

'396' Undergraduate Research Project Application Form

Version: 200603

Office for Undergraduate Research in Science
Tel.: 514-398-5964 / Fax: 514-398-8102 / Dawson Hall, Room 211
Email: victor.chisholm@mcgill.ca Web: www.mcgill.ca/science/ours/

INSTRUCTIONS FOR STUDENTS

- All fields are required, unless indicated otherwise.
- Download and print this form. Complete Section C and sign.
- See "How students can apply" instructions in Section B.
- Your supervisor or department will tell you if you are selected for this project. If so, you will receive a code to register for a '396' course on MINERVA.

SECTION A: SUPERVISOR INFORMATION

Name: Prof. Paul Wiseman Email: paul.wiseman@mcgill.ca
Phone: 514-398-5354 Website: http://www.wiseman-group.mcgill.ca/
Supervisor's Department or Unit: Chemistry & Physics Course Number: CHEM396

SECTION B: PROJECT INFORMATION

Term: Fall 2006 Project start & end dates: Sept. 11-Dec. 6, 2006
Project title: Imaging transfected cells on patterned substrates
Project description: The regulation of cellular adhesion at the molecular level is fundamental to the mechanisms which control migration of mammalian cells. This project will involve learning elements of cellular tissue culture to grow fibroblast and CHO cells on substrates patterned with poly-d-lysine, extracellular matrix proteins, or other proteins. The cells will have been transfected with green fluorescent protein/adhesion protein constructs. The goal of the project is to image the distribution of the adhesion proteins in the basal membrane of these cells as a function of patterned protein density, shape, etc. The imaging will be done by fluorescence microscopy (confocal or total internal reflection microscopy). The student will be trained in cellular tissue culture, transfection methods, and imaging microscopy by members of the Wiseman lab.
Prerequisites: 1 term completed at McGill + CGPA ≥ 3.0; or permission of instructor.
Grading scheme: 40% Labwork/lab book 60% Final Report
Other: _____
Status: Mark with an x. **This project is...**
[] Open to applicants
[X] **Already taken; no more positions available this term**
[] Taken, but contact me for other possible projects this term
Ethics, safety, and training: Which of the following, if any, is involved? Mark with an x.
[] Animal subjects
[] Human subjects
[X] Biohazardous substances
[] Radioactive materials
[] Handling chemicals
[X] Using lasers
For undergraduate students, ethics and safety compliance is the supervisor's responsibility.
How students can apply: [e-mail to paul.wiseman@mcgill.ca] **This project is already taken; no more positions available this term**

SECTION C: STUDENT INFORMATION. (1) PRINT LEGIBLY AND SIGN. (2) SEE "HOW STUDENTS CAN APPLY" IN SECTION B.

Name: _____ McGill ID: _____
Email: _____@mail.mcgill.ca Phone: _____
Program: _____ (e.g., B.Sc. Maj. Chem. Minor Biology) (circle one) U0 / U1 / U2 / U3
I have not applied for another 396 course in this term.
Student signature: _____ Date: _____

SECTION D: APPROVALS. (1) PRINT NAMES & SIGN. (2) NOTIFY OFFICE FOR UNDERGRADUATE RESEARCH IN SCIENCE. (3) GIVE STUDENT CODE TO REGISTER FOR COURSE ON MINERVA.

Supervisor: _____ Date: _____
Unit Chair, Director, or designate - I certify that this project conforms to departmental requirements for 396 courses. _____ Date: _____