

# CWSF 2012 - Charlottetown, Prince Edward Island



## Janice Pang

### Pre-exposing RAW264.7 Macrophages to Microbial Product, PAM3CSK4

**Challenge:** Health

**Category:** Junior

**Region:** Greater Vancouver

**City:** Coquitlam, BC

**School:** Summit Middle School

**Abstract:** RAW264.7 macrophages were pre-exposed to Pam3CSK4, lipoprotein to see if pre-exposure to the lipoprotein can enhance phagocytic activity of the macrophages. Results revealed that pre-exposure to lipoprotein enhanced phagocytic activity by 22%-34%. Therefore exposure to lipoprotein can help improve macrophages' response to stimuli of similar bacterial components and keep innate immune responses active. This study also suggests one method by which macrophages recognized antigens better.

#### Biography

My name is Janice Pang, and I'm currently in grade 8. I like to participate in many clubs in school, which includes volleyball, track and field, leadership, and most importantly the science fair club! Outside of school, I enjoy going curling and competing in the Optimist Junior Curling League. It has been my interest to explore the world of microbiology, to have the opportunity to join the science fair club at school and get to pick a topic I could research about for science fair was amazing. From observing the many things around me, I had decided to pick a project about immunology that could possibly impact society. As this is my first time going to the Canada-Wide Science Fair, I look forward to meeting new friends and enjoying this wonderful experience in PEI. I hope that students who are currently thinking of doing a project will do it, since it will be an awesome experience that you will never forget. In the future, I look forward to doing some more researches related to microbiology.

#### Awards

#### Value

Challenge Award - Health - Junior Sponsor: Canadian Institutes of Health Research	\$500
Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	\$1 500
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$6 000</b>