

Oakville teen wins Ontario Science Centre's 2016 Weston Youth Innovation Award

Jury was not left tongue-tied by Emma Mogus's Tongue-Interface-Communication for the physically impaired

TORONTO (July 20, 2016) – High school senior Emma Mogus has already begun to leave her mark on the global scientific community. The 17-year-old from Oakville, Ontario will be presented the 2016 Weston Youth Innovation Award by the Ontario Science Centre for her creative application of science towards solving a real world problem. Creator of the Tongue-Interface-Communication (TiC), a tongue controlled computer mouse, Mogus hopes to provide those with communication deficiencies and physical limitations the opportunity to participate fully in society.

“To me the best thing about science is knowing that my ideas can have an impact on a global scale,” said Emma Mogus, 2016 Weston Youth Innovation Award winner. “I’m honoured to have my work recognized by the Ontario Science Centre. This award will give me the opportunity to further develop the TiC and ensure it assists those who would benefit most from its use.”

Mogus’s desire to develop the TiC extended from the United Nations Convention on the Rights of Persons with Disabilities, which calls for research, development and support of all types of assistive technologies with an emphasis on affordable devices. With a love of science and innovation, she set out to create an affordable device that would enable those with physical impairments to communicate freely and effectively online. The result: a \$10 non-invasive, tongue-operated, customized and programmable USB-HID (Human Interface Device) keyboard with interface circuitry. The prototype consists of a mouth guard, similar to an athlete’s, with five pressure sensitive switches across the front that correspond to the arrow keys and mouse of a typical keyboard. Mogus believes the device will not only help individuals with spinal cord injuries, but people with multiple sclerosis or other paralyzing conditions as well.

“The jury was inspired by Emma’s ingenuity, skill and dedication to developing an original solution, for an issue that in spite of many scientific advances continues to affect many people,” said Dr. Maurice Bitran, CEO and Chief Science Officer, Ontario Science Centre. “We look forward to seeing what this young innovator will develop next to continue improving the world around her.”

Established in 2008, the Weston Youth Innovation Award encourages and recognizes young Canadian innovators. It was named in recognition of the W. Garfield Weston Foundation’s \$15-million lead gift to the Ontario Science Centre’s Agents of Change initiative and to honour The Foundation’s support and commitment to education. Mogus’s project was selected for the award by a panel of judges, comprising Dr. Molly Shoichet, Professor, Canada Research Chair in Tissue Engineering, University of Toronto; Dr. Marcus Santos, Associate Dean Undergraduate Programs & Student Affairs, Faculty of Science, Ryerson University; Dr. Marc Nantel, Associate Vice President, Research Innovation, Niagara College;

Andrea Thykootathil, Teacher, Ontario Science Centre Science School; and Dr. Maurice Bitran, CEO and Chief Science Officer, Ontario Science Centre.

The W. Garfield Weston Foundation celebrates the innovation and ingenuity demonstrated by youth like Emma Mogus, who approach the world's problems with unwavering determination. The calibre of award submissions received continues to be impressive. Supporting young visionaries like Emma, who understand the lasting impact their ideas can have on the world, is vital to fulfilling the foundation's mission.

Mogus will be awarded the \$2,000 prize at the Ontario Science Centre in the fall. In addition, she will work with a multimedia team at the Science Centre to create an animation to showcase this project, which will be displayed in the Weston Family Innovation Centre and shared via the Science Centre's social media channels. More information about Mogus's award-winning project can be found at www.OntarioScienceCentre.ca/InnovationAward.

The Ontario Science Centre has welcomed more than 50 million visitors since it opened in 1969, implementing an interactive approach now adopted by science centres around the world. Today, the Science Centre is an international leader in free-choice science learning and a key contributor to Ontario's education and innovation ecosystem, offering lifelong learning through hands-on, engaging experiences. The Ontario Science Centre is an agency of the Government of Ontario funded in part by the Ontario Ministry of Tourism, Culture and Sport. As a publicly assisted organization, the Science Centre relies on generous individuals, corporations and foundations who share a commitment to science and education for additional operating support. For more information about the Ontario Science Centre, please visit www.OntarioScienceCentre.ca.

The W. Garfield Weston Foundation is a private Canadian family foundation, established in the 1950's by Willard Garfield Weston, his wife Reta and their children. In 1924 Garfield inherited his father's company and during his life established baking and retail businesses throughout Canada and in many parts of the world. The founders believed that as the funds are generated through the hard work and success of these Canadian companies, grants should be given in Canada for the benefit of Canadians. For three generations, the W. Garfield Weston Foundation has maintained a family tradition of supporting charitable organizations across Canada. Today the foundation directs the majority of its funds to projects in the fields of land conservation, education and scientific research in Canada's North. In addition, it provides funds to further Canada's research in neuroscience.

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