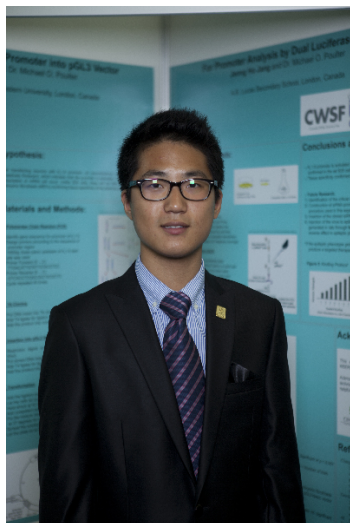


# CWSF 2013 - Lethbridge, Alberta



## Jeong Ho Jang

### Gene Therapy for Epilepsy

**Challenge:** Health

**Category:** Senior

**Region:** London District

**City:** London, ON

**School:** A.B. Lucas S.S.

**Abstract:** The expression of a voltage gated potassium channel (Kv1.6) is inappropriately increased in epileptic brain. Therefore a potential gene therapy that suppresses the expression of Kv1.6 protein may be therapeutic. This project identified a region of the Kv1.6 promoter that enhances expression in neurons but not in skin cells. This gene promoter may therefore be useful for the control of Kv1.6 expression.

#### Biography

My name is Jeongho Jang, grade 12 student at A.B. Lucas Secondary School in London, Ontario. I enjoy studying science related subjects such as Chemistry and Biology. Also, I love playing many different kinds of instruments such as clarinet, piano and guitar. I am currently the principal clarinetist in London Youth Symphony. In addition, I am active and I enjoy playing sports such as baseball and soccer. I love volunteering and has been a member of St. John Ambulance student Medical First Responder Team since grade 9. I first got interested in neurological disorders because my grandfather had Alzheimer's Disease. My ultimate goal is to discover innovative therapy that can cure epilepsy which has no side effects unlike current general anti-epileptic drugs, and contribute myself to the field of neuroscience and medicine. I dream of becoming a professor in neurosurgery and continue pursuing research to find better and safer therapies for incurable neurological disorders.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$100
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 100</b>