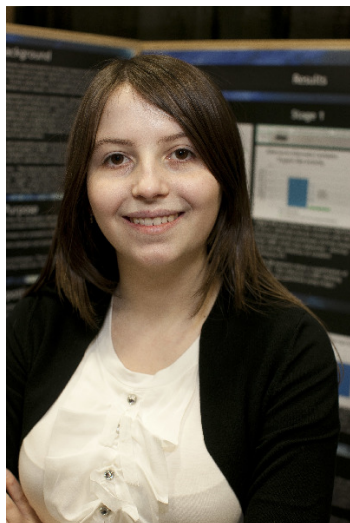


## ESPC 2011 - Toronto (Ontario)



### Rebecca Todesco

#### Airborne Attack

**Défi:** Santé

**Catégorie:** Sénior

**Région:** Calgary Youth

**Ville:** Calgary, AB

**École:** Queen Elizabeth Junior Senior High School

**Sommaire:** *Alternaria alternata* causes asthma but its allergenic mechanism is unknown. I hypothesized that *A. alternata* contains serine proteinases that activate proteinase-activated receptors (PARs). I used enzyme-activity assays, zymography and activity-based probes to identify a trypsin-like enzyme. I found that *A. alternata* can activate PAR2 to stimulate calcium signalling. This concludes that *A. alternata* contains a trypsin-like serine proteinase that via PAR2 activation accentuates allergenic activity.

#### Biographie

My name is Rebecca Todesco and I am a grade eleven student. I have been participating in my local Science Fair since the sixth grade. My previous projects have been in the fields of engineering, chemistry, health sciences and computer sciences. As a member of my schools Debate Team, my partner and I placed second in Provincials and attended the National Conference in Halifax two years ago. I enjoy playing the flute in my High School Concert Band. I am looking forward to an exciting week at the Canada Wide Science Fair.

#### Prix

#### Valeur

Prix d'excellence - Senior - Médaille d'argent Commanditaire: Sciences jeunesse Canada	700,00 \$
Bourses d'admission de la Faculté des sciences de l'Université Dalhousie Médaille d'argent, sénior - Bourse d'admission de 2 500 \$ Commanditaire: Université Dalhousie, Faculté des sciences	2 500,00 \$
Prix d'admission en sciences de UBC (Vancouver) Médaille d'argent, sénior - Bourse d'admission de 2 000 \$ Commanditaire: The University of British Columbia (Vancouver)	2 000,00 \$
Bourse d'études de l'Université Western Ontario Médaille d'argent - Bourse de début d'études de 2 000 \$ Commanditaire: Université Western Ontario	2 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaille d'argent, sénior - Bourse d'admission de 2 000 \$ Commanditaire: Université d'Ottawa	2 000,00 \$
<b>Total</b>	<b>9 200,00 \$</b>