

JANE SWIFT

Centre for Molecular Medicine
University of British Columbia
2333 West Mall Road
Vancouver, BC V5T 6Y7
www.interchange.ubc.ca/molecular.htm

4231 W. 15th Avenue
Vancouver, BC V3A1T9
e: jane.swift@ubc.ca
t: 604.822.2222
c: 604.778.2874

RESEARCH AND TEACHING INTERESTS

Research: The molecular basis to violent adult behavior in North America through DNA isolation in rats.

Teaching Subjects: Brain chemistry, biomedical theories, protein synthesis, and molecular cloning.

EDUCATION

Ph.D. Candidate – Faculty of Science; Department of Molecular Biology 2008 - Present
University of British Columbia – degree expected in May 2012 Vancouver, BC

- *Dissertation – A neurological analysis of violence in adolescent males.*

M.Sc. – Cell Biology 2006 - 2008
University of Toronto Toronto, ON

- *Thesis—an examination of changes in protein synthesis during development using electrophoresis.*

B.Sc. – Biology 2002 – 2006
University of Western Ontario London, ON

AWARDS AND ACHIEVEMENTS

Dr. Michael Smith Research Scholarship BC Research Foundation 2011
• Awarded for academic excellence in the field of science

Doctoral Award for Academic Achievement K.M. Hunter Society 2011
• Awarded for overall academic excellence during a doctoral program

Teaching Fellowship Award University of Toronto 2008
• Awarded to 20 outstanding academics in graduate programs.

RELATED WORK EXPERIENCE

Research Assistant – Dept. of Microbiology Sept. 2010 – Nov. 2011
University of British Columbia Vancouver, BC

Participated on a team of three researchers supervised by Dr. M. Kuhns, Department Head, who analyzed DNA of violent rats to infer genetic basis within humans.

- Used polyacrylamide gel to isolate DNA, examined neural density using Western blots. Analysis demonstrated a correlation exists between genetic predisposition and violence in rats.
- Wrote detailed 150-page research report for sponsoring agency, Canada Research Council.

Teaching Assistant

University of British Columbia

2009 – 2011
Vancouver, BC

Taught and supervised students during graduate and undergraduate research projects. Students and topics included:

- 3rd year Biochemistry Student – Mapping Neural Traces in Human Brain
- Graduate Student – Attempted to identify transcriptal human brain processing.

Teaching Assistant

University of Toronto

2006 – 2008
Toronto, ON

Organized and taught courses in introductory laboratory techniques, genetics 101, brain physiology, marked papers and oversaw tutorials for 45, 2nd year microbiology students.

CONFERENCES AND PRESENTATIONS

Swift, J., Kuhns, M. **Gene Targeting Challenges: The Precision Debate.** *Medical Genetics Association*, Santa Fe, 2011.

Swift, J., Kuhns, M. **Violence, Brain Chemistry and Genetics.** *Human Genome Organization*, Vancouver, 2010.

Swift, J., Kuhns, M. **Brain Chemistry and Science: Link?** Science Conference of Canada, Toronto, 2009.

PUBLICATIONS

Kuhns, M., Golding, D., and Swift, J. (2011). The genetic contribution to violent behaviour. *Journal of Neuroscience*, 80 (1): 45-60.

Kuhns, M., Golding, D., Swift, J. (2010). DNA, neural traces, and violent behavior. *Neuroscience Journal of UK*. 43(2), 22-80.

SKILLS

Lab Specific: Cellular/Molecular/Technical

- | | |
|---|-------------------------|
| • DNA, RNA and cDNA Preparation | • PCR and RT-PCR |
| • Molecular Cloning & Vector Design | • Cell Culture |
| • Agarose, Acrylamide, and Pulsed Field Electrophoresis | • MatLab (Intermediate) |
| • Western Blotting and Immunohistochemistry | • SPSS (Advanced) |

Lab Specific: In Vivo

- | | |
|------------------------------|---------------------------|
| • Transgenic Mouse Husbandry | • Rat Stereotaxic Surgery |
|------------------------------|---------------------------|

OTHER WORK EXPERIENCE

Graduate Student Representative - Science Graduate Student Society	University of British Columbia	2009 – Present
Student Representative Science Association	University of Toronto	2006 - 2008
Contributing Writer Science is Fun Newsletter for High School Students	Toronto Board of Education	2006 - 2008
Student Representative Student Association	University of Western Ontario	2004 - 2006

COMMUNITY CONTRIBUTIONS AND INVOLVEMENT

Board Member, Public Dreams Society	Vancouver, BC	2009 – Present
<ul style="list-style-type: none"> Participate on an 8-member board to make decisions about direction of Society, financial management and fund raising. Wrote proposals to federal and provincial government offices for financial funding for program delivery. 		
Toastmasters International	Vancouver and Toronto	2008 – Present
<ul style="list-style-type: none"> Contributing member of this society devoted to improving public speaking skills. 		

REFERENCES

Dr. M. Kuhns, Professor
Department of Molecular Biology
University of British Columbia
333 West Mall
Vancouver, BC
t: (604) 822-3333
e: max.kuhns@ubc.ca

Dr. H. Smith, Professor
Department of Molecular Biology
University of Toronto
888 College Avenue
Toronto, Ontario
e: harold.smith@uoft.ca

Dr. D. Golding, Professor
Department of Molecular Biology
University of British Columbia
333 West Mall
Vancouver, BC
t: (604) 822-5555
e: dan.golding@ubc.ca

