CLAIRE GEORGINA CUPPLES - CURRICULUM VITAE

1. CONTACT INFORMATION:

Work:

Faculty of Science 8888 University Dr. Burnaby, British Columbia Canada, V5A 1S6 (604) 762-6691 (cell)

E-mail: ccupples@sfu.ca

2. DEGREES AND QUALIFICATIONS:

<u>Degree</u>	<u>Institution</u>	Subject	Years
BSc (hons)	University of Victoria, Victoria, BC, Canada	Biology	1970-74
MSc	University of Calgary, Calgary, AB, Canada	Biochemistry	1976-77
PhD	York University, Toronto, ON, Canada	Biology	1981-85

Postdoctoral experience

1985-88 Postdoctoral Fellow, University of California at Los Angeles, U.S.A.

3. ACADEMIC POSITIONS HELD:

Concordia University, Montréal, Québec, Canada

1989-1995	Assistant Professor	Biology Department
1995-2002	Associate Professor	Biology Department
2002-2003	Professor	Biology Department

University of Victoria, Victoria, B.C. Canada

2003-2010 Professor Department of Biochemistry and Microbiology

Simon Fraser University, Burnaby, B.C. Canada

2010- Professor Department of Molecular Biology and Biochemistry

4. ADMINISTRATIVE EXPERIENCE:

Concordia University:

1997-1998	Acting Chair	Biology Department
2000-2003	Chair	Biology Department

University of Victoria:

2003-2006	Chair	Department of Biochemistry and Microbiology
2006-2008	Associate Dean	Faculty of Science
01/09-08/09	Acting Dean	Faculty of Science
09/09-03/10	Dean pro tem	Faculty of Science

Simon Fraser University:

2010- Dean Faculty of Science

<u>Committees – Various</u>

Concordia University - Biology Department:

1989-92	Graduate Committee
1991-95	Curriculum Committee
1991	Research Committee
1994-95; 1998-00	Personnel Committee

1998-00 Coordinator - Undergraduate research projects

Planning and Priorities Committee

Various Several faculty hiring committees in the Department of Biology and in the

Department of Chemistry and Biochemistry

Concordia University - Faculty of Arts & Science:

1989-93	Academic Dishonesty Committee
1989-91	Biohazard Committee
1991-96	Joint Curriculum Committee on Biochemistry and Molecular Biology
1992-94	Research Committee
1993	Appraisal Committee, Department of Mathematics & Statistics
1997-8; 2000-03	Faculty Council
1998	Search Committee for Chair, Department of Mathematics and Statistics
1999-00	NSERC scholarship committee
2000-03	Faculty Council Steering Committee
2002	Search Committee for Chair, Department of Psychology
2003	Search Committee for Chair, Department of Exercise Science

Concordia University - University Committees:

1998	Search Committee for Provost and Vice-Rector, Research
1998-00	University Faculty Appeals Board
1999-02	Senate
2001	Re-Appointment Committee, Dean of Arts and Science

University of Victoria - University Committees:

2003	Animal Users Committee
2004	Administration team, Professional Employees Association contract renewal
	Task force on future of UVic-Genome BC Proteomics facility
	Search committee - Director, Centre for Biomedical Research
	Search Committee - Director, Centre for Forest Biology
	Speaker – Chairs' Forum
2005	Steering Committee - Diploma Program in Occupational Health and Safety
	Search Committee - LEEF Chair in Forest Genomics
	Search Committee - Medical Microbiologist, Island Medical Program
	Search Committee - UVic-Genome BC Proteomics Centre Director
2006	Search Committee - Island Medical Program faculty position
	Search Committee - Director, Centre for Biomedical Research
2007	Search Committee - Dean of Engineering
	Member, Vice President Research Advisory Committee
	Committee on Health Education and Research
2008	Administration Team, Faculty Association contract renewal
2009	Search Committee - Director, Centre for Global Studies
	Search Committee - Director of Health Education and Research
	Management Committee - UVic-Genome BC Proteomics facility
	Management Committee - Pacific Climate Impacts Consortium
	Management Council - Bamfield Marine Sciences Centre
	Management Committee - UVic Learning Commons
	Senate

Simon Fraser University - University Committees:

2010	Senate (ongoing)
	Senate Committee on Enrolment Management Planning (ongoing)
2011	Search Committee, Associate Vice President Research
	Search Committee, Associate Vice President Academic
2013	Search Committee, Vice President Research
	Search Committee, Dean, Faculty of Environment
2014	Search Committee, Dean, Faculty of Communications, Art & Technology
	Search Committee, Dean, Beedie School of Business
2015	Search Committee, Dean, Faculty of Applied Sciences
	Steering Committee, Emergency Planning & Operational Preparedness
	SCUP

5. RESEARCH:

Study of DNA repair and mutagenesis using genetic, molecular and biochemical techniques in model organisms (*Escherichia coli, Tetrahymena thermophila*) and humans.

Research funding

Agency	Grant Title	Grant holders	Time period	Amount awarded p/a to me
FCAR	Modulation of codon usage in <i>Escherichia</i> coli	C. Cupples	1990-1993	\$14,000
MRC	Inactivation of mismatch repair by the Vsr endonuclease of <i>Escherichia coli</i> .	C. Cupples	1998-2000	\$56,000
MRC	Physiological modulation of mutation rate in <i>Escherichia coli</i>	C. Cupples	2000-2003	\$92,000
CIHR	Determination of the role of MutL in mismatch repair	C. Cupples	2003-2004	\$19,000
CIHR	Role of MutL in the regulation of DNA mismatch repair.	C. Cupples	2004-2008	\$ 73,108
NCIC	Causes and consequences of mutation at methylated cytosines.	C. Cupples	1994-1997	\$72,000
NSERC	Mechanism of frameshift mutations in <i>E. coli</i>	C. Cupples	1989-1992	\$31,000
NSERC	Base analog mutagenesis in E. coli	C. Cupples	1992-1996	\$31,000
NSERC	Methylcytosines as mutational hotspots in <i>Escherichia coli</i>	C. Cupples	1996-2000	\$34,000
NSERC	Dynamics of mismatch repair in Escherichia coli	C. Cupples	2000-2004	\$25,000
NSERC	Mismatch repair protein function in Tetrahymena thermophila	C. Cupples	2004-2009	\$28,000
NSERC	Maintenance of genetic and epigenetic stability by MBD4	C. Cupples	2010-2015	\$28,000

Key:

CIHR: Canadian Institutes for Health Research (previously MRC)

FCAR: Fonds pour la Formation de Chercheurs et l'Aide à la Recherche du Québec

MRC: Medical Research Council of Canada NCIC: National Cancer Institute of Canada

NSERC: Natural Sciences and Engineering Research Council of Canada

Articles published in refereed journals

- (N.B. The names of my undergraduate and graduate students, postdoctoral fellows and technicians are underlined.)
- Cupples, C.G. and Y.H. Tan, 1977. Effects of human interferon preparations on lymphoblastogenesis in Down's Syndrome. *Nature* **26**, 165-167
- Freedman, M.H., N.R. Kahn, B.J. Trew-Marshall, C.G. Cupples, and B. Mély-Goubert, 1981. Early biochemical events in lymphocyte activation. *Cellular Immunology* **58**, 134-146.
- Cupples, C.G. and R.E. Pearlman, 1986. Isolation and characterization of the actin gene from *Tetrahymena thermophila*. *Proc. Natl. Acad. Sci. U.S.A.* **83**, 5160-5164.
- Nghiem, Y., M. Cabrera, C.G. Cupples, and J.H. Miller, 1988. The *mutY* Gene: A new mutator locus in *Escherichia coli* which generates G.C to T.A transversions. *Proc. Natl. Acad. Sci. U.S.A.* **85**, 2709-2713.
- Cupples, C.G. and J.H. Miller, 1988. Effects of amino acid substitutions at the active site in *E. coli* β-galactosidase. *Genetics* **120**, 637-644.
- Cupples, C.G. and J.H. Miller, 1989. A Set of *lacZ* Mutations in *Escherichia coli* that allow rapid detection of each of the six base substitutions. *Proc. Natl. Acad. Sci. U.S.A.* **86**, 5345-5349.
- Cupples, C.G., J.H. Miller, and R.E. Huber, 1990. Determination of the roles of Glu-461 in β-galactosidase, *Escherichia coli*, using site-specific mutagenesis. *J. Biol. Chem.* **265**, 5512-5518.
- Cupples, C.G., M. Cabrera, C. Cruz and J.H. Miller, 1990. A Set of *lacZ* mutations in *Escherichia coli* that allow rapid detection of specific frameshift mutations. *Genetics* **125**, 275-280.
- Edwards, R.A., C.G. Cupples and R.E. Huber, 1990. Site-specific mutants of β -galactosidase indicate that Tyr-503 is not involved in Mg²⁺ binding but that Glu-461 is very important and may be a ligand to Mg²⁺. *Biochem. Biophys. Res. Comm.* **171**, 33-37.
- <u>Vidmar, J.J.</u> and C.G. Cupples, 1993. MutY repair is mutagenic in *mutT*[□] strains of *Escherichia coli*, *Can. J. Microbiol*. **39**, 892-4.
- Ruiz, S,M., S. Létourneau, and C.G. Cupples, 1993. Isolation and characterization of an *Escherichia coli* strain with a high frequency of C to T mutations at 5-methylcytosines, *J. Bacteriol.* **175**, 4985-4989.
- <u>Petropoulos, L., J.J. Vidmar, E. Passi</u>, and C.G. Cupples, 1994. A simple assay for monitoring the mutagenic effects of 5-methylcytosine deamination in *Escherichia coli*, *Mutation Research* **304**, 181-5.

- <u>Doiron, K.M.J., S. Viau, M. Koutroumanis</u>, and C.G. Cupples, 1996. Overexpression of *vsr* in *Escherichia coli* is mutagenic, *J. Bacteriol*. **178**, 4294-96.
- Macintyre, G. K.M.J. Doiron and C.G. Cupples, 1997. The Vsr endonuclease of *Escherichia coli*: an efficient DNA repair enzyme and a potent mutagen, *J. Bacteriol.* **179**, 6048-52.
- <u>Doiron, K.M.J., J. Lavigne-Nicolas</u> and C.G. Cupples, 1999. Effect of interaction between 5-azacytidine and DNA (cytosine-5) methyltransferase on C-to-G and C-to-T mutations in *Escherichia coli. Mutat. Res.* **429**, 37-44.
- <u>Macintyre, G., P. Pitsikas</u> and C.G. Cupples, 1999. Growth phase-dependent regulation of Vsr endonuclease levels in *Escherichia coli* may contribute to 5-methylcytosine mutational hotspots. *J. Bacteriol.* **181**, 4435-4436.
- Macintyre, G., C.V. Atwood and C.G. Cupples, 2001. Lowering S-adenosyl methionine levels in *Escherichia coli* alters C-to-T transition mutations, *J. Bacteriol.* **183**, 921-927.
- Mansour, C.A, K.M.J. Doiron and C.G. Cupples, 2001. Characterization of functional interactions among the *Escherichia coli* mismatch repair proteins using a bacterial two-hybrid assay, *Mut. Res*, **485**, 331-338.
- <u>Bell, D.C.</u> and C.G. Cupples, 2001. Very short patch repair in *Escherichia coli* requires the *dam* adenine methylase, *J. Bacteriol.* **183**, 3631-3635.
- Huber, R.E., S. Hakda, C. Cheng. C.G. Cupples and R.A. Edwards, 2003. Trp 999 of β–galactosidase (*Escherichia coli*) is a key residue for binding, catalysis, and synthesis of allolactose, the natural *lac* operon inducer, *Biochem.* **42**, 1797-1803.
- <u>Pitsikas, P., J.M. Patapas</u> and C.G. Cupples, 2004. Mechanism of 2-aminopurine-stimulated mutagenesis in *Escherichia coli. Mutat. Res.* 550: 25-32.
- Monastiriakos, K.M., K.M.J. Doiron, M.I. Siponen and C.G. Cupples, 2004. Functional interactions between the MutL and Vsr proteins of *Escherichia coli* are dependent on the N-terminus of Vsr, *DNA Repair* 3: 639-647.
- Ishibashi, T., <u>K. So</u>, C.G. Cupples, and J. Ausio, 2008. MBD4-mediated glycosylase activity on a chromatin template is enhanced by acetylation. *Mol. Cell. Biol.* 28:4734-44.
- Ali, M., H. Kim, S. Cleary, C.G. Cupples, S. Gallinger and R. Bristow, 2008. Characterization of mutant MUTYH proteins associated with familial colorectal cancer. *Gastroenterology*, 135: 499-507
- <u>Pitsikas, P., Y.Y. Polosina</u> and C.G. Cupples, 2009. Interaction between the mismatch repair and nucleotide excision repair pathways in the prevention of 5-azacytidine-induced CG-to-GC mutations in *Escherichia coli. DNA Repair* 8: 354-359.

- Heinze, R. L. Giron-Monzon, A. Solovyova, S.L. Elliot, S. Geisler, C.G. Cupples, B.A. Connolly and P. Friedhoff, 2009. Physical and functional interactions between *Escherichia coli* MutL and the Vsr repair endonuclease, *Nucl. Acids Res.* **37**:4453-63.
- Polosina, Y.Y., J. Mui, P. Pitsikas and C.G. Cupples, 2009. The *Escherichia coli* mismatch repair protein MutL recruits the Vsr and MutH endonucleases in response to DNA damage. *J. Bacteriology* **191**:4041-3.
- <u>Polosina, Y.Y.</u> and C.G. Cupples, 2009. Changes in the conformation of the Vsr endonuclease amino-terminal domain accompany DNA cleavage. *J. Biochemistry* **146:**523-6.
- <u>Polosina, Y.Y.</u> and C.G. Cupples, 2010. MutL: Conducting the cell's response to mismatched and misaligned DNA. *BioEssays* 32 (1) 51-59.
- Polosina, Y.Y. and C.G. Cupples, 2010, Wot the 'L Does MutL do? Mutat. Res. 705: 228-38.

Book chapters

- Cupples. C.G. and <u>G. Macintyre</u>, 2000 The *E. coli* Vsr endonuclease: Assaying activity *in vitro* and *in vivo*. Methods in Molecular Biology, DNA Repair Protocols: Prokaryotic Systems (P. Vaughan, ed.), Vol. 152, pp. 65-75, Humana Press Inc., Totowa NJ.
- Cupples, C.G.. 2001. *Escherichia coli* and the Development of Bacterial Genetics. Encyclopaedia of Life Sciences, Macmillan Publishing, London.
- Cupples, C.G., 2001. Mutagenesis Mechanisms. Encyclopaedia of Life Sciences, Macmillan Publishing, London.
- Cupples, C.G. 2009. DNA Repair. Encyclopaedia of Microbiology, (Moselio Schaechter, Editor) pp. 99-112 Oxford: Elsevier.
- <u>Polosina, Y.Y.</u> and Cupples, C.G. 2010. Mutagenesis Mechanisms (revised), Encyclopaedia of Life Sciences, Macmillan Publishing, London.

Presentations at conferences or institutions

Abstracts and invited talks (records kept from 1998 on)

- <u>Macintyre</u>, <u>G</u>. and Cupples, C.G. Vsr as a potential regulator of mutagenesis in *E. coli*. New York Academy of Sciences Meeting on *Molecular Strategies in Biological Evolution*, June 1998.
- Cupples, C.G., <u>Doiron, K.M.J., Macintyre, G. and Pitsikas, P.</u> Tales of a two-timing protein: *E. coli* Vsr. *Gordon Conference on Mutagenesis*, June 1998.

- <u>Doiron,K.M.J.</u> and C.G. Cupples, Interaction of *E. Coli* Vsr protien with MutL may be responsible for Vsr-mediated mutagenesis. *Molecular Genetics of Bacteria and Phage*, Cold Spring Harbor NY August 1998.
- <u>Pitsikas, P.</u> & Cupples, C.G. Dcm Cytosine Methylase Decreases Plasmid DNA Replication in *Escherichia coli* Treated With 5-Azacytidine, Genetics Society of Canada, Montreal, June 1999.
- <u>Doiron, K.M.J.</u>& Cupples, C.G. Vsr Repair Activity in *Escherichia coli* is not Essential For Vsr-Stimulated Mutagenesis, Genetics Society of Canada, Montreal, June 1999.
- Monastiriakos, S. & Cupples, C.G., The N-terminus of the *Escherichia coli* DNA Repair Protein, Vsr, is Essential for Endonuclease Activity, Genetics Society of Canada, June 1999.
- Mansour, C.A. & Cupples, C.G., The Role of *Escherichia coli* MutS in the Prevention of Transversion Mutations, Genetics Society of Canada, Montreal, June 1999.
- Macintyre, G. & Cupples, C.G., "And Never the Twain Shall Meet" Consequences of Vsr and MutL Interactions in *Escherichia coli*, Genetics Society of Canada, Montreal, June 1999.
- <u>Bell, D.C.</u> & Cupples, C.G., The *dam* Adenine Methylase is Important for Very Short Patch (VSP) Repair in *Escherichia coli*, Genetics Society of Canada, Montreal, June 1999.
- Cupples, C.G. <u>K.M.J.Doiron</u> and <u>G. Macintyre</u>, The interaction between Vsr and MutL in *Escherichia coli* inhibits mismatch repair. *DNA Repair*, American Society for Microbiology, Hilton Head, SC, November 1999.
- <u>Bell, D.C.</u> and C.G. Cupples, Very short patch repair in *Escherichia coli* requires the Dam adenine methylase. American Society for Microbiology, Hilton Head, SC, November 1999.
- Monasteriakos, S.K. and C.G. Cupples, Determination of the role of the N-terminus of Vsr endonuclease in very short patch repair in *Escherichia coli*, Symposium on *Biological Responses to DNA Damage*, Cold Spring Harbour, NY, May 2000.
- Cupples, C.G., <u>K.M.J. Doiron, C.A. Mansour, G. Macintyre</u> and <u>P. Pitsikas</u>, MutL A key player in multiple DNA repair pathways in *Escherichia coli*, Genetics 2000, Vancouver, June 2000.
- <u>Doiron, K.M.J., C.A. Mansour</u> and C.G. Cupples, The role of *Escherichia coli* MutL in Vsr-stimulated mutagenesis, Gordon Conference on Mutagenesis, Oxford UK, August 2000.
- Cupples, C.G., S. Chappaz, G. Macintyre, S.K. Monastiriakos, and M.I. Siponen, Identification of amino acids in the *E. coli* Vsr enconuclease which are important for binding and cleavage at T/G mismatches. Gordon Conference on Mutagenesis, Oxford UK, August 2000.

- <u>Vandewiele, J.</u> and C.G. Cupples, Identification of mismatch repair genes in *Tetrahymena* thermophila. Ciliate Molecular Biology, Federation of American Societies for Experimental Biology, Saxton's River VT, July 2001.
- Cupples, C.G. and <u>P. Pitsikas</u>. Mutational hotspots at 5-methylcytosines may be due in part to blockage of mismatch repair by cytosine methyltransferases, Meeting on *Epigenetics of Cancer / Cancer and Chromosomal Organization*, American Association for Cancer Research, Palm Desert, CA October 2001.
- <u>Doiron, K.M.J., D. Harris, E. Roberts</u> and C.G. Cupples, Role of ATP in functional interactions between *Echerichia coli* MutL and Vsr, American Society for Microbiology conference on DNA Repair and Mutagenesis, Bermuda, November 2004.
- <u>Bell, D.C, E. Roberts, S.R. Salsiccioli</u> and C.G. Cupples, Mismatch repair protein expression and nuclear localization during mitosis and meiosis in *Tetrahymena thermophila*, American Society for Microbiology conference on DNA Repair and Mutagenesis, Bermuda, November 2004.
- Cupples, C.G. and <u>Gagne, S</u>, Mismatch formation and repair at 5-methylcytosine in *Escherichia coli*, American Society for Microbiology conference on DNA Repair and Mutagenesis, Bermuda, November 2004. (**invited talk**)
- Cupples, C.G. DNA mismatch repair in *Tetrahymena thermophila*, FASEB summer conference on ciliate molecular biology, Italy, August 2005 (**invited talk**)
- <u>Annandale, E.J., Salsiccioli, S.R., Polosina, Y.Y.</u> and Cupples, C.G. DNA repair and the disposable genome. Genetics Society of Canada, Montreal, 2007
- Cupples, C.G. Guardians of the Genome: The DNA mismatch repair proteins of *Tetrahymena thermophila*, FASEB summer conference on ciliate molecular biology, Tucson AZ, August 2007 (invited talk)
- Annandale, E.J., Salsiccioli, S.R., Lin, S. and Cupples, Differential nuclear localization of mismatch repair proteins in *Tetrahymena thermophila*. FASEB summer conference on ciliate molecular biology, Tucson AZ, August 2007
- Cupples, C.G., <u>E.A. Annandale, S.R. Salsiccioli, L. Sun</u> and <u>Y.Y. Polosina</u>, Role of the mismatch repair proteins in meiosis and development in *Tetrahymena thermophila*. Gordon Research Conference on Mutagenesis, Oxford, UK, July 2008.
- Cupples, C.G. The role of MutS and MutL in Very Short Patch Repair in *E. coli*. American Society of Microbiology meeting on DNA Repair and Mutagenesis, Whistler BC, June, 2009 (invited talk)
- <u>Salsiccioli, S.R., Y.Y Polosina</u> and C.G. Cupples, The effect of DNA mismatch repair deficiency on macronuclear and micronuclear mutation rates in *Tetrahymena thermophila*.

American Society of Microbiology meeting on DNA Repair and Mutagenesis, Whistler BC, June, 2009

<u>Polosina, Y.Y.</u> and C.G. Cupples, The *E. coli* MutL protein as a recruiter of DNA repair proteins to DNA damage. American Society of Microbiology meeting on DNA Repair and Mutagenesis, Whistler BC, June, 2009

Seminars

- Département de Microbiologie, Université de Montréal, QC
- Hôpital de Maisonneuve-Rosemont, Montréal, QC
- National Institutes of Environmental Health Sciences, North Carolina, U.S.A.
- Microbiology Department, University of Louisiana, Baton Rouge, U.S.A.
- Biochemistry Department, University of Alberta, Edmonton, AB
- Biochemistry Department, Queens University, Kingston, ON
- Biology Department, Carleton University, Ottawa, ON
- Biochemistry Department, University of Guelph, Guelph, ON
- Institût Jacques Monod, University of Paris, France
- Biochemistry Department, University of Göttingen, Germany
- Biology Department, University of Alberta, Edmonton, AB
- Microbiology Department, Macdonald College of McGill University, Montreal, QC
- Department of Biochemistry and Microbiology, University of Victoria, BC
- Department of Genetics and Microbiology, University of Vermont, U.S.A.
- Department of Microbiology and Immunology, University of Saskatchewan, Saskatoon, SK
- Biology Department, York University, Toronto, ON
- Department of Biochemistry and Molecular Biology, Simon Fraser University

6. Brief Summary of Teaching Experience: (details available on request)

- 22 years of teaching experience
- Lecture courses in molecular biology and microbiology at all undergraduate levels, with class sizes ranging from 20 to 120.
- Designed, implemented and ran a laboratory course in molecular biology for 7 years
- Taught in an interdisciplinary undergraduate course on HIV/AIDS for 10 years
- Graduate seminar courses
- Over 50 undergraduate research students trained in my lab
- 15 MSc and PhD students trained in my lab
- 2 post-doctoral fellows

7. OTHER CONTRIBUTIONS:

Membership and service on international, national and provincial professional bodies and societies

Canadian Council of University Biology Chairs:

1997-1998	Member at Large
2000-2001	Member at Large
2001-2002	Vice-President
2002-2003	President

Senior Women Academic Administrators of Canada (SWAAC)

2007-2009 Member of Executive, representing Western Canada

Canadian Council of Deans of Science:

2012-13	Member of Executive
2013-15	President

Board Memberships:

2010-	TRIUMF
2011-14	BCNet
2011-14	Science Fair Foundation of BC
2012-	Bamfield Marine Sciences Centre

Conference organizing committees

2007	FASEB Summer Conference on Ciliate Molecular Biology
2014-15	Canadian Council of Deans of Science annual meetings

Grant review committees (provincial and national)

1998	Jury member, Prix Marie Victorin (QC)
2000-2002	Canadian Institutes for Health Research, New Investigators A Panel
2005-2006	Biomedical Research Scholars Panel, Michael Smith Foundation for Health
	Research (MSFHR)
2007	Chair, Biomedical Research Scholars Panel, MSFHR

Grant proposals reviewed

- Canadian Institutes for Health Research
- International Human Frontiers Science Program (Europe)
- Medical Research Council
- National Science Foundation (US)
- National Cancer Institute of Canada (Terry Fox program)
- Natural Sciences and Engineering Research Council
- Natural Sciences and Engineering Research Council (Strategic program)
- Netherlands Organisation for Scientific Research

Reviews for journals

- Biochemistry
- Canadian Journal of Microbiology
- Carcinogenesis
- Current Microbiology
- Genetics
- Genome
- Journal of Bacteriology

- Journal of Molecular Biology
- Journal of Molecular Evolution
- Molecular Microbiology
- Mutation Research
- PLOS One
- Radiation Biology

Other professional activities

External Appriasals:

- Graduate Program in Biology, University of Saskatchewan (2015)
- Bachelor of Science program, University of Guelph (2015)

Tenure/promotion dossiers reviewed for:

- Institût Pasteur (2002)
- University of Oregon (2005)
- Carleton University (2006)
- University of Northern British Columbia (2009)
- University of Saskatchewan (2015)

International visits:

- Chinese Universities in Shanghai and Nanjing with UVic team (2008)
- Chilean Universities in Santiago and Concepción with SFU team (2014)
- University of Christchurch (NZ) emergency preparedness fact finding (2014)
- Universities in Hong Kong and Singapore with SFU team (2014)

Public Education:

- SCWIST Brown Bag lunch series for graduate students and post-docs, 2015
- Cafés Scientifique:
 - Victoria, October 2009 (We are all mutants: Genetic variation in health and disease)
 - Vancouver, April 2013 (Science of vaccines)
- Deans' Lunchtime Lecture Series, Victoria Public Library, October 2009
- Interview with CFAX (Victoria), October 2009
- University of Victoria Speakers Bureau
- Radio: multiple interviews with Canadian Broadcasting Corporation
- CTV: ½ hour show on Home Health Hazards
- Took two week course in Science Communication, Banff Centre for the Performing Arts (2007)