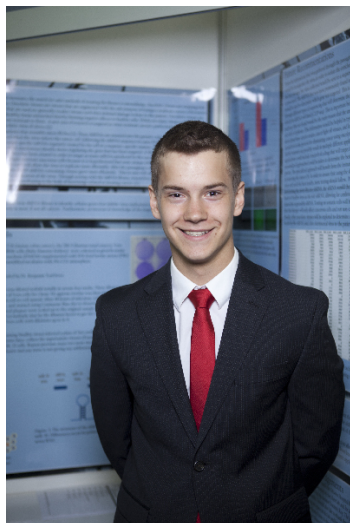


# CWSF 2013 - Lethbridge, Alberta



## Brian Laight

### A Sindbis Virus short-hairpin RNA Screen to Increase Virus Replication in Cancer

**Challenge:** Health

**Category:** Senior

**Region:** Ottawa

**City:** Ottawa, ON

**School:** All Saints H.S.

**Abstract:** This cancer therapy utilizes an oncolytic virus modified to express short-hairpin RNAs, where each unique hairpin targets and suppresses multiple genes in the cell. If the gene suppressed is anti-viral, the virus will grow and spread more easily throughout the cancer. This allows for the virus to grow better, and for identification of the anti-viral gene, allowing for future research of oncolytic viruses and cancer.

#### Biography

My name is Brian Laight. I am a grade 12 student at All Saints Catholic High School in Kanata, Ontario. I have many interests and have dabbled in everything from computer coding to auto mechanics, from composing and playing music to deep science inquiry. I play Rugby and Hockey competitively where I've captained on my school Rugby team two years in a row. Sports are a large portion of my life. I've been playing some sort of competitive sport since the age of 6. I have also been involved in humanitarian trips, where recently I've helped build a school on a bately in the Dominican Republic. The inspiration for my CWSF project came from my family. Many of my family members have been affected by cancer and my love for the immune system helped guide my focus on using viruses. For further investigations, I will continue my work in Dr. John Bell's lab where I will help work towards making the therapy a potential reality. For future students who are interested in doing a project but not sure, I highly recommended jumping at the opportunity. It's an amazing experience and you gain valuable skills as an added benefit. Do it!

#### Awards

#### Value

The Manning Innovation Achievement Award Sponsor: Ernest C. Manning Awards Foundation	\$500
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
<b>Total</b>	<b>\$9 300</b>