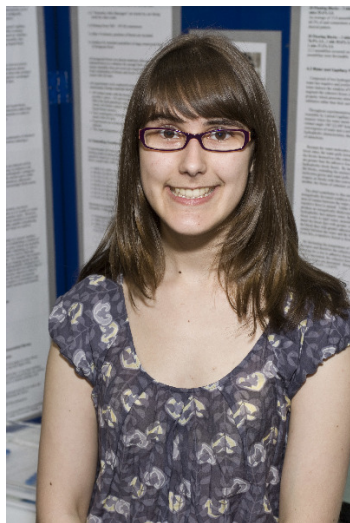


# CWSF 2010 - Peterborough, Ontario



## Laurel Stothers

### From the Bottom Up: Self-Assembly by Lateral Capillary Forces II

**Division:** Physical & Mathematical Sciences

**Category:** Senior

**Region:** South Fraser

**City:** Surrey, BC

**School:** Lord Tweedsmuir Secondary

**Abstract:** The project devises a method of self-assembly which utilizes a liquid-object meniscus gradient. Because like-menisci, either positive or negative, will provoke an attraction between objects, this investigation discovers the point at which meniscus differences cause repulsion rather than attraction. The smaller the discrepancy, the more combinations of object pairings are possible, leading to greater possibilities regarding self-assembled pattern intricacy.

#### Biography

Throughout my high school career I have openly searched for and strived to reach as many opportunities as possible. My passion for science has led me to the Canada Wide Science Fair, as well as to other fantastic theoretical physics/molecular biology endeavours that I have thoroughly learned from. I voluntarily tutor math and English to students grades 8 through 12 and I train in Shotokan Karate 3 times a week. I hope to learn new languages and continue to enrich my life both through culture and knowledge as I continue my studies at McGill University.

#### Awards

#### Value

Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 000
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 - \$3000 Entrance Scholarship Sponsor: University of Ottawa	\$3 000
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
Silver Medal - Physical & Mathematical Sciences - Senior Sponsor: Encana Corporation	\$700
<b>Total</b>	<b>\$9 700</b>