In search of answers to solve peanut allergy

Oakville Beaver Staff

Eisha Ahmed has a peanut allergy and the Abbey Park High School student wants to know why.

The question inspired the 17 year old's science project, which she will now take to Phoenix, Arizona to the Intel International Science and Engineering Fair.

It will be her second time competing at the international event.

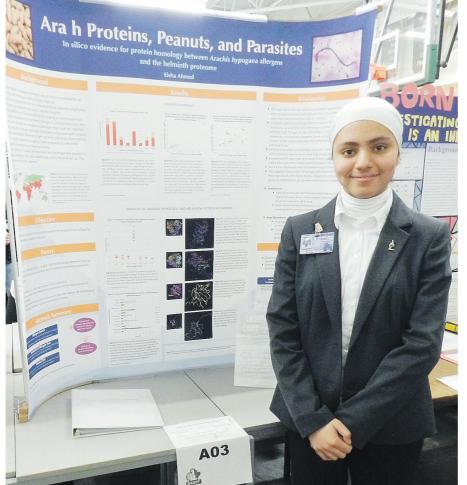
"My interest in peanut allergy and immunology, in general, began because I, myself, have a severe peanut allergy. So it started just to understand my own condition on a fundamental level and then to expand and explain why peanut allergies are so prevalent in North America," said

"We don't understand, at this point in time, how peanut allergies develop. It's a big question mark in terms of scientific research worldwide. The goal is if we can understand what causes the development of allergies, we'll know the most appropriate direction to come up with a cure."

Ahmed took second place at this year's Bay Area Science and Engineering Fair (BASEF) with her project titled Ara h Proteins, Peanuts, and Parasites.

The top three high school students at the BASEF competition are invited to the world competition.

The top 16 elementary school students are invited to the Canada-Wide Science Fair — five Oakville students are head-



Abbey Park High School student Eisha Ahmed will take her science fair project this year on peanut allergies to the world science fair competition - for a second year in a row. photo courtesy of BASEF

They include: Ishan Aditya (MacLachlan College), Rachel Hanke (King's Christian Collegiate), and Eduard Brenninkmeijer, Katelyn Kettle and Blake Correia (all of Oakville Christian School).

Ahmed's project studied similarities in protein sequence in structure between peanut allergens and proteins found in human parasites or elements.

"This would be the first molecular evidence for the hygiene hypothesis, but also the first molecular evidence for the link between peanut allergies and parasites," she said.

"The reason behind that is to explain why peanut allergies are so much more prevalent in developed countries such as in North America, the U.K., Europe and Australia, whereas in developing nations or countries found in Asia, Africa and the Middle East peanut allergies are almost non-existent."

Ahmed said the human reaction is similar between peanut allergens (proteins within a peanut) and proteins found on

parasites. She's hoping to explain the link between the two.

Ahmed, who said science is near and dear to her heart, placed fourth at last year's BASEF, and top three among high school students.

She said she's happy to come in second overall this year, and to head to the international competition.

"Last time I went was probably the best week of my high school career so far," she said.

"The nice thing about the second time around, now that I'm more experienced and I know what the judges are looking for and what they expect, I'm hoping to treat my project so it can cater to those judges,"

Ahmed plans to study science in university and become a university research professor.

Ahmed is heading to the worlds along with Sarah Flaherty from Westdale Secondary School in Hamilton and Junyi Wu from Assumption College School in Brantford.

For a complete list of winners, visit www.basef.ca.

Award not to be passed up

continued from p.4

Awards are granted based on character, service and leadership potential, not just academics. The scholarship can be used at any one of 25 Canadian partner universities and is renewable for up to four years. It consists of a \$9,000 annual stipend and a matching tuition waiver, a summer program and funding up to \$8,500, a week-long orientation expedition in Algonquin Park, one-onone mentorship and participation in the community of Loran scholars.

Ahmed had been accepted at the University of Cambridge in the U.K., but turned it down to accept the Loran Scholarship.

"I do think the Loran Scholarship is an opportunity I really can't pass up. Perhaps, I'll go out of the country to graduate school," she said.

Ahmed intends to attend McGill University to study science. She has already been accepted and intends to pursue a PhD in cellular and molecular biology or something related.



