

CWSF 2011 - Toronto, Ontario



Jaclynn Wong, Danny Huang

O-GlcNAcylation: Suppressing Cancer Progression

Challenge: Health

Category: Senior

Region: Edmonton

City: Edmonton, AB

School: Harry Ainlay School

Abstract: O-GlcNAcylation is a novel post-translational modification that occurs on a very potent cancer-promoting protein called beta-catenin. In our investigation, we have shown that O-GlcNAcylation inversely regulates beta-catenin's nuclear localization, thereby increasing its interaction with E-cadherin at the plasma membrane, and decreasing its interaction with TCF in the nucleus. This hinders cancer progression as cancer cells become more stable and less likely to proliferate.

Biographies

Jaclynn - I am currently in grade 12 at Harry Ainlay High School in Edmonton, Alberta. Next year, I will be going to the University of Alberta in the Faculty of Science. I hope to have a medical career in the future, but I still dream of being a singer/dancer someday. One of my most notable experiences include representing Canada in the 2008 Chinese Bridge Competition in China, and placing sixth out of forty-two teams from around the world. Another notable experience of mine was We day in Vancouver in October 2010, where speakers inspired me to take action as a global citizen. My dream is to travel and to never stop learning about the world and trying ...

Danny - As a Grade 12 students from Harry Ainlay High School in Edmonton, Alberta, I have a variety of interests. In school, I am a member of the Student Council Executive that plans for numerous school events throughout the year. In particular, my current role is to act as a liaison between the school staff and the student body. Additionally, I have been part of the Dance Club for three years. In Grade 12 year, I became an choreographer as well as an instructor, working to create a routine that will be featured in a year end showcase. Also, in the community, my contributions include being a Youth Ambassador for the Canadian Blood Service and a volun...

Awards

Value

Challenge Award - Health - Senior Sponsor: Canadian Institutes of Health Research	\$1 000
Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	\$1 500
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
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University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
Platinum Award - Best Senior Project Sponsor: Youth Science Canada	\$5 000
Best Project Award Sponsor: Youth Science Canada	\$10 000
Total	\$39 500

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