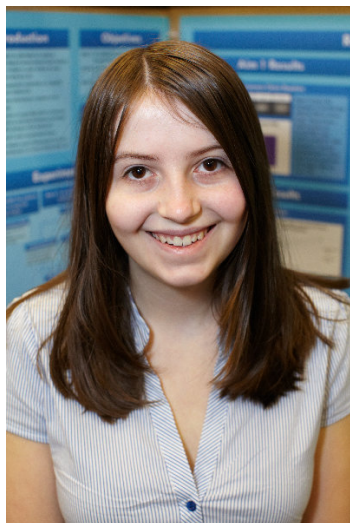


CWSF 2012 - Charlottetown, Prince Edward Island



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 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
Total	\$9 200