FOR RELEASE

Newfoundland student develops simulation tool for rural surgeons; wins cash and Gold medal at Canada-Wide Science Fair

REGINA, SK (Friday May 19, 2017) – Nora Boone, a Level 2 student at Holy Heart School in St. John's, added a $1,000 senior *Youth Can Innovate* cash prize to a Gold Medal for her medical science project at the 56th Canada-Wide Science Fair, held this year on the University of Regina campus. The *Youth Can Innovate* Awards are sponsored by the Calgary-based Gwyn Morgan & Patricia Trottier Foundation.

"One of the key goals of our Foundation is to encourage and support Canadian students in STEM," said Gwyn Morgan in announcing the inaugural winners. "We want to champion Canada's young innovators and shine a light on their work by encouraging them and providing financial support. They're Canada's future," said Patricia Trottier. More than 440 STEM students from schools across Canada presented 390 projects.

Boone's research used 3D printing technology to develop a simulation tool to train general surgeons living in rural communities so that they can perform emergency craniotomies when life-threatening intracranial hematomas do not allow transfer time to neurosurgical care. If a hematoma is left untreated, increased intracranial pressure continues, which may lead to death.

"The outcome of a serious head injury requires operative intervention which is highly dependent on timely intervention. I believe education programs utilizing my device can improve head injury outcomes in rural environments," explained Boone. She believes craniotomy skills should be included in the training of community general surgeons and simulation training is a very effective method of doing so; however, commercially available craniotomy simulation tools are limited and expensive. Using 3D printing technology improved the realism, consistency, accuracy and reproducibility of Boone's simulation tool, while still maintaining cost efficiency.

Not just an avid researcher, Boone is also an active student at her school, serving on the student council, school bands and sports teams. In her community, Boone runs a knitting group at a local retirement home and helps to coach the Special Olympic Snowshoeing Team. She has always had an interest in science, with a specific eagerness for medicine, hoping to pursue a career in the medical field. Her project stemmed from her interest in medicine and passion to solve a local issue in her community. She notes that the next step in her project will be to further refine the model so it can be incorporated into the surgical resident training program at Memorial University.

Youth Can Innovate Awards, with a total cash value of $41,000, are offered to students competing at Canada's annual national science fair. This year, 242 finalists at the junior, intermediate and senior levels nominated their projects for evaluation. The 2017 recipients were selected by Canada-Wide Science Fair judges. More information about *Youth Can Innovate* and profiles of 2017 recipients, can be found at Facebook/YouthCanInnovate, Twitter: @youthcaninnovate, and www.youthcaninnovate.ca.

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For media information, photos, and to interview winners: Rosemarie Enslin (403) 630-8421, enslin@enslinpr.com, @RosemariePRyycT

About The Gwyn Morgan & Patricia Trottier Foundation: The Gwyn Morgan & Patricia Trottier Foundation is a family foundation based in Calgary, Alberta. Established in 2005, it focuses on education, wellness initiatives and leadership development. In education, the Foundation gives priority to initiatives that encourage and support students pursuing STEM (Science, Technology, Engineering, and Mathematics) careers. The Foundation's STEM support currently includes 20 recently established *Youth Can Innovate* Awards, which are given annually to 16 innovative projects at the Canada-Wide Science Fair; Camosun College's Empowering Women In Trades Program; the Gwyn Morgan **Be An Engineer** bursaries awarded annually at 15 Canadian universities and the Gwyn Morgan Centennial Bursary.