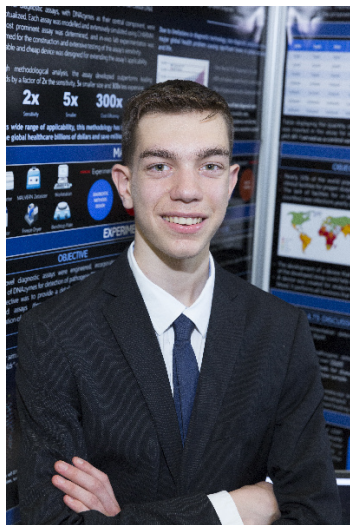


CWSF 2018 - Ottawa, Ontario



Albert Nitu

A Novel DNAzyme-based Colorimetric Assay for Early Disease Diagnostics under \$10

Challenge: Health

Category: Intermediate

Region: Ottawa

City: Ottawa, ON

School: Lisgar C.I.

Abstract: In this project, a novel disease diagnostic assay was developed, applying DNAzyme technology, for the sensitive detection of pathogenic DNA in the blood. Current means of diagnosing diseases are extremely costly or unreliable. This simple assay allows for the highly sensitive, reliable yet also cost-effective detection of any pathogens for under \$10, allowing for the widespread adoption of genetic-based diagnosis for all pathogenic diseases.

Biography

Hi, I am Albert Nitu, a grade 9 student in the gifted program at Lisgar Collegiate Institute, in Ottawa. Ever since I was a kid, I've always enjoyed problem-solving and working out new solutions to existing problems. They have always fascinated me and spurred my creativity, and this year one problem caught my attention: late disease diagnosis. This was the main topic I based my project on, and I aim to bring a solid contribution to solving this problem. Outside of school, I also enjoy being involved in many activities, such as sports, music, math and robotics competitions. I also love doing science experiments! They have been the foundation for my love of science today. For me, science is an incredible way to learn more about our world, and I plan to continue this journey by studying in the field of biomedicine. Apart from the Canada-Wide Science Fair, I have also competed and won the Sanofi Biogenius regional competition, and even written a 200-page detailed book on human anatomy. My advice for future scientists would be to never stop thinking. Good ideas come with dedication and perseverance, and you never know when you could become the next Albert Einstein!

Awards

Value

Canadian Society for Medical Laboratory Science Award Intermediate Sponsor: Canadian Society for Medical Laboratory Science	\$750
S.M. Blair Family Foundation Award - Intermediate Sponsor: S.M. Blair Family Foundation	\$750
Youth Can Innovate Awards - Intermediate Sponsor: The Gwyn Morgan and Patricia Trotter Foundation	\$750
Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$6 250