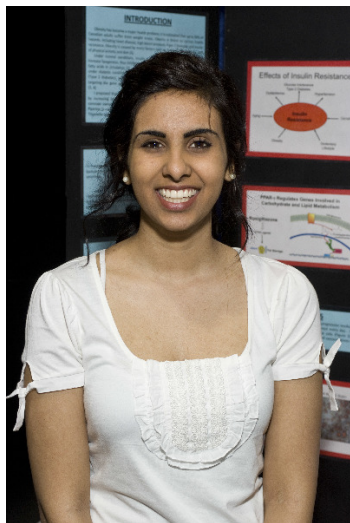


# CWSF 2010 - Peterborough, Ontario



## Avineet Sekhon

### The Great Weight Debate

**Division:** International

**Category:** Senior

**Region:** Eastern Newfoundland

**City:** St. John's, NL

**School:** Holy Heart High School

**Abstract:** The objective of my project was to determine the effectiveness of natural food compounds (Fenugreek, Apigenin and Piperine) in preventing insulin resistance. Insulin resistance is caused by obesity when adipocytes accumulate lipids. I used adipocytes in culture to test lipid accumulation, lipogenesis and gene expression of PPAR-gamma, which is known to improve insulin sensitivity. Apigenin was found to significantly improve insulin sensitivity by increasing PPAR-gamma.

#### Biography

My name is Avi Sekhon and I am a level three student at Holy Heart of Mary High School in St. John's Newfoundland. This will be my third Canada Wide Science Fair, as I previously attended CWSF in Saguenay and Truro. I am heavily involved in school and community activities. I am a member of the Holy Heart Jazz Band and Concert Band. I am also involved in my school's interact club and tutoring for tuition program. I volunteer with the Janeway Children's hospital. This summer, I attended Shad Valley Dalhousie, and I also completed a Shad Valley internship in a laboratory in Memorial University. Along with my passion for science, I also have an interest in debating, and thus have been involved in the Newfoundland and Labrador Youth Parliament and Memorial University Model UN for the past three years. Some of my other hobbies include reading and writing. I also enjoy swimming and have obtained the National Lifeguard certificate. I will be attending university next year where I will be completing an undergraduate degree in psychology, after which I hope to pursue a career in law.

#### Awards

#### Value

The Canadian Society for the Weizmann Institute of Science Scholarships	\$9 400
The Maurice Pollack Foundation Scholarship	
Sponsor: The Canadian Society for the Weizmann Institute of Science (Weizmann Canada)	
<b>Total</b>	<b>\$9 400</b>