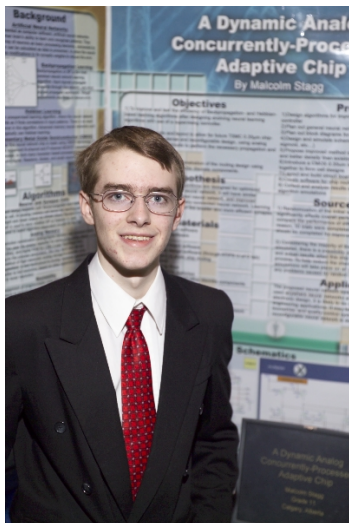


# ESPC 2006 - Saguenay (Québec)



## Malcolm Stagg

### A Dynamic Analog Concurrently-Processed Adaptive Chip

**Division:** Sciences de la santé

**Catégorie:** Sénior

**Région:** Calgary Youth

**Ville:** Calgary, AB

**École:** Alberta Distance Learning Center

**Sommaire:** The purpose of this project is to design a neural network chip to improve existing designs, which have poor reconfigurability and learning accuracy. A general-purpose analog design is made for the TSMC 0.35um CMOS process. Enabling multiple learning-algorithms and arbitrary routing, advanced learning-algorithms are implemented. Analog neuron circuit simulations were accurate with 5um matched transistors. Advanced learning algorithms improved density without reducing performance.

Prix	Valeur
Bourse d'études de l'Université Western Ontario Médaille d'argent - Bourse de début d'études de 1 500 \$ Commanditaire: Université Western Ontario	1 500,00 \$
Bourse d'études de l'Université Western Ontario Médaille de bronze - Bourse de début d'études de 1 000 \$ Commanditaire: Université Western Ontario	1 000,00 \$
Médaille de bronze - Technologie automobile - Sénior Commanditaire: AUTO21	300,00 \$
Médaille d'argent - Génie - Sénior Commanditaire: Fondation sciences jeunesse Canada	700,00 \$
<b>Total</b>	<b>3 500,00 \$</b>