

# CWSF 2010 - Peterborough, Ontario



## A-J Hutchings

### The Efficacy of RA, PDGF, and BMP-4 to Instruct Adult NSPC Differentiation

**Division:** International

**Category:** Senior

**Region:** Ottawa

**City:** Ottawa, ON

**School:** All Saints H.S.

**Abstract:** The discovery of Endogenous Neural Stem Cells (NSCs) shattered the long existing dogma of the absence of neurogenesis in the Central Nervous System; thus they are the front runner of neurological repair. In this project, the aim is to discover the practicality of differentiating these NSCs with a specific selection of factors to produce oligodendrocytes, astrocytes, and neurons to successfully harness the power of NSCs.

#### Biography

Finding myself with nothing to do in the Summer of 2008, I decided to get involved in the rollercoaster experience that is research. What, with its climaxes and sudden drops, research may seem daunting to many, but it was the best decision I have ever made, and an experience that I will never forget. It allowed me to work with some of the most phenomenal people possible, fed my hunger for learning, and granted me access to awards, including winning the Linda Beynan Award and the Martin Willis Summer Scholarship, presented by the Heart and Stroke Foundation. As well as science, one of my passions is the outdoors, and I have been an enthusiastic volunteer with the scouting movement for over five years. Within school I was the Events Co-ordinator for Student Council as well as being a member of the H.O.P.E Team (Helping Other People Everywhere), Robotics Team, Go-Green Committee, and the Music Department, playing the saxophone, guitar, and vocals. Next year I plan on attending Carleton University's Neuroscience Programme, with the future ambition of becoming a Doctor and being actively involved in the Doctor's Without Borders Programme.

#### Awards

#### Value

The Manning Innovation Achievement Award Sponsor: Ernest C. Manning Awards Foundation	\$500
The Manning Innovation Achievement Award and \$4000 Manning Young Canadian Innovation Award Sponsor: Ernest C. Manning Awards Foundation	\$4 000
Honourable Mention - Health Sciences - Senior Sponsor: Canadian Institutes of Health Research	\$100
<b>Total</b>	<b>\$4 600</b>