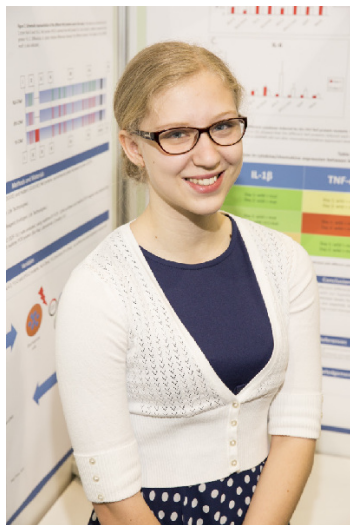


## CWSF 2015 - Fredericton, New Brunswick



### Emily Gubski

#### The Importance of DDXXXE Motif for the HIV-1 Nef Protein in the GI tract

**Challenge:** Health

**Category:** Intermediate

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** Sir Winston Churchill High School

**Abstract:** Estimated survival time after being infected with Human Immunodeficiency Virus (HIV) is 9-11 years. Current antiretroviral therapies help prolong HIV patients' lives but drug resistance continues to be an issue. By changing certain motifs in the Negative factor (Nef) protein found in HIV-1 this project looks for reduced induction of cytokines in respond, meaning potentially reduced disease causing ability of HIV-1 from the Nef protein.

#### Biography

Emily Gubski is 15 years old. Her passion about science has led her to successfully participate in various science fairs and win many awards. This year Emily has been working on her HIV gene therapy proposal at the UofC lab under professor's mentorship. Emily is a competitive dancer & figure skater, spending more than 18 hours a week on these activities. She has been highly involved in school and community activities, including the Year-Book Photography, Speech Club, Books to China Initiative, and Citizens of Churchill. She volunteers at Calgary Blood Donations Clinic, Kids Cancer Care, coaching dance at her studio, and running Robotics Workshops at the UofC. With all her activities, Emily has managed to maintain High Honour Roll throughout her school years and she is currently enrolled in the Full IB program. Last year she participated in French Exchange program, when she spent 3 month living and studying in France. Upon return she received the school award for being the most improved student in French. In her spare time, Emily likes to sing & play guitar, read, and watch movies with her family & friends.

#### Awards

#### Value

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