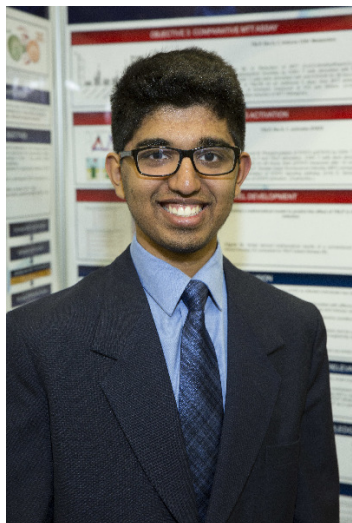


CWSF 2014 - Windsor, Ontario



Aditya Mohan

Development Of A Novel Thymic Stromal Lymphopoietin Based Treatment For HIV

Challenge: Health

Category: Senior

Region: Ottawa

City: Ottawa, ON

School: Colonel By S.S.

Abstract: Interleukin-7 (IL-7) binding is integral in CD8 T-Cells recognition and defense against HIV as it elicits an initially-effective virus specific CTL response; however it is insufficient for eradication and causes CTL-function to gradually decline. In this study, Thymic Stromal Lymphopoietin (TSLP) is explored to develop a treatment which possesses the advantages of IL-7 without eventual degradation of CTL function for a viable treatment for HIV.

Biography

I am a grade 11 student in the International Baccalaureate program at Colonel By High School, Ottawa. I have always been keenly interested in Science and its impact on our daily life and have been intrigued by its untapped potential. I have always excelled in academics which I attribute to my hardwork and guidance from my teachers and parents. I am also a recipient of many different awards including in the fields of creative writing, visual arts, mathematics, international affairs, and of course, science including the silver medal at CWSF 2012. I feel fortunate to have already gained valuable experience working in Queensway Carleton Hospital and Ottawa Health Research Institute as a regular volunteer. I am also very active in the school leadership and youth leadership programs. I also enjoy playing basketball and listening to music. I aspire to eventually become a doctor or a research scientist and this has inspired me to work on challenging problems like HIV. I plan to continue my investigation by testing mouse models and incorporating nano-technologies. For others considering doing a project, I will encourage them to take the initiative and enjoy the gratifying journey while giving their 110 percent.

Awards

Value

The Manning Innovation Achievement Award Sponsor: Ernest C. Manning Awards Foundation	\$500
The Manning Innovation Achievement Award and \$4000 Manning Young Canadian Innovation Award Sponsor: Ernest C. Manning Awards Foundation	\$4 000
Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$300
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	\$13 300