

# CWSF 2011 - Toronto, Ontario



## Sarthak Sinha

### How Does Vitamin A Affect Adult Stem Cell Function

**Challenge:** Health

**Category:** Intermediate

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** Henry Wise Wood High School

**Abstract:** This research focuses on analyzing the affects of Retinoic Acid Receptors (RAR) on Adult Dermal Stem Cells. Since previous research establishes the role of Retinoic Acid (RA) crucial to stem cell proliferation, Dr. Jeff Biernaskie and myself investigated the importance of RA for adult dermal stem cell proliferation. Results confirm that differentiation in these cells are greatly disrupted if the presence of RA is blocked.

#### Biography

With a deep passion to explore biology, I decided to take on stem cell research for the following year. I believe research in any area ultimately contributes in our understanding of human body, which would eventually help in better diagnosis or treatment. My efforts always focus upon improving our medical system by introducing new and better drugs. Although it's easier said than done, I feel committed towards serving in the medical world. Since I dream of studying medicine, I feel it's important to be aware of latest drugs and research as it's a teamwork. Doctors being at the front line and scientists at the back providing a solid foundation. Together we are capable of achieving wonders. Through this project I have tried to understand how skin regenerates and how we can improve the efficiency. I hope to continue my work in this field and examine different variables like retinoic acid. By endorsing and recognizing my project, it would signify the importance of this research to be continued. It would also acknowledge me and my mentor's efforts towards this project.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$700
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
Total	\$2 700