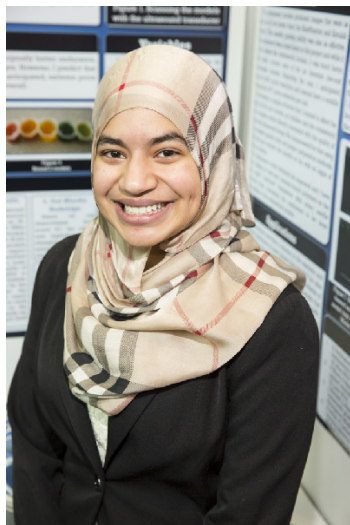


CWSF 2015 - Fredericton, New Brunswick



Dina Shehata

A Low Cost Gel Block Model for Ultrasound Guided Training

Challenge: Innovation

Category: Intermediate

Region: Eastern Newfoundland

City: St. John's, NL

School: Holy Heart High School

Abstract: The purpose of this project is to create low-cost variations of gel models to support ultrasound training for medical students and practitioners involved in performing ultrasound guided procedures. These low-cost gel models have comparable technical specifications to market commercial models (e.g. accurate generated image, shelf-life and endurance to multiple needle piercings) while lowering the cost to below 3% of the average current price.

Biography

I am Dina Shehata, a grade 10 student from Holy Heart of Mary High school. Since I was little, I have always appreciated innovation and creativity. When I was a grade 2 student, I won the creative ideas contest at my school and went to the provincial contest. I also won the best innovative bookmark contest in grade 5 and the most creative Halloween costume design when I was in grade 8. I found the inspiration for the project when I first saw a human body torso model that was used for ultrasound training and cost \$26,000.00. From there I found a simpler version of the model that only simulated two vessels costing \$499.00. My future plans include working towards creating an improved gel block that has better resiliency by looking at polymers. We are also trying to secure research funding and develop a patent. The advice I would give to other students looking for an idea is be as innovative and hard working as possible and the results will reflect that. Other than science I enjoy a multitude of activities and hobbies such as basketball, running, reading and art.

Awards

Value

Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$4 250