



## CURRICULUM VITAE

Date: Feb 2023

Name: Rob Deardon

Department: UVCM cross-appointed with Mathematics & Statistics

Address: TRW 1E31, 3330 Hospital Drive NW, Calgary, Alberta T2N 4N1

E-mail: robert.deardon@ucalgary.ca

## POSITIONS

**Current Positions** *(include appointments at the University of Calgary and other institutions)*

<u>Position</u>	<u>Department</u>	<u>Faculty</u>	<u>Institution</u>	<u>Start Date</u> (mm/yyyy)	<u>End Date</u> (mm/yyyy)
Professor	Veterinary Medicine / Mathematics and Statistics	Veterinary Medicine / Science	University of Calgary	07/2020	
Adunct Professor	Community Health Sciences	Medicine	University of Calgary	01/2017	
Member	O'Brien Institute for Public Health		University of Calgary	05/2016	
Member	One Health @ UCalgary (UC@OH)		University of Calgary	01/2020	

**Current distribution of Effort: Teaching 25-30% Research 55-60% Service 15%**

## Previous Positions

<b>Position</b>	<b>Department</b>	<b>Faculty</b>	<b>Institution</b>	<b>Start Date</b> (mm/yyyy)	<b>End Date</b> (mm/yyyy)
Associate Professor	Production Animal Health / Mathematics and Statistics	Veterinary Medicine / Science	University of Calgary	09/2014	06/2020
Associate Professor	Math & Statistics	College of Physical & Engineering Science	University of Guelph	07/2011	08/2016
Assistant Professor	Math & Statistics	College of Physical & Engineering Science	University of Guelph	09/2006	06/2011

---

## **DEGREES / QUALIFICATIONS / TRAINING**

---

### Undergraduate

<b>Degree</b>	<b>Institution</b>	<b>Start Date</b> (mm/yyyy)	<b>End Date</b> (mm/yyyy)
B.Sc (HONS) in Pure Mathematics & Mathematical Statistics	University of Exeter, UK	09/1992	06/1996

### Graduate

<b>Degree</b>	<b>Speciality/ Major</b>	<b>Supervisor</b>	<b>Dept.</b>	<b>Institution</b>	<b>Start Date</b> (mm/yy)	<b>End Date</b> (mm/yy)
PhD	Statistics	Steven Gilmour	Applied Statistics	University of Reading, UK	09/1997	12/2001
MSc	Statistics with Applications in Medicine	Wei Liu	Math. Sciences	University of Southampton, UK	09/1996	08/1997

### Postdoctoral Fellowship Training

Training Level	Speciality	Supervisor	Department	Institution	Start Date (mm/yyyy)	End Date (mm/yyyy)
Research Associate	Statistics/ Disease Modelling	James Wood	Veterinary Medicine	University of Cambridge	07/2005	08/2006
Research Associate	Statistics/ Disease Modelling	Steve Brooks	Statistical Laboratory	University of Cambridge	02/2003	06/2005
Research Fellow	Statistics	Henry Wynn	Statistics	University of Warwick	05/2001	01/2003

## EDUCATIONAL ACTIVITIES

### CREDIT COURSES TAUGHT AT THE UNIVERSITY OF CALGARY

List major contributions in course and curriculum development, teaching and administration. Where specific courses with identified hours, etc., are not available, a narrative outline below the table is recommended.

Course Number	Course Name	Role (coordinator, instructor)	Start Date	End Date	Contact Hours per year / total course length (include both)
STAT 601.29	Bayesian Infectious Disease Modelling (Topics In Probability and Statistics)	Coordinator & Instructor	01/2023	04/2023	36 / 36
BIST 600	Biostatistics Research Seminar	Coordinator & Instructor	01/2023	04/2023	18 / 18
VETM 605 / MDCH 605	Introduction to Biostatistical Methods	Coordinator & Instructor	09/2022	12/2022	36 / 36
BIST 600	Biostatistics Research Seminar	Coordinator & Instructor	01/2022	04/2022	18 / 18

<b>Course Number</b>	<b>Course Name</b>	<b>Role</b> (coordinator, instructor)	<b>Start Date</b>	<b>End Date</b>	<b>Contact Hours per year / total course length (include both)</b>
STAT 631	Computational Statistics	Coordinator & Instructor	01/2022	04/2022	36 / 36
VETM 605 / MDCH 605	Introduction to Biostatistical Methods	Coordinator & Instructor	09/2021	12/2021	36 / 36
BIST 600	Biostatistics Research Seminar	Coordinator & Instructor	01/2021	04/2021	18 / 18
VETM 605 / MDCH 605	Introduction to Biostatistical Methods	Coordinator & Instructor	09/2020	12/2020	36 / 36
MDCH 649	Epidemiology of Infectious Diseases	Guest Lecturer	04/2020	04/2020	3/36
STAT 631	Computational Statistics	Coordinator & Instructor	01/2020	04/2020	36 / 36
VETM 605 / MDCH 605	Introduction to Biostatistical Methods	Coordinator & Instructor	09/2019	12/2019	36 / 36
BIST 600	Biostatistics Research Seminar	Coordinator & Instructor	09/2019	12/2019	18 / 18
BIST 600	Biostatistics Research Seminar	Coordinator & Instructor	01/2019	04/2019	18 / 18
VETM 605 / MDCH 605	Introduction to Biostatistical Methods	Coordinator & Instructor	09/2018	12/2018	36 / 36
STAT 631	Computational Statistics	Coordinator & Instructor	01/2018	04/2018	36 / 36
VETM 605 / MDCH 605	Introduction to Biostatistical Methods	Coordinator & Instructor	09/2017	12/2017	36 / 36
VETM 605	Introduction to Biostatistical Methods	Coordinator & Instructor	09/2016	12/2016	36 / 36
VETM 605	Introduction to Research Methods	Coordinator & Instructor	09/2015	12/2015	36 / 36

## *Narrative outline.*

### **VETM/MDCH 605: Introduction to Biostatistical Methods**

Over the course of recent years running the VETM 605 course, I have overseen the evolution of this course from a "Research Methods", to a more focused "Biostatistical Methods", course. This has involved the introduction of a brand-new curriculum for the course in the classroom, as well as me taking the lead in facilitating the graduate calendar changes required. Further, with the integration of biostatistical training between the Faculties of Veterinary Medicine and Medicine, along with the opening up of these courses to students from main campus (see below), we have seen a large increase in the number of students enrolled in VETM 605. Specifically, approximately 10 to 15 students were enrolled in the 2014 course, and 25 - 45 have been enrolled in offering since..

**OTHER RELEVANT TEACHING ACTIVITIES AT THE UNIVERSITY OF CALGARY** (*include curriculum development, supervision of staff, contributions to educational committees, animal interactions, teaching development seminars, etc*)

**Biostatistics training for graduate students in VMS, CHS and other programs:** The above changes to the VETM 605 course, have been introduced as part of a wider initiative I have been leading along with Herman Barkema (UCVM & CHS) and Tyler Williamson (Biostatistician in CHS) to improve the biostatistics training on Foothills campus and beyond. This has included the cross listing of the VETM 605 course as an MDCH course, and the MDCH 610 & 611 (Biostatistics I & II) courses as VETM courses. The purpose of this is to offer two separate statistical training routes for the students, one involving more extensive training (e.g., for epidemiology students from statistics will be a major part of their research endeavors) and one involving a shorter, more contained training period (e.g., for lab-based who will be required to carry out relatively simple statistical analyses of data at the end of their experiments). These cross listed courses are also being made available to students from other faculties, with further cross listing (e.g., with Kinesiology and Nursing) mooted for the future.

**Biostatistics graduate specializations:** I have led efforts to introduce a new biostatistics graduate "program" at the University of Calgary. This effort has so far concentrated on interdisciplinary specializations in Biostatistics at the MSc thesis and PhD level, run jointly by the Departments of Mathematics and Statistics and Community Health Sciences. These were approved in June 2017. I am now leading efforts to introduce a brand-new course based Masters program in Biostatistics, also expected to be run jointly by the Departments of Mathematics and Statistics and Community Health Sciences.

**Statistics:** I have also been involved in modernizing the statistics specializations in the MSc thesis and PhD degrees in Mathematics and Statistics (many courses taught as part of the statistic specializations will also form core components of the new Biostatistics specializations). This has included substantial modernization of the curriculum for courses STAT 701: Introduction to Probability Theory; and STAT 721: Statistical Inference. Additionally, I have co-proposed curriculum for two new courses: STAT 631 Computational Statistics and STAT 641 Statistical Learning. The newly proposed courses have been approved, and calendar changes to the statistic specializations are expected to be approved over the summer of 2017.

**Health Data Science.** I led efforts to develop of Biostatistics & Health Data Science course based MSc in 2017. This evolved into the Health Data Science & Biostatistics diploma and

Master's degree which makes up part of the Professional Course-based Certificate/Diploma/Masters in Data Science & Analytics being run jointly by the Departments of Mathematics & Statistics and Computer Science, and the Cumming School of Medicine.

**Disease Modelling Workshops:** My postdoc, Vineetha Warriyar and I also developed a two day workshop in Bayesian Infectious Disease Modelling. This was initially run as a post conference workshop at the Canadian Association of Veterinary Epidemiology and Preventive Medicine (CAVEPM) Meeting at the University of Calgary in June 2017. Later it was run as an half-day workshop at the International Biometrics Society - West North American Region (WNAR) 2019 meeting in Edmonton.

Later, I substantively rewrite this workshop to be more relevant to the sorts of models used in COVID-19 (previously it was heavily focused on individual-level spatial models) and given this workshop in 2020 as the annual Statistical Society of Canada Biostatistics Section workshop, and in 2021 as one of the trainee workshops run at as part of the National Institute of Statistical Sciences (NISS) - Canadian Statistical Sciences Institute (CANSSI) Health Data Science Workshop (both online).

In 2023 I took the content of these workshops and expanded it into a new course (initially run as an STAT601: Topics and Probability course).

**Bayesian Biostatistics Short Course:** In the summer of 2019, I taught a short course of approximately 20 hours on Bayesian Biostatistics to students from various departments. About half of the students ended up being Biostatistics and Statistics students, but the other half were made up of students from Veterinary Medicine, various departments in the Cumming School of Medicine, Engineering and other programs. The course was aimed more at the non-statistics students, with an emphasis on application, coding, interpretation and general concepts, rather than mathematics.

---

## TEACHING AT OTHER UNIVERSITIES

List major contributions in course and curriculum development, teaching and administration. Where specific courses with identified hours, etc., are not available, a narrative outline below the table is recommended.

### Credit Courses

<b>Course Number</b>	<b>Course Name</b>	<b>Role</b> (coordinator, instructor)	<b>Date</b>	<b>Number of Hours per year</b>
STAT4600	Advanced Research Project in Statistics	Course Coordinator	Winter 2014	Approx. 20 (see below)
STAT6550/ STAT4050/4060	Computational Statistics	Instructor	Winter 2014	36
STAT2050	Statistics II	Instructor	Fall 2013	36
STAT4600	Advanced Research Project in Statistics	Course Coordinator	Fall 2013	Approx. 20 (see below)
POPM6950	Geographical Epidemiology	Instructor	Summer 2012	3
STAT4600	Advanced Research Project in Statistics	Course Coordinator	Summer 2012	Approx. 20 (see below)
STAT6920	Topics in Statistics: Modelling Infectious Diseases (N.B. Reading Course)	Instructor	Winter 2012	36
STAT4600	Advanced Research Project in Statistics	Course Coordinator	Winter 2011	Approx. 20 (see below)
STAT6550/ STAT4050/4060	Computational Statistics	Instructor	Fall 2011	36
STAT2050	Statistics II	Instructor	Fall 2011	36
STAT3110	Introduction to Mathematical Statistics II	Instructor	Winter 2011	36
STAT2050	Statistics II	Instructor	Winter 2011	36
STAT4600	Advanced Research Project in Statistics	Course Coordinator	Winter 2011	Approx. 20 (see below)
STAT6550 STAT4050/4060	Computational Statistics	Instructor	Fall 2010 Fall 2010	36
STAT6920	Topics in Statistics: Modelling Infectious Diseases (N.B. Reading Course)	Instructor	Fall 2010	24

STAT2050	Statistics II	Instructor	Winter 2010	36
STAT4060	Topics in Applied Statistics: Modelling Infectious Diseases (N.B. Reading Course)	Instructor	Winter 2010	24
STAT6920	Topics in Statistics: Modelling Infectious Diseases (N.B. Reading Course)	Instructor	Fall 2009	24
STAT4050 / STAT6920	Topics in Statistics: Computational Statistics	Instructor	Fall 2009	36
POPM6950	Geographical Epidemiology	Instructor	Summer 2009	6
STAT6950	Statistical Methods for the Life Sciences	Instructor	Fall 2008	36
STAT4050 / STAT6920	Topics in Statistics: Computational Statistics	Instructor	Fall 2008	24 (only 8 weeks taught due to parental leave)
STAT4050 / STAT6920	Topics in Statistics: Computational Statistics	Instructor	Winter 2008	36
STAT6920	Topics in Statistics: Spatial Epidemiology (N.B. Reading Course)	Instructor	Fall 2007	24
STAT6950	Statistical Methods for the Life Sciences	Instructor	Fall 2007	36
POPM6950	Geographical Epidemiology	Instructor	Summer 2007	3
STAT2050	Statistics II	Instructor	Winter 2007	36
STAT6920	Topics in Statistics: Computational Statistics	Instructor	Winter 2007	36

### *Narrative outline.*

- STAT4600: Advanced Research Projects in Statistics. Projects in this course were supervised by various individual faculty, my role as coordinator was to organize presentation days, deadlines for proposal and report, and as second marker on projects (to ensure a reasonable baseline in marking between faculty members).
- POPM6950: Geographical Epidemiology. A 5 day intensive course run in the OVC, UoGuelph, lead by Olaf Berke, to which I contributed sessions on infectious disease



modelling (in 2007, 2009 and 2012), and on Bayesian hierarchical spatial modelling (in 2009).

### **Other Relevant Teaching Activities & Accomplishments**

*Include curriculum development, supervision of staff, contributions to workshops or committees.*

- STAT6550 - Computational Statistics. This course was introduced, originally as a STAT6920 Topics in Statistics, by myself on my arrival at Guelph in 2006/2007. The course was based on a 16 hour course I previously taught at University of Cambridge (Monte Carlo Inference), but substantially developed to a 36 hour course, to include a core programming component, as well as new material.
- Took part in Graduate Science Fair (UC, UoG) in Fall 2010 to help recruit graduate students in the Department of Mathematics & Statistics.
- Took part in Graduate Science Fair (UC, UoG) in Fall 2009 to help recruit graduate students in the Department of Mathematics & Statistics.
- Took part in Telethon in Fall 2008, contacting personally students who have been offered places in Statistics, and Statistics-related, majors at UoG.
- Took part in Graduate Science Fair (UC, UoG) in Fall 2008 to help recruit graduate students in the Department of Mathematics & Statistics.
- Took part in Graduate Science Fair (UC, UoG) in Fall 2007 to help recruit graduate students in the Department of Mathematics & Statistics.

# RESEARCH & CLINICAL TRAINEES SUPERVISED

## UNDERGRADUATE STUDENTS SUPERVISED

List current and past trainees, both directly supervised and co-supervised. Include summer students.

<b>Trainee Name</b>	<b>Level</b> (summer student, DVM student, other undergraduate student)	<b>Role</b> (supervisor, co-supervisor)	<b>Institution</b>	<b>Start Date</b> (mm/yyyy)	<b>End Date</b> (mm/yyyy)	<b>Source of Funding</b>
Emil Hodzic-Santor	Summer Student	Supervisor	UCalgary	05/2022	08/2022	UofC PURE Award
Madeline Ward	Summer Student	Supervisor	UCalgary	05/2018	08/2018	Production Animal Health / Startup funds
William Lee	Summer Student / UBC co-op student	Supervisor	UCalgary	05/2016	12/2016	Production Animal Health / Startup funds
Susannah Ripley	Summer student	Supervisor	UoGuelph	05/2014	08/2014	NSERC USRA
Anu Stanley	Summer student	Supervisor	UoGuelph	05/2013	08/2013	UoG Math/ Stats Dept. Scholarship
Nadia Bifolchi	Summer student	Supervisor	UoGuelph	05/2010	08/2010	NSERC USRA
Abbie Gardner	Summer student	Supervisor	UoGuelph	05/2009	08/2009	UoG Math/ Stats Dept. Scholarship
Sanjeena Subedi	Summer student	Supervisor	UoGuelph	05/2008	08/2008	UoG Math/ Stats Dept. Scholarship
Babak Habibzadeh	Summer student	Supervisor	UoGuelph	05/2008	08/2008	UoG Math/ Stats Dept. Scholarship

## GRADUATE STUDENTS SUPERVISED

List current and past graduate students, both directly supervised and co-supervised. For graduate students, if the student did not complete, please put withdrawn or incomplete under completion date.

Trainee Name	Graduate Program	Role	Institution	Start Date	End Date	Source of Funding
Haysn Hornbeck	PhD Computer Science	Co-supervisor	UCalgary	03/2023		NSERC
Yirao Zhang	PhD Biostatistics (Math/Stats)	Supervisor	UCalgary	09/2022		UCalgary Eyes High
Danika Lipman	MSc Statistics (Math/Stats)	Co-supervisor	UCalgary	09/2022		NSERC
Mili Roy	PhD Biostatistics (Math/Stats)	Co-supervisor	UCalgary	03/2022		NSERC
Ruoyu Li	PhD Biostatistics (CHS)	Supervisor	UCalgary	01/2022		CANMOD (NSERC EIDM)
Thet Nyein	MSc Biostatistics (Math/Stats)	Supervisor	UCalgary	01/2021		NSERC
Matthew Baxter	MSc Artificial Intelligence	Co-supervisor	UoGuelph	01/2021		NSERC
Madeline Ward	PhD Biostatistics (Math/Stats)	Supervisor	UCalgary	09/2020		UCalgary Eyes High / Alberta Health Innovates/ NSERC Scholarship
Chinmoy Rahul	PhD Biostatistics (Math/Stats)	Supervisor	UCalgary	09/2019		CIHR / NSERC
Tahmina Akter	PhD Biostatistics (Math/Stats)	Supervisor	UCalgary	09/2019		Alberta Health Data Sciences Scholarship
Kamso Mohammed Mujaab	PhD Biostatistics (CHS)	Co-Supervisor	UCalgary	09/2018		UCalgary Eyes High Scholarship
Behnaz Jafari	MSc Biostatistics (Math/Stats)	Supervisor	UCalgary	09/2017	01/2020	NSERC

<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Role</b>	<b>Institution</b>	<b>Start Date</b>	<b>End Date</b>	<b>Source of Funding</b>
Tahsin Ferdous	MSc Biostatistics (Math/Stats)	Supervisor	UCalgary	09/2017	09/2019	NSERC
Ali Syed Navqi	PhD Biostatistics (CHS)	Co-Supervisor	UCalgary	09/2017	10/2021	Canadian Dairy Commission (CDC)
Mark Lowerison	PhD Biostatistics (CHS)	Co-Supervisor	UCalgary	09/2015		Agriculture & Agri-Food Canada
MD Mahsin	PhD Statistics	Supervisor	UCalgary	09/2015	09/2022	NSERC, CANSSI
Salha Qahl (transferred from PhD to MSc in 09/2022)	MSc Biostatistics	Supervisor	UCalgary	07/2015		Saudi Cultural Bureau, NSERC
Justin Angevaare	PhD Statistics	(Main) Co-Supervisor	UoGuelph	09/2014	10/2020	OMAFRA, NSERC
Carolyn Augusta	PhD Statistics	(Main) Co-Supervisor	UoGuelph	09/2014	09/2020	OMAFRA, NSERC
Lea Enns	MSc Statistics	Supervisor	UoGuelph	09/2014	12/2015	OMAFRA, NSERC
Waleed Almutiry	PhD Statistics	Supervisor	UoGuelph (visiting UCVM from 01/2016)	01/2014	08/2018	Saudi Cultural Bureau, NSERC
(Chloe) Longyao Cai	MSc Statistics	Supervisor	UoGuelph	09/2011	04/2013	OMAFRA, NSERC
Anu Stanley	MSc Statistics	(Main) Co-Supervisor	UoGuelph	09/2013	12/2014	OMAFRA, NSERC
Razvan Romanescu	PhD Statistics	Supervisor	UoGuelph	09/2012	09/2016	OMAFRA, NSERC
Scott Hunt	PhD Statistics	Supervisor	UoGuelph	09/2012	Withdrew 04/2014	OMAFRA, NSERC
Tulsi Paudel	PhD Statistics	Supervisor	UoGuelph	09/2012	Withdrew 01/2016	OMAFRA, NSERC

<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Role</b>	<b>Institution</b>	<b>Start Date</b>	<b>End Date</b>	<b>Source of Funding</b>
Gyanendra Pokharel	PhD Statistics	Supervisor	UoGuelph	09/2011	03/2015	OMAFRA, NSERC
Angie Dobbs	MSc Statistics	Supervisor	UoGuelph	09/2011	04/2013	OMAFRA, NSERC
Xuan Fang	MSc Statistics	Supervisor	UoGuelph	09/2010	04/2012	OMAFRA, NSERC
Mingying Fang	MSc Statistics	Supervisor	UoGuelph	09/2010	08/2011	OMAFRA, NSERC
Rajat Malik	PhD Statistics	Supervisor	UoGuelph	09/2010	03/2015	OMAFRA, NSERC
Lin Zhang	PhD Statistics	Supervisor	UoGuelph	09/2009	09/2013	OMAFRA, NSERC
Abbie Gardener	MSc Statistics	(Main) Co-Supervisor	UoGuelph	09/2009	08/2012	OMAFRA, NSERC
Irene Vrbik	MSc Statistics	(Main) Co-Supervisor	UoGuelph	09/2009	08/2010	OMAFRA, NSERC
Babak Habibzadeh	MSc Statistics	Supervisor	UoGuelph	09/2009	08/2010	OMAFRA, NSERC
(Dasha) Daria Martchenko	MSc Statistics	(Main) Co-Supervisor	UoGuelph	09/2009	04/2011	OMAFRA, NSERC
Nadia Bifolchi	PhD Statistics	(Main) Co-Supervisor	UoGuelph	09/2009	04/2015	OMAFRA, NSERC
Sanjeena Dang (nee Subedi)	MSc Statistics	Co-Supervisor	UoGuelph	09/2008	08/2009	OMAFRA, NSERC
Jourdan Gold	PhD Statistics	(Main) co-supervisor	UoGuelph	09/2008	01/2015	OMAFRA, NSERC
Lorna Deeth	PhD Statistics	Supervisor	UoGuelph	09/2007	09/2012	OMAFRA, NSERC
(Helen) Hau Yi Chung	MSc Statistics	Supervisor	UoGuelph	09/2007	04/2009	OMAFRA, NSERC

---

## POST-DOCTORAL FELLOWS SUPERVISED

List current and past post-doctoral fellows (PDF).

PDF Name	Institution	Start Date (mm/yyyy)	End Date (mm/yyyy)	Source of Funding
Raja Ben Hajria	UCalgary (Co-supervised with Alexandra Schmidt, MCGill)	10/2021		NSERC (Emerging Infectious Diseases Modelling Grant)
David Vickers	UCalgary (Co-supervised with Tyler Williamson, CSM, UCalgary)	09/2021		NSERC (Emerging Infectious Diseases Modelling Grant)
Caitlin Ward	UCalgary (Co-supervised with Alexandra Schmidt, MCGill)	08/2021	11/2022	CANSSI (Distinguished Postdoctoral Award)
Leila Amiri	UManitoba (Co-supervised with Mahmoud Torabi, Manitoba)	09/2019	08/2021	CANSSI (Collaborative Research Team Grant)
Mojtaba Aghajanpoorpasha	UCalgary	06/2019	05/2021	Math/Stats Scholarship
Vineetha Warriyar	UCalgary	04/2016	03/2018	Eyes High, NSERC
Gyanendra Pokharel	UCalgary	05/2015	07/2018	NSERC, PIMS, Math/Stats Scholarship, CIHR
Grace Pui Sze Kwong	UoGuelph (Co-supervised with Zvonimir Poljak, Ontario Veterinary College)	10/2009	08/2014	OMAFRA, Canadian Swine Health Board, NSERC

---

## OTHER SUPERVISED RESEARCH STAFF

List current and past research staff, both directly supervised and co-supervised.

Name	Level	Role	Institution	Start Date (mm/yyyy)	End Date (mm/yyyy)
Zeyi Liu	Research Assistant / Visiting PhD Student	Supervisor	UCalgary	03/2020	11/2020
Arthur Novaes de Amorim	Research Assistant	Co- Supervisor	UCalgary / Alberta Health Services	05/2019	04/2020

---

## GRADUATE STUDENT COMMITTEE MEMBERSHIPS

List current and past graduate students whose committees you were on. Indicate whether you were a full committee member, candidacy examiner or thesis/defence examiner.

Trainee Name	Graduate Program	Institution	Role	Start Date (mm/yyyy)	Completion Date (mm/yyyy)
Devin Townsend	PhD Veterinary Medical Sciences	UCalgary	Full Supervisory Committee Member	01/2023	
Luis Salazar	PhD Veterinary Medical Sciences	UCalgary	Full Supervisory Committee Member	10/2022	
Emir Sevinc	MSc Statistics	UCalgary	Thesis Defence Examiner	09/2022	09/2022
Samuel Babatunde	MSc Statistics	UCalgary	Thesis Defence Examiner	01/2022	01/2022
Fatemah Mahmoudi	PhD Statistics	UCalgary	Candidacy Exam	12/2021	12/2021

<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Jiayi (Anne) Bian	PhD Biostatistics	UCalgary	Candidacy Exam	10/2021	10/2021
Marit Biesheuvel	PhD Veterinary Medical Sciences	UCalgary	Full Supervisory Committee Member	05/2021	
Xiang He	PhD Biostatistics	UCalgary	Full Supervisory Committee Member	05/2021	
Kayla Strong	PhD Veterinary Medical Sciences	UCalgary	Neutral Chair, Candidacy Exam	04/2021	04/2021
Meng Wang	PhD Biostatistics	UCalgary	Candidacy Exam	11/2020	11/2020
Hina Qureshi	MSc Epidemiology	UCalgary	Full Supervisory Committee Member	10/2020	11/2022
Ruoyu Li	MSc Statistics	UCalgary	Thesis Defence Examiner	08/2020	08/2020
Mohamed Hassan	PhD Veterinary Medical Sciences	UCalgary	Neutral Chair, Candidacy Exam	08/2020	08/2020
Ryan Morill	PhD Mathematics	UCalgary	Neutral Chair, Candidacy Exam	12/2019	12/2019
Philip Rasmussen	PhD Veterinary Medical Sciences	UCalgary	Neutral Chair, Defence Examiner	05/2019	05/2019
Levi Mason	MSc Statistics	UCalgary	Thesis Defence Examiner	09/2018	09/2018



<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Mili Roy (*Note: I took over as co-supervisor with new supervisor in 2022)	PhD Biostatistics	UCalgary	Full Supervisory Committee Member	09/2018	03/2022*
Yilan Luo	MSc Statistics	UCalgary	Thesis Defence Examiner	08/2018	08/2018
Majid Shahabi	PhD Mathematics	UCalgary	Neutral Chair, Defence Examiner	08/2018	08/2018
Arfan Arzal	PhD Statistics	UCalgary	Thesis Defence Examiner	01/2018	01/2018
James Cheaveau	MSc Microbiology & Infectious Diseases	UCalgary	Full Supervisory Committee Member	09/2017	06/2019
Kaida Cai	PhD Statistics	UCalgary	Full Supervisory Committee Member	09/2016	
Mobolaji Ogunsolu	PhD Mathematics	UCalgary	Neutral Chair, Defence Examiner	05/2017	05/2017
Zach Moyer	PhD Mathematics	UCalgary	Neutral Chair, Defence Examiner	04/2017	04/2017
Haotian Song	MSc Mathematics	UCalgary	Neutral Chair, Defence Examiner	08/2016	08/2016
Ivan Krukov	PhD Biochemistry and Molecular Biology - Bioinformatics	UCalgary	Candidacy Exam	02/2017	02/2017

<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Diego Nobrega	PhD Veterinary Medical Sciences	UCalgary	Full Supervisory Committee Member	06/2016	
Yang Yu	PhD Biomedical Engineering	UCalgary	Full Supervisory Committee Member	09/2015	05/ 2018
Sonja Dunemann	PhD Veterinary Medical Sciences	UCalgary	Full Supervisory Committee Member	04/2016	
Aaron Mathankeri	MSc Biochemistry & Molecular Biology (Bioinformatics)	UCalgary	Full Supervisory Committee Member	03/2015	08/2016
Longlong Huang	PhD Statistics	UCalgary	Full Supervisory Committee Member	10/2014	12/2016
Yang Tang	PhD Statistics	UoGuelph	Full Supervisory Committee Member	01/2014	Transferred to McMaster 09/2014
Jan Rudy	MASc Engineering	UoGuelph	Full Supervisory Committee Member	01/2014	04/2016
Madeleine McGreer	MSc Integrative Biology	UoGuelph	Full Supervisory Committee Member	02/2013	12/2014
Monica Wong	PhD Statistics	UoGuelph	Full Supervisory Committee Member	09/2011	Transferred to McMaster 09/2014

<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Irene Vrbik	PhD Statistics	UoGuelph	Full Supervisory Committee Member	09/2011	03/2014
Weiqiang Wang	PhD Statistics	UoGuelph	Full Supervisory Committee Member	09/2011	05/2014
Notice Ringa	PhD Statistics	UoGuelph	Full Supervisory Committee Member	09/2011	10/2014
(Victor) Shengun Xie	PhD Statistics	UoGuelph	Full Supervisory Committee Member	09/2006	08/2010
Sanjeena Subedi	PhD Statistics	UoGuelph	Full Supervisory Committee Member	09/2009	08/2012
Jinning Zhang	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2008	08/2010
Cameron Redsell - Montgomerie	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2008	04/2011
Matthew Sparling	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2008	08/2010
Michael McDonald	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2008	08/2010
Ali Lorfard	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2008	08/2009

<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Maryam Shanehchian	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2008	12/2009
Logan Heslip	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2006	08/2008
Rick Chin	MSc Statistics	UoGuelph	Full Supervisory Committee Member	09/2006	08/2008
Tal Avgar	MSc Integrative Biology	UoGuelph	Full Supervisory Committee Member	01/2010	08/2013
Hien Le	PhD Population Medicine (OVC)	UoGuelph	Full Supervisory Committee Member	09/2010	08/2012
Mike Faddock	PhD Engineering	UoGuelph	Full Supervisory Committee Member	09/2009	08/2013
Wade Milton	MSc Engineering	UoGuelph	Full Supervisory Committee Member	09/2008	08/2010
Kate Bottoms	MSc Population Medicine (OVC)	UoGuelph	Full Supervisory Committee Member	09/2011	08/2013
Yasaman Farahani	PhD Computer Science	UWindsor	Thesis defense (External Examiner)	04/2014	04/2014
Yuhong Wei	PhD Statistics	UoGuelph	Thesis defense committee (Chair)	03/2014	03/2014

<b>Trainee Name</b>		<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Brian Franczak	PhD	Statistics	UoGuelph	Thesis defense committee (Chair)	03/2014	03/2014
Kathryn Morris	PhD	Statistics	UoGuelph	Thesis defense committee (Chair)	01/2014	01/2014
Sithar Dorjee	PhD	Veterinary Medicine	AVC, UPEI	Thesis defense (External Examiner)	12/2013	12/2013
Sanjeena Subedi	PhD	Statistics	UoGuelph	Thesis defense committee member	07/2012	07/2012
Asheber Sewalem	MSc	Statistics	UoGuelph	Thesis defense committee chair	05/2012	05/2012
Yuhong Wei	MSc	Statistics	UoGuelph	Thesis defense committee chair	04/2012	04/2012
William Petrchich	MSc	Statistics	UoGuelph	Thesis defence committee chair	08/2011	08/2011
Mike Faddock	MSc	Engineering	UoGuelph	Thesis defence committee member	07/2011	07/2011
Tatiana Petukhova	MSc	Statistics	UoGuelph	Thesis defence committee member	04/2011	04/2011
Michael McDonald	MSc	Statistics	UoGuelph	Thesis defence committee member	10/2010	10/2010

<b>Trainee Name</b>		<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Cameron Redsell-Montgomerie	MSc	Statistics	UoGuelph	Thesis defence committee member	09/2010	09/2010
Matthew Sparling	MSc	Statistics	UoGuelph	Thesis defence committee member	08/2010	08/2010
Dan Gillis	PhD	Statistics	UoGuelph	Thesis defence committee member	04/2010	04/2010
Xiaojian Yang	MSc	Statistics	UoGuelph	Thesis defence chair	05/2009	05/2009
Ali Lorfard	MSc	Statistics	UoGuelph	Thesis defence committee member	10/2009	10/2009
Mateen Shaikh	MSc	Statistics	UoGuelph	Thesis defence chair	08/2009	08/2009
Wade Milton	MSc	Engineering	UoGuelph	Thesis defence committee member	07/2009	07/2009
Jeffrey Andrews	MSc	Statistics	UoGuelph	Thesis defence committee member	07/2009	07/2009
Ralucca Amariei	MSc	Statistics	UoGuelph	Thesis defence committee member	04/2007	04/2007
Ying Yi	PhD	Statistics	UoGuelph	Candidacy Examiner	08/2015	08/2015
Paula Murray	PhD	Statistics	UoGuelph	Candidacy exam (Chair)	10/2013	10/2013
Kathryn Morris	PhD	Statistics	UoGuelph	Candidacy exam (Chair)	06/2013	06/2013

<b>Trainee Name</b>	<b>Graduate Program</b>	<b>Institution</b>	<b>Role</b>	<b>Start Date</b> (mm/yyyy)	<b>Completion Date</b> (mm/yyyy)
Ali Lorfard	PhD Statistics	UoGuelph	Candidacy exam (Chair)	12/2011	12/2011
Andrew McEachern	PhD Statistics	UoGuelph	Candidacy exam (Chair)	12/2011	12/2011
Moyi Li	PhD Statistics	UoGuelph	Candidacy exam (Chair)	12/2011	12/2011
Colin Lee	PhD Statistics	UoGuelph	Candidacy exam (Chair)	03/2011	03/2011
Jeffrey Andrews	PhD Statistics	UoGuelph	Candidacy examiner	06/2010	06/2010
Chong Liu	PhD Statistics	UoGuelph	Candidacy examiner	04/2007	04/2007
Rick Chin	MSc Statistics	UoGuelph	Project examination committee member	08/2007	08/2007

# SERVICE ACTIVITIES

## UNIVERSITY ADMINISTRATIVE SERVICE

*Please list in reverse chronological order.*

<b>Dates</b>	<b>Activity</b>
<b>Service at the University of Calgary:</b>	
2022 - 2023	UCVM Search Committee (Biostatistics Consultant)
2022	UCVM Staff Awards Committee
2021 - present	<b>Chair, University of Calgary Biostatistics Centre Executive Committee, University of Calgary Biostatistics Centre (UCBC)</b>
2020	UCVM Research Scholarship Leave Committee
2019	UCVM Research Scholarship Leave Committee
2018	Member, University of Calgary Biostatistics Centre (UCBC) Workshop Organizing Committee: 'Visualization using R', Duncan Murdoch (Western)
2018 – 2021	Member, Rocky Mountain Data Science Training Network Committee
2017 – 2019	Member, Data Science Education Task Force
2017 - present	<b>Biostatistics Graduate Education Coordinator and Chair, Biostatistics Education Oversight Committee (BEOC)</b>
2016	UCVM Research Scholarship Leave Committee
2016	UCVM AIHS Summer Research Studentship Reviews Committee
2016	UCVM Student Appeals Committee
2015	UCVM Research Scholarship Leave Committee
2015 – 2016	<b>Chair, Biostatistical Methods Course / Cross-Departmental Teaching Sub-Committee of University of Calgary Biostatistics Centre (UCBC) Group</b>
2015 – 2016	<b>Chair, Graduate Program Sub-Committee of University of Calgary Biostatistics Centre (UCBC)</b>
2015 – 2021	<b>Member, Executive Committee of University of Calgary Biostatistics Centre (UCBC)</b>
2015 - present	Member, University of Calgary Biostatistics Centre (UCBC)



### Service at the University of Guelph:

2013/14	Math/Stats Dept. Graduate Committee (Vice-chair)
2013	College (CPES) NSERC-RTI Review Committee (Member)
2013/2014	College (CPES) Tenure & Promotion Committee (Elected member, two years - resigned upon leaving UoG after one year)
2012/2013	Math/Stats Departmental Tenure & Promotion Committee (Elected member, one year)
2012	Ontario Veterinary College/CPES CRC Tier 2 Chair Search Committee (Appointed Member)
2011/2012	Math/Stats Dept. Curriculum Committee
2011/2012	Mathematics/Statistics Colloquium Committee (Chair)
2010/2011	Mathematics/Statistics Colloquium Committee (Chair)
2010/2011	Math/Stats Dept. Graduate Committee (Member)
2010/2011	Math/Stats Dept. IT Colloquium Committee (Member/Chair)
2009/2010	Mathematics & Statistics Dept. Chair Search Committee (Elected Member)
2009/2010	Math/Stats Dept. Statistics Colloquium Organizer (Chair)
2009/2010	Math/Stats Dept. Graduate Committee (Member)
2009/2010	Math/Stats Dept. IT Committee (Member)
2008/2009	Math/Stats Dept. Statistics Colloquium Series Organizer (Chair)
2008/2009	Math/Stats Dept. Graduate Committee (Member)
2008/2009	Math/Stats Dept. Chair's Policy & Advisory Committee (Member)
2008/2009	Math/Stats Dept. Information Technology Committee (Member)
2007/2008	Math/Stats Dept. Statistics Colloquium Series Organizer (Chair)
2007/2008	Math/Stats Dept. Curriculum Committee (Member)
2007/2008	Math/Stats Dept. Chair's Policy & Advisory Committee (Member)
2007/2008	Math/Stats Dept. Information Technology Committee (Member)
2006/2007	Math/Stats Dept. Statistics Colloquium Series Organizer (Chair)
2006/2007	Math/Stats Dept. Curriculum Committee (Member)
2006/2007	Math/Stats Dept. IT Committee (Member)
2006/2007	Math/Stats Dept. Statistics Strategic Planning Group (Co-Chair)

---

## EXTERNAL SERVICE

<b>Dates</b>	<b>Activity</b>
2023 - Present	Member of Working Group on “Charting a Future for Emerging Infectious Disease Modelling in Canada” (Tasked with writing a “white paper” at Banff International Research Station Meeting, January 2023)
2022 - 2025	<b>Member of NSERC Mathematics &amp; Statistics Liaison Committee</b>
2022 - 2023	Member of the Elections Committee of the Statistical Society of Canada (SSC)
2022 - 2023	Past President of the Biostatistics Section of the Statistical Society of Canada (SSC)
2021 - 2022	Statistical Society of Canada Annual Meeting, Scientific Program Committee, June 2022 (Online) (Member)
2022 - 2024	<b>Associate Editor, Canadian Journal of Statistics</b>
2021 - 2022	<b>President of the Biostatistics Section of the Statistical Society of Canada (SSC)</b>
2021	Scientific Program Committee, International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2021), Dec. 2021 (Member)
2021 - 2023	<b>Associate Editor, Journal of Statistical Research</b>
2020 - Present	<b>Member of Public Health Agency of Canada (PHAC) COVID-19 Pandemic Modelling Advisory Group</b>
2020	Organizing Committee, Fields Institute / CANSSI Workshop on Advancing knowledge about spatial modeling, infectious diseases, environment and health, Toronto, Canada (Online), June 2020 (Member)
2020 - 2021	Organizing Committee COPSS-NISS COVID-19 Data Science Seminar Series (Member)
2020	Attended Canadian Statistical Sciences Institute (CANSSI) Strategic Planning Retreat; served as Co-chair of Research Programs Planning Group. (North York, ON; March 2020)
2020 - 2021	Incoming President of the Biostatistics Section of the Statistical Society of Canada (SSC)
2019 - 2021	<b>Member of the Committee of the Presidents of the Statistical Societies (COPSS) Distinguished Award Panel (‘Fisher Award’)</b>
2019 - 2021	<b>Chair of Statistics Section of (and Co-Chair of) the NSERC Discovery Grant Mathematics &amp; Statistics Evaluation Panel (1508)</b>

- 2019 - 2021 **Co-editor of a special issue of the journal, Spatial and Spatio-temporal Epidemiology, on Infectious Disease Modelling & Surveillance**
- 2018 - 2022 Organizing Committee of the International Society of Bayesian Analysis (ISBA) 2022 World Meeting (Member)
- 2018 - 2019 Incoming Chair of Statistics Section of (and Co-Chair of) the NSERC Discovery Grant Mathematics & Statistics Evaluation Panel (1508)
- 2017 - 2018 **Member of NSERC Discovery Grant Mathematics & Statistics Evaluation Panel**
- 2017 Member, Canadian Veterinary & Preventive Medicine (CAVEPM) Conference 2017, University of Calgary, Student Poster Awards Committee
- 2017 Member, Canadian Veterinary & Preventive Medicine (CAVEPM) Conference 2017, University of Calgary, Local Organizing Committee
- 2016 - 2020 **Associate Editor, Journal of the Royal Statistical Society Series C (Applied Statistics)**
- 2016 CANSSI Workshop on Novel Probabilistic Methods for Decision Support Systems for Food Security in Canada, Fields Institute, Toronto, Organizing Committee
- 2013 - 2016 Poultry Health Research Network (Member)
- 2012 Statistical Society of Canada Annual Meeting (Chair of session on Monte Carlo Inferences for Stochastic Processes)
- 2011 - 2012 Statistical Society of Canada Annual Meeting Local Organizing Committee (Member, Chair of IT Subcommittee)
- 2012 - 2016 Ontario Zoonotic Influenza Working Group (OZIWG) - (Member of Surveillance Sub Working Group, and Response Plans Sub Working Group)
- 2012 Statistical Society of Canada Annual Meeting Student Presentation Awards (Assessor/Reviewer)
- 2008 International Biometric Society Conference, Dublin, Ireland (Chair of session on Modelling Infectious Diseases)
- 2008 Bio-Mathematics & Statistics Working Group (BioMS) Annual Symposium on Infectious Disease Modelling Organizer (Chair of Morning session)
- 2007/2008 Bio-Mathematics & Statistics Working Group (BioMS) Annual Symposium on Infectious Disease Modelling Organizer (Co-chair)
- 2006 - 2007 Statistical Society of Canada Southern Ontario New Investigator Committee (Member)

## **Society Memberships**

2014 - Present	Member of Canadian Association of Veterinary Epidemiology & Preventive Medicine (CAVEPM)
2012 - Present	Member of the International Environmetrics Society (TIES)
2010 - Present	Member of the Canadian Society for Epidemiology and Biostatistics (CSEB)
2006 - Present	Member of the Royal Statistical Society (RSS)
2006 - Present	Member of American Statistical Association (ASA)
2006 - Present	Member of Statistical Society of Canada (SSC)
2006 - Present	Member of the International Biometrics Society (IBS)
2006 - Present	Member of the International Society for Bayesian Analysis (ISBA)
2006 - Present	Member of the Institute of Mathematical Statistics (IMS)

## **Refereeing for the Following Research Funding Bodies:**

1. Canadian Statistical Sciences Institute (CANSSI), Workshop Grants (June 2019)
2. Banff International Research Station (Nov 2018)
3. Canadian Statistical Sciences Institute (CANSSI), Health Science Collaborating Centre grant review panel (4 grants reviewed) (March 2018)
4. NSERC (Discovery Grant) (Jan 2017)
5. NSERC (Discovery Grant) (Dec 2016)
6. AIHS (Summer Research Studentship) (June 2016)
7. New Zealand Marsden Fund (Fast Start) (August 2014)
8. MITACS (Accelerate Internship) (March 2014)
9. NSERC (Discovery Grant) (Dec 2013)
10. NSERC (Discovery Grant) (Dec 2012)
11. NSERC (Discovery Grant) (Dec 2011)
12. NSERC (Discovery Grant) (Dec 2009)
13. University of Guelph (Internal) (May 2009)
14. The Home of Rest for Horses (August 2006)

## **Refereeing for Journals**

I have reviewed for multiple journals (many on multiple occasions) including:

*Journal of the Royal Statistical Society Series C; Biometrics; Statistics in Medicine; BMC Medical Informatics; Biometrics; Statistics in Medicine; Scientific Reports; Statistics in Medicine; Statistics in Medicine; Journal of the Royal Statistical Society Series A; Journal of Agricultural,*

*Biological and Environmental Statistics; Journal of Applied Statistics; BMC Veterinary Research; Epidemiology and Infection; Epidemics; Equine Veterinary Journal; Proceedings of the Royal Society: Biological Sciences; PloS One; International Journal of Biostatistics.*

### **Other Refereeing**

1. Reviews Abstracts for International Conference: Applied Mathematics, Modeling and Computational Science Conference (Jan 2014)
2. Reviewed Book Proposal for Oxford University Press (Sept 2013)
3. Applied Mathematics, Modelling and Computer Science (AMMCS) Conference Proceedings Volume (Jan 2014)

# RESEARCH SUPPORT

---

## **ACTIVE GRANTS**

Modelling human behaviour response to public policy and its impact on infectious disease spread - case studies using AI/ML, data science, game theory and optimization. NSERC, Alliance.

PI: Monica Cojocaru (UGuelph), Project Grant, \$200,000, 02/2023 - 01/2025.

Bayesian transmission models to quantify the effect of interventions on the prevention of Methicillin-resistant Staphylococcus aureus (MRSA) transmission in Alberta hospitals.

Canadian Network for Modelling Infectious Diseases (NSERC EIDM).

PI: Rob Deardon, Project Grant, \$35,000, 01/2022 - 03/2023.

**Statistical inference for epidemic models accounting for population heterogeneity: computational efficiency & model development (Supplement), Alberta Innovates and NSERC, Alliance.**

**PI: Rob Deardon, Project Grant, \$40,000, 04/2023 - 03/2025**

**Statistical inference for epidemic models accounting for population heterogeneity: computational efficiency & model development, NSERC, Discovery Grant.**

**PI: Rob Deardon, Operating Grant, \$185,000, 05/2022 - 04/2027**

Personalizing the choice of therapy in rheumatoid arthritis, CIHR Project Grant.

PI: Glen Hazlewood (UCalgary), Project Grant, \$420,752. 05/2022 - 04/2025.

Behavioural change in infectious disease modelling, CANSSI, Distinguished Postdoctoral Fellowship Scheme.

PI: Rob Deardon, Scholarship, \$119,600, 08/2021 - 07/2023

CANMOD: Canadian network for modelling infectious disease, NSERC, Emerging Infectious Disease Modelling (EIDM) Initiative.

PI: Caroline Coljin (UBC) & David Earn (McMaster), Research Network Grant, \$2,500,000, 04/2021 - 08/2023

Statistical methods for managing emerging infectious diseases (SMMEID), NSERC, Emerging Infectious Disease Modelling (EIDM) Initiative, PI: Patrick Brown (Toronto), Research Network Grant, \$750,000, 04/2021 - 08/2023

Projection of COVID-19 Pandemic and Possible Interventions in Manitoba, Manitoba Research, COVID-19 Rapid Response Grant, PI: Mahmoud Torabi (Manitoba), Co-PI: Rob Deardon, Project, \$68,500, 06/2020 - 05/2022

Spatial Modelling of Infectious Diseases: Environment and Health, Canadian Statistical Sciences Institute (CANSSI), Collaborative Team Research Grants, PI: Mahmoud Torabi (Manitoba), Co-PI: Rob Deardon, Project, \$180,000, 04/2018 - 03/2022

## **PREVIOUS GRANTS**

**Statistical inference and planning for complex infectious disease systems, NSERC, Discovery Grant, PI:Rob Deardon, Operating Grant, \$150,000, 05/2015 - 04/2022**

A GPU server for the integration of machine learning in mathematics and statistics, NSERC, Research Tools & Instruments (RTI),  
PI:Qingrun Zhang, Infrastructure Grant, \$149,886, 07/2021 - 06/2022.

Modelling of COVID-19 Pandemic in Canada: Projection and Interventions, NSERC, Alliance Grant,  
PI:Mahmoud Torabi (Manitoba), Co-PI: Rob Deardon \$50,000, 08/2020 - 07/2021

Advanced multi-modal imaging to predict early inflammatory arthritis progression, The Arthritis Society, Stars Career Development  
PI:Sarah Manske, Salary (for Manske) & Operating, \$224,530, 01/2019 - 12/2021

Modelling campylobacteriosis risk in Canada through the various environmental and foodborne sources of exposure in a climate change perspective., CIHR, Project Grant  
PI:Julie Arsenault, Operating, \$325,000, 09/2018 - 08/2021

Rocky Mountain Data Science Training Network, Canadian Statistical Sciences Institute (CANSSI) , Health Science Collaborating Centre  
PI:N/A (5 Co-PIs), Seed Funding, \$10,000, 01/2017 - 12/2020

Bridging the Evidence Gap: Understanding Patient and Physician Choices for Treatment in Early Rheumatoid Arthritis, The Arthritis Society, Young Investigator Salary Award  
PI:Glen Hazelwood, Salary (for Hazelwood), \$180,000, 09/2016 - 05/2019

A pragmatic registry-based randomized trial of drug tapering in rheumatoid arthritis, CIHR, Project Grant (CRT)  
PI:Glen Hazelwood, Operating, \$835,000, 05/2018 - 04/2021

University of Calgary Biostatistics Centre Workshop on Visualization, Pacific Institute for the Mathematical Sciences (PIMS)  
PI:Karen Kopciuk, Workshop Grant, \$1500, 03/2018 - 03/2018

Establishing the foundation for a patient-centered pragmatic registry-randomized trial of treatment tapering in rheumatoid arthritis, CIHR, SPOR Innovative Clinical Trials  
PI:Glen Hazelwood, Catalyst - Operating, \$99,724, 03/2017 - 02/2018

Dynamics of influenza infection in swine populations, Swine Innovation Porc, Canadian Swine Research & Development Cluster II  
PI:Zvonimir Poljak, Operating, \$ 343,306, 01/2015 - 12/2017

Complex mathematical and statistical modeling of between-farm disease transmission in the Ontario swine industry, OMAFRA, OMAFRA/University of Guelph Partnership  
PI:Rob Deardon, Operating, \$56,000, 09/2014 - 08/2017

Efficient inference of infectious disease transmission models which incorporate genomic data, OMAFRA, Highly Qualified Personnel (HQP)

PI:Rob Deardon / Justin Angevaare, Stipend for Angevaare, \$63,000, 09/2014 - 08/2017

Novel Probabilistic Methods for Decision Support Systems for food Security in Canada, Canadian Statistical Sciences Institute (CANSSI) , Workshop Grant

PI:Michael Escobar (UToronto), Conference, \$19,900, 01/2016 - 12/2016

Individual-level models for infectious disease spread, NSERC, Discovery Grant

PI:Rob Deardon, Operating, \$75,000, 05/2010 - 04/2015

Stochastic approximations of individual-level infectious disease models, OMAFRA, Highly Qualified Personnel (HQP)

PI:Rob Deardon / Razvan Romanescu, Salary for Romanescu, \$63,000, 09/2012 - 08/2015

The design and analysis of experiments and observational studies on infectious disease spread in the livestock industries, OMAFRA, OMAFRA/University of Guelph Partnership

PI:Rob Deardon, Operating, \$99,500, 09/2012 - 08/2015

Development of risk-based and consequence-based approaches to surveillance in swine populations using PRRS virus as a model, OMAFRA, OMAFRA/University of Guelph Partnership

PI:Zvonimir Poljak, Operating, \$ 82,500, 09/2012 - 08/2015

Infectious disease transmission models that incorporate network uncertainty, OMAFRA, Highly Qualified Personnel (HQP)

PI:Rob Deardon / Carolyn Augusta, Stipend for Augusta, \$34,600, 09/2012 - 08/2014

Computational Statistics and Computational Mathematics with Applications in Biology and Physics, NSERC, Research Tools and Instruments

PI:Paul McNicholas (Guelph, now McMaster), Equipment, \$36,130, 01/2012 - 12/2012

Evaluation of disease / infection control in animal diseases, Canadian Swine Health Board,

PI:Zvonimir Poljak, Operating, \$ 225,000, 09/2010 - 08/2013

The interplay between spatial- and network-based infectious disease models, OMAFRA, Highly Qualified Personnel (HQP)

PI:Rob Deardon / Nadia Bifulchi, Stipend for Bifulchi, \$55,600, 09/2010 - 08/2013

Centre for Public Health and Zoonoses, CFI, Leading Edge Fund,

PI:Jan Sargeant (UoG Equipment and infrastructure, \$2.2M (185,582 for RD), 01/2009 - 12/2014

Spatial and Network Individual-level Models of Infectious Disease Spread within a Bayesian Statistical Framework via Markov Chain Monte Carlo (MCMC), OMAFRA, OMAFRA/University of Guelph Partnership

PI:Rob Deardon, Operating, \$140,000, 09/2009 - 08/2013

Using scoring rules to detect poor model fit in infectious disease models, OMAFRA, Highly Qualified Personnel (HQP)

PI:Rob Deardon / Lin Zhang, Stipend for Zhang, \$55,600, 09/2009 - 08/2012

The spatio-temporal analysis of infectious diseases, NSERC, Discovery Grant

PI:Rob Deardon, Operating, \$36,000, 05/2007 - 04/2010



## **INSTITUTIONAL FUNDING**

Hidden Markov Individual-level Models of Disease Transmission, UCalgary, Mathematics & Statistics  
Departmental Postdoc Scholarship

PI: Rob Deardon, Postdoctoral Salary, \$12,500, 09/2021 - 08/2022.

Behavioural-change individual-level models of disease transmission, UCalgary, Mathematics & Statistics  
Departmental Postdoc Scholarship

PI: Rob Deardon, Postdoctoral Salary, \$12,500, 09/2021 - 08/2022.

Optimal design of control charts, , UCalgary, Mathematics & Statistics Departmental Postdoc Scholarship

PI: Rob Deardon, Postdoctoral Salary, \$50,000, 09/2019 - 08/2021.

Approaches to disease surveillance using predictive covariates, UCalgary, Dept. of Production Animal  
Health

PI: Rob Deardon, Summer Studentship, \$4000, 04/2018 - 08/2018

UCBC Workshop on Visualization, UCalgary, UC Vice President Research Office

PI: Rob Deardon, Workshop Grant, \$1000, 03/2018 - 03/2018

**Democratizing complex infectious disease data analysis, UCalgary, Eyes High Postdoctoral Fellowship**

**PI: Rob Deardon, Postdoctoral Salary, \$100,000, 05/2016 - 04/2018.**

Approximate inferential methods for spatial infectious disease models, UCalgary, Mathematics &  
Statistics Departmental Postdoc Scholarship

PI: Rob Deardon, Postdoctoral Salary, \$75,000, 05/2015 - 04/2018.

Analysis of infectious disease surveillance data, UCalgary, Dept. of Production Animal Health

PI: Rob Deardon, Summer Studentship, \$8000, 05/2016 - 12/2016

Statistical Modelling of Porcine Reproductive & Respiratory Syndrome, UoGuelph, Keefer Research Fund

PI: Rob Deardon, PhD Studentship, \$45,000, 09/2007 - 09/2010

---

## ACADEMIC PUBLICATIONS

---

*Research Group Members / Highly qualified personnel (HQP) shown in italics.*

*Authors are generally listed in order of contribution to the work (highest first), as is the convention in statistics, unless publications are in the Medical or Veterinary literature in which case the supervisor/PI is listed last. My HQP are almost always first author, having implemented research, even if heavily guided by me.*

### **Journal Articles.**

1. L. *Amiri*, M. Torabi & R. Deardon “Analyzing COVID-19 Data in the Canadian Province of Manitoba: A New Approach” to appear in Spatial Statistics.
2. M. *Pasha*, R. Deardon & A. Rahim (2023) “A study on inspection schemes in optimal design of control charts for deteriorating processes” in Quality and Reliability Engineering International, 39(3), 732-751.
3. M. *Mahsin*, R. Deardon & P. Brown (2022) “Geographically-dependent individual-level models for infectious diseases transmission” in Biostatistics, 23(1), 1-17. <https://doi.org/10.1093/biostatistics/kxaa009>
4. J. *Angevaere*, Z. Feng & R. Deardon “Pathogen.jl: Infectious disease transmission network modelling with Julia” to appear in the Journal of Statistical Software. <https://arxiv.org/abs/2002.05850>
5. G. *Pokharel* & R. Deardon (2022) “Emulation-based inference for spatial infectious disease transmission models incorporating event time uncertainty” in the Scandinavian Journal of Statistics, 49(1), 455-479. <http://doi.org/10.1111/sjos.12523>
6. M. *Mahsin*, R. Deardon & P. Brown (2022) “Geographically-dependent individual-level models for infectious diseases transmission” in Biostatistics, 23(1), 1-17. <https://doi.org/10.1093/biostatistics/kxaa009>
7. M. *Ward*, L. Deeth & R. Deardon (2022) “Cluster-aggregation-disaggregation methods for spatial individual level models of infectious disease transmission” in Spatial & Spatiotemporal Epidemiology, 41: 100497. <https://doi.org/10.1016/j.sste.2022.100497>
8. J. Di Francesco, G.P.S. Kwong, R. Deardon, S. L. Checkley, G. F. Mastromonaco, F. Mavrot, L. Leclerc & S. Kutz (2022) “Intrinsic and extrinsic factors associated with increased qiviut cortisol in wild muskoxen (*Ovibos moschatus*)” in Conservation Physiology, 10(1), coab103. <https://doi.org/10.1093/conphys/coab103>
9. S. A. *Naqvi*, M. King, T. DeVries, H. Barkema & R. Deardon (2022) “Data considerations for developing deep learning models for dairy applications” in Computers and Electronics in Agriculture, 196: 106895. <https://doi.org/10.1016/j.compag.2022.106895>
10. S. A. *Naqvi*, M. King, R. Matson, T. DeVries, R. Deardon & H. Barkema (2022) “Mastitis detection with recurrent neural networks in farms using automated milking systems” in Computers and Electronics in Agriculture, 192: 106618. <https://doi.org/10.1016/j.compag.2021.106618>

11. W. *Almutiry*, V. *Warriyar* & R. Deardon (2021) "Continuous-time individual-level models of infectious disease: EpiLMCT" in the Journal of Statistical Software, 98(10), 1-44. <https://www.jstatsoft.org/article/view/v098i10>
12. L. *Amiri*, M. Torabi, R. Deardon & M. Pickles (2021). "Spatial modeling of individual-level infectious disease transmission: tuberculosis data in Manitoba, Canada" in Statistics in Medicine, 40(7), 1678-1704. <https://doi.org/10.1002/sim.8863>
13. J. *Angevaere*, Z. Feng & R. Deardon (2021) "Inference of latent event times and transmission network in individual level infectious disease models" in Spatial & Spatiotemporal Epidemiology, 37, 100410. <https://doi.org/10.1016/j.sste.2021.100410>
14. W. *Almutiry* & R. Deardon (2021) "Contact network uncertainty in individual level models of infectious disease transmission" in Statistical Communications in Infectious Diseases, 13(1). DOI: <https://doi.org/10.1515/scid-2019-0012>
15. Z. *Liu*, R. Deardon, Y. Fu, T. *Ferdous*, T. Ware & Q. Cheng (2021) "Estimating parameters of two-level individual-level models of the COVID-19 epidemic using ensemble learning classifiers" in Frontiers in Physics, 8(11), Article 602722. doi: 10.3389/fphy.2020.602722
16. A. *Novaes de Amorim*, V. Saini & R. Deardon (2021) "A stacked ensemble method for forecasting influenza-like illness visit volumes at emergency departments" in PLOS One, 16(3): e0241725. <https://doi.org/10.1371/journal.pone.0241725>
17. S. Andres-Lasheras, R. Ha, R. Zaheer, C. Lee, C. Booker, C. Dorin, J. Van Donkersgoed, R. Deardon, S. Gow, S. Hannon, S. Hendrick, M. Anholt & T. McAllister (2021) "Prevalence and risk factors associated with antimicrobial resistance in bacteria related to bovine respiratory disease - A broad cross-sectional study of beef cattle at entry into Canadian feedlots" in Frontiers in Veterinary Science, 8, 710. doi: 10.3389/fvets.2021.692646
18. B. Singh, M. *Lowerison*, R. Lewinson, I. Vallerand, R. Deardon, J. Gill, B. Singh & H. Barkema (2021) "Public health interventions slowed but did not halt the spread of COVID-19 in India" in Transboundary and Emerging Diseases, 68(4), 2171-2187. <https://doi.org/10.1111/tbed.13868>
19. C. Doolan, T. Louie, C. Lata, O. Larios, W. Stokes, J. Kim, K. Brown, P. Beck, R. Deardon & D. Pillai (2021) "Latent class analysis for the diagnosis of *Clostridioides difficile* infection" in Clinical Infectious Diseases, 73(9):e2673-e2679. <https://doi.org/10.1093/cid/ciaa1553>
20. B. Singh, M. Ward, M. *Lowerison*, R. Lewinson, I. Vallerand, R. Deardon, J. Gill, B. Singh & H. Barkema (2021) "Meta-analysis and adjusted estimation of COVID-19 case fatality risk in India and its association with the underlying comorbidities" in One Health, 13:100283. <https://doi.org/10.1016/j.onehlt.2021.100283>.
21. W. *Almutiry* & R. Deardon (2020) "Incorporating contact network uncertainty in individual level models of infectious disease using approximate Bayesian computation" in The International Journal of Biostatistics, 16(1), Article 20170092. DOI: <https://doi.org/10.1515/ijb-2017-0092>
22. V. *Warriyar*, W. *Almutiry* & R. Deardon (2020) "Individual level modelling of infectious disease data: EpiLM" in The R Journal 12(1), 199-217.
23. G. Hazelwood, G. *Pokharel*, R. Deardon, D. Marshall, C. Bombardier, G. Tomlinson, C. Ma, C. Seow, R. Panaccione & G. Kaplan (2020) "Patient preferences for maintenance therapy in Crohn's disease: a discrete-choice experiment" in PLoS One, 15(1):e0227635.
24. G.P.S. Kwong, R. Deardon, S. *Hunt* & M. Guerin (2020) "Bayesian optimal design of agricultural infectious disease transmission experiments" available online in Statistical Communications in Infectious Diseases, 12(1). <https://doi.org/10.1515/scid-2018-0005>

25. R. *Romanescu* & R. Deardon (2020) "Implementation of power law network models of epidemic surveillance data for better evaluation of outbreak detection alarms" in *Statistical Communications in Infectious Diseases*, 12(1). <https://doi.org/10.1515/scid-2018-0004>.
26. D. Nobrega, S. A. *Naqvi*, S. Dufour, R. Deardon, J. Kastelic, J. de Buck & H. Barkema (2020) "Critically important antimicrobials are not needed to treat non-severe clinical mastitis in lactating dairy cows: results from a network meta-analysis" in the *Journal of Dairy Science*, 103(11), 10585- 10603. <https://doi.org/10.3168/jds.2020-18365>
27. G. *Pokharel*, R. Deardon, S. Johnson, G. Tomlinson, P. Hull, G. Hazelwood (2020) "Effectiveness of initial methotrexate-based treatment approaches in early rheumatoid arthritis: An elicitation of rheumatologists' beliefs" in *Rheumatology*, keaa803. <https://doi.org/10.1093/rheumatology/keaa803>
28. A. Ogilvy, S. Collins, T. Tuokko, M. Hiltz, R. Deardon, W. Hare & A. Jirasek (2020) "Optimization of solid tank design for fan-beam optical CT based 3D radiation dosimetry" in *Physics in Medicine & Biology*. 65, 245012. <https://doi.org/10.1088/1361-6560/abbf98>
29. C. *Augusta*, R. Deardon & G. Taylor (2019) "Deep learning for supervised classification of spatial epidemics" in *Spatial & Spatiotemporal Epidemiology*, 29, 187-198.
30. M. *Ward*, A. *Stanley*, L. Deeth R. Deardon, Z. Feng & L. Trotz-Williams (2019) "Methods for detecting seasonal influenza epidemics using a school absenteeism surveillance system" in *BMC Public Health*, 19, Article: 1232.
31. C. *Augusta*, G. Taylor & R. Deardon (2019) "Dynamic contact networks of swine movement in Manitoba, Canada: characterization and implications for infectious disease spread" in *Trans-boundary and Emerging Diseases*, 66(6), 1910 - 1919. DOI: <https://doi.org/10.1111/tbed.13220>.
32. G. *Pokharel*, R. Deardon, C. Barnabe, V. Bykerk, S. Bartlett, L. Bessette, G. Boire, C. Hitchon, E. Keystone, J. Pope, O. Schieer, D. Tin, C. Thorne & G. Hazelwood "Joint estimation of remission and response for methotrexate-based DMARD options in rheumatoid arthritis: A bivariate network meta-analysis" in *ACR Open Rheumatology*, 1(8), 471-479. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/acr2.11052>.
33. M. *Lowerison*, C. Josephson, N. Jette, T. Sajobi, S. Patten, T. Williamson, R. Deardon, H. Barkema, & S. Wiebe (2019) "Association of levels of specialized care with risk of premature mortality in patients with epilepsy" in *JAMA Neurology*, 76(11), 1352-1358. DOI: <https://doi.org/10.1001/jamaneurol.2019.2268>
34. S. Coward, F. Clement, E. Benchimol, C. Bernstein, J. Antonio Avina-Zubieta, A. Bitton, M. Carroll, G. Hazelwood, K. Jacobson, S. Jelinski, R. Deardon, J. Jones, M. Ellen Kuenzig, D. Leddin, K. McBrien, S. Murphy, G. Nguyen, A. Otley, R. Pannaccione, A. Rezaie, G. Rosenfeld, J. Pena-Sanchez, H. Singh, L. Targownik, G. Kaplan (2019) "Past and future burden of inflammatory bowel diseases based on modeling of population-based data" in *Gastroenterology*, 156(5), 1345-1353.
35. J. Cheaveau, D. Marasinghe, S. Akakpo, R. Deardon, C. Naugler, A. Chin, D. R. Pillai (2019) "The impact of malaria on liver enzymes: a retrospective cohort study (2010-2017)" in *Open Forum Infectious Diseases*, 6(6).
36. T. Petukhova, D. Ojkic, B. McEwen, R. Deardon & Z. Poljak (2018) "Assessment of ARIMA, GLARMA and random forest models for predicting Influenza A virus frequency in swine in Ontario, Canada" in *PLoS One*, 13(6): e0198313.
37. G. *Pokharel* & R. Deardon (2018) "Spatially informed back-calculation for spatio-temporal infectious disease models" in *Statistical Communications in Infectious Diseases*, Vol. 10(1), Article 2.

38. M. Lipson, R. Deardon, N. Switzer, C. DeGara, C. Ball & S. Grondin (2018) "Practice and attitudes regarding double gloving among staff surgeons and surgical trainees" in the Canadian Journal of Surgery, 61(4), 244-250.
39. D. Toms, R. Deardon & M. Ungrin (2017) "Climbing the mountain: Experimental design for efficient optimization of stem cell bioprocessing" in the Journal of Biological Engineering, Vol. 11, No. 1
40. R. Romanescu & R. Deardon (2017) "Fast inference for network models of infectious disease spread" in the Scandinavian Journal of Statistics, 44(3), 666-683 (DOI: 10.1111/sjos.12270).
41. G. Pokharel & R. Deardon (2016) "Gaussian process emulators for spatial models of infectious disease" in the Canadian Journal of Statistics, 44(4), 480-501.
42. R. Romanescu & R. Deardon (2016) "Modelling two strains of disease via aggregate-level infectivity curves" in the Journal of Mathematical Biology, 72(5), 1195-1224.
43. L. Deeth & R. Deardon (2016) "Spatial data aggregation for spatio-temporal individual-level models of infectious disease transmission" in Spatial & Spatio-temporal Epidemiology, 17, 95-104.
44. R. Malik, R. Deardon & G.P.S. Kwong (2016) "Parameterizing spatial models of infectious disease spread using sampling-based likelihood approximations" in PLoS One, 11(1): e0146253. doi: 10.1371/journal.pone.0146253.
45. R. Deardon, X. Fang & G.P.S. Kwong (2015) "Statistical modelling of spatio-temporal infectious disease transmission" in Analyzing and Modeling Spatial and Temporal Dynamics of Infectious Diseases, 211-232, John Wiley & Sons. (Ed: D. Chen, B. Moulin, J. Wu).
46. T. J. McKinley, J. Ross, R. Deardon & A. Cook (2014) "Simulation-based Bayesian inference for epidemic models" in Computational Statistics & Data Analysis, 71, 434-447.
47. R. Malik, R. Deardon, G.P.S. Kwong & B. J. Cowling (2014) "Individual-level modeling of the spread of influenza within households" in Journal of Applied Statistics, 41(7), 1578-1592.
48. G. Pokharel & R. Deardon (2014) "Supervised learning and prediction of spatial epidemics" in Spatial & Spatio-Temporal Epidemiology, 11, 59-77.
49. L. Deeth & R. Deardon (2013) "Latent conditional individual level models for infectious disease modelling" in The International Journal of Biostatistics, 9(1), 75-93.
50. S. Subedi, Z. Feng, R. Deardon & F. Schenkel (2013) "SNP selection for predicting a quantitative trait" in the Journal of Applied Statistics, 40(3), 600-613.
51. N. Bifulchi, R. Deardon & Z. Feng (2013) "Spatial approximations of network-based individual level infectious disease models" in Spatial & Spatio-temporal Epidemiology , 6, 59-70.
52. T. Agvar, R. Deardon & J. Fryxell (2013) "An empirically parameterized individual based model of animal movement, perception and memory" in Ecological Modelling, 251: 158-172.
53. K. Bottoms, Z. Poljak, C. Dewey, R. Deardon, D. Holtkamp & R. Friendship (2013) "Evaluation of external biosecurity practices on southern Ontario farms" in Preventive Veterinary Medicine, 109(1-2):58-68.
54. G.P.S. Kwong, Z. Poljak, R. Deardon & C. Dewey (2013) "Bayesian analysis of risk factors for infection with a genotype of porcine reproductive and respiratory syndrome virus in Ontario swine herds using monitoring data" in Preventive Veterinary Medicine, 110(3-4):405-17.
55. K. Bottoms, Z. Poljak, B. Friendship, J. Alsop, R. Deardon & C. Dewey (2013) "An assessment of external biosecurity on southern Ontario swine farms, and its application to surveillance on a geographic level" in the Canadian Journal of Veterinary Research, 77(4), 241 - 253.

56. *I.Vrbik*, R. Deardon, Z. Feng, A. Gardner & J. Braun (2012) "Using individual-level models to model the spatio-temporal dynamics of combustion" in *Bayesian Analysis*, 7(3), 615 – 638. (Funded by: NSERC).
57. G.P.S. *Kwong* & R. Deardon (2012) "Linearized forms of individual-level models for large-scale spatial infectious disease systems" in *Bulletin of Mathematical Biology*, 74(8), 1912 – 37. (Funded by: NSERC, OMAFRA).
58. Y. Hosseinkashi, S. Chenouri, C. Small & R. Deardon (2012) "A stochastic graph process for epidemic modelling" in *Canadian Journal of Statistics*, 40(1), 55 – 67. (Funded by: NSERC).
59. R. Deardon, B. *Habibzadeh* & H. Y. *Chung* (2012) "Spatial measurement error in infectious disease models" in *Journal of Applied Statistics*, 39(5), 1139 – 1150. (Funded by: NSERC).
60. J. Gallienne, C. Gregg, E. LeBlanc, N. Yaakob, D. Wu, K. Davies, N. Rawlings, Pierson, R. Deardon, & Bartlewski "Correlations between ultrasonographic characteristics of corpora lutea (CL) and systemic concentrations of progesterone (P4) during the discrete stages of CL lifespan and secretory activity in cyclic ewes" in *Experimental Biology and Medicine*, 237, 505 – 515.
61. H. Le, Z. Poljak, R. Deardon & C. Dewey (2012) "Clustering of and risk factors for the porcine high fever disease in a region of Vietnam" in *Trans-boundary and Emerging Diseases*, 59(1), 49 – 61.
62. K. Bottoms, Z. Poljak, C. Dewey, R. Deardon, D. Holtkamp & R. Friendship (2012) "Investigation of strategies for the introduction and transportation of replacement gilts on southern Ontario sow farms" in *BMC Veterinary Research*, 8, 217.
63. A. Gardner, R. Deardon & G. A. Darlington (2011) "Goodness-of-fit measures for individual-level infectious disease models in a Bayesian framework" in *Spatial & Spatio-temporal Epidemiology*, 2(4), 273 – 281. (Funded by: NSERC, OMAFRA).
64. R. Deardon, S. P. Brooks, B. T. Grenfell, M. J. Keeling, M. J. Tildesley, N. J. Savill, D. J. Shaw & M. E. J. Woolhouse (2010), "Inference for individual-level models of infectious diseases in large populations" in *Statistica Sinica*, 20(1), 239-261. (Funded by: Wellcome Trust, UK).
65. B. *Habibzadeh* & R. Deardon (2010), "The effect of misspecifying latent and infectious periods in space-time epidemic models" in *Statistical Communications in Infectious Diseases*, Vol. 2: Issue 1, Article 7. (Funded by: NSERC).
66. T. J. McKinley, A. Cook & R. Deardon (2009) "Inference in epidemic models without likelihoods" in *The International Journal of Biostatistics*, 5(1), Article 24. (Funded by: NSERC).
67. A. J. Grant, M. Sheppard, R. Deardon, S. P. Brown, G. Foster, C. E. Bryant, D. J. Maskell & P. Mastroeni (2008) "Caspase 3-dependent phagocyte death during systemic *Salmonella enterica* serovar Typhimurium infection of mice" in *Immunology*, 125(1), 28-37.
68. M. J. Tildesley, R. Deardon, N. J. Savill, P. Bessell, S. P Brooks, M. E. J. Woolhouse, B. T. Grenfell & M. J. Keeling (2008) "Accuracy of models for the 2001 foot-and-mouth disease epidemic" in *Proceedings of the Royal Society B*, 275(1641), 1459-1468. (Funded by: Wellcome Trust, UK).
69. N. J. Savill, D. J. Shaw, R. Deardon, M. J. Tildesley, M. J. Keeling, S. P. Brooks, M. E. J. Woolhouse & B. T. Grenfell (2007), "Effect of data quality on estimates of farm infectiousness trends in the UK 2001 foot-and-mouth disease epidemic" in *Journal of the Royal Society Interface*, 4, 235-241. (Funded by: Wellcome Trust, UK).
70. R. Deardon, S. G. Gilmour, N. A. Butler, K. Phelps & R. Kennedy (2006), "Designing field experiments which are subject to representation bias" in *Journal of Applied Statistics*, 33, 7, 665-680. (Funded by: EPSRC, UK).

71. M. J. Tildesley, N. J. Savill, D. J. Shaw, R. Deardon, S. P. Brooks, M. E. J. Woolhouse, B. T. Grenfell & M. J. Keeling (2006), "Optimal reactive vaccination strategies for an outbreak of foot-and-mouth disease in Great Britain" in *Nature*, 440, 1080, 83-86. (Funded by: Wellcome Trust, UK).
72. N. J. Savill, D. J. Shaw, R. Deardon, M. J. Tildesley, M. J. Keeling, S. P. Brooks, M. E. J. Woolhouse & B. T. Grenfell (2006), "Topographic determinants of foot and mouth disease transmission in the UK 2001 epidemic" in *BMC Veterinary Research*, Vol. 2:3. (Funded by: Wellcome Trust, UK).
73. R. Deardon, S. G. Gilmour, N. A. Butler, K. Phelps & R. Kennedy (2004), "A method for ascertaining and controlling representation bias in field trials for airborne plant pathogens" in the *Journal of Applied Statistics*, 31, 3, 2004, 329-343.

### **Submitted Refereed Papers**

74. C. Ward, R. Deardon & A. Schmidt "Bayesian modelling of dynamic behavioural change during an epidemic" submitted to *Statistics in Medicine*. <https://arxiv.org/pdf/2211.00122.pdf>
75. M. Mahsin, W. Almutiry & R. Deardon "Spatial modeling of infectious disease transmission using continuous time geographically-dependent individual-level models" submitted to *Statistics in Medicine*.
76. L. Amiri, M. Torabi & R. Deardon "Spatial modelling of infectious diseases with covariate measurement error" submitted to *Journal of the Royal Statistical Society: Series C* (revision requested).
77. M. Pasha, R. Deardon & A. Rahim "Multi-response and multi-cause process monitoring by applying proportional hazards models in the optimal design of T2 control charts" submitted to *Computers & Industrial Engineering*.
78. M. Pasha, R. Deardon & A. Rahim "Multi-response process monitoring with T2 control charts under multiple assignable causes" submitted to *Quality and Reliability Engineering International*.
79. M. Biesheuvel, C. Ward, P. Penterman, E. van Engelen, G. van Schaik, R. Deardon & H. Barkema "Within-herd transmission of *Mycoplasma bovis* infection in 20 Dutch dairy herds" submitted to *Journal of Dairy Science*.
80. H. M. Qureshi, K. M. Fiest, J. Gratrix, E. L. Franco, P. Smyczek, R. Read, A. Afzal, R. Deardon, A. Kassam, M. M. Fidler-Benaoudia "Investigating the risk of primary invasive cancer among individuals with a history of bacterial sexually transmitted infections: a population-based study in Alberta, Canada"

### **Published Book Chapters, Books or Monographs**

1. R. Deardon, X. Fang & G.P.S. Kwong (2015) "Statistical modelling of spatio-temporal infectious disease transmission" in *Analyzing and Modeling Spatial and Temporal Dynamics of Infectious Diseases* (Ed: D. Chen, B. Moulin, J. Wu), 211-232, John Wiley & Sons.
2. P.E. Caines, R. Deardon & H. P. Wynn (2009), book chapter: "Bayes nets of time series: stochastic realizations and projections" in *Optimal Experimental Design and Related Areas* (Ed: L. Pronzato and A. Zhiglavsky) pp 155-166, Springer.

3. P.E. Caines, R. Deardon & H. P. Wynn (2002) "Conditional Orthogonality and Conditional Stochastic Realization" in *New Directions in Mathematical Systems Theory and Optimization*, Springer.

### **Published Abstracts**

1. Hazlewood G. S., Whittle S. L., Kamso M. M., Akl E. A., Wells G. A., Tugwell P., Thomas M., Lee C., Ejaredar M., Choudhary D., Neuen D. R., New-Tolley J., Powell M., Quinlivan A., Qaddoura A., Deardon R., Maxwell L. J., Pardo Pardo J., Kelly S., Buchbinder R. (2020). Disease-modifying anti-rheumatic drugs for rheumatoid arthritis: a systematic review and network meta-analysis (Protocol). *Cochrane Database of Systematic Reviews*. DOI: 10.1002/14651858.CDO13562.pub2
2. Kamso M. M., Thomas M., Lee C., Ejaredar M., Whittle S., Buchbinder R., Deardon R., Tugwell P., Pardo J., Kelly S., Wells G., Hazlewood G. (2020). Development and pilot of a framework using automation and crowd-sourcing to identify and classify randomized controlled trials for rheumatoid arthritis drug therapy. *Cochrane Database of Systematic Reviews*. Abstract No.: 35557
3. Coward et al. (2019). The evolving incidence of inflammatory bowel disease: what the future hold? *Journal of the Canadian Association of Gastroenterology*, 2(2), 56–58.
4. G. Pokharel & R. Deardon (2014) "Spatially Informed Back-Calculation for Spatio-Temporal Infectious Disease Models" in the Proceedings of the 11th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Paper 48, [https://www.spatial-accuracy.org/system/files/Paper\\_48\\_Deardon.pdf](https://www.spatial-accuracy.org/system/files/Paper_48_Deardon.pdf).

### **Others**

1. R. Deardon & S. P. Brooks (2007). "Bayesian modelling of the spatio-temporal dynamics of large-scale epidemics." *Statistical Series #2007-312*, Department of Mathematics & Statistics, University of Guelph.
2. P. E. Caines, R. Deardon & H. P. Wynn (2007) "Algebraic Methods for Conditional Independence in Time Series Graphical Models" *Technical Report, Statistical Series #2007-313*, Department of Mathematics & Statistics, University of Guelph.
3. M. J. Keeling, M. J. Tildesley, N. J. Savill, M. E. J. Woolhouse, D. J. Shaw, R. Deardon, S. P. Brooks, & B. T. Grenfell (2007) "Veterinary epidemiology: Vaccination strategies for foot-and-mouth disease" (reply to Brief Communication Arising by Kitching et al), *Nature*, 445, E12-E13, 8 February 2007.
4. M. J. Keeling, M. J. Tildesley, N. J. Savill, M. E. J. Woolhouse, D. J. Shaw, R. Deardon, S. P. Brooks, & B. T. Grenfell (2006) response to letter, "FMD control strategies" by Wing- field, Miller & Honhold in *The Veterinary Record*, May 20, 2006.



---

# PRESENTATIONS

---

## Invited scientific presentations

1. Invited talk at the BayesComp Workshop on Bayesian Inference in Epidemic Models, Levi, Finland (March 2023) “Identifying behavioural change mechanisms in epidemic models”
2. Invited talk at the International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics) (Dec. 2022) “Behavioural change in epidemic models”
3. Invited talk at the Canadian Network for Modelling Infectious Diseases (CANMOD) (Oct. 2022) “Behavioural change in epidemic models” (Online)
4. Plenary talk at the Waterloo Student Conference in Statistics, Actuarial Science and Finance, University of Waterloo, Ontario, Canada (Oct. 2022) “Epidemic models: can we make them behave better?”
5. Invited talk at GEOMED Conference, Irvine, California, USA (Oct. 2022) “Variable screening in spatial epidemic models” (Online)
6. Invited talk at the International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), King’s College, London, UK (December 2021) “Behavioural change in spatial epidemic models” (Online)
7. Invited talk at the Joint Statistical Meetings, Seattle, USA (August 2021) “Machine learning-assisted infectious disease modelling” (Online)
8. Invited talk at the National Institute for Applied Statistics Research Australia (NIASRA), University of Wollongong, Australia (July 2021) “Fast parameterization of spatial epidemic models: let’s emulate.” (Online)
9. Invited talk at the ISI World Statistics Congress, The Hague, the Netherlands (July 2021) “Infectious disease modelling in a hurry” (Online)
10. Invited talk at the Statistical Society of Canada Annual Meeting, Memorial University, St. John’s, Canada (June 2021) “Infectious disease modelling with the assistance of machine learning” (Online)
11. Invited talk at CANSSI-NISS Health Data Science Workshop (May 2021) “Modelling COVID-19 using machine learning-based inference methods” (Online)
12. Invited talk at University of Calgary, Calgary, Canada (March 2021) “Machine learning our way to data-driven infectious disease modelling” (Online)
13. Invited talk at McMaster University, Hamilton, Canada (March 2021) “Machine learning our way to data-driven infectious disease modelling” (Online)
14. Invited talk at the International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), King’s College, London, UK (December 2020) “Machine learning assisted infectious disease modelling” (Online)
15. Invited talk at University of Victoria, Victoria, Canada (October 2020) “Geographically-dependent individual-level models for infectious disease transmission” (Online)
16. Invited talk at the Joint Statistical Meetings, Philadelphia, USA (August 2020) “Geographically-dependent individual-level models for infectious disease transmission” (Online)

17. Biostatistics Section Annual Workshop (Short course) at the Statistical Society of Canada Conference, Ottawa, Canada (June 2020) "Introduction to Epidemic Modelling" (Online)
18. Invited talk at the Department of Mathematics & Statistics, York University, Canada (March 2020) "Parameterization via emulation: Spatial models of infectious disease transmission"
19. Plenary talk at the Annual Meeting of Alberta Statisticians, University of Calgary, Calgary, Canada (Sept. 2019) "Approximate Bayesian computation for epidemic models with uncertain underlying contact networks"
20. Invited talk at Canadian Organization of Medical Physicists (COMP) Annual Meeting, Kelowna, BC, Canada. (Sept. 2019) "Artificial intelligence in infectious disease epidemiology"
21. Invited talk at the GEOMED Conference, Glasgow, UK (August 2019) "Identifying spatial dynamics of infectious disease spread via machine learning classifiers"
22. Invited talk at the International Conference on Econometrics and Statistics (EcoSta) (June 2019) "Parameterization via emulation: Spatial models of infectious disease transmission"
23. Invited talk at the Canadian Student Statistical Conference, University of Calgary, Calgary, Canada (May 2019) "The O'Brien Institute for Public Health (OIPH) & The University of Calgary Biostatistics Centre (UCBC)"
24. Invited discussant for the "Rocky and Atlantic Collaborations in the Health Sciences" session at the Statistical Society of Canada Annual Meeting, University of Calgary, Calgary, Canada (May 2019)
25. Invited talk at BIRS workshop on Mathematical and Statistical Challenges in Bridging Model Development, Parameter Identification and Model Selection in the Biological Sciences, Banff, Canada (November 2018) "Emulation-based methods for parameterizing spatial infectious disease models"
26. Invited talk at the International Environmetrics Society Meeting, Guanajuato, Mexico (July 2018) "Spatial infectious disease models incorporating aggregate-level spatial structure."
27. Plenary talk at the Medical Physics & Data Analytics Workshop, University of British Columbia-Okanagan, Canada (July 2018) "Bayesian optimal design for nonlinear systems: case studies from infectious disease epidemiology."
28. Invited talk at the Western North American Region of The International Biometric Society (WNAR-IBS) /Institute of Mathematical Statistics (IMS) Joint Conference, University of Alberta, Edmonton, Canada (June 2018) "Approximating the spatio-temporal dynamics of infectious disease via emulation"
29. Invited talk at the Workshop for Causal Adjustment in the Presence of Spatial Dependence, Centre de Recherches Mathematiques, Montreal, Canada (June 2018) "Spatial models of infectious disease transmission: data and computation."
30. Invited talk at the University of Calgary Veterinary Medicine Research Festival, Calgary, Canada (May 2018) "R Software for individual-level transmission modelling."
31. Invited talk at GEOMED Conference, Porto, Portugal (Sept. 2017) "Individual-level infectious disease models incorporating aggregate level spatial structure"
32. Invited talk at the Joint Statistical Meetings, Baltimore, USA (Aug. 2017) "Individual-level infectious disease models incorporating aggregate level spatial structure"
33. Two-day post-conference workshop at the Canadian Veterinary Epidemiological and Preventive Medicine (CAVEPM) Conference (June 2017), University of Calgary, Calgary, Canada "Bayesian Infectious disease modeling"

34. Keynote talk at the Calgary Applied and Industrial Mathematical Sciences Conference, Calgary, Canada (May 2017) "An introduction to Bayesian individual-level infectious disease modelling"
35. Plenary talk at the Alberta Mathematics Dialogue Conference, MacEwen University, Edmonton, Canada (April 2017) "An introduction to individual-level infectious disease modelling within a Bayesian statistical framework"
36. Invited talk at the Department of Epidemiology, Biostatistics & Occupational Health, McGill University, Montr'eal, Canada (Jan. 2017) "Inferring the spatial dynamics of infectious disease via Gaussian process emulation"
37. Invited talk at BIRS Workshop on Mathematical Biology for Understanding Emerging Infectious Diseases at the Human-Animal-Environment Interface: a One Health Approach, Banff, Canada (Nov 2016) "Real Time Modelling of Epidemics (A Statistician's Perspective)"
38. Invited talk at Joint Statistical Meetings, Chicago, USA (July 2016) "Gaussian process emulation for spatial infectious disease models"
39. Invited talk at International Workshop on Applied Probability (IWAP), Toronto, Canada (June 2016) "Approximate Bayesian computation for epidemic models with uncertain underlying contact networks"
40. Invited talk at the Statistical Society of Canada Annual Meeting, Brock University, St. Catherines, Canada (May 2016) "Infectious disease modelling in the presence of underlying contact network uncertainty"
41. Invited talk at the Pacific Institute of Mathematical Sciences (PIMS), Calgary, Canada (May 2016) "Bayesian study design for non-linear systems: a disease transmission experiment case study"
42. Invited talk at National University of Singapore, Singapore (April 2016) "Emulator-based inference for models of large-scale infectious disease systems."
43. Invited talk at School of Public Health, University of Hong Kong, Hong Kong (March 2016) "Optimal experimental and study design for infectious disease systems of animals."
44. Invited talk at Simon Fraser University, Canada (Feb. 2016) "Approximate Bayesian inference for large-scale epidemic models."
45. Invited talk at Annual Conference on Neural Information Processing Systems (NIPS), Montr'eal, Canada (Dec. 2015) "ABC-based inference for epidemic models with uncertain underlying contact networks."
46. Invited talk at GEOMED Conference, University of Florence, Italy (Sept. 2015) "Approximate inference for spatial epidemic models."
47. Invited talk at Bioinformatics Symposium, University of Calgary, Canada (May 2015) "Computational statistics, disease modelling and design."
48. Invited talk at Descriptive and Predictive Methods in the Study of Communicable Diseases: Biomathematics & Biostatistics Workshop, University of Guelph/Fields Institute, Guelph, Canada (May 2015) "Emulator based inference for models of large-scale infectious disease systems."
49. Invited talk at Evidence-based Decision Support for Food Security Workshop, University of Warwick, Coventry, UK (April 2015) "Emulator based inference for models of large-scale infectious disease systems."
50. Invited talk at Harvard School of Public Health, Boston, USA (March 2015) "Bayesian optimal design methods for infectious disease transmission studies." Invited talk at University of Calgary

(Community Health Sciences), Canada (Feb. 2015) “A Bayesian approach to infectious disease transmission modelling – dealing with uncertainty.”

51. Invited talk at University of Victoria, Victoria, Canada (Jan. 2015) “Sampling-based approximate inference for large-scale infectious disease transmission models.”
52. Invited talk at OMAFRA Emergency Management Expo, Guelph, Canada (Dec. 2014) “Using experimental design to better understand infectious disease spread in the livestock industries.”
53. Invited talk at University of Calgary (SAGE/Biostatistics, Mathematics & Statistics), Canada (Nov 2014) “The ABCs of infectious disease modelling.”
54. Invited talk at 36th Annual Meeting of Alberta Statisticians, Edmonton, Canada (Oct 2014) “Bayesian optimal design of disease transmission experiments (and other issues in disease modelling).”
55. Invited talk at Statistical Society of Canada Annual Meeting, Toronto, Canada (May 2014) “Optimal experimental design for infectious disease systems of animals.”
56. Invited talk at Simulation Models of Infectious Diseases (SIMID) Workshop, Hasselt, Belgium (April 2014) “Optimal experimental design for infectious disease systems of animals.”
57. Invited talk at University of Calgary, Canada (April 2014) “Optimal experimental design for infectious disease systems of animals.”
58. Invited talk at University of Prince Edward Island, Canada (Dec 2013) “Data uncertainty in herd-level infectious disease transmission modelling.”
59. Invited talk at the Statistical Science in Society Conference, University of Waterloo, Canada (August 2013) “Approximate methods of parameter estimation for spatial epidemic models.”
60. Invited talk at the International Environmentrics Society Meeting, Anchorage, Alaska, USA (June 2013) “Parameterizing individual-level models of infectious disease spread using sampling-based likelihood approximations.”
61. Invited talk at University of Windsor, Canada (Oct 2012) “Efficient forms of individual-level models for large-scale spatial infectious disease.”
62. Invited talk at Statistical Society of Canada Annual Meeting, Guelph, Canada (June 2012) “Efficient forms of individual-level models for large-scale spatial infectious disease.”
63. Invited talk at Fields Institute (IDEA Seminar), Toronto, Canada (April 2012) “A Bayesian approach to dealing with uncertainty in infectious disease modelling.”
64. Invited talk at McMaster University, Canada (Feb 2012) “Efficient forms of individual-level models for large-scale spatial infectious disease.”
65. Invited talk at University of Manitoba (Jan 2012) “Computationally efficient forms of spatial infectious disease models for large populations.”
66. Invited talk at University of Warwick, UK (Nov 2011) “Latent conditional individual level models for infectious disease modelling.”
67. Invited talk at University of Toronto, Canada (Oct 2011) “Efficient forms of individual-level models for large-scale spatial infectious disease.”
68. Invited talk at OMAFRA Emergency Management Expo, Guelph, Canada (Sept 2011) “A statistical approach to modelling infectious diseases.”
69. Invited talk at University of Saskatoon, Canada (Aug 2011) “ Individual-level models of infectious disease.”

70. Invited talk at BIRS Workshop on Front propagation in heterogeneous media: mathematical, numerical, and statistical issues in modelling a forest fire front, Banff, Canada (Oct 2010) "Modelling the spatio-temporal dynamics of fire spread."
71. Invited talk at NICDS workshop, University of Montréal, Canada (March 2010) "Finite mixtures of infectious disease models."
72. Invited talks at McGill University, Canada (Dec 2009) "Likelihood-free inference for epidemic models" & "Individual-level modelling of infectious diseases."
73. Invited talk at Statistical Society of Canada conference, Vancouver, Canada (June 2009) "Likelihood-free inference for epidemic models."
74. Invited talk at University of Toronto, Canada (Jan 2009) "Likelihood-free inference for epidemic models."
75. Invited talk at the Department of Mathematics & Statistics, York University, Canada (Sept 2007) ? Modelling the spatio-temporal dynamics of infectious diseases: the UK 2001 foot-and-mouth epidemic?
76. Invited talk at University of Waterloo, Canada (Sept 2007) "Modelling the spatio-temporal dynamics of the UK 2001 foot-and-mouth epidemic."
77. Invited talk at Public Health Agency of Canada, Guelph, Canada (May 2007) "The statistical modelling of infectious diseases in time and space."
78. Invited talk at the SSC Southern Ontario New Investigator Workshop, University of Waterloo, Canada (February 2007) "The statistical modelling of infectious diseases in time and space.;;
79. Invited talk at the Department of Population Medicine, Ontario Veterinary College, University of Guelph, Canada (November 2006) "Modelling infectious diseases over time and space"
80. Invited talk at the European Meeting of Statisticians, Torun, Poland (July 2006) "Modelling the UK 2001 foot-and-mouth epidemic".
81. Invited talk at the Health Protection Agency, London, UK (July 2005) "Modelling the UK 2001 Foot-and-Mouth Epidemic: A Bayesian MCMC Approach"
82. Invited talk at Lund University, Sweden (March 2005) "The UK 2001 Foot-and-mouth Disease Epidemic (A Case Study in Individual Level Spatial Epidemiology)."
83. Invited talk at Imperial College London, UK (June 2004) "Modelling the UK 2001 Foot-and-Mouth Epidemic: A Bayesian MCMC Approach"
84. Invited talk at the MRC-Biostatistics Unit, University of Cambridge, UK (March 2004) "The UK 2001 Foot-and-mouth Disease Epidemic (A Case Study in Individual Level Spatial Epidemiology)"
85. Invited talk at the Royal Statistical Society, London, UK (May 2003) "Using Bayesian MCMC to model the spatio-temporal dynamics of foot-and-mouth disease."
86. Invited talk at the Department of Mathematics & Statistics, Queen Mary, University of London (May 2000) "The use of an airborne plant disease dispersal simulation in designing agricultural experiments which minimise representation bias"

### **Short Courses / Training Workshops**

1. One day workshop at International Society for Bayesian Analysis (June 2022) "Bayesian Modelling of Epidemics", Montreal, Quebec, Canada
2. Short course (half-day) at CANSSI-NISS Health Data Science Workshop (May 2021) "Introduction to disease modelling" (Online)
3. Biostatistics Section Annual One Day Workshop at the Statistical Society of Canada Annual Meeting (June 2020), Carlton University, Ottawa, Canada. "Introduction to Epidemic Modelling" (Online)
4. Short course at the Western North American Region of The International Biometric Society (WNAR-IBS) /Institute of Mathematical Statistics (IMS) Joint Conference, University of Alberta, Edmonton, Canada (June 2018) "Individual-level Transmission Process Modelling: Epidemics, Invasive Species and Beyond."
5. Two-day post-conference workshop at the Canadian Veterinary Epidemiological and Preventive Medicine (CAVEPM) Conference (June 2017), University of Calgary, Calgary, Canada "Bayesian Infectious disease modeling"

### **Contributed Presentations**

1. University of Calgary Veterinary Medicine Research Festival, Calgary, Canada (May 2018) "R Software for individual-level transmission modelling."
2. Canadian Association of Veterinary Epidemiology and Preventive Medicine Meeting (CAVEPM), Ontario Veterinary College, University of Guelph, Canada (June 2016) "Infectious Disease Transmission Models with Uncertain Underlying Contact Network Information"
3. Canadian Association of Veterinary Epidemiology and Preventive Medicine Meeting (CAVEPM), UPEI (June 2014) "Optimal experimental design for infectious disease systems of animals"
4. Statistical Society of Canada Annual Meeting, University of Alberta, Canada (May 2013) "Parameterizing individual-level models of infectious disease using sampling-based likelihood approximations"
5. International Society for Veterinary Epidemiology and Economics (ISVEE XIII), Maastricht, The Netherlands (August 2012) "Latent-conditional individual-level models for infectious disease transmission"
6. Statistical Society of Canada, Wolfville, Nova Scotia (June 2011) "Measures of goodness of fit of infectious disease models in a Bayesian framework"
7. Joint Statistical Meetings, Vancouver, Canada (Aug 2010) "Finite Mixtures of Infectious Disease Models"
8. Canadian Association of Veterinary Epidemiology and Preventive Medicine Meeting (CAVEPM), Guelph (May 2010) "Accounting for spatial measurement error in models of infectious disease spread"
9. International Biometric Conference, Dublin, Ireland (July 2008) "Inference for infectious disease models via approximate Bayesian computation (ABC)"
10. Statistical Society Of Canada, St. John's, Canada. (June 2007) "How much data does it take to parameterize an epidemic?"

11. GEOMED Conference, University of Cambridge, UK (September 2005) "Modelling the UK 2001 foot-and-mouth epidemic."
12. Workshop on recent advances in modelling spatio-temporal data Southampton, University of Southampton, UK (May 2005) "Modelling the UK 2001 foot-and-mouth epidemic."

### **Invited Continuing Education/Professional Presentations**

1. Invited talk at the Statistical Society of Canada Annual Meeting, Memorial University, St. John's, Canada (June 2021) "Information on the NSERC 2021 competition results and Discovery Grant preparation" (co-presented with Adele Ngi-Song, NSERC Program Officer) (Online)
2. Invited discussant for the "Student supervision: Advice and insights on academic advising" session at the Statistical Society of Canada Annual Meeting, Memorial University, St. John's, Canada (June 2021) (Online)
3. Invited talk at the Statistical Society of Canada Annual Meeting, University of Calgary, Calgary, Canada (May 2019) "NSERC Discovery Grant Workshop" (co-presented with Michelle Payne, NSERC Program Officer).

### **Lay Presentations**

1. Ontario Livestock and Poultry Council (OLPC) (Feb, 2012) "The design and analysis of experiments and observational studies on infectious disease spread in the livestock industries"
2. Ontario Livestock and Poultry Council (OLPC) (Aug, 2009) "Spatial and Network Individual-level Models of Infectious Disease Spread"

## Poster Presentations (Research Group Members shown in italics)

1. *Ward (Madeline)*, Deeth, and Deardon (2022). "Behavioural Change Individual-Level Models for Infectious Disease Transmission", presented at the 2022 International Society for Bayesian Analysis World Meeting.
2. *Ward (Caitlin)*, Deardon & Schmidt (2022). Bayesian Modeling of Dynamic Behavioral Change During the COVID-19 Pandemic. Bayesian Young Statisticians Meeting, Montreal, Canada
3. *Ward (Madeline)*, Deeth, and Deardon. (2022). "Maybe we Should Stay Home: Incorporating Behavioural Change into Spatial Epidemic Models", presented at the 2022 SORA-TABA-DLSPH Biostatistics Research Day.
4. *Ward (Madeline)*, Deardon & Deeth (2020). Efficient Parameter Estimation for Individual-Level Models of Infectious Disease Transmission. SORA-TABA-Dalla Lana School of Public Health Research Day, University of Toronto, Canada.
5. Deardon, *Augusta* & Taylor (2018). Deep learning for infectious disease systems. Invited electronic poster. Joint Statistical Meetings, Vancouver, Canada.
6. Lipson, Deardon, Kim, Kasteel, MacLean, Kwan, Datta (2019). It's not all hemorrhoids: anal fissure and fistula in ano are underappreciated by referring physicians. American Society of Colon & Rectal Surgeons Annual Scientific Meeting, Cleveland, Ohio, June 2019.
7. Coward, Clement, Benchimol, Bernstein, Antonio Avina-Zubieta, Bitton, Carroll, Hazelwood, Jacobson, Jelinski, Deardon, Jones, Ellen Kuenzig, Leddin, McBrien, Murphy, Nguyen, Otley, Pannaccione, Rezaie, Rosenfeld, Pena-Sanchez, Singh, Targownik, Kaplan (2019). The incidence of inflammatory bowel disease: analyzing historical trends to predict the future. Digestive Disease Week® at the San Diego Convention Center, San Diego, May 18-21, 2019
8. Coward, Clement, Benchimol, Bernstein, Antonio Avina-Zubieta, Bitton, Carroll, Hazelwood, Jacobson, Jelinski, Deardon, Jones, Ellen Kuenzig, Leddin, McBrien, Murphy, Nguyen, Otley, Pannaccione, Rezaie, Rosenfeld, Pena-Sanchez, Singh, Targownik, Kaplan (2019). The evolving incidence of inflammatory bowel disease: what does the future hold? Canadian Digestive Diseases Week, March 2019, Banff, Canada. (Awarded: Poster of Distinction)
9. Coward, Clement, Benchimol, Bernstein, Antonio Avina-Zubieta, Bitton, Carroll, Hazelwood, Jacobson, Jelinski, Deardon, Jones, Ellen Kuenzig, Leddin, McBrien, Murphy, Nguyen, Otley, Pannaccione, Rezaie, Rosenfeld, Pena-Sanchez, Singh, Targownik, Kaplan (2019). The incidence of inflammatory bowel disease: analyzing historical trends to predict the future. Crohn's & Colitis Congress, Bellagio Las Vegas, Feb. 7-9, 2019
10. *Warriyar* & Deardon (2019) Semi-parametric spatial individual-level models of infectious disease transmission. Statistical Society of Canada Annual Meeting 2018. McGill University, Montreal, Canada.
11. *Naqvi*, King, Champigny, DeVries, Deardon & Barkema (2018). Automated disease detection in dairy cattle using recurrent neural networks. Community Health Science – Artificial Intelligence Day Workshop. Nov 2018. Calgary, Canada.
12. Hazlewood, *Pokharel* et al. (2018) Combining Observational and Randomized Controlled Trial Data Evidence to Jointly Estimate Remission and Response for Biologic and Non-Biologic Therapies in Rheumatoid Arthritis: A Bivariate Network Meta-Analysis. American College of Rheumatology Meeting. October 2018. Chicago, USA.



13. Hazlewood, *Pokharel* et al. (2018) Rheumatologists Beliefs in the Effectiveness of Other Methotrexate-Based Treatment Approaches May Explain the Low Use of Triple Therapy: A Bayesian Belief Elicitation. American College of Rheumatology Meeting. October 2018. Chicago, USA.
14. *Augusta*, Taylor, and Deardon, 'Dynamic contact networks of swine movement in Manitoba, Canada: characterization and implications for infectious disease spread', Saskatchewan Epidemiology Association Annual Symposium, Saskatoon, SK, October, 2018. (Poster: First place poster award).
15. Lipson, Rochon, Deardon, Heine, MacLean, Tang, & Buie (2018) "Perioperative outcomes of older adults undergoing elective curative resection for rectal cancer," American Society of Colon and Rectal Surgeons (ASCRS) Annual Scientific Meeting, Nashville, TN, USA
16. *Augusta*, Deardon and Taylor, 'Deep learning for supervised epidemic classification', Saskatchewan Epidemiology Association Annual Symposium, Regina, SK, November, 2017. (Poster: Poster award)
17. Ungrin, Toms, Yu, Al-Ani, Deardon, Korbitt. Micro tissue optimization for practical cell-based therapies. International Conference on Stem Cell Engineering. October 2016. Toronto, Canada.
18. Lipson, Deardon, Switzer, DeGara, Ball & Grondin (2016) "Double gloving and practice attitudes among surgeons and surgical trainees", 2016 Canadian Surgery Forum.
19. *Angevaare*, Feng & Deardon (2016) Phylodynamic individual level models: strategies for simulation and inference. Southwestern Ontario Graduate Mathematics and Statistics Conference, Guelph, ON (contributed poster presentation)
20. *Angevaare*, Feng & Deardon (2016) Phylodynamic individual level models: strategies for simulation and inference. Joint Statistical Meetings, Chicago, IL (contributed poster presentation)
21. *Angevaare*, Feng & Deardon (2016) Phylodynamic individual level models: strategies for simulation and inference. Annual Meeting of the Statistical Society of Canada, Brock University, St. Catharines, ON (contributed poster presentation)
22. *Romanescu* & Deardon (2016) A Simple Alarm for Early Detection of Epidemics over Networks, 2016 SIAM Uncertainty Quantification conference, Lausanne, Switzerland.
23. *Augusta*, Taylor & Deardon, 'Introduction to natural language processing', Southwestern Ontario Graduate Mathematics & Statistics Conference (SOGMSC'16), University of Guelph, June, 2016. (Talk)
24. Toms, Chiu, Kondro, Raharjo, Biernaskie, Deardon & Ungrin. Efficient optimization and scalable production of bio-printable cellular aggregates. Tissue Engineering, Biofabrication & 3D-Bioprinting in Life Sciences, March 2016, Boston, USA.
25. *Romanescu* & Deardon. Inference in a Two Strain Individual Level Model via Infectivity Curves. Evidence-based Decision Support for Food Security Workshop, University of Warwick, Coventry, UK (April 2015)
26. *Kwong*, Poljak, Deardon, Dewey. Evidence-based Decision Support for Food Security Workshop, University of Warwick, Coventry, UK (April 2015)
27. *Romanescu* & Deardon. Inference in a Two Strain Individual Level Model via Infectivity Curves. Canadian Society of Epidemiology and Biostatistics Student's Conference, Hamilton, Canada (May 2014)
28. *Stanley*, Deardon & Feng. Using School Absenteeism in Disease Surveillance Models: Refining of Surveillance Threshold. Statistical Society of Canada, Toronto, Canada (May 2014)
29. *Augusta* & Deardon – Estimating Parameters in Individual-Level Models of Infectious Disease,

Statistical Society of Canada, Toronto, Canada (May 2014)

30. *Augusta* & Deardon – Comparing MCMC and MLE in Spatial Epidemic Models. Southwestern Ontario Graduate Mathematics and Statistics Conference (SOGMSC'14), University of Guelph, Guelph, ON, Canada (May 2014)
31. Deardon, *Malik* & Kwong. Individual-level modeling of the spread of influenza within households. International Society for Bayesian Analysis (ISBA) George Box Workshop, Washington DC, USA (May 2014)
32. *Romanescu* & Deardon – OMAFRA Emergency Management Expo, Guelph, Canada (Dec 2013)
33. *Pokharel* & Deardon – “Spatial Back-Projection of Infection Times for Infectious Disease Transmission Models, OMAFRA Emergency Management Expo, Guelph, Canada (Dec 2013)
34. *Augusta* & Deardon – OMAFRA Emergency Management Expo, Guelph, Canada (Dec 2013)
35. *Bifoichi*, Deardon & Feng. Improving the fit of individual-level models for incomplete infectious disease data. OMAFRA Emergency Management Expo, Guelph, Canada (Dec 2013)
36. *Zhang* & Deardon. Probability scoring rules for assessing model fit for individual level models of disease spread. GEOVET Conference, London, UK (Aug 2013)
37. *Kwong*, Poljak, Deardon, Dewey. Bayesian analysis of risk factors for infection with a genotype of porcine reproductive and respiratory syndrome virus in Ontario swine herds using monitoring data. 13th CONFERENCE of the International Society for Veterinary Epidemiology and Economics (ISVEE XIII), Maastricht, The Netherlands (Aug 2012)
38. *Kwong*, Poljak, Deardon, Dewey. Bayesian analysis of risk factors for infection with a genotype of porcine reproductive and respiratory syndrome virus in Ontario swine herds using monitoring data. Statistical Society of Canada, Guelph, Canada (June 2012)
39. *Kwong*, Poljak, Deardon, Dewey. Bayesian analysis of risk factors for infection with a genotype of porcine reproductive and respiratory syndrome virus in Ontario swine herds using monitoring data. Statistical Methods for Infectious Diseases, Open University, Milton Keynes, UK (May 2012)
40. *Kwong*, Poljak, Deardon, Dewey. Bayesian analysis of risk factors for infection with a genotype of porcine reproductive and respiratory syndrome virus in Ontario swine herds using monitoring data. Canadian Swine Health Board Meeting, Niagara Falls, Canada (Nov 2011)
41. *Dobbs* & Deardon. Model approximation for spatial individual-level infectious disease models. OMAFRA Emergency Management Expo, Guelph, Canada (Sept 2011)
42. *Bifolchi* & Deardon. Spatial approximations of network-based individual level infectious disease models. OMAFRA Emergency Management Expo, Guelph, Canada (Sept 2011)
43. *Kwong* & Deardon. Linearized forms of individual-level models for large-scale spatial infectious disease systems. OMAFRA Emergency Management Expo, Guelph, Canada (Sept 2011)
44. *Dobbs* & Deardon. Model approximation for spatial individual-level infectious disease models. Statistical Society of Canada, Wolfville, Nova Scotia (June 2011)
45. *Bifolchi* & Deardon. Spatial approximations of network-based individual level infectious disease models. Statistical Society of Canada, Wolfville, Nova Scotia (June 2011)
46. *Malik* & Deardon. Individual-level modeling of the spread of influenza within households. Statistical Society of Canada, Wolfville, Nova Scotia (June 2011)
47. *Zhang* & Deardon. Probability scoring rules for assessing model fit for individual level models of

disease spread. Statistical Society of Canada, Wolfville, Nova Scotia (June 2011)

48. *Deeth & Deardon*. Latent-conditional models of infectious disease. INFER Conference on Inference in Epidemic Models, University of Warwick, UK (March 2011)
49. *Deardon & Kwong*. Linearized forms of individual-level models for large-scale spatial infectious disease systems. INFER Conference on Inference in Epidemic Models, University of Warwick, UK (March 2011)
50. *Poljak, Kwong & Deardon*. Bayesian analysis of risk factors for infection with a genotype of porcine reproductive and respiratory syndrome virus in Ontario swine herds using monitoring data. INFER Conference on Inference in Epidemic Models, University of Warwick, UK (March 2011)
51. *Le, Poljak, Deardon & Dewey*. Clustering of and risk factors for the porcine high fever disease in a region of Vietnam International Pig Veterinary Society Congress, Vancouver, Canada (July 2010)
52. *Vrbik, Deardon, Feng & Braun*. Using individual-level models for infectious disease spread to model spatio-temporal combustion dynamics. Statistical Society of Canada, Quebec City, Canada (May 2010)
53. *Gardner, Deardon & Darlington*. Goodness-of-fit measures for individual-level infectious disease models in a Bayesian framework. Statistical Society of Canada, Quebec City, Canada (May 2010)
54. *Martchenko, Deardon & McNicholas*. Designing experiments to assess the spatio-temporal dynamics of crop disease. Statistical Society of Canada, Quebec City, Canada (May 2010)
55. *Zhang & Deardon*. Probability scoring rules for assessing model fit for individual level models of disease spread. Statistical Society of Canada, Quebec City, Canada (May 2010)
56. *Deeth & Deardon*. Latent-conditional models of infectious disease. GEOMED Conference, Medical University of South Carolina, Charleston, USA (Nov 2009)
57. *Subedi, Feng, Deardon & Schenkel* - Statistical Genetics of Livestock for the Post-Genomic Era Symposium, University of Wisconsin–Madison, USA (May 2009)

#### **Oral presentations by HQP** (Research Group Members shown in italics)

1. *Ward (Caitlin), Deardon & Schmidt* (Invited Talk). Capturing Dynamic Behavioral Change in Bayesian Spatial Epidemic Models. GEOMED Conference, University of California Irvine, USA. (Oct 2022)
2. *Ward (Madeline), Deeth, & Deardon*. (Invited talk). Incorporating Behavioural Change into Individual-Level Spatial Epidemic Models, International Chinese Statistical Association-Canada 2022 Symposium (July 2022)
3. *Roy, de Leon, Sajobi & Deardon*. Joint Analysis of Binary and Continuous Data via Joint Modelling of Jittered Binary and Continuous Outcomes: A New Approach. Joint Statistics Meetings, Washington DC, USA. (June 2022)
4. *Akter & Deardon*. Comparing variable selection methods in the context of ILM models', at Alberta Graduate Mathematics and Statistics Conference. (July 2022)
5. *Ward (Caitlin), Deardon & Schmidt*. Sound the Alarm: Modeling Behavioral Changes in Response to Epidemic Intensity. International Society of Bayesian Analysis (ISBA) World Meeting, Montreal, Canada. (July 2022)

6. *Ward (Caitlin)*, Deardon & Schmidt (Invited Talk). Sound the Alarm: Modeling Behavioral Changes in Response to Epidemic Intensity. Statistical Society of Canada Meeting, Simon Fraser University, BC, Canada. (June 2022)
7. *Roy, de Leon, Sajobi & Deardon* (Invited Talk). Joint Analysis of Binary and Continuous Data via Joint Modelling of Jittered Binary and Continuous Outcomes: A New Approach. WNAR 2022 (June 2022)
8. *Ward (Madeline)*, Deeth, and Deardon. (2022). "Incorporating Behavioural Change into Individual-Level Spatial Epidemic Models", presented at the Statistical Society of Canada Meeting, Burnaby, BC, Canada.
9. *Mahsin & Deardon* (Invited Talk). Spatial modelling of infectious disease transmission using continuous-time geographically-dependent individual-level models. Research Symposium, Island Health, Victoria, BC, Canada. (April 2022)
10. *Akter & Deardon*. Variable selection in infectious disease transmission models. Statistical Society of Canada Meeting (Online) (June 2021)
11. *Ward (Madeline)*, Deardon & Deeth. Computationally efficient parameter estimation for spatial individual-level models of infectious disease transmission. Canadian Conference in Applied Statistics, Concordia University, Montreal, Canada (Online) (July 2021)
12. *Ward (Madeline)*, Deardon & Deeth. Computationally efficient parameter estimation for spatial individual-level models of infectious disease transmission. Annual Meeting of Alberta Statisticians at the University of Alberta, Canada (Online) (September 2020)
13. *Mahsin & Deardon*. Geo-dependent individual level models (GD-ILMs) for infectious disease transmission. Workshop on Advancing Knowledge About Spatial Modeling, Infectious Diseases, Environment and Health. Fields Institute, Toronto (Online). (June 2020)
14. *Amiri, Torabi & Deardon*. Inference for individual-level models of infectious diseases with covariates measurement error. Workshop on Advancing Knowledge About Spatial Modeling, Infectious Diseases, Environment and Health. Fields Institute, Toronto (Online). (June 2020)
15. *Lowerison, Deardon & Barkema*. Calibration of time-varying contact compartmental models of COVID-19. Canadian Applied & Industrial Mathematics(CAIMS) - Pacific Institute for Mathematical Sciences (PIMS) Coronavirus Modelling Conference. Online. (June 2020)
16. *Mahsin & Deardon*. Geo-dependent individual level models (GD-ILMs) for infectious disease transmission. International Conference on Applied Statistics at the University of Dhaka, Bangladesh (December 2019)
17. *Mahsin & Deardon*. Geo-dependent individual level models (GD-ILMs) for infectious disease transmission. Annual Meeting of Alberta Statisticians at the University of Calgary, Canada (September 2019)
18. *Mahsin & Deardon*. Geo-dependent individual level models (GD-ILMs) for infectious disease transmission. GEOMED Conference, Glasgow, UK, August 2019.
19. *Mahsin & Deardon*. Geo-dependent individual level models (GD-ILMs) for infectious disease transmission. Statistical Society of Canada Meeting, University of Calgary, Canada (May 2019)
20. *Augusta, Taylor and Deardon*. Conditional variational recurrent graph autoencoders (CVRGAE). Statistical Society of Canada Annual Meeting, Calgary, Alberta (May 2019)

21. *Augusta*, Deardon and G. Taylor. Deep learning for inference in infectious disease systems. The Western North American Region of the International Biometric Society 2018 Annual Meeting, Edmonton, AB (June 2018)
22. *Naqvi*, King, Champigny, DeVries, Deardon Barkema. Machine learning tools for understanding mastitis epidemiology. International Symposium of Veterinary Epidemiology and Economics (ISVEE), Thailand (November 2018).
23. *Mahsin* & Deardon. Geo-dependent individual level models of infectious disease. Statistical Society of Canada Annual Meeting, University of Manitoba, Canada. (June 2017)
24. *Almutiry* & Deardon. Statistical Society of Canada Annual Meeting, University of Manitoba, Winnipeg, Canada “Incorporating Contact Network Uncertainty in Individual Level Models of Infectious Disease using Approximate Bayesian Computation” (June 2017)
25. *Mahsin* & Deardon. Geo-dependent individual level models of infectious disease transmission. CAVEPM, University of Calgary, Canada. (June 2017)
26. *Wariyar* & Deardon. Individual Level Modelling of Infectious Disease Data: EpiILM, Statistical Society of Canada 2017 annual conference in Manitoba, (June 2017)
27. *Almutiry* & Deardon. Canadian Society for Epidemiology and Biostatistics Biennial conference, The Banff centre, Banff, Canada “Incorporating Contact Network Uncertainty in Individual Level Models of Infectious Disease using Approximate Bayesian Computation” (May 2017)
28. *Wariyar* & Deardon. Individual Level Modelling of Infectious Disease Data: EpiILM, Canadian Society for Epidemiology and Biostatistics (CSEB) 2017 biennial conference in Banff, (May 2017).
29. *Romanescu* & Deardon. Optimal Surveillance of Epidemics over Power Law Networks, Statistical Society of Canada Annual Meeting 2016, St. Catharines ON, Canada. (May 2016)
30. *Pokharel* & Deardon. Spatially Informed Back-Calculation for Spatio-Temporal Infectious Disease Models. Spatial Accuracy Workshop, East Lansing, USA. (July 2014)
31. *Pokharel* & Deardon. Back-Calculation of Infection Times for Infectious Disease via Spatial Individual Level Models. Joint Statistical Meetings (JSM), Boston, USA. (June 2014)
32. *Malik*, Deardon & Kwong. Parameterizing Spatial Models of Infectious Disease Spread Using Sampling-Based Likelihood Approximations. Statistical Society of Canada, Toronto, Canada (May 2014)
33. *Bifolchi*, Deardon & Feng. Improving the fit of individual-level models for incomplete infectious disease data. Southwestern Ontario Graduate Mathematics and Statistics Conference, Guelph, Canada. (May 2014)
34. *Malik*, Deardon & Kwong. Individual-level modeling of the spread of influenza within households. Joint Statistical Meetings, Montreal, Canada (August 2013)
35. *Pokharel* & Deardon. Supervised learning and prediction of spatial epidemics. 29th European Meeting of Statisticians, Budapest, Hungary (July 2013)
36. *Bifolchi*, Deardon & Feng. Individual-level models for use with incomplete infectious disease data Canadian Public Health Association Conference, Ottawa, Canada. (June 2013).
37. *Bifolchi*, Deardon & Feng. Individual-level models for use with incomplete infectious disease data Joint Statistical Meetings, Montreal, Canada (August 2013)

38. *Deeth*, Deardon & Gillis. Model choice using the Deviance Information Criterion for latent conditional individual-level models of infectious disease spread. Statistical Society of Canada Annual Meeting, Guelph, Canada (June 2012)
39. *Zhang* & Deardon. Probability scoring rules for assessing model fit for individual level models of disease spread. Statistical Society of Canada Annual Meeting, Guelph, Canada (June 2012)
40. *Malik* & Deardon. Individual-level modeling of the spread of influenza within households. Statistical Society of Canada Annual Meeting, Guelph, Canada (June 2012)
41. *Bifulchi*, Deardon & Feng. Spatial approximations of network-based individual level infectious disease models. Statistical Society of Canada Annual Meeting, Guelph, Canada (June 2012)
42. *Gold*, Deardon & Feng. Computational inference for network-based individual-level models of infectious disease transmission. Statistical Society of Canada Annual Meeting, Guelph, Canada (June 2012)
43. *Deeth* & Deardon. Latent-conditional models of infectious disease. Canadian Society for Epidemiology and Biostatistics, National Student Conference, Montreal, QC (June 2011)
44. *Deeth* & Deardon. Latent-conditional models of infectious disease. Statistical Society of Canada, Wolfville, NS (May 2011)
45. *Gold*, Deardon & Feng. Computational inference for network-based individual-level models of infectious disease transmission. ENAR Spring Meeting , MIAMI, FLORIDA, USA (March 2011)
46. *Deeth* & Deardon. Latent-conditional models of infectious disease. Canadian Association of Veterinary Epidemiology and Preventive Medicine Conference, Guelph, ON (June 2010)