting process more comfortable for patients while more accurately matching donor limbs with ideal recipient amputees - a device unlike any other on the current medical market.

Aditya Mohan, 17, Ottawa ON, \$4,000 Young Canadian Award for his 2014 Canada-Wide Science Fair project developing a cytokine known as Thymic Stromal Lymphopoietin (TSLP) which will significantly improve the health of patients being treated for HIV-AIDS by enabling the body to respond better, repair itself and more effectively fight the disease.

Arjun Nair, 17, Calgar AB, \$4,000 Young Canadian Award for his 2014 Canada-Wide Science Fair project inventing a diagnostic tool that could detect MS earlier and more comprehensively than what is currently available. This time-efficient and painless approach identifies a biomarker that quickly predicts the future onset of MS in patients with 96% accuracy, ultimately improving patient outlook due to early diagnosis and treatment plans.

Cameron Lennox, 17, Montreal PQ, \$4,000 Young Canadian Award for his 2014 Canada-Wide Science Fair project separating chiral molecules commonly found in pharmaceuticals. This process could significantly aid pharmaceutical development researchers by freeing up the time and money traditionally spent on separating chiral compounds to enable them to focus on developing cures and other beneficial pharmaceuticals.

Ernest C. Manning Innovation Award winners are selected by a Canada-wide, independent selection committee, of established leaders and authorities from various disciplines. They are supported in the selection process by experts in fields as diverse as medicine, genetics, engineering, industrial processes and social entrepreneurship. The Young Canadian Award winners were selected by a team of judges at the 2014 Canada-Wide Science Fair in May.

In announcing the 8 winners for 2014, Foundation President Jennifer Diakiw said, "The Ernest C. Manning Awards Foundation is helping to build the culture of Canadian innovation by recognizing and rewarding Canadian innovators. Our Awards celebrate innovators who are improving the lives of Canadians and others around the world through their commercialized innovations. They add value to our provincial and national economies by creating jobs and wealth and positioning our country as a global competitor. Our distinguished alumni are leaders in technology, business, engineering, and social innovation advancement, and we consider them Canada's most valuable resource."

The 2014 awards will be presented to recipients at the 33rd annual Ernest C. Manning Innovation Awards Gala in Ottawa on Wed. Oct. 22 before an audience of 500 Canadian innovators and leaders from business, academia and government. Astronaut Julie Payette will host the awards ceremony. Tickets and tables are still available for the Gala www.manningawards.ca

Applications for 2015 Ernest C. Manning Innovation Awards are now being accepted on line at manningawards.ca. Deadline is December 1, 2014. Twitter: @ManningAwardsCA Facebook.com/ManningAwards

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