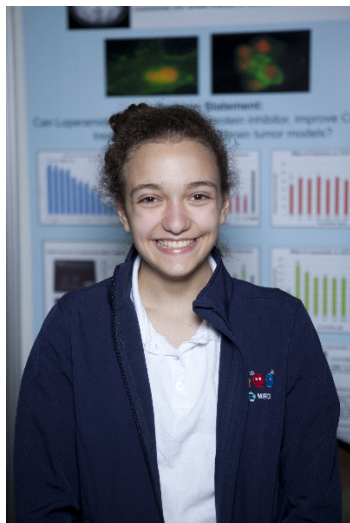


## CWSF 2013 - Lethbridge, Alberta



### Madison Meehan

#### Can Imodium Affect Glioma?

**Challenge:** Health

**Category:** Intermediate

**Region:** Montreal

**City:** Montreal, QC

**School:** The Study

**Abstract:** Cancer cells develop resistance to chemotherapy due to their prolonged use. P-glycoprotein, a resistance gene, is expressed in glioma and also highly expressed in the blood brain barrier. Using an inhibitor of p-glycoprotein, loperamide (Imodium), we asked whether loperamide could inhibit p-glycoprotein allowing Colchicine, our model of a chemotherapy drug, into the cancer cells arresting mitosis and therefore stopping cancer cell growth.

#### Biography

Madison Meehan a secondary 4 student at The Study School in Montreal. She is an active participant in both sports and arts. She is involved in her community by helping her local church, attending Mini-Med, and the MISAM scientific conference. Madison attended Garderie Papillion, a daycare that integrates disabled and non-disabled children. This was her first exposure to children living with disabilities. She has won many awards in her school career such as The Study Merit Award in grades 4 and 8, The Honorable Laurier L. LaPierre O.C. medal, MVP in basketball, Sports Captain for Mu Gamma House, played tenor sax at the Montreal Jazz Festival, won The Study's Best Actor Award, is a school ambassador, silver medalist in the inaugural Math Fair (2013) and has been a Class Prefect since grade four. She aspires to be a pediatrician. Madison received her inspiration for her project by having access to a brain tumor lab which touched her when her friend's father died when they were 12 years old. She plans to continue the project by volunteering in the Rak lab this summer. I would tell students to pursue their projects no matter where the biology takes you!

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	\$100
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$1 100</b>