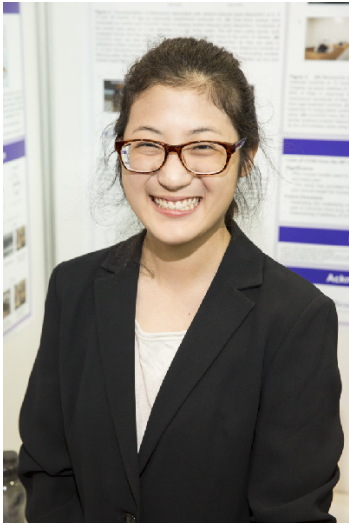


# CWSF 2015 - Fredericton, New Brunswick



## SeonHo Jang

### Correlation between tissue changes & back pain in a mouse model of intervertebra

**Challenge:** Health

**Category:** Senior

**Region:** Thames Valley

**City:** London, ON

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

**Abstract:** The purpose of this year's project was to determine whether Ccn2-knockout mice demonstrate signs of symptomatic disc degeneration. Three behavioural assays for measuring stretch-induced axial discomfort and two assays for measuring radiating pain were performed. This project will provide further evidence for the potential of CCN2 as a therapeutic target for intervertebral disc degeneration and will help develop clinical treatments for human patients.

#### Biography

I got the inspiration for my project from my dad. My dad has a spine disease, and seeing the consequences of the spine disease, I was interested in getting to know more about it. My future investigations would be geared towards looking at the molecular mechanisms that might be contributing to the back pain that the mice feel when they have disc degeneration due to loss of CCN2 proteins inside their discs. Also, I would like to investigate injecting CCN2 proteins directly to their discs to regenerate the tissue and alleviate back pain. Participating in science fair opens up so many different opportunities for everyone, and disregarding the results, it is such a fun and excellent experience overall. Having enthusiasm is the key point; science should be enjoyable.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
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>\$2 000</b>