

Teaching Portfolio

Graduates:

1. **Joy Knott**, [MSc Thesis](#) (1995). "Construction of primary antibody repertoire in kappa-deficient mice". University of Guelph, Guelph, Ontario, Canada.
2. **Byrum Bridle**, [MSc Thesis](#) (1997). "Age and strain related influences on commercially raised chicken peripheral blood lymphocytes". University of Guelph, Guelph, Ontario, Canada.
3. **Surinder S. Saini**, [PhD Thesis](#) (1999). "Molecular immunogenetics of bovine antibody", University of Guelph, Guelph, Ontario, Canada.
4. **Robin Cassady**, [MSc Thesis](#) (2000). "Increased negative selection during ontogeny impairs IgM antibody repertoire", University of Guelph, Guelph, Ontario, Canada.
5. **Farbod Shojaei**, [MSc Thesis](#) (2001). "Molecular aspects of bovine D-genes". University of Guelph, Guelph, Ontario, Canada.
6. **Madhuri Koti**, [PhD Thesis](#) (2007). "Immunogenetics of bovine antibody diversity and construction of recombinant therapeutic antibody". University of Guelph, Guelph, Ontario, Canada.
7. **Yfke Pasman**, [MSc Thesis](#) (2010). Structural and functional aspects of recombinant antibody fragment against BoHV-1. University of Guelph, Guelph, Ontario, Canada.
8. **Yfke Pasman**, PhD Candidate (in progress). Structural and functional aspects of recombinant bovine antibody.

Post-Doctoral Fellows:

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| 1. Dr. Alpana Nangpal (Murine VLambda genes) | - 1993-95 |
| 2. Dr. Arvind Kashyap (Murine VH Genes) | - 1995-96 |
| 3. Dr. Surinder Saini (Bovine antibody transgenesis) | - 2000-03 |
| 4. Dr. Rashpal Bhogal (Bovine immunoinformatics) | - 2009-10 |
| 5. Dr. Ashish Sachan (Therapeutic antibodies) | - 2012-13 |

Graduate Student Awards:

1. Joy Knott

* Dr. J. Sherman Memorial Travel Prize (W, 1995)

2. Surinder S. Saini

*Commonwealth Scholarship (1994-99)

- *University Graduate Scholarship (F,1994, W,1997)
- *Betty Goldhart Graduate Scholarship (W, 1996)
- *D.G. Ingram Graduate Travel Scholarship (W, 1997)
- *Dr. Gerbrand Wieste Bredero memorail Award (W, 1998)

3. Byram Bridle

- *University Graduate Scholarship (F, 1994, W, 1995 and S, 1995)

4. Yfke Pasman

- * American Association of Immunologists Travel Award (2010, 2012, 2014)
- *Dairy Farmer Organization Doctoral Fellowship (2010-13)
- *Canadian Society of Immunology Travel Award (2011)

Undergraduate Trainees:

Biomedical Science

Bev Walter	F, W, S, 1993-1994
Melissa Gray	S, 1994
Mark R. Jonkman	W, S, 1994
Elizabeth Davidson	F, 1994; W, 1995
Wai-May Lim	F, 1994; S, 1995
Mark Belletrutti	F, W, 1995-1996
Jana Cartier	W, 1999
F. Zelster	S, 1999
Bethany Lowe	W, 2000
Melissa Cogswell	W, 2001
Pravin Vijayan	W, 2004
Timothy Patterson	W, 2005
Kathryn Smith	W, 2009
Miyuki Kumagai	F, 2010, 2011

Arts and Science

Richard W. Gilbert	F2009
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Molecular Biology and Genetics

Jennifer Richardson	F, 1994
Andrea Kurtz	F and W, 2002
Christina Southey	F and W, 2003-04
Brooke Janson	F and W, 2003-04 S, 2007
Daniel Grosberg	F, 2013

Veterinary Medicine

S. Ng	S, 2000
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Microbiology

Andrea E. Jacob	F, 1997
Adam Crossley	S, 2003
Heidi Machina	F, 2003
Fred Zelster	F, 2004
Lindsay Baltjes	W, 2005

Teaching Philosophy and Experience:

My teaching experience is broad and spread across various undergraduate and graduate courses, such as, Veterinary Immunology, Elective in Clinical Veterinary Immunology, Health Management (4th year DVM clinical rotations), Introductory Immunology (3rd year level BSc), Immunology II (4th year BSc), First Year Seminar (Immunity and Health) and Advances in Immunology and Immunochemical Techniques (graduate level). I contributed to other DVM courses in Pathology and Internal Medicine and also at graduate level (Immunobiology). My teaching approach encourages the principle of

quality liberal education aimed at encouraging active and stimulated personalized learning by students via interactive illustrated lectures and discussions. I use multi-media and clinical or practical situations to enhance understanding of the immune system, a style especially suitable for learning complex concepts of the immune system. I like to emphasize on structured reflection, concepts and principles as basic elements of learning. First, I designed an elective in veterinary clinical immunology for 4th year DVM students, which required senior DVM students to immerse in Clinical Veterinary Immunology. I developed new clinical cases, using materials received in the clinical immunology laboratory for investigation, for teaching DVM students during 4th year clinical rotations. I taught veterinary immunology to DVM students from 1992 to 2002 that led me to develop new learning materials emphasizing the principle of Evidence based Veterinary Medicine. I contributed significantly to the pedagogy of veterinary immunology in the development of new curriculum of the DVM phase I that took professional competencies into consideration. I designed the new curriculum for teaching of veterinary immunology in the phase I, which I implemented successfully from 2000 to 2002. I have significantly contributed to the pedagogy of 3rd year level Introductory Immunology and 4th year level Immunology II (undergraduate) and Advances in Immunology and Immunology Techniques (graduate level) courses.

Five undergraduate research project students contributed to six peer-reviewed research publications in the mainstream immunology journals. My mentoring of graduate students has been a rare joy who have excelled, as evidenced by the external examiner's assessment and their placement as faculty or senior positions in the industry and government. Overall, I have trained ~1000 Veterinarians, thousands of undergraduate students and hundreds of graduate students in the discipline of immunology. My commitments to higher learning have contributed to literature that is cited in the textbooks.

Learning Materials:

- Veterinary Immunology Laboratory Manual and clinical Case Studies
- Basic Techniques in Immunology Manual

Graduate Courses:

91-610/PABI6100: Immunobiology (1991-1996; 2009-12)

91-611: Topics in Immunology (1991, 1992*, 1993)

91-695: Special Topic in VMI* (1992)

Guest lectures: General Pathology (1997-98); Vet. Internal Medicine (1999-2002)

MICR 6423: Advances in Immunology and Immunochemical Techniques (2003-04; 2005-08*)

Undergraduate Courses:

65-409/410/MICR 3230: Immunology & Serology/MICR 3230 Immunology-I (1992-1995, 1999-2014*)

93-355: Veterinary Immunology (1994, 1995*, 1996*, 1997 - 1999, 2000 - 02*)

93-485: Health management, 4th year rotation, (1992 - 1995)

98-450/4511/4521: Biomedical research Project (1992-1997, 1999 - 2005)

Elective in Clinical Immunology* (1992, 1993 - 1997)

MICR 4230*: Immunology II (1994 - 2002; 2003, 2005 - 11*)

MICR 4530*: Immunology II (2012 - 2014)

MICR4240 (Topics in Microbiology)/ (MI4310/4320) Research Project I/II (2002* - 03*, 2008)

Univ1200: Immunity and Health (2006 - 09)*

**Course Co-ordinator*