

# CWSF 2012 - Charlottetown, Prince Edward Island



## Lisa Marie Di Vona

### Identification of New Aurora Kinase Inhibitors: Treatment of Human Neuroblastoma

**Challenge:** Health

**Category:** Senior

**Region:** York

**City:** Woodbridge , ON

**School:** Father Bressani Catholic H.S.

**Abstract:** Neuroblastoma, a solid tumor, is caused by uncontrolled/abnormal growth of neuroblasts. The treatment of this tumor depends on the amplification of the MYCN oncogene, indicator of aggressiveness. These experiments were directed to determine if novel Aurora Kinase inhibitors could be used in neuroblastoma treatment. The results showed Aurora Kinase inhibitors induced apoptosis in MYCN-amplified cell lines, which was significantly different in non-MYCN amplified cell lines.

#### Biography

My name is Lisa Di Vona and I'm a grade 12 student from Woodbridge, Ontario. I'm involved in many intra and extra-curricular activities such as councils, sports teams, clubs, and more. Throughout the years I have had many memorable experiences such as the Legislative Page Program, U of T summer programs etc. I decided to focus my project in childhood cancer research. Following the choice to sign up for the York Region Science Fair, I found a laboratory in which to complete my project and finalized my project topic. My project focused on drug discovery for the treatment of neuroblastoma, the most common childhood cancer in children under the age of five. This project was successful and resulted in a novel finding, therefore further investigations will occur for publication. If I could give advice to other students it would be to reach for the top and always go for their dreams, because they will be amazed of what they can accomplish.

#### Awards

#### Value

Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$700
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$9 200</b>