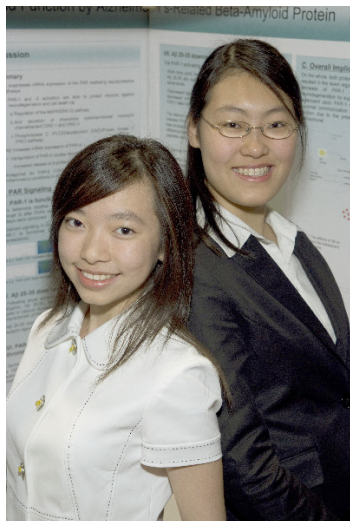


## CWSF 2008 - Ottawa, Ontario



### Wei-Wei Zhang, Yang Li

#### Alzheimer's Disease: PARs to the Rescue

**Division:** Biotechnology / None

**Category:** Senior

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** Sir Winston Churchill High School

**Abstract:** The project explores the mechanisms of neurodegeneration in Alzheimer's disease (AD) by determining the effect of AD-related  $\beta$ -amyloid protein (A $\beta$ ) on proteinase-activated receptors (PARs) expression and function in astrocytes. The results further current understanding of the involvement of cell surface receptors in AD and implicate PARs as potential therapeutic target for AD treatment.

#### Biographies

**Wei-Wei** - Ever since I was young, my defiance led to questions like why is it like that? and how come that's true? This eventually led me to the curious realm of science. In pursuing scientific research, I have finally found a way to put my questions to a practical use. Just like it found science, my defiance also found other outlets. I am involved in the school debate team, placing 2nd team at the 2006 Regional Impromptu Tournament, as well as being invited to the 2008 International People to People Future Leaders Summit from the office of Mary Jean Eisenhower. I am actively involved in sports, being a past time competitive swimmer and received my N...

**Yang** - Since childhood, I have always wanted to glimpse at the hidden beauty of mother nature; scientific research has given me the vehicle, curiosity and perseverance the fuel. But science is not my only passion. I am an avid member of the Youth Volunteer Corps and lead several service projects ranging from feeding the homeless to helping AIDS orphans in Africa. When I am not busy with Model UN, math contests, or Stock Market Competition, I enjoy playing the piano, hiking, and designing high heel shoes. Last summer, I attended Shad Valley and became greatly interested in engineering, because I realized that engineering is one of the most direct and...

#### Awards

#### Value

Merck Frosst Award Sponsor: Merck Frosst Canada	\$1 000
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
The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$3000 Entrance Scholarship Sponsor: University of Ottawa	\$3 000
Silver Medal - Biotechnology & Pharmaceutical Sciences - Senior Sponsor: Rx&D Health Research Foundation	\$700
<b>Total</b>	<b>\$10 200</b>