

## CURRICULUM VITAE

**Hanne Louise Ostergaard, Ph.D.**

### PERSONAL INFORMATION:

Current Position: Professor  
Department of Medical Microbiology & Immunology,  
670 Heritage Medical Research Centre  
University of Alberta  
Edmonton, Alberta T6G 2H7  
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### EDUCATION:

1983 B.S., Department of Biology (Division of Cell and Molecular Biology),  
University of California, Los Angeles  
1988 Ph.D., Department of Biology (Division of Cell and Molecular Biology),  
University of California, Los Angeles

### PROFESSIONAL RECORD:

1983-87 Teaching Assistant, Department of Biology, University of California, Los Angeles  
1988-91 Postdoctoral Fellow, Department of Cancer Biology, The Salk Institute, La Jolla, California  
1991-1995 Assistant Professor, Department of Immunology, University of Alberta, Edmonton  
1995-1997 Assistant Professor, Department of Medical Microbiology & Immunology, University of Alberta, Edmonton  
1997-2001 Associate Professor, Department of Medical Microbiology & Immunology, University of Alberta, Edmonton  
2001-present Professor, Department of Medical Microbiology & Immunology, University of Alberta, Edmonton  
2012-present Associate Dean Research, Graduate Programs, Faculty of Medicine and Dentistry

### HONORS AND AWARDS:

Dr. Ursula Mandel Pre-doctoral Fellowship, University of California, Los Angeles (1987)  
Damon-Runyon Walter Winchell Cancer Research Fund Fellow (1989-90, declined)  
Leukemia Society of America Fellow (1990-1992)  
Alberta Heritage Foundation for Medical Research Scholar (1991-96)  
Medical Research Council of Canada Scholarship (1993-97)  
Alberta Heritage Foundation for Medical Research Senior Scholar (1996-2001)  
Alberta Heritage Foundation for Medical Research Scientist (2001-2013)  
Canadian Society for Immunology Investigator Award (2013)

### SOCIETY MEMBERSHIPS:

American Association for the Advancement of Science  
American Association of Immunologists  
American Society for Cell Biology  
Canadian Society for Immunology

**PUBLICATIONS:**

**Refereed Papers:**

(trainees in my laboratory)

1. Bonavida, B., **Ostergaard, H.** and Katz, J., Mechanism of T-dependent cytotoxicity: role of papain-sensitive non class I MHC target molecules and expression of target antigen for cytotoxicity. *Adv. Exp. Med. & Biol.* 184:415-28, 1985.
2. Dewes, H., **Ostergaard, H.L.** and Simpson, L., Impaired drug uptake in methotrexate resistant *Crithidia fasciculata* without changes in dihydrofolate reductase activity or gene amplification. *Molec. Biochem. Parasitol.* 19:149-161, 1986.
3. Blakely, A., Gorman, K., **Ostergaard, H.L.**, Svoboda, K., Liu, C-C., Young, J.D-E. and Clark, W.R. Resistance of cloned cytotoxic T lymphocytes to cell-mediated cytotoxicity. *J.Exp. Med.* 166:1070-1083, 1987.
4. **Ostergaard, H.L.**, Kane, K.P., Mescher, M.F. and Clark, W.R. Cytotoxic T lymphocyte mediated lysis can occur in the absence of serine esterase release. *Nature* 330:71-72, 1987.
5. **Ostergaard, H.L.** and Clark, W.R. The role of Ca<sup>++</sup> in activation of mature cytotoxic T lymphocytes for lysis. *J. Immunol.* 139:3573-3579, 1987.
6. **Ostergaard, H.L.**, Gorman, K. and Clark, W.R. Cloned cytotoxic T lymphocyte target cells fail to induce early activation events in effector cytotoxic T lymphocytes. *Cellular Immunology* 114:188-197, 1988.
7. **Ostergaard, H.L.** and Clark, W.R. Evidence for Multiple lytic pathways used by cytotoxic T lymphocytes. *J. Immunol.* 143:2120-2126, 1989.
8. **Ostergaard, H.L.**, Shackelford, D., Hurley, T., Johnson, P., Hyman, R., Sefton, B., and Trowbridge, I. CD45 regulates phosphorylation of the lck tyrosine protein kinase in murine lymphoma T cell lines. *Proc. Natl. Acad. Sci., USA* 86:8959-8963, 1989.
9. **Ostergaard, H.L.** and Trowbridge, I.S. Coclustering of CD45 with CD4 or CD8 alters the phosphorylation and kinase activity of p56lck. *J. Exp. Med.* 172:347-350, 1990.
10. Taetle, R., **Ostergaard, H.L.**, Smedsrud, M. and Trowbridge, I.S. Regulation of CD45 expression in human leukemia cells. *Leukemia* 5:309-314, 1991.
11. **Ostergaard, H.L.** and Trowbridge, I.S. Negative regulation of CD45 protein tyrosine phosphatase activity by ionomycin in T cells. *Science* 253:1423-1425, 1991.
12. Johnson, P., **Ostergaard, H.L.**, Wasden, C. and Trowbridge, I.S. Mutational analysis of CD45, a leukocyte specific protein tyrosine phosphatase. *J. Biol. Chem.* 267:8035-8041, 1992.
13. Trowbridge, I.S., Johnson, P., **Ostergaard, H.L.** and Hole, N. Regulation and structure-function relationship of CD45. *Biochemical Society Transactions* 20:174-180, 1992
14. Garner, R., Helgason, C.D., Atkinson, E.A., Pinkoski, M.J., **Ostergaard, H.L.**, Sorensen, O., Fu, A., Lapchak, P.H., Rabinovitch, A., McElhaney, J.E., Berke, G. and Bleackley, R.C.

- Characterization of a granule-independent lytic mechanism utilized by CTL hybridomas. *J. Immunol.* 153:5413-5421, 1994.
15. Arendt, C.W. and **Ostergaard, H.L.** CD45 protein-tyrosine phosphatase is specifically associated with a 116-kDa tyrosine-phosphorylated glycoprotein. *J. Biol. Chem.* 270:2313-2319, 1995.
  16. **Ostergaard, H.L.** and Ma, E. Fibronectin induces phosphorylation of a 120 kD protein and synergizes with the T cell receptor to activate cytotoxic T cell clones. *Eur. J. Immunol.* 25:252-256, 1995.
  17. Mossman, K.L., **Ostergaard, H.L.**, Upton, C. and McFadden, G. Myxoma virus and Shope fibroma virus encode dual specificity tyrosine-serine phosphatases which are essential for virus viability. *Virology* 206:572-582, 1995.
  18. Berg, N. and **Ostergaard, H.L.** Characterization of intercellular adhesion molecule-1 (ICAM-1)-augmented degranulation by cytotoxic T cells: ICAM-1 and anti-CD3 must be co-localized for optimal adhesion and stimulation. *J. Immunol.* 155:1694-1702, 1995.
  19. Arendt, C.W., Hsi, G. and **Ostergaard, H.L.** Immobilized antibodies to CD45 induce rapid morphological changes and increased tyrosine phosphorylation of p56lck-associated proteins in T cells. *J. Immunol.* 155:5095-5103, 1995.
  20. Atkinson, E.A., **Ostergaard, H.**, Kane, K., Pinkoski, M.J., Caputo, A., Olszowy, M.W. and Bleackley, R.C. A physical interaction between the cell death protein Fas and the tyrosine kinase p59fynT. *J. Biol. Chem.* 271:5968-5971, 1996.
  21. Dawson, J.F., **Ostergaard, H.L.**, Klix, H., Boland, M.P. and Holmes, C.F.B. Evidence for reversible tyrosine protein phosphorylation in the okadaic acid-producing marine dinoflagellate *Prorocentrum lima*. *J. Euk. Microbiol.* 44:89-95, 1997.
  22. Ma, E.A., Lou, O., Berg, N.N. and **Ostergaard, H.L.** Cytotoxic T lymphocytes express a  $\beta 3$  integrin which can induce the phosphorylation of focal adhesion kinase and the related Pyk2. *Eur. J. Immunol.* 27:329-335, 1997.
  23. Arendt, C.W. and **Ostergaard, H.L.** Identification of the CD45-associated 116-kDa and 80-kDa proteins as the  $\alpha$  and  $\beta$  subunits of  $\alpha$  glucosidase II. *J. Biol. Chem.* 272:13117-13125, 1997.
  24. Berg, N.N. and **Ostergaard, H.L.** T cell receptor engagement induces the phosphorylation of FAK and Pyk2 and their association with Lck. *J. Immunol.* 159:1753-1757, 1997.
  25. **Ostergaard, H.L.**, Lou, O., Arendt, C.W. and Berg N.N. Paxillin phosphorylation and association with Lck and Pyk2 in anti-CD3 or anti-CD45 stimulated T cells. *J. Biol. Chem.* 273:5692-5696, 1998.
  26. Berg, N.N., Puente, L.G., Dawicki, W. and **Ostergaard, H.L.** Sustained TCR signalling is required for mitogen-activated protein kinase activation and degranulation by cytotoxic T lymphocytes. *J. Immunol.* 161:2919-2924, 1998.
  27. Arendt, C.W., Dawicki, W. and **Ostergaard, H.L.** Alternative splicing of transcripts encoding the  $\alpha$ - and  $\beta$ -subunits of mouse glucosidase II in T lymphocytes. *Glycobiology* 9:277-283, 1999.

28. Arendt, C.W. and **Ostergaard, H.L.** Two distinct domains of the  $\beta$ -subunit of Glucosidase II interact with the catalytic  $\alpha$ -subunit. *Glycobiology* 10:487-492, 2000.
29. Ebinu, J.O., Stang, S.L., Teixeira, C., Bottorff, D.A., Hooton, J., Blumberg, P.M., Barry, M., Bleackley, R.C., **Ostergaard, H.L.** and Stone, J.C. RasGRP links T cell receptor signaling to Ras. *Blood* 95:3199-3203, 2000.
30. Baldwin, T.A., Gogela-Spehar, M. and **Ostergaard, H.L.** Specific isoforms of the resident ER protein glucosidase II associate with the CD45 protein tyrosine phosphatase via a lectin-like interaction. *J. Biol. Chem.* 275:32071-32076, 2000.
31. Dower, N.A., Stang, S.L., Bottorff, D.A., Ebinu, J.O., Dickie, P., **Ostergaard, H.L.** and Stone, J.C. RasGRP is essential for mouse thymocyte differentiation and TCR signaling. *Nature Immunology* 1:317-321, 2000.
32. Puente, L.G., Stone, J.C. and **Ostergaard, H.L.** Evidence for PKC-dependent and independent activation of MAP kinase in T cells: potential role of other diacylglycerol binding proteins. *J. Immunol.* 165:6865-6871, 2000.
33. Baldwin, T.A. and **Ostergaard, H.L.** Developmentally regulated changes in glucosidase II association with, and carbohydrate content of, the protein tyrosine phosphatase CD45. *J. Immunol.* 167:3829-3835, 2001.
34. Wang, C., Hayashi, H., Harrison, R., Chiu, B., Chan, J.R., **Ostergaard, H.L.**, Inman, R.D., Jongstra, J., Cybulsky, M.I. and Jongstra-Bilen, J. Modulation of Mac-1(CD11b/CD18) - mediated adhesion by the leukocyte specific protein 1 (LSP1) is key to its role in neutrophil polarization and chemotaxis. *J. Immunol.* 169:415-423, 2002.
35. Edmonds, S.D. and **Ostergaard, H.L.** Dynamic association of CD45 with detergent insoluble microdomains in T lymphocytes. *J. Immunol.* 169:5036-5042, 2002.
36. Baldwin, T.A. and **Ostergaard, H.L.** The protein-tyrosine phosphatase CD45 reaches the cell surface via Golgi-dependent and -independent pathways. *J. Biol. Chem.* 277:50333-50340, 2002.
37. Puente, L.G. and **Ostergaard, H.L.**  $\beta 1/\beta 3$  integrin ligation is uncoupled from ERK1/ERK2 activation in cytotoxic T lymphocytes. *J. Leuk. Biol.* 73:391-398, 2003.
38. Puente, L.G., Mireau, L.R., Lysechko, T.L. and **Ostergaard, H.L.** Phosphatidylinositol-3-kinase regulates PKC $\theta$  activity in cytotoxic T cells. *Molecular Immunology*, 42:1177-1184, 2005.
39. Chun, J., Chau, A.S-S., Maingat, F.G., Edmonds, S.D., **Ostergaard, H.L.** and Shibuya, E.K. Phosphorylation of Cdc25C by pp90<sup>Rsk</sup> contributes to a G2 cell cycle arrest in *Xenopus* cycling egg extracts. *Cell Cycle*, 4:148-154, 2005.
40. Lysechko, T.L. and **Ostergaard, H.L.** Differential src family kinase activity requirements for CD3 $\zeta$  phosphorylation/ZAP70 recruitment and CD3 $\epsilon$  phosphorylation. *J. Immunol.* 174:7807-7814, 2005.
41. Shen, A., Puente, L.G. and **Ostergaard, H.L.** Tyrosine kinase activity and remodeling of the actin cytoskeleton are co-temporally required for degranulation by cytotoxic T lymphocytes. *Immunology* 116:276-286, 2005.

42. Robertson, L.K., Mireau, L.R. and Ostergaard, H.L. A role for phosphatidylinositol 3-kinase in TCR-stimulated ERK activation leading to paxillin phosphorylation and CTL degranulation. *J. Immunol.*, 175:8138-8145, 2005.
43. Puente, L.G., He, J.S. and Ostergaard, H.L. Two distinct PKC-dependent pathways to ERK activation in cytotoxic T lymphocytes. *Eur. J. Immunol.*, 36:1009-1018, 2006.
44. He, J.S. and Ostergaard, H.L. CTLs contain and use intracellular stores of FasL distinct from cytolytic granules. *J. Immunol.* 179:2339-2348, 2007
45. He, J.S., Gong, D.-E. and Ostergaard, H.L. Stored FasL, a mediator of rapid CTL-mediated killing, has a lower threshold for response than degranulation or newly synthesized FasL. *J. Immunol.* 184:555-563, 2010.
46. Ferguson, B. and Ostergaard, H.L. CD45 regulates thymocyte survival during development in fetal thymic organ culture. *Immunobiology* 215:458-465, 2010.
47. Lysechko, T.L., Cheung, S.M.S. and Ostergaard, H.L. Regulation of the tyrosine kinase Pyk2 by calcium is through production of reactive oxygen species in cytotoxic T lymphocytes. *J. Biol. Chem.* 285:31174-31184, 2010.
48. St-Pierre J., Lysechko, T.L. and Ostergaard HL. Hypophosphorylated and inactive Pyk2 associates with paxillin at the microtubule organizing center in hematopoietic cells. *Cell Signal* 23:718-730, 2011.
49. Robertson, L.K. and Ostergaard, H.L. Paxillin associates with the microtubule cytoskeleton and the immunological synapse of CTL through its LD domains and contributes to microtubule organizing center reorientation. *J. Immunol.* 187:5824-5833, 2011.
50. Lipinski, T., Fiteh, A., St. Pierre, J., Ostergaard, H.L., Bundle, D.R. and Touret, N. Enhanced immunogenicity of a tricomponent mannan tetanus toxoid conjugate vaccine targeted to dendritic cells via Dectin-1 by incorporating  $\beta$ -glucan. *J. Immunol.* 190:4116-4128, 2013.
51. St-Pierre, J. and Ostergaard, H.L. A role for the protein tyrosine phosphatase CD45 in macrophage adhesion through the regulation of paxillin degradation. *PLoS One* 8(7):e71531, 2013.
52. Cheung, S.M.S. and Ostergaard, H.L. The tyrosine kinase Pyk2 regulates the de-adhesion of cytotoxic T lymphocytes migrating on ICAM-1. *Journal of Immunology*, under revision.
53. Beatty, J., St-Pierre, J and Ostergaard, H.L. Pyk2 associates with sumoylation machinery and undergoes a mobility shift when cotransfected with Sumo-1. Manuscript in Preparation.
54. Clementin, A. and Ostergaard, H.L. Characterization of FasL containing vesicles in cytotoxic T lymphocytes and FasL trafficking to the vesicles. Manuscript in Preparation.

### Reviews and Book Chapters:

1. Bonavida, B., Ostergaard, H.L. and Katz, J., Mechanism of T-dependent cytotoxicity: Role of papain-sensitive non class I MHC target molecules and expression of target antigen for cytotoxicity. In: Mechanisms of Cell-Mediated Cytotoxicity II, Henkart, P., and Martz, E. (eds.), pp 415-428, Plenum Press, N.Y., 1985

2. Clark, W.R., **Ostergaard, H.L.**, Gorman, K. and Torbett, B. Molecular mechanisms of CTL-mediated lysis: a cellular perspective. *Immunological Reviews* 103:37-51, 1988.
3. **Ostergaard, H.L.**, Cytolysis. In McGraw-Hill Yearbook of Science and Technology, McGraw-Hill Inc, New York, pp. 81-83, 1989.
4. Trowbridge, I.S., **Ostergaard, H.L.**, Shackelford, D., Hole, N. and Johnson, P. CD45: A leukocyte-specific protein tyrosine phosphatase. *Adv. Prot. Phosphatases* 6:227-250, 1991.
5. Trowbridge, I.S., **Ostergaard, H.L.** and Johnson, P. CD45: A leukocyte-specific member of the protein tyrosine phosphatase family. *Biochim. Bioph. Acta* 1095:46-56, 1991.
6. Trowbridge, I.S. Johnson, P., **Ostergaard, H.L.** and Hole, N. Structure and function of CD45: A leukocyte-specific protein tyrosine phosphatase. *Adv. Exp. Med. Biol.* 323:29-37, 1992.
7. **Ostergaard, H.L.** and Lysechko, T.L. The FAK-related protein tyrosine kinase Pyk2 in T cell activation and function. *Immunologic Research*, 31:267-282, 2005.
8. **Ostergaard, H.L.** PKC and Erk in CTL degranulation (interview). *Modern Aspects of Immunobiology* 21:7, 2006.

**GRANT SUPPORT (current):**

<i>Granting Agency</i>	<i>Title of Grant</i>	<i>Amount per annum</i>	<i>Dates of Award</i>
CIHR	Contribution of the cytoskeletal adaptor proteins paxillin and leupaxin to cytotoxic T cell migration and function	\$136,479	10/14-9/19

**GRANT SUPPORT (previous):**

<i>Granting Agency</i>	<i>Title of Grant</i>	<i>Amount per annum</i>	<i>Dates of Award</i>
Alberta Heritage Foundation for Medical Research	CD45 protein tyrosine phosphatase: Role in T cell activation (Start-up funds)	\$92,500	7/91-6/93
Medical Research Council-Canada	Regulation of CD45 protein tyrosine phosphatase activity in T cells (Scholarship Research Allowance)	\$15,000	7/92 -6/93
Medical Research Council-Canada	Regulation of CD45 protein tyrosine phosphatase activity in T cells	\$54,300	7/92-9/95
Leukemia Research Fund of Canada	CD45: Role in hematopoietic cell differentiation	\$44,150	7/93-7/94

National Cancer Institute-Canada	Contribution of integrin-mediated signalling to T-cell activation	\$63,089	7/95-6/98
Medical Research Council-Canada	Structure and function of CD45-associated proteins	\$64,510	10/95-9/98
National Cancer Institute-Canada	Role of the tyrosine kinases FAK and Pyk2 in T cell activation (renewal pending)	\$82,346	7/98-6/01
CIHR	Regulation of CD45 intracellular trafficking and phosphatase activity in T cells	\$109,809	10/98-9/01
CIHR	Molecular characterization of glucosidase II	\$68,821	10/99-9/02
National Cancer Institute-Canada	Signaling and the cytoskeleton in T cell activation	\$107,521	7/01-6/05
CIHR	Molecular and functional characterization of glucosidase II	\$105,658	10/02-9/05
CIHR	CD45 expression, regulation and function in T cells	\$131,415	10/01-09/06
CIHR	Differential regulation of FasL and cytolytic granule mechanisms in cytotoxic T cell mediated killing	\$107,367	10/06-09/11
National Cancer Institute-Canada	T cell receptor stimulated signals leading to cytotoxic T lymphocyte degranulation	\$131,650	7/06-06/11
CIHR	The Faculty of Medicine and Dentistry Multi-user Flow Cytometry Facility: An essential resource for the study of immunoregulation and microbial pathogenesis	\$54,149	4/07-3/12
NSERC	Intracellular trafficking of Fas ligand in cytotoxic T lymphocytes	\$30,000	5/13-4/14
Canadian Cancer Society Research Institute	Signals Controlling Dynamic Interactions of Cytotoxic T Lymphocytes	\$144,000	7/11-6/14

**GRADUATE STUDENT SUPERVISION (direct supervision):**

<u>Name</u>	<u>Degree</u>	<u>Dates of supervision</u>	<u>Current Position</u>
Allanach, Kara	MSc	2001-2003	Agreements Administrator, Research Services Office, University of Alberta
Arendt, Chris	PhD	1993-1998	Director, Sanofi-Aventis, Cambridge, MA
Baldwin, Troy	PhD	1997-2002	Assistant Professor, University of Alberta
Beatty, Jessica	MSc	2010-2013	PhD student, University of Alberta, School of Public Health
Berg, Nancy	PhD	1993-1998	Coordinator, Division of Science, Medicine Hat College.
Cheung, Samuel	PhD	2007-2013	Postdoctoral Fellow, University of Calgary
Christianson, Josh	MSc	2002-2005	Captain, Canadian Armed Forces
Clementin, Ana	PhD	2008-2014	Graduate Student, Masters Public Health, University of Alberta
Dake, Hillary	PhD	2004-2006	withdrew from program for personal reasons
Ferguson, Bindi	MSc	2001- 2006	Tech Transfer Officer, TEC Edmonton
He, Jinshu	PhD	2003- 2009	PDF, Singapore Immunology Network, A Star
Ma, Eileen	MSc	1994-1996	Physician, Alberta
Mireau, Laura	MSc	2000-2002	School teacher, Kelowna, BC
Lysechko, Tara	PhD	2000- 2007	Consultant, Afexa Life Sciences Inc.
Puente, Lawrence	PhD	1996-2002	Research Associate, Ottawa Genome Centre, Ottawa Health Research Institute
Robertson, Leslie	PhD	2001- 2008	Medical Resident, Victoria, BC
Scott, Amanda	MSc	2010-present	
St-Pierre, Joëlle	PhD	2005-2012	Medical Student, University of Calgary
Yao, Shugang	PhD	2012-present	

**POSTDOCTORAL FELLOWS:**

<u>Name</u>	<u>Degree</u>	<u>Dates of supervision</u>	<u>Current Position</u>
Broomfield, Stacey	PhD, University of Saskatchewan	2001-2004	unknown
Cheung, Samuel	PhD, University of Alberta	2015-present	
Edmonds , Stuart	D.Phil, Oxford University	1997-2001	Vice President, Prostate Cancer Canada
Friesen, Kevin	PhD, University of Alberta	2003-2005	Instructor, Grant MacEwan University
Robertson, Leslie	PhD, University of Alberta	2010-2011	Medical Student, University of Calgary
Thai , Wendy	PhD, University of Alberta	1998-1999	Patent Attorney, Minneapolis, Minnesota

**GRADUATE STUDENT SUPERVISION (supervisory committees):**

<u>Name</u>	<u>Degree</u>	<u>Year of Completion</u>
Bautista, Daisy	PhD	withdrew
Cadili, Ali	MSc	2009
Chun, Justin	MSc	2004
Coughlin, Jason	PhD	2005
Cravetchi, Olga	MSc	2009
Ebinu, Julius	PhD	2000
Ellestad, Kristofor	PhD	Expected 2015
Everett, Helen	PhD	2001
Gao, Zhihua (Tina)	PhD	2011
Gares, Sheryl	PhD	2000
Gelowitz, Stacey	MSc	2010
Gilchrist, Anita	MSc	2002
Golec, Dominic	PhD	expected 2017
Gui, Xiaoxin	MSc	2006
Harbison, Adrian	MSc	2000
Hu, Qian (Nancy)	PhD	2015
Khandani, Arian	MSc	2003
Kirwin, Sheryl	PhD	2007
Kolodziejczyk, Dean	MSc	1997
Kung, Lina	PhD	2001
Lee, Jason	MSc	2013
Lee, Joo Eun	MSc	2005
Lu, Patricia	MSc	2000
Marcato, Paola	PhD	2004
McCabe, James	MD/PhD	2002
Mossman, Karen	PhD	1996
Myers, Adrienne	PhD	withdrew
Naber, Claudia	MSc	2004
Nault, Genevieve	MSc	2003
Parkman, Julia	MSc	2011
Parson, Brendon	MSc	2011
Payne, Shawn	PhD	2001
Primrose, David	MSc	2008
Quest, Graham	MSc	2006
Rahn, Jennifer	PhD	2004
Shen, Lianjun	PhD	1997
Stewart, Tara	MSc	2004
Strunk, Ulrike	PhD	expected 2016
Wallbank, Sarah	PhD	2006
Wilson, Evan	MSc	2009
Wu, Zuoqiao (Joyce)	PhD	expected 2018
Zanzotto, Henrietta	MSc	2004
Zhang, Chengsheng	PhD	1998

**THESIS EXAMINATION COMMITTEES (Additional to supervised students):**

- 1991 Yufang Shi (PhD)
- 1992 Peter Blake (MSc)
- 1993 Cheryl D. Helgason (PhD)
- 1993 Helen Messier (PhD)
- 1993 Therese Fuller (MSc)
- 1995 Christian Maroun (PhD, McGill University, External Reviewer)
- 1998 Sumonta Chaisomchit (PhD)
- 1999 Tara-Lyn McCready (PhD)
- 2000 Janice L. Strap (PhD)
- 2001 Karla Trejo-Oliver (MSc)
- 2002 Virginia Misener (PhD, University of Toronto, External Examiner)
- 2002 Erika Meier (PhD)
- 2003 Dennis Lefebvre (PhD, University of British Columbia, External Examiner)
- 2003 Vasile Furdai (PhD)
- 2004 Atef Allam (PhD, University of Manitoba, External Examiner)
- 2005 Kristin Veugelers (PhD)
- 2005 Teresa Jackson (PhD, University of British Columbia, External Examiner)
- 2008 Jacqueline Lai (PhD, University of British Columbia)
- 2009 Stanly Poon (MSc)
- 2010 Naresh Tulsi (MSc)
- 2011 Steven Brian Alfred Machtaler (PhD, University of British Columbia, External Examiner)
- 2013 Grace Fong-Ting Poon (PhD, University of British Columbia, External Examiner)
- 2013 Inmoo Rhee (PhD, McGill University, External Examiner)

**UNIVERSITY AND DEPARTMENTAL COMMITTEES**

- 1992-1995 Graduate Coordinator, Department of Immunology
- 1995-1997 Graduate Coordinator and Chair of the Graduate Training Committee, Department of Medical Microbiology & Immunology
- 1993-1997 Council Member, Faculty of Graduate Studies & Research
- 1993-1995 75th Anniversary Award Committee, Faculty of Medicine
- 1996-present Immunology Network Council Member, University of Alberta
- 1997-present Member, Academic Development Committee, Department of Medical Microbiology & Immunology
- 1997-2000 Member, Graduate Training Committee, Department of Medical Microbiology & Immunology
- 1999-2000 Member, Education Task Force, Department of Medical Microbiology & Immunology
- 1998-2000 Member, Immunology Search and Selection Committee, Department of Medical Microbiology & Immunology
- 1999-2000 Member, Oncology Endowed Studentship Committee, Department of Oncology
- 2001-2002 Member, Medical Microbiology & Immunology Departmental Chair Search and Selection Committee, Faculty of Medicine and Dentistry
- 2001-2005 Member, AHFMR Internal Allocations Committee
- 2003-2012 Member, MMI Departmental Graduate Training Committee
- 2004-2006 Member, Faculty of Medicine and Dentistry Research Advisory Committee
- 2005 Member, Medical Microbiology & Immunology Faculty Search Committee

2006-2009 General Faculties Council, University of Alberta  
2006-2014 Nominating Committee, Faculty of Medicine and Dentistry  
2006-2010 Faculty Evaluation Committee, Faculty of Medicine and Dentistry  
2007-2008 Chair, Medical Microbiology & Immunology Faculty Search Committee  
2008 Member, Review Committee for the Chair of the Department of Medical Microbiology & Immunology, Faculty of Medicine and Dentistry  
2008-2014 Chair, Immunology Network  
2010-present Member, Li Ka Shing Institute of Virology Executive Committee  
2010-2012 Member, Faculty Affairs Committee, Faculty of Medicine and Dentistry  
2011-2017 Member, University President's Review Committee, University of Alberta  
2011-2012 Member, Faculty Development Committee, Faculty of Medicine and Dentistry  
2011-2012 Member, Search & Selection Committee for Dean, Faculty of Medicine and Dentistry (Basic Science Department Representative)

### **COMMUNITY SERVICE**

1997-2001 Council Member, Canadian Society for Immunology  
2000 Member, Site Visit Team to review the Immunology Research Group at the University of Calgary  
2001-2005 CIHR Delegate at the University of Alberta  
2001-2004 Member, American Association of Immunologists Committee on the Status of Women  
2007 Member, Review Team to evaluate the Graduate Program of the Department of Immunology at the University of Manitoba (June 2007)  
2010-2016 Advisory Committee on Research, Canadian Cancer Society  
2011-2013 Vice President, Canadian Society for Immunology  
2013-2015 President, Canadian Society for Immunology  
2015-2017 Past President, Canadian Society for Immunology

### **REVIEW PANEL MEMBERSHIP:**

1994 Reviewer, Site Visit for NCI program project grant (NCI/NIH)  
1995 Reviewer, Teleconference review of a NCI program project grant (NCI/NIH)  
1995 ad hoc member, Cancer Centers and Research Programs Review Committee, Subcommittee C, National Cancer Institute, National Institutes of Health  
1996-98 Member, Fellowship Panel, Alberta Heritage Foundation for Medical Research  
1996-99 Member, Immunology and Transplantation Operating Grants Committee, Medical Research Council-Canada  
1999-2001 Member, Alberta Cancer Board, Bridge/Pilot Grants Committee  
2000 Member, Immunology and Transplantation Operating Grants Committee, Canadian Institutes for Health Research (Invitee for December meeting)  
2000-present College of Reviewers, Canada Research Chairs Program  
2002-2004 Panel Member, Immunology, National Cancer Institute of Canada  
2004 Member, Molecular and Cell Biology of Cancer Operating Grants Committee, Canadian Institutes for Health Research (Invitee for December meeting)  
2006-2008 Member, Panel B, Cancer Research Society (Canada)  
2007-2009 Chair, Operating Grants Panel A (Immunology and Immunotherapy), National Cancer Institute of Canada

- 2010 Women & Children's Health Research Institute, University of Alberta, Scientific Advisory Committee
- 2013 Alberta Cancer Foundation- Foundational Infrastructure working group
- 2015 External reviewer-Severo Ochoa Centers of Excellence Programme – Spain (reviewed three programs)
- 2016 Panel Member, Israel Cancer Research Fund

**PEER REVIEW AND EDITORIAL ACTIVITIES:**

- 2006-2011 Editorial Board Member, Journal of Biological Chemistry
- 2001-2005 Associate Editor, Journal of Immunology

External grant reviews

- Alberta Cancer Board
- The Arthritis Society
- Canadian Diabetes Association
- Canadian Institutes of Health Research (formerly MRC)
- Health Utilization, Saskatchewan
- The Kidney Foundation
- Michael Smith Foundation for Health Research
- National Cancer Institute - Canada
- The National Science Foundation, USA
- National Science & Engineering Research Council (NSERC) of Canada
- The Wellcome Trust, UK

Ad hoc journal reviews

- Immunity
- International Journal of Cancer
- Journal of Biological Chemistry
- Journal of Cell Science
- Journal of Experimental Medicine
- Journal of Immunology
- Journal of Leukocyte Biology
- Molecular Biology of the Cell
- Nature Communications
- Oncogene
- PNAS
- PloS One
- Science