



CWSF 2012 - Charlottetown, Prince Edward Island



Rebecca Marie Todesco

Airborne Attack: Phase Two

Challenge: Health Category: Senior

Region: Calgary Youth **City:** Calgary, AB

School: Queen Elizabeth Junior Senior High School

Abstract: The allergic mechanism by which Alternaria alternata, a common mold,

causes asthma is unknown. I hypothesized that A. alternata activates PAR2, thereby causing chronic inflammation. The presence of PAR2 in lung

tissue was established and a novel procedure for labelling PAR2 was developed. A. alternata was shown to activate PAR2 in vitro. This supports

the hypothesis that A. alternata accentuates allergenicity via PAR2 activation.

Biography

I am truly passionate about science and have enjoyed participating in my local Science Fairs since grade six. Over the years I have pursued projects in the areas of engineering, chemistry and computer science. I always believed that working on different Science Fair projects would eventually lead me to my career path. In grade ten I approached a health sciences lab and was very lucky to team up with another student and a mentor. Upon completing that project I discovered that my true passions lie in health sciences. My project last year had inspiring results and has led me to pursue a project in the same area of research this year. Through participation in Science Fairs I feel a sense of confidence pursuing my life's goals as I look forward to University next fall. I am really excited to take part in my last Canada Wide Science Fair in the beautiful city of Charlottetown!

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



