

CWSF 2014 - Windsor, Ontario



Michael Tolentino

The Vitamin A Metabolite: The Embryonic Development of *L. stagnalis*

Challenge: Discovery

Category: Senior

Region: Niagara

City: Niagara Falls, ON

School: Saint Michael S.S.

Abstract: The active metabolite of Vitamin A is retinoic acid, and it affects the downstream activation of various genes by acting through receptors, one being the retinoic-acid-receptor (RAR). It was only recently where the first RAR of an invertebrate non-chordate species, *L. stagnalis*, was cloned. By manipulating its performance, data indicates a role for the RAR in development of these species, similar to higher vertebrate animals.

Biography

Michael Tolentino is a senior of St. Michael's Catholic High School in Niagara Falls, Ontario. A diligent and hard working student, who has won many awards. Michael also volunteers frequently as a peer tutor assisting in many subject areas. He is also very passionate about extracurricular activities where he is given the opportunity to balance his academic life. In high school he has been part of the science Olympics committee, the REACH team, chaplain's crew, and the school plays. However, his greatest accomplishments reside within his track & field team, where he competed in SOSSA, as well as his school's hip hop dance team, where he demonstrates his leadership qualities in organizing practices and teaching students. For post-secondary, he plans to study biomedical sciences with ambition in specializing in related fields. He encourages all students to participate in these science fairs because they open countless doors for future opportunities; but to do this where you are driven to investigate due to your own curiosity because all outstanding projects and scientists derived from one's inquisitiveness.

Awards

Value

Excellence Award - Senior - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$100
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$2 100