

## CWSF 2010 - Peterborough, Ontario



### Julia Lee

#### Protecting the body from pathogens ? MARCO joins the fight

**Division:** International

**Category:** Senior

**Region:** Bay Area

**City:** Hamilton, ON

**School:** Hill Park S.S.

**Abstract:** The macrophage receptor with collagenous structure (MARCO) assists cells in the detection and isolation of pathogens. To determine the influence of cytokines on MARCO, cells were stimulated with TNF $\alpha$  and IFN $\gamma$ , mRNA was extracted, amplified, and analysed with a 1% agarose gel. An increase in MARCO expression was observed when cells were stimulated with both cytokines, indicating a role for MARCO in the inflammatory response.

### Biography

Writer, environmentalist and movie critic. Three traits you may not expect to see at a science fair, but young scientists do come in all shapes and sizes. Writing is my passion. Writing is something I truly love to waste time with. For the past 3 years I've participated in National Novel Writing Month and have reached the 50k goal twice, leaving me with three partially completed novels. In the future, I plan to be out chasing tornadoes as an Extreme Meteorologist, but will first have to endure a few decades in University studying Environmental Science. The environment is yet another thing that fascinates me, particularly the weather. It's such a normal part of our lives, but the inner workings of it are amazing. Any time left over from my writing binges and cloud watching I usually spend watching movies. I like movies that are somewhat deep, leaving you to think about the plot, characters and mood that the film tries to portray. I only call myself a movie critic since I'm usually left with a strong opinion after the film is done. I'm also a comicbook geek, fangirl, procrastinator, musician, comedian, and so much more. Not enough space to tell!

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