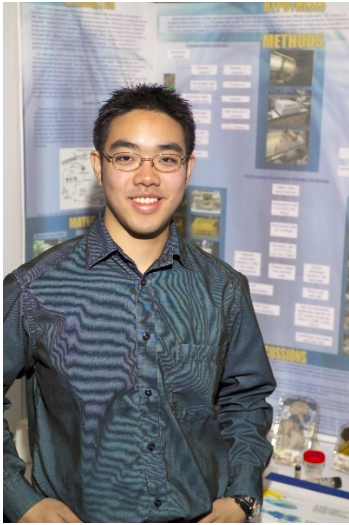


## CWSF 2005 - Vancouver, British Columbia



### Raymond Ko

#### Polysaccharides in Exotic Mushrooms and their Health Benefits

**Division:** Health Sciences

**Category:** Senior

**Region:** Saskatoon

**City:** Saskatoon, SK

**School:** Walter Murray Collegiate

**Abstract:** Three polysaccharides, lentinan, LC-1, and E, were isolated from water-soluble extracts of six exotic mushrooms: Monkey Head, Oyster, Reishi, Shiitake, Turkey Tail, and Wood Ear. The extraction included fractional precipitation with ethanol, cetyltrimethylammonium hydroxide, and acetic acid. Immunomodulatory effects of the extracts were tested on murine-bone-marrow-derived dendritic cells (DCs). In this study, fraction LC-1 from Oyster mushrooms significantly increased CD86 and CD40 expression in DCs.

Awards	Value
Agriculture and Agri-Food Canada Award - Senior	\$1 000
Sponsor: Agriculture and Agri-Food Canada	
Total	\$1 000