Steven Kerfoot, PhD

Department of Microbiology & Immunology office phone: (519) 850 2329

Schulich School of Medicine and Dentistry

University of Western Ontario fax: (519) 661 3499

Dental Sciences Building 3014

(Courier: Dock 15) email: skerfoot@uwo.ca
London, Ontario, CANADA, N6A 5C1 web: kerfootlab.com

DOB: 1974-09-02 Citizenship: Canadian

Rank: Associate Professor (with tenure)

Updated: 2022-10-01

Education:

2005 PhD Medical Sciences (Immunology) University of Calgary

Supervisor: Dr. Paul Kubes

1996 BSc (Honors), Zoology University of Calgary

Supervisor: Dr. Marvin Fritzler

Training:

2011 **Post-Doctoral Fellow** Dept. Lab Medicine Yale University School of Medicine

Supervisors: Dr. Ann Haberman, Dr. Mark Shlomchik

2007 **Post-Doctoral Fellow** Dept. Internal Medicine Yale University School of Medicine

Supervisor: Dr. Philip Askenase

Appointments:

Current Appointments:

2017-present Associate Professor Dept. Microbiology & Immunology, University of Western Ontario

2019-present Associate Scientist Robarts Research Institute, University of Western Ontario

Previous Appointments:

2011-17 Assistant Professor Dept. Microbiology & Immunology, University of Western Ontario
2007-11 Post-Doctoral Fellow Dept. Lab Medicine Yale University School of Medicine
2005-07 Post-Doctoral Fellow Dept. Internal Medicine Yale University School of Medicine

Honors and Awards:

2015,16,17,18 Western University Student's Council Teaching Honor Roll (award discontinued)

2010-14 Garrett Herman endMS Research and Training Network Transitional Career

Development Award Multiple Sclerosis Society of Canada and the Multiple Sclerosis

Scientific Research Foundation

2008 Gershon/Trudeau Fellowship Yale Dept. of Immunobiology
 2005-08 Canadian Institutes of Health Research Postdoctoral Fellowship
 2001-04 Alberta Heritage Foundation for Medical Sciences Studentship

1999-01 Multiple Sclerosis Society of Canada Studentship

Scholarly and Professional Activities:

2017 - present Canadian Institutes of Health Research College of Reviewers - Member 2019 IT panel - recognized as an "outstanding" reviewer

Peer Review and Grant Panels for Funding Agencies:

2022-05	Canadian Institutes of Health Research Immunology & Transplantation, Scientific Officer
2022-01	Multiple Sclerosis Society of Canada Biomed Grants Committee, Panel Member
2021-12	Canadian Institutes of Health Research Immunology & Transplantation, Panel Member
2021-05	Canadian Institutes of Health Research Immunology & Transplantation, Panel Member
2021-03	Multiple Sclerosis Society of Canada Personnel Awards Committee, Panel Member
2019-11	Canadian Institutes of Health Research Immunology & Transplantation, Panel Member
2019-05	Canadian Institutes of Health Research Immunology & Transplantation, Panel Member
2016-05	Canadian Institutes of Health Research Project Scheme Live Pilot Stage 1 Reviewer
2015-03	Multiple Sclerosis Society of Canada Personnel Awards Committee, Panel Member
2014-03	Multiple Sclerosis Society of Canada Personnel Awards Committee, Panel Member
2013-03	Multiple Sclerosis Society of Canada Personnel Awards Committee, Panel Member
2012-03	Multiple Sclerosis Society of Canada Personnel Awards Committee, Panel Member
2012-05	endMS Manitoba-Ontario Summer Research Studentships Review, Panel Member

Ad Hoc Review of Grant Proposals for National and International Funding Agencies: NSERC Discovery Grant External Beader

2021	NSENC Discovery Grant External neader
2020	Canadian Foundation for Innovation Evans Leaders Fund application review
2020	ETH Zurich (CH) Grant review
2020	Canadian Institutes of Health Research COVID-19 Rapid Research competition
2020	Italian Multiple Sclerosis Society (IT) Foreign referee for grant applications
2019	Italian Multiple Sclerosis Society (IT) Foreign referee for grant applications
2018	Italian Multiple Sclerosis Society (IT) Foreign referee for grant applications
2017	National Health and Medical Research Council (AU) Overseas External Assessor
2017	Canadian Society for Immunology Trainee and Junior Investigator Travel Awards
2015	Medical Research Council (UK) external reader
2015	NSERC Discovery Grant External Reader

Peer Review and Grant Panels for Internal University Funding:

2017	Schulich School of Medicine and Dentistry Collaborative Research Seed Grants
2015	London Regional Transgenic Gene Targeting Facility Novel Mouse Grant

Editorial Duties:

2021

2021 - <i>23</i>	Section Editor: Journal of Immunology
2020 - <i>22</i>	Review Editor: Frontiers in Immunology
2015 - 19	Associate Editor: Journal of Immunology (2 terms)
2015	Handling Editor for Special Topic: Frontiers in Immunology - Lymphocytes in MS and
	EAE: more than just a CD4+ world.

Ad Hoc Peer Review of Manuscripts for Journals (ongoing):

Journal of Immunology, Annals of Neurology, European Journal of Immunology, Immunology and Cell Biology, Journal of Molecular Histology, Pharmacological Reports, BioFactors, Acta Neuropathologica, Clinical Immunology, Journal of Visualized Experiments, Frontiers in Immunology, Drug Design Development and Therapy, PLoS One, Journal of Neuroimmunology, Oxidative Medicine and Cellular Longevity, Journal of Neuroinflammation, mAbs, Cell Reports, Molecular Neurodegeneration, Experimental Cell Research

Society Membership:

2011-present Canadian Society for Immunology, Full Member 2011-present American Association of Immunologists, Full Member

	ch and Knowledge Translation Public Lectures, Videos, and Events:
2021-07-23	SHAD Seminar on vaccines - advanced high school summer program
2021-03-27	Vaccines Seminar for ULEAD Western - Student-run leadership retreat
2021-01 to 05	,
2019-06-24	Social Media for Academics Workshop – panelist – Shulich School of Medicine
2018-11-18	Public Lecture: "How vaccines work" - Western University Preview Day
2018-03-18	Public Lecture: "Ask an MS Expert" - Western MS Student Club
2018-01-10	Judge: Scinapse Undergraduate Science Case Competition.
2017-11-12	Public Lecture: "How vaccines work" - Western University Preview Day
2017-10-23	Career Lecture to HS Students at Gairdner event: "Level up your science character"
2017-05-25	Judge: Scinapse Undergraduate Science Case Competition.
2017-05-11	Public Lecture: " How vaccines work " - Western University March Break Open House
2016-11-13	Public Lecture: "How vaccines work" - Western University Preview Day
2015-11-16	Presentation: "How to become a scientist" Science Student Council Discovery Week.
2015-11-15	Public Lecture: "How vaccines work" - Western University Preview Day
2015-11-15	Media Interview: "Grand Bend to London: 25 years of hope" – MSSOC YouTube video
2015-03-14	Public Lecture: "How vaccines work" - Western March Break Open House
2014-11-19	Public Presentation: "Ask an MSologist Night" – Western MS Student Club
2014-11-16	Public Lecture: "How vaccines work" - Western University Preview Day
2014-07-26	Public Speaker: fundraising event – MSSOC Bike Gala
2013-04-29	Public Lecture: "Advances in MS Research" – City of London, ON Café Scientifique
2012-09-13	Scientist Representative: MSSOC Research Priorities Discussion
Invited Lectures:	
2022-11-10	"B cell contributions to autoimmune responses". NeuroForum Day CHUL, Quebec, QC.
2021-11-19	"A Tale of Two Anatomical Locations". Dept. Anat Cell Biol, UWO, London, ON.
2019-02-12	"T cell control of B cell fate in the GC". Dept. Immunology, U Toronto, ON.
2018-12-03	"B cell fate Decisions in the GC". Dept. Physiology & Pharmacology Seminar Series,
	Western University, ON.
2018-11-20	"B cells in CNS inflammation". Robarts Research Seminar Series, London, ON.
2017-11-15	"London MS Update". Taylor Prize Symposium, Robarts Research Institute, London ON.
2017-06-02	"Collaborations between T cells and B cells in chronic autoimmunity". Dr. Bhagirath
	Singh Symposium, Western University, ON.
2015-05-22	"T and B cell interactions and the initiation of CNS autoimmunity". Dept. Microbiology
	and Immunology Research Retreat. Grand Bend, ON.
2015-01-15	"Interactions between T and B cells in the initiation and maintenance of CNS
	autoimmunity". by invitation to Dr. Paul Kubes Research Retreat, Kananaskis, Alberta.
2014-04-14	"Animal models of multiple sclerosis: where they've lead us astray and how they're
20110111	getting better". Department of Clinical Neurology Grand Rounds, Western U
2015-02-27	"Use of animal models of multiple sclerosis in research". Canadian Association for Lab
2013 02 21	Animal Science Café, London, Canada.
2013-10-04	"Interactions between myelin-specific T and B cells in central nervous system
2013-10-04	autoimmunity". Schulich School of Medicine and Dentistry New Faculty Seminar, London.
0010 10 10	
2012-10-16	"Lymphocyte interactions that drive chronic autoimmune disease". Dept. Molecular
0010 10 00	Biology and Biochemistry, Simon Fraser University, BC.
2010-12-08	"Taking a closer look at B cells in CNS autoimmunity". Keynote Talk, Multiple Sclerosis
0010 15 55	Society of Canada endMS Research Conference, Whistler, BC.
2010-10-28	"Fate decision zones for B and T cells early in the germinal center response". Dept.
	Microbiology and Immunology, Western University, London, ON.
2010-03-22	"Using imaging to map the migration route of B and T cells on their quest to colonize
	the follicle". Institute of Infection and Immunity, University of Calgary, Calgary, AB.

Committee Membership and Service:

University, Faculty,	and Other External Committees:
2020-present	Member, Animal Care Committee
2020-present	Member, Biomedical Research Facility Working Group
2020- <i>23</i>	Member, Summer Research Training Program Committee (for med students)
2019	Member, Animal Research Communications Policy Committee
2018	Member, Head Veterinarian Selection Committee
2018-19	Member, BMRF committee and Health Status Working Group
2017	Internal Member, Taylor Prize 2017 Committee (Robarts Research Inst.)
2016-18	Member, Health Sciences Animal Facility Review Advisory Committee
2015-16	Member, Confocal Microscope Facility Users Advisory Committee
2015	Member, PI Focus Group, Western Animal Care & Vet Services
2014-15	Member, FACS Core Facility Advisory Committee
2014-19	Member, Western Animal Care & Vet Services Advisory Committee

Department of Microbiology and Immunology Committees:

2020-present	Member, Microbiology & Immunology Graduate Education Committee
2019	Faculty Advisor, Infection and Immunity Research Forum Committee
2018-21	Member, Microbiology & Immunology Promotion and Tenure Committee
2017-18	Member, Microbiology & Immunology Annual Performance Evaluation Committee
2015-16	Member, Bhagi Singh Symposium Organization Committee
2015	Member, Microbiology & Immunology Retreat Organizing Committee
2014-20	Member, Microbiology & Immunology Outreach Committee
2014-16	Member, Microbiology & Immunology Infrastructure Committee
2012-19	Member, Microbiology & Immunology Undergraduate Education Committee
2011-14	Member, Microbiology & Immunology Seminar Committee

Supervision and Mentorship:

Post-Doctoral Fellows:

2016-01 - 2020-09 Kate Parham, PhD'15 (U South Australia)

- Recipient of a 2017 PDF fellowship from the MS Society of Canada (\$41,000/yr, 3yrs)
- Currently: Medical Science Liaison, Eli Lilly Canada.

Graduate Students:

2022-09 – present Yi-Han Chen PhD Program (Microbiology & Immunology)

2021-09 – *present* **Morgan Langille** MSc Program (Microbiology & Immunology) - Thesis: "Defining B cell interactions with autoimmune T cells that drive chronic disease"

2021-09 – *present* **Daniel Morelli** MSc Program (Microbiology & Immunology)

- Thesis: "B cell mechanisms of antigen uptake and presentation"

2020-09 – 2022-10 Lika Chowdhury MSc Program (Microbiology & Immunology)

Thesis: "Characterization of inflammatory meningeal B cells in autoimmune inflammation"

2015-09 - 2021-01 Yodit Tesfagiorgis PhD Program (Microbiology & Immunology)

- (transferred from MSc 2017-04)
- Thesis: "Characterization of B cells in meningeal clusters found in central nervous system autoimmune disease and their susceptibility to therapeutic intervention".
- Recipient of a 2018 PhD studentship from the MS Society of Canada (\$22,000/yr, 3yrs)
- Recipient of Ontario Graduate Scholarships (2016/17, 2017/18) (\$15,000ea)
- Currently: Associate at McKinesy & Co.

2013-05 – 2018-11 **Rajiv Jain** PhD Program (Microbiology & Immunology)

- Thesis: "Antigen control of B cell fate decisions in the germinal center response".
- Recipient of the 2015 Waugh Family Multiple Sclerosis Society of Canada Doctoral Studentship Award (\$22,000/yr, 3yrs).
- Currently: Post Doctoral Fellow at the University of Calgary.

2013-05 – 2014-04 **Rajiv Jain**

Accelerated MSc Program (Microbiology & Immunology)

- Thesis: "Generating instantaneous reporters to monitor the activity of the NFkB and NFAT transcription factors"

2012-09 – 2015-04 **Amy Dang**

MSc Program (Microbiology & Immunology)

- Thesis: "MOG_{tag}, a novel murine oligodendrocyte glycoprotein fusion protein, induces appropriate autoimmune B cell germinal center responses and central nervous system autoimmune disease."
- Currently: Project Coordinator at WORLDiscoveries

Undergraduate Honours and other Project Students:

- 2022/23 Ahmed Mohamed. "Developing phagocytic targets for B cells".
- 2022/23 Eden Kamal. "Development of a novel model antigen". Recipient of 2022 NSERC USRA.
- 2021/22 **Kevin Zhang**. "Developing phagocytic targets for B cells". <u>currently: Medical Student at U Toronto</u>
- 2019/21 **Sherry Tan.** "Evaluating T/B interactions in vivo and in vitro". Recipient of 2020 NSERC USRA. currently: Medical Student at U Ottawa
- 2019/20 **Robbie Jin.** "Molecular characterization of meningeal B cells". <u>currently: Graduate Student at U</u>
 Toronto
- 2019/20 **Eoin Blythe.** "Glycosialated MOG protein as an antigen and reagent". currenty: MSc student
- 2017/18 Yomna El-Sakka. "Characterizing CNS autoimmunity induced by haMOGtag and hahaMOGtag". next: Clincial Trials Management student at Western U
- 2017/18 **Maitri Makwana**. "Characterizing the MOGtet reagent to identify circulating autoimmune B cells". next: Intern at Apotex Pharmaceutical
- 2016/17 **Alicia Dakins**. "Characterizing CNS pathology in novel EAE models" <u>next: Pharmacy student at</u> U Waterloo.
- 2015/16 **Sarah Zhu**, "Investigation of MOG-specific B cells in the CNS of EAE mice" next: Medical Student, McMaster University
- 2014/15 **Yodit Tesfagiorgis**. "Characterization of the activation history and antigen specificity of B cells found within meningeal B cell clusters in central nervous system autoimmunity" <u>Stayed as PhD</u> Student in the lab.
- 2014/15 **Malik El-Feghi**. "Generating fluorescent reporters of B cell activation" <u>next: Medical School</u>, Western University
- 2013/15 **Kathleen Walsh** Scholar's Elective Program. next: Medical Student at the Northern Ontario School of Medicine
- 2013/14 **Emiliano Romanchik**. "Evaluating the germinal center response to MOG vs NP-OVA using histology" <u>Currently: Technologist at Sanofi Pasteur</u>.
- 2012/13 **Rajiv Jain**. "Bimolecular fluorescence complementation imaging of B and T cell interactions" Stayed as PhD student in the lab.
- 2011/12 Jihyen Ha Scholar's Elective Program.

High School Students:

2018 Ali Mozaffaripour, Partners in Experiential Learning High School Program.

External Mentorship:

2013/14 SPRINT National Training Program (MS Society of Canada)

- Cross-disciplinary communications project Animal models of MS
- Julia O'Mahony (UofT), Sandra Meyers (UBC)

Teaching Activities:

Lectures and Courses of Instruction:

2022/23 Microbiology & Immunology 3300B – 3rd year Introduction to Immunology

- Course Coordinator: Ongoing updates of the course, including significant update of topics covered
- 17 lecture hours. Ongoing revision of materials. Class size = 180

Microbiology & Immunology 4970E - 4th year Honors Thesis Course

- Student thesis supervisor – 2 students

Medical Biophysics 9518B - Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =5

Medicine 5116 – Medical school course in Immunology

- 4 1hr lectures "Adaptive Immunity". Class size =150

Microbiology & Immunology 9100A - Graduate Scientific Communication

- 1 2 lecture - Class size ~15

2021/22 Microbiology & Immunology 3300B – 3rd year Introduction to Immunology

- Course Coordinator: Ongoing updates of the course, including moves to short answer type exam questions.
- 17 lecture hours. Ongoing revision of materials. Class size = 184

Microbiology & Immunology 4970E - 4th year Honors Thesis Course

- Student thesis supervisor - 1 student

Medical Biophysics 9518B - Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =5

MedSci - 4th year capstone course for IMS program

- 1 2hr lecture "Vaccine Medicine". Class size =50

Medicine 5116 - Medical school course in Immunology

- 4 1hr lectures "Adaptive Immunity". Class size =150

Microbiology & Immunology 9100A - Graduate Scientific Communication

1 2 lecture – Class size ~15

2020/21 Microbiology & Immunology 3300B – 3rd year Introduction to Immunology

- Course Coordinator: Considerable reorganization and updating of the course. Shift to online instruction and exams due to COVID-19 pandemic.
- 17 lecture hours. Ongoing revision of materials. Class size = 158

Microbiology & Immunology 4970E - 4th year Honors Thesis Course

- Student thesis supervisor – 1 student

Microbiology & Immunology 9100A - Graduate Scientific Communication

- 2 lecture hours - Class size ~15

Medical Biophysics 9518B - Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =5

Medicine 5116 - Medical school course in Immunology

- 1 1hr lecture "Adaptive Immunity". Class size =150

2019/20 Microbiology & Immunology 3300B – 3rd year Introduction to Immunology

- <u>Course Coordinator</u>: Considerable reorganization and updating of the course. Shift to online instruction and exams due to COVID-19 pandemic.
- 15 lecture hours. Ongoing revision of materials. Class size = 158

Microbiology & Immunology 4970E - 4th year Honors Thesis Course

- Course Coordinator and 1 lecture. Considerable organization shifts to deal with pandemic.
- Student thesis supervisor 2 students

Microbiology & Immunology 9100A - Graduate Scientific Communication

- 2 lecture hours - Topic: "Scientific Posters". Class size ~15

Medical Biophysics 9518B - Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =5

Medicine 5116 - Medical school course in Immunology

- 1 1hr lecture "Adaptive Immunity". Class size =150

2018/19 Microbiology & Immunology 3300B – 3rd year Introduction to Immunology

- 12 lecture hours. Ongoing revision of materials. Class size = 158 Microbiology & Immunology 4970E – 4th year Honors Thesis Course

- <u>Course Coordinator</u> and 2 lectures – "Introduction" and "Scientific Writing" Microbiology & Immunology 9100A – Graduate Scientific Communication

2 lecture hours – Topic: "Scientific Posters". Class size ~15
 Medical Biophysics 9518B – Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =5 Medicine 5116 – Medical school course in Immunology

- 1 2hr lecture "Adaptive Immunity". Class size =150

- 2017/18 Microbiology & Immunology 3300B 3rd year Introduction to Immunology
 - 12 lecture hours. Ongoing revision of materials. Class size = 150 Microbiology & Immunology $4970E 4^{th}$ year Honors Thesis Course
 - Course Coordinator and 2 lectures "Introduction" and "Scientific Writing"
 - Student thesis supervisor 2 students

Microbiology & Immunology 9100A - Graduate Scientific Communication

2 lecture hours – Topic: "Scientific Posters". Class size ~15
 Medical Biophysics 9518B – Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =5

- 2016/17 Microbiology & Immunology 3300B 3rd year Introduction to Immunology
 - 12 lecture hours. Ongoing revision of materials. Class size = 161 Microbiology & Immunology $4970E 4^{th}$ year Honors Thesis Course
 - Course Coordinator and 2 lectures "Introduction" and "Scientific Writing"
 - Student thesis supervisor 1 student

Microbiology & Immunology 9100A – Graduate Scientific Communication

- 2 lecture hours – Topic: "Scientific Posters". Class size \sim 15 Medical Biophysics 9518B – Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =8

- 2015/16 Microbiology & Immunology 3300B 3rd year Introduction to Immunology
 - 12 lecture hours. Ongoing revision of materials. Class size = 154 Microbiology & Immunology 4970E 4th year Honors Thesis Course
 - Course Coordinator and 2 lectures "Introduction" and "Scientific Writing"
 - Student thesis supervisor 1 student

Microbiology & Immunology 9100A - Graduate Scientific Communication

- 2 lecture hours Topic: "Scientific Posters". Class size \sim 15 Medical Biophysics 9518B Graduate Molecular Imaging Course
- 1 2hr lecture "In vivo Microscopy". Class size =5
- 2014/15 Microbiology & Immunology 3300B 3rd year Introduction to Immunology
 - 12 lecture hours. Major revision and expansion of materials. Class size = 155 Microbiology & Immunology $4970E 4^{th}$ year Honors Thesis Course
 - Course Coordinator and 2 lectures "Introduction" and "Scientific Writing"
 - Student thesis supervisor 2 students

Microbiology & Immunology 9100A - Graduate Scientific Communication

- 2 lecture hours – Topic: "Scientific Posters". Class size ~15 Medical Biophysics 9518B – Graduate Molecular Imaging Course

- 1 2hr lecture "In vivo Microscopy". Class size =5

2013/14 Microbiology & Immunology 3300A – 3rd year Introduction to Immunology

- 8 lecture hours. Ongoing revision of materials. Class size = 218 Microbiology & Immunology 4970E - 4th year Honors Thesis Course

- Student thesis supervisor – 1 student

Microbiology & Immunology 9100A - Graduate Scientific Communication

- 2 lecture hours Topic: "Scientific Posters". Class size ~15
 Medical Biophysics 9518B Graduate Molecular Imaging Course
- 1 2hr lecture "In vivo Microscopy". Class size =7

2012/13 Microbiology & Immunology 3300A – 3rd year Introduction to Immunology

- 8 lecture hours. Ongoing revision of materials. Class size = 216 Microbiology & Immunology $4970E 4^{th}$ year Honors thesis course
- Student thesis supervisor 1 student

Microbiology & Immunology 9100A - Graduate Scientific Communication

- 2 lecture hours - Topic: "Scientific Posters". Class size ~15

2011/12 Microbiology & Immunology 3300A – 3rd year Introduction to Immunology

- 8 lecture hours. Complete redesign of materials. Class size = 246

Graduate Thesis Advisory Committees:

Doctoral:

2020-present	Shabitha Arumugarajah, Supervisor: Dr. L Gunaratnam, Dept. Microlmm, UWO
2020-present	Lane Buchanan, Supervisor: Dr. J Prodger, Dept. MicroImm, UWO
2016-20	Ji Yun Lee. Supervisor: Dr. L Gunaratnam, Dept. Microlmm, UWO
2015-18	Carolina Batista. Supervisor: Dr. R DeKoter, Dept. Microlmm, UWO
2011-15	Stephen Li. Supervisor: Dr. R DeKoter, Dept. Microlmm, UWO

Masters:

2021-present	Aanchal Rishi, Supervisor: Dr. J McCormick. Dept. MicroImm, UWO
2021-present	Grace Zhang, Supervisor: Dr. D Heinrichs. Dept. Microlmm, UWO
2021-present	Nicholas Walton, Supervisor: Dr. J McCormick. Dept. MicroImm, UWO
2021-present	Allanna MacKenzie, Supervisor: Dr. R. DeKoter. Dept. Microlmm, UWO
2021-present	Clara Sun, Supervisor: Dr. G Dekaban, Dept. Microlmm, UWO
2021-present	Andrew McClennan, Supervisor: Dr. L Hoffman, Dept. Pathology, UWO
2020-22	Mia Sams, Supervisor: Dr. R. DeKoter. Dept. Microlmm, UWO
2020-22	Garth Finch, Supervisor: Dr. S Penuela, Dept. Anat & Cell Biol, UWO
2020-22	Eoin Blythe, Supervisor: Dr. G Dekaban, Dept. Microlmm, UWO
2019-21	Jaclyn Diamond, Supervisor: Dr. D Heinrichs, Dept. Microlmm, UWO
2019-21	Demitra Yotis, Supervisor: Dr. L Gunaratnam, Dept. Microlmm, UWO
2019-21	Hannah Raczkowski, Supervisor: Dr. R. DeKoter. Dept. Microlmm, UWO
2018-21	Yiming Lin, Supervisor: Dr. L Hoffman, Dept. Pathology, UWO
2018-18	Michelle Lim, Supervisor: Dr. R DeKoter, Dept. Microlmm, UWO
2017-19	Sally Eo, Supervisor: Dr. G Dekaban, Dept. Microlmm, UWO
2017-19	Darshit Patel, Supervisor: Dr. Y Gao, Dept. Microlmm, UWO
2017-19	Akshay Sule, Supervisor: Dr. J McCormick, Dept. Microlmm, UWO
2016-18	Benjamin Fuhrman, Supervisor: Dr. T Jevnikar, Dept. Microlmm, UWO
2016-18	Sophie Laramee. Supervisor: Dr. R DeKoter, Dept. Microlmm, UWO
2015-17	Kevin Blackney. Supervisor: Dr. G Dekaban, Dept. Microlmm, UWO
2013-15	Adrienne Wakabayashi. Supervisor: Dr. J McCormick, Dept. MicroImm, UWO

Thesis Examination Committees as Examiner:

2022-07-22	Holy Philpott, PhD Thesis Exam, Supervisor: Dr. T Appleton, Anat&Cell Biol UWO.
2022-06-24	Mia Sams, MSc Thesis Exam, Supervisor: Dr. R. DeKoter. Dept. Microlmm, UWO
2021-07-26	Hannah Raczkowski, MSc Thesis Exam, Supervisor: Dr. R. DeKoter. Dept. Microlmm, UWO
2021-06-29	Dennis Lee, PhD Thesis Exam, Supervisor: Dr. J. Gommerman, Dept. Immunol, U Toronto
2021-04-22	Demitra Yotis, MSc Thesis Exam, Supervisor: Dr. L Gunaratnam, D. Microlmm, UWO
2020-10-01	Tarannum Tasnim, MSc Thesis Exam. Supervisor: Dr B Heit, Dept. MicroImm, UWO
2020-08-20	Ingrid Hon, MSc Thesis Exam. Supervisor: Dr. L Gunaratnam, Dept. Microlmm, UWO
2019-09-13	Jason Knapp, MSc Thesis Exam, Supervisor: Drs. Arts/Dikeakos, Dpt. Microlmm, UWO

2019-07-25	Sally Eo, MSc Thesis Exam, Supervisor: Dr. G Dekaban, Dept. Microlmm, UWO
2019-02-12	Justin Chan, PhD Thesis Exam, Supervisor: Dr. G. Ehrhardt, Dept. Immunol, U Toronto
2018-12-06	Corby Fink, PhD Thesis Exam. Supervisor: Dr. G Dekaban, Dept. Microlmm, UWO
2018-08-08	Jess Rhee, MSc Thesis Exam. Supervisor: Dr. R DeKoter, Dept. Microlmm, UWO
2017-04-18	Tayler Farrell, MSc Thesis Exam. Supervisor: Dr. D Heinrichs, Dept. Microlmm, UWO
2017-03-17	Joseph Zeppa, PhD Thesis Exam. Supervisor: Dr. J McCormick, Dept. MicroImm, UWO
2016-12-01	Jeffery Gaudet, PhD Thesis Exam. Supervisor: Dr. P Foster, Medical Biophysics, UWO
2016-08-02	Ian Lobb, PhD Thesis Exam. Supervisor: Dr. A Sener, Dept. MicroImm, UWO
2015-09-14	James Schneider, MSc Thesis Exam. Supervisors: Drs. M McGavin and D Heinrichs, Dept.
	Microlmm, UWO
2015-08-20	Jas Grewal, MSc Thesis Exam. Supervisor: Dr. A Sener, Dept. Microlmm, UWO
2014-08-07	Ali Abbas, MSc Thesis Exam. Supervisor: Dr. R DeKoter, Dept. Microlmm, UWO
2013-07-22	Matthew Quinn, PhD Thesis Exam. Supervisor: Dr. R Menon, Robarts Institute, UWO.
2013-04-17	Shereen Turkistany, MSc Thesis Exam. Supervisor: Dr. R DeKoter, Dept. Microlmm, UWO.
2013-01-30	Katherine Kasper, PhD Exam. Supervisor: Dr. J McCormick, Dept. Microlmm, UWO
2012-08-22	Mathias Scinocca, MSc Thesis Exam. Supervisor: Dr. E Cairns, Dept. Microlmm, UWO
2012-05-25	James Overton, PhD Thesis Exam. Supervisor: Dr. R Batterman, Rotman Institute of
	Philosophy, UWO.

Thesis Examination Committees as Chair:

2022-08-10	Chris Burke, PhD Thesis Exam. Super: Dr. J Blankenship Fac. Theory & Criticism. UWO
2022-07-08	Diago Sornoza-Parrales, PhD Thesis Exam. Super: Dr. Riveros-Barrera. Fac. Education.
	UWO
2021-10-13	Eric Kirk, PhD Thesis Exam. Super: Dr. Charles Rice. Anat&Cell Bio, UWO.
2021-08-23	Jenna Benoit, MSc Thesis Exam. Supervisor: Dr. Mansour Haeryfar, Microlmm, UWO
2020-06-18	Chad Louwerse, DMA monograph. Supervisor: Dr. Catherine Nolan, Music, UWO.
2020-06-12	Derek Gillies, PhD Thesis Exam. Supervisor: Dr. Aaron Fenster, Medical Biophysics, UWO.
2019-10-03	Xingxing Liu, PhD Thesis Exam. Supervisor: Dr. Jun Yang, Mechanical & Materials
	Engineering, UWO.
2018-08-20	Kyle Taruc, MSc Thesis Exam. Supervisor: Dr. Bryan Heit, Microlmm, UWO.
2017-07-18	Changquing Gong, PhD Thesis Exam. Supervisor: Dr. Wenxing Zhou, Civil & Environmental
	Engineering, UWO.

Comprehensive Examination Committees as Examiner:

1-		
20)22-03-29	Shabitha Arumugarjah, Candidacy Exam. Supervisor:Dr.L Guneratnam, Dept. Microlmm, UWO.
20	22-03-19	Lane Buchanan, Candidacy Exam. Supervisor:Dr.J Prodger, Dept. Microlmm, UWO.
20	21-07-23	Iulian Derecichei, Candidacy Exam. Supervisor:Dr.J Mann, Dept. Microlmm, UWO.
20	20-03-24	Blake Shannon, Candidacy Exam. Supervisor:Dr.J McCormick, Dept. Microlmm, UWO.
20	19-03-21	Smriti Juriasingani, Candidacy Exam. Supervisor: Dr. A Sener, Dept. Microlmm, UWO.
20	18-04-20	Jacklyn Hurst, Candidacy Exam. Supervisor: Dr. J McCormick, Dept. Microlmm, UWO.
20	15-08-05	Colin Venner, Candidacy Exam. Supervisor: Dr. E Arts, Dept. Microlmm, UWO.
20	15-07-27	Aaron Johnson, Candidacy Exam. Supervisor: Dr. J Dikeakos, Dept. Microlmm, UWO.
20	15-04-20	Steven Gameiro, Candidacy Exam. Supervisor: Dr. J Mymryk, Dept. Microlmm, UWO.
20	12-09-25	Matthew Quinn, Mid-Level Exam. Supervisor: Dr. R Menon, Robarts Institute, UWO.
20	12-10-26	Jennifer Guadagno, Comprehensive Exam. Supervisor: Dr. S Cregan, Physiology &
		Pharmacology, UWO.

Comprehensive Examination Committees as Chair:

2021-07-27	Izabela Batko, Candidacy Exam, Supervisor: Dr. D Heinrichs, Dept. MicroImm, UWO.
2021-04-08	Leah Cheung, Candidacy Exam, Supervisor: Dr. R Troyer, Dept. Microlmm, UWO.
2020-07-09	Yiving Zhang, Candidacy Exam. Supervisor: Dr. E Arts, Dept. Microlmm, UWO.

Research Grant Funding History:

Current Funding:

2021-04 to 2026-03 Defining novel, non-classical roles for tissue-infiltrating B cells in chronic CNS autoimmunity

Canadian Institutes of Health Research Project Grant

PI: Kerfoot Value: \$856,800 CAD

2020-07 to 2023-06 Defining the role of unconventionally activated meningeal B cells in CNS autoimmune inflammation

Multiple Sclerosis Society of Canada. Discovery Research Grant

PI: Kerfoot Value: \$292,608 CAD

2019-12 to 2024-11 Canadian Sepsis Research Network: Improving Care Before, During and After Sepsis.

Canadian Institutes of Health Research Team Grant

Pls: Fox-Robichaud (nominated) and 23 others, Co-Apps: Kerfoot and 95 others, Knowledge Users: 8. Value: \$5,700,000 CAD

2019-04 to 2024-03 Identifying mechanisms and determinants of T cell control over B cell fate choice in the germinal centre response.

Natural Sciences and Engineering Research Council of Canada. Discovery Grant PI: Kerfoot Value: \$160,000 CAD

2019-04 to 2022-10 Developing behavioral testing and MR imaging to evaluate cognitive impairment in a mouse model of CNS autoimmunity.

Western BrainsCAN. Accelerator Stimulus Grant.

PI: Kerfoot, Co-App: Morrow, Menon, Beraldo Value: \$57, 270 CAD

Past Funding:

2020-04 to 2021-03 Upgrades to an advanced multiphoton microscope with unique equipment to improve tissue access for intravital imaging and improved image stability

Natural Sciences and Engineering Research Council of Canada. Research Tools and Instruments Grant (ranked 2/114)

PI: Kerfoot, Co-App: McCormick, Ronald, Seguin Value: \$105,961 CAD

2015-07 to 2020-06 Initiating and maintaining central nervous system autoimmunity through interactions between myelin-reactive T and B cells.

Canadian Institutes of Health Research Transitional Open Operating Grant PI: Kerfoot Value: \$726,200 CAD

2014-09 to 2017-08 NFAT Reporter Mouse

Western University Research and Development. LRTGTF Novel Mouse Grant PI: Kerfoot Value: \$4,000 CAD

2013-10 to 2017-09 Development of a novel B cell-based biomarker for Multiple Sclerosis

Schulich School of Medicine and Dentistry (UWO). Collaborative Research Seed Grants
PI: Kerfoot, Co-App: Morrow and Kremenchutzky. Value: \$25,249 CAD

2011-09 to 2014-08 Identification of Cellular Interactions Through Which B Cells Drive Central Nervous System Autoimmune Disease In Vivo.

Multiple Sclerosis Society of Canada and the Multiple Sclerosis Scientific Research Foundation endMS Transitional Career Development Award – (faculty portion of the Garrett Herman endMS Research and Training Network Transitional Career Development Award, see above Honors and Awards)

PI: Kerfoot Value: \$360,000 CAD

2012-07 to 2015-06 Characterization of the pathogenic mechanisms and potential as therapeutic targets of antigen experienced B cells in chronic central nervous system autoimmunity.

Multiple Sclerosis Society of Canada. Biomedical Research Operating Grant PI: Kerfoot Value: \$271,450 CAD

2013-10 to 2014-09 Infrastructure for molecular to whole-animal analysis of inflammation, infection and immune function.

Canadian Foundation for Innovation. Leaders Opportunity Fund.

PI: Heit Co-PI: Kerfoot and Dikeakos Value: \$499,937 CAD

2013-03 to 2014-02 Development of a novel murine model of multiple sclerosis for investigating B cell biology in promoting autoimmune disease.

University of Western Ontario. Western Strategic Support for CIHR Success. PI: Kerfoot Value: \$11,832 CAD

2012-04 to 2013-03 Genotyping, Molecular and Chromatin Biology Support Core Facility. **University of Western Ontario.** Academic Development Fund.

PI: Kerfoot Value: \$79,849 CAD

2006-07 to 2007 06 Contribution of T cell independent responses to the later initiation pathway.

American Academy of Allergy, Asthma and Immunology. Astellas Pharma Allergic Skin Disease Research Award.

PI: Kerfoot Value: \$25,000 USD

Publications:

Authors under my direct supervision are underlined.

Peer-Reviewed Journal Publications:

- 37) <u>Tesfagiorgis Y, Craig HC, Parham KA</u>, and **Kerfoot SM**. Systemic administration of anti-CD20 indirectly reduces B cells in the inflamed meninges in a chronic model of central nervous system autoimmunity. *In Submission*.
- 36) Parham KA, Tan XXS, Morelli DM, Chowdhury L, Craig HC, and Kerfoot SM. (2022) Pre-germinal center interactions with T cells are natural checkpoints to limit autoimmune B cell responses. *J Immunol In Press*
- 35) Tuffs SW, Goncheva MI, Xu SX, <u>Craig HC</u>, Kasper KJ, Choi J, Flannagan RS, **Kerfoot SM**, Heinrichs DE, and McCormick JK. (2022) Superantigens promote *Staphylococcus aureus* bloodstream infection by eliciting pathogenic interferon-gamma production. *PNAS*: 119 (8) e2115987119
- 34) Al, KF, Craven LJ, Gibbons S, Parvathy SN, Wing AC, Graf C, Parham KP, **Kerfoot SM**, Wilcox H, Burton JP, Kremenchutzky M, Morrow SA, Casserly, Meddings JC, Sharma M, and Silverman MS. (2022) Fecal microbiota transplantation is safe and tolerable in patients with multiple sclerosis: A pilot randomized controlled trial. *Multiple Sclerosis Journal Experimental, Translational and Clinical* 8: 20552173221086664.
- 33) Lancien, M, Bienvenu G, Salle S, Gueno L, Feyeux M, Merieau E, Remy S, Even A, Moreau A, Molle A, Fourgeux C, Coulon F, Beriou G, Bouchet-Delbos L, Chiffoleau E, Kirstetter P, Chan S, **Kerfoot SM**, Rahiman SA, Simone VD, Matteoli G, Boncompain G, Perez F, Josien R, Poschmann J, Cuturi MC, and Louvet C. (2021) Dendritic Cells Require TMEM176A/B Ion Channels for Optimal MHC Class II Antigen Presentation to Naive CD4+ T Cells. *Journal of Immunology* 207: 421–435.
- 32) Laramée AS, Raczkowski HL, Shao P, Batista CR, Shukla D, Xu LS, Haeryfar SMM, <u>Tesfagiorgis Y</u>, **Kerfoot SM** and DeKoter RP (2020). Opposing roles for the related ETS-family transcription factors Spi-B and Spi-C in regulating B cell differentiation and function. *Frontiers in Immunology*: 11:841

- 31) Singh B, Summers KL, and **Kerfoot SM**. (2019) Novel Regulatory Th17 cells and Regulatory B cells in Modulating Autoimmune Diseases. *Cellular Immunology*: 339:29-32.
- 30) Haberman A, Gonzalez D, Wong P, Zhang T, and **Kerfoot SM**. (2019) Germinal Center B cell initiation, GC maturation, and the coevolution of its stromal cell niches. *Immunological Reviews*; 288; 10-27.
- 29) <u>Jain RW, Parham KA, Tesfagiorgis Y, Craig HC, Romanchik</u> E, and **Kerfoot SM**. (2018) Autoreactive, low-affinity T cells preferentially drive differentiation of short-lived memory B cells at the expense of germinal center maintenance. *Cell Reports*. 2018; 25(12); 3342-3355.
- 28) Gonzalez DG, Cote CM, Patel JR, Smith CB, Zhang Y, Nickerson KM, Zhang T, **Kerfoot SM**, and Haberman AM. (2018) Non-redundant roles of IL-21 and IL-4 in the phased initiation of germinal center B cells and subsequent self-renewal transitions. *Journal of Immunology*; 201(12); 3569-3579.
- 27) Whittaker Hawkins R, Patenaude A, Dumas A, <u>Jain R, Tesfagiorgis Y, Kerfoot S, Matsui T, Gunzer M, Poubelle P, Larochelle C, Pelletier M, and Vallières L. (2017) ICAM1+ neutrophils promote chronic inflammation via ASPRV1 in B cell-dependent autoimmune encephalomyelitis. *JCI Insight*; 2(23); e96882.</u>
- 26) <u>Tesfagiorgis Y, Zhu SL, Jain R, and **Kerfoot SM**. (2017) Activated B cells participating in the anti-myelin response are excluded from the inflamed central nervous system in a model of autoimmunity that allows for B cell recognition of autoantigen. *Journal of Immunology*; 199: 449-457.</u>
- 25) Zhang TT, Gonzalez DG, Cote CM, Kerfoot SM, Deng S, Chen Y, Magari M, and Haberman AM. (2017) Germinal center B cell development has distinctly regulated stages completed by disengagement from T cell help. eLife; 6: e19552
- 24) Rangachari M, **Kerfoot SM**, Arbour N, and Alvarez J. (2017) Editorial: Lymphocytes in MS and EAE: more than a CD4+ world. *Frontiers in Immunology*; 8:133.
- 23) <u>Jain</u> RW, <u>Dang</u> AK, and **Kerfoot SM**. (2016) Simple and effective production and purification of mouse Myelin Oligodendrocyte Glycoprotein for Experimental Autoimmune Encephalomyelitis. *Journal of Visualized Experiments* (116) e54727, doi:10.3791/54727
- 22) <u>Dang AK, Tesfagiorgis Y, Jain RW, Craig HC</u>, and **Kerfoot SM**. (2015) Meningeal infiltration of the spinal cord by non-classically activated B cells in associated with chronic disease course in a spontaneous B cell-dependent model of CNS autoimmune disease. *Frontiers in Immunology*; 6: 470.
- 21) <u>Dang AK, Jain RW, Craig HC</u>, and **Kerfoot SM.** (2015) B cell recognition of myelin oligodendrocyte glycoprotein autoantigen depends on immunization with protein rather than short peptide, while B cell invasion of the CNS in autoimmunity does not. *Journal of Neuroimmunology*; 278C: 73-84.
- 20) Yamamoto N, Kerfoot SM, Hutchinson AT, DelaCruz CS, Nakazawa N, Szczepanik M, Majewska-Szczepanik M, Nazimek K, Ohana N, Bryniarski K, Mori T, Muramatsu M, Kanemitsu K, Askenase PW. (2015) Expression of activation-induced cytidine deaminase enhances the clearance of pneumococcal pneumonia: evidence of a subpopulation of protective anti-pneumococcal B1a B cells. *Immunology*; 147(1): 97-113.
- 19) Askenase PW, Bryniarski K, Paliwal V, Redegeld F, Groot Kormelink T, **Kerfoot S**, Hutchinson AT, van Loveren H, Campos R, Itakura A, Majewska-Szczepanik M, Yamamoto N, Nazimek K, Szczepanik M, Ptak W. (2015) A subset of AID-dependent B-1a cells initiates hypersensitivity and pneumococcal pneumonia resistance. *Annals of the New York Academy of Sciences*; 1362(1): 200-214.
- 18) **Kerfoot SM**, Yaari G, Patel JR, Johnson KL, Gonzalez DG, Kleinstein SH, and Haberman AM. (2011) Germinal Center B cell and T Follicular Helper cell development initiates in the interfollicular zone. *Immunity*; 34(6): 947-960.

This article was accompanied by a Preview: King C. A fine romance: T follicular helper cells and B cells. *Immunity*, 2011; 34(6):827-9.

This article was featured on the Faculty of 1000 site, with 6 independent positive reviews. This article has been cited more than 500 times to date (Google Scholar, 2022-10)

- 17) Askenase PW, Majewska-Szczepanik M, **Kerfoot S**, and Szczepanik M. (2011) Participation of iNKT cells in the early and late components of Tc1 mediated DNFB contact sensitivity: Cooperative role of $\gamma\delta$ -T cells. *Scandinavian Journal of Immunology*; 73(5):465-477.
- 16) Hauser AE, **Kerfoot SM**, and Haberman AM. (2010) Cellular choreography in the germinal center: new visions from in vivo imaging. *Seminars in Immunopathology*; 32(3): 239-255
- 15) **Kerfoot SM**, Szczepanik M, Tung JW, and Askenase PW. (2008) Identification of Initiator B cells, a novel subset of activation-induced deaminase-dependent B-1-like cells that mediate initiation of contact sensitivity. *Journal of Immunology*; 181(3):1717-1727.
- 14) **Kerfoot SM**, Andonegui G, Bonder C. and Liu L. (2008) Exogenous stromal cell-derived factor-1 induces modest leukocyte recruitment in vivo. *AJP: Heart and Circulatory Physiology*; 294: H2524-H2534.
- 13) Pedra JHF, Mattner J, Tao J, **Kerfoot SM**, Davis RJ, Flavell RA, Askenase PW, Yin Z, and Fikrig E. (2008) c-Jun NH2-terminal kinase 2 inhibits gamma interferon production during Anaplasma phagocytophilum infection. *Infection and Immunity*; 76(1): 308-316.
- 12) **Kerfoot SM**, McRae K, Lam F, McAvoy EF, Clark S, Brain M, Lalor PF, Adams DH and Kubes P. (2008) A novel mechanism of senescent erythrocyte capture from the circulation in humans. *Experimental Hematology*; 36(2): 111-118.
- 11) Kerfoot SM*, Norman MU, Lapointe BM, Bonder CS, Zbytnuik L, and Kubes P. (2006) Re-evaluation of P-selectin and α₄-integrin as targets for the treatment of experimental autoimmune encephalomyelitis. *Journal of Immunology*; 176(10): 6225-6234.

*Kerfoot SM is corresponding author

This article has been cited more than 100 times to date (Google Scholar, 2022-10).

- 10) **Kerfoot SM**, D'Mello C, Nguyen H, Ajuebor MN, Kubes P, Le T, Swain MG. (2006) TNFα-secreting monocytes are recruited into the brain of cholestatic mice. *Hepatology*; 43(1): 154-162. *This article has been cited more than 100 times to date (Google Scholar, 2022-10).*
- 9) **Kerfoot SM** and Kubes P. (2005) Local coordination verses systemic disregulation: Complexities in leukocyte recruitment revealed by local and systemic activation of TLR4 in vivo. *Journal of Leukocyte Biology*; 77: 862-867.
- 8) Andonegui G, **Kerfoot SM**, McNagny K, Ebbert KV, Patel KD, and Kubes P. (2005) Platelets express functional toll-like receptor-4 TLR4. *Blood*; 106(7): 2417-2423.
- 7) Khan AI, **Kerfoot SM**, Heit B, Liu L, Andonegui G, Ruffell B, Johnson P, and Kubes P. (2004) Role of CD44 and hyaluronan in neutrophil recruitment. *Journal of Immunology*; 173(12): 7594-7601.
- Kerfoot SM, Long EM, Hickey MJ, Andonegui G, Lapointe BM, Zanardo RCO, Bonder C, James WG, Robbins SM, and Kubes P. (2004) TLR4 contributes to disease-inducing mechanisms resulting in central nervous system autoimmune disease. *Journal of Immunology*; 173(11): 7070-7077. *This article was the subject of the following commentary:* Racke MK et.al. PTX cruiser: driving autoimmunity via TLR4. *TRENDS in Immunology* 2005; 26(6): 289-91.
 This article has been cited more than 250 times to date (Google Scholar, 2022-10).

- Kerfoot SM, Lord SE, Bell RB, Gill V, Robbins SM, and Kubes P. (2003) Human fractalkine mediates leukocyte adhesion but not capture under physiological shear conditions; a mechanism for selective monocyte recruitment. European Journal of Immunology; 33(3): 729-739.
 This article has been cited more than 60 times to date (Google Scholar, 2022-10).
- 4) Kerfoot SM and Kubes P. (2002) Overlapping roles of P-selectin and α₄-integrin to recruit leukocytes to the CNS in experimental autoimmune encephalomyelitis. *Journal of Immunology*; 169(2): 1000-1006. *This article has been cited more than 235 times* to date (Google Scholar, 2022-10).
- 3) Kubes P. and **Kerfoot SM**. (2001) Leukocyte recruitment in the microcirculation: the rolling paradigm revisited. *News in Physiological Science*; 16: 76-80.
- 2) **Kerfoot SM**, Raharjo E, Ho M, Kaur J, Serirom S, McCafferty DM, Burns AR, Patel KD, Kubes P. (2001) Exclusive neutrophil recruitment with Oncostatin M in a human system. *American Journal of Pathology*; 159(4): 1531-1539.
- Fritzler MJ, Kerfoot SM, Feasby TE, Zochodne DW, Westendorf JM, Dalmau JO, and Chan EKL. (2000)
 Autoantibodies from patients with idiopathic ataxia bind to M-phase phosphoprotein-1 (MPP1). *Journal of Investigative Medicine*; 48(1): 28-39.

Presentations at Professional Meetings/Workshops and Meetings Attended:

- 60) <u>Tesfagiorgis Y</u> and Kerfoot SM. Characterizing a unique B cell subset in an animal model of Multiple Sclerosis. *CSHRF 2020*. Winnipeg, MB, Canada. 2020-06-09. **Attendance by invitation only and only 5% of PhD candidates are invited. Received an Honourable Mention.**
- 59) Parham KA, Craig HC, Tan X and Kerfoot SM. Pre-germinal center interactions between anti-MOG B and T cells are short-lived and distinct from those in response to a foreign antigen. *endMS Conference. Calgary, AB, Canada.* 2019-12-08. This abstract selected for a platform oral presentation.
- 58) <u>Tesfagiorgis Y</u> and **Kerfoot SM**. Meningeal B cells: their phenotype and susceptibility to therapeutic depletion. *endMS Conference*. *Calgary*, *AB*, *Canada*. 2019-12-08. **Awarded a poster prize**.
- 57) Tesfagiorgis Y and **Kerfoot SM**. (2019) B cell aggregates, their susceptibility to therapeutic depletion. *The* 14th Annual Infection and Immunity Research Forum. London, ON, Canada. 2019-11-08.
- 56) <u>Jain RW, Parham AK, Craig HC, Tesfagiorgis Y, Romanchik E, and **Kerfoot SM**. Autoreactive T cells preferentially drive differentiation of non-responsive memory B cells at the expense of germinal center maintenance. *UAlberta MS Centre Research Symposium, Edmonton, Alberta.* 2019-05-03</u>
- 55) <u>Tesfagiorgis</u> Y, <u>Jain</u> RW, <u>Parham</u>, KA, and **Kerfoot SM**. (2019) Does manipulation T cell affinity to myelin antigen result in differences in CNS autoimmunity. *Canadian Society of Immunology, Banff, Ab, Canada*. 2019-04-12 **This abstract selected for a platform oral presentation. Awarded a poster prize.**
- 54) <u>Jain RW, Parham AK, Craig HC, Tesfagiorgis Y, Romanchik E,</u> and **Kerfoot SM**. Autoreactive T cells preferentially drive differentiation of non-responsive memory B cells at the expense of germinal center maintenance. *Canadian Society of Immunology 2019, Banff Conference Center, Banff, Alberta.* 2019-04-12
- 53) <u>Tesfagiorgis</u> Y, <u>Zhu</u> SL and **Kerfoot SM** B cell aggregates within the inflamed CNS: Their phenotype and susceptibility to therapeutic depletion. *London Health Research Day, London Convention Center, London, Ontario, Canada.* 2019-04-30.
- 52) Parham KA, Craig HC, Jain RW and **Kerfoot SM**. Early interactions between anti-MOG pre-germinal center B and T cells are different to those in response to a foreign antigen. *London Health Research Day, London Convention Center, London, Ontario, Canada.* 2019-04-30
- 51) Parham KA, Craig HC, Jain RW and **Kerfoot SM**. Anti-MOG pre-germinal center B and T cell interactions are short-lived and distinct from those in response to a foreign antigen. *Keystone Symposia B cell-T Cell Interactions, 2019, Keystone Resort, Keystone, Colorado, USA.* 2019-02-10
- 50) <u>Tesfagiorgis</u> Y, and **Kerfoot SM**. B cell aggregates, their phenotype within the inflamed CNS, and their susceptibility to therapeutic depletion. *The 13th Annual Infection and Immunity Research Forum, Stratford, Canada*. 2018-10-11. **This abstract selected for a platform oral presentation.**

- 49) <u>Jain RW, Parham AK, Craig HC, Tesfagiorgis Y, Romanchik E, and **Kerfoot SM**. Autoreactive T cells preferentially drive differentiation of short-lived memory B cells at the expense of germinal center maintenance. *The 13th Annual Infection and Immunity Research Forum, Stratford, Canada.* 2018-10-11.</u>
- 48) Parham KA, Craig HC and **Kerfoot SM**. Pre-germinal center interactions between anti-myelin B and T cells are short-lived and distinct from those in response to a foreign antigen. *The 13th Annual Infection and Immunity Research Forum, Stratford, Canada*. 2018-10-11. **This abstract selected for a platform oral presentation. Presentation prize winner.**
- 47) <u>Jain RW, Parham AK, Craig HC, Tesfagiorgis Y, Romanchik E,</u> and **Kerfoot SM**. Autoreactive T cells preferentially drive differentiation of non-responsive memory B cells at the expense of germinal center maintenance. *Keystone Symposia B cells: Mechanisms in Immunity and Autoimmunity, International Congress Center, Dresden, Germany.* 2018-06-17
- 46) Parham KA, Craig HC and Kerfoot SM Autoimmune pre-germinal center B and T cell interactions are short-lived and distinct from those in response to a foreign antigen. Canadian Society of Immunology 2018, London, ON, Canada. 2018-05-01. This abstract selected for a platform oral presentation.
- 45) <u>Tesfagiorgis Y, Zhu S, Jain RW, **Kerfoot SM**</u>. Characterizing B and T cell infiltrates in the inflamed central nervous system of an animal model of multiple Sclerosis. *Canadian Society of Immunology 2018, London, ON, Canada.* 2018-05-01.
- 44) <u>Jain RW, Parham AK, Craig HC, Tesfagiorgis Y, Romanchik E,</u> and **Kerfoot SM**. Autoreactive T cells preferentially drive differentiation of non-responsive memory B cells at the expense of germinal center maintenance. *Canadian Society of Immunology 2018, London, ON, Canada.* 2018-05-01
- 43) Parham KA, Craig HC, Jain RW and Kerfoot SM. Characterization of pre-germinal center B and T cell interactions in auto-antigen versus foreign antigen induced immune responses. London Health Research Day, London Convention Centre, London, ON, Canada, 2018-05-10 This abstract selected for a platform oral presentation.
- 42) <u>Jain RW, Craig HC, Parham AK, Tesfagiorgis Y, Romanchik E,</u> and **Kerfoot SM**. Autoreactive B cells preferentially differentiate into unresponsive memory B cells during germinal center responses. *London Health Research Day, London Convention Center, London, ON, Canada*, 2018-05-10 **This abstract selected for a platform oral presentation.**
- 41) <u>Tesfagiorgis Y, Zhu S, Jain RW, **Kerfoot SM**</u>. Activated B Cells Participating in the Anti-Myelin Response Are Excluded from the Inflamed Central Nervous System in a Model of Autoimmunity that Allows for B Cell Recognition of Autoantigen. *London Health Research Day, London Convention Centre, London, ON, Canada*, 2018-05-10
- 40) <u>Jain RW</u>, Drysdale L, Pin CL, Dick F, and **Kerfoot SM**. Reporters for in vivo and in vitro monitoring of NFκB and NFAT signalling. *Cellular and Molecular Imaging Symposium 2018*, London, ON, 2018-05-01.
- 39) Parham KA, Craig HC and **Kerfoot SM** Autoimmune pre-germinal center B and T cell interactions are short-lived and distinct from those in response to a foreign antigen. *Cellular and Molecular Imaging Symposium 2018*, London, ON, 2018-05-01.
- 38) <u>Tesfagiorgis Y, Zhu S, Jain RW</u>, and **Kerfoot SM**. Activated B cells participating in the anti-myelin response are excluded from the inflamed central nervous system in a model of autoimmunity that allows for B cell recognition of auto-antigen. *CNS Research Day, London Ontario*, 2018-04-17.
- 37) Parham KA, Craig HC, Jain RW, and **Kerfoot SM**. Characterization of pre-germinal center T and B cell interactions in the myelin oligodendrocyte glycoprotein induced autoimmune response. *National MS Society Tykeson Fellows Conference*, Denver, United States. 2017-11-09
- 36) Laramee AS, Batista CR, Haeryfar SMM, **Kerfoot SM**, and DeKoter RP. The related Ets transcription factors Spi-B and Spi-C exert opposing roles in regulating plasma cell differentiation. *2017 Infection and Immunity Research Forum, London, ON.* 10-27-2017
- 35) <u>Tesfagiorgis Y, Zhu S, Jain R,</u> and **Kerfoot SM**. Deciphering the differences between B and T cell recruitment to the inflamed CNS. *2017 Infection and Immunity Research Forum, London, ON.* 10-27-2017
- 34) Parham KA, Jain RW, Walsh K and **Kerfoot SM**. Generation of a novel MOG_{tag} tetramer for detection of myelin oligodendrocyte glycoprotein (MOG) specific B cells. *London Health Research Day 2016, London Convention Centre, London, ON, Canada.* 28-03-2017
- 33) <u>Jain RW, Craig H, Tesfagiorgis Y, Romanchik E, and **Kerfoot SM**. Autoreactive b cells preferentially differentiate into memory b cells during germinal center responses. *London Health Research Day 2017, London Convention Centre, London, ON, Canada.* 28-03-2017.</u>

- 32) <u>Tesfagiorgis Y, Zhu SL, Jain RW</u>, and **Kerfoot SM**. (2017). Activated myelin-specific B cells, contrary to T cells, are excluded from the inflamed CNS in an animal model of central nervous system autoimmunity. *London Health Research Day 2016, London Convention Centre, London, ON, Canada.* 28-03-2017
- 31) <u>Tesfagiorgis</u> Y, <u>Zhu</u> S, and **Kerfoot SM**. B and T cells are fundamentally different in their recruitment to the inflamed CNS. *endMS Conference 2016. Toronto, ON*. Dec. 6-9, 2016
- 30) Parham K, Jain R, and **Kerfoot SM.** Generation of a novel MOG_{tag} tetramer for detection of myelin oligodendrocyte glycoprotein (MOG) specific B cells. *endMS Conference 2016. Toronto, ON.* Dec. 6-9, 2016
- 29) <u>Jain R, Craig H, Romanchik E, Tesfagiorgis Y, and Kerfoot SM</u>. Myelin Oligodendrocyte Glycoprotein specific B cells preferentially differentiate into memory B cells during germinal center responses. *endMS Conference 2016. Toronto, ON.* Dec. 6-9, 2016. **This abstract was selected for a platform oral presentation.**
- 28) **Kerfoot SM**, <u>Tesfagiorgis</u> Y, <u>Dang</u> AK, <u>Zhu</u> S, and <u>Craig</u> HC. Characterization of the activation history and antigen specificity of B cells in meningeal clusters in Central Nervous System autoimmunity. *AAI Immunology 2016. Seattle, WA*. May 13-17, 2016.
- 27) <u>Tesfagiorgis</u> Y, <u>Dang</u> AK, <u>Craig</u> HC, and **Kerfoot SM**. Characterization of the activation history and antigen specificity of B cells found within meningeal B cell clusters in central nervous system autoimmunity. *Annual meeting of the Canadian Society for Immunology, Ottawa, ON*. April 1-4, 2016
- 26) <u>Jain R, Craig H, Romanchik</u> E, and **Kerfoot SM**. T cells direct B cell fate choices during germinal center responses. *Annual meeting of the Canadian Society for Immunology, Ottawa, ON*. April 1-4, 2016
- 25) <u>Dang AK, Tesfagiorgis Y, Jain RW</u>, and **Kerfoot SM**. B cell recognition of myelin oligodendrocyte glycoprotein autoantigen depends on immunization with protein rather than short peptide, while B cell invasion of the CNS in autoimmunity does not. *2015 Keystone Symposia: Golden anniversary of B cell discovery, Banff, Alberta.* 24-03-201
- 24) <u>Jain R, Dang A, Craig H, Romanchik E, **Kerfoot SM**. Germinal center collapse and differential fate choices of cells in the anti-myelin autoimmune response. *2015 London Health Research Day, London, ON*, 01-04-2015</u>
- 23) <u>Dang</u> AK, and **Kerfoot SM.** Characterizing subsets of activated myelin-specific B cells in a murine model of central nervous system autoimmunity. *2015 London Health Research Day, London, ON, 01-04-2015*
- 22) <u>Jain R, Dang A, Craig H, Romanchik E, and **Kerfoot SM**. Germinal center collapse and differential fate choices of cells in the anti-myelin autoimmune response. *2014 Infection and Immunity Research Forum, London, ON, 2014.* 06-11-2014</u>
- 21) <u>Dang AK, Jain R, Craig H, Romanchik E. **Kerfoot SM.** Formation and early collapse of the autoimmune germinal centre. *2014 Canadian Society for Immunology Meeting, Quebec City QB.* March 6-9, 2014.</u>
- 20) <u>Dang AK, **Kerfoot SM**</u>. 2013 Characterizing subsets of activated myelin-specific B cells in a model of CNS autoimmunity. *2013 endMS conference, Saint-Sauveur, Quebec*, Dec.10-13, 2013.
- 19) <u>Jain</u> R, Heit B, **Kerfoot SM**. Determining the activation state of B and T cells during their interactions at the beginning of immune responses. *2013 Infection and Immunity Research Forum, London, ON.* Nov. 1, 2013
- 18) **Kerfoot SM.** Yaari G, Patel JR, Johnson KL, Gonzalez DG, Kleinstein SH, and Haberman AM. Interfollicular germinal center B cell and T follicular helper cell development precedes follicular Tfh maintenance. *AAI 2011, San Francisco. May 13-17, 2011*
- 17) **Kerfoot SM**, Gonzales D, Shlomchik MJ, and Haberman AM. Fate decision zones in the early germinal center response. *2010 Annual Meeting of the Canadian Society for Immunology*. April 23-26, 2010. **This presentation was selected for a platform oral presentation.**
- 16) **Kerfoot SM**, Shlomchik M, and Haberman AM. Role of FDCs in the organization of nascent germinal centers. *2009 Keystone Symposia: "B cells in Context"*. *Taos, NM*. Feb 24-Mar 1, 2009
- 15) **Kerfoot S.M.**, Szczepanik M., Tung J.W., Herzenberg L.A. and Askenase P.W. Identification of a novel subset of activation induced deaminase (AID)-dependent B-1 cells that mediate initiation of contact sensitivity. *AAI 2007, Miami Beach, FL. May 18-22, 2007.*
- 14) **Kerfoot SM**, Norman M.U. and Kubes P. Critical evaluation of adhesion molecule targeting therapy in murine models of multiple sclerosis. *AAAAI 2006, Miami Beach, FL. March 3-7, 2006.* **This presentation was selected for a platform oral presentation. Kerfoot SM was awarded the ST*AR Program Scholarship**.
- 13) **Kerfoot S.M.** and Kubes P. Evaluation of the effectiveness of anti-adhesion molecule therapy in the treatment of experimental autoimmune encephalomyelitis. *Soc. Leuko. Biol 2004. Toronto, ON. October 21-23, 2004*

- 12) **Kerfoot S.M.** and Kubes P. Pertussis toxin mediated leukocyte recruitment to the Central Nervous System is dependent on CD14 and TLR4. *EB 2003, San Diego, CA. April 11-15, 2003.* **This presentation was selected for a platform oral presentation.**
- 11) Bonder C.S., **Kerfoot S.M.**, Zbytnuik L.D., Weaver C., Bullard D. and Kubes P. T helper (Th) 1 dominated inflammation in a variety of organs recruit both Th1 and Th2 cells via different mechanisms. *FASEB J.* 2003; 17(5); A512.7
- 10) Liu L., Zbytnuik L.D., Andonegui G., Bonder C., **Kerfoot S.M.** and Kubes P. Exogenous SDF-1□ induces leukocyte recruitment in mice. *FASEB J.* 2003; 17(5); A667.3
- 9) **Kerfoot SM**, Zbytnuik L, and Kubes P. P-selectin Does Contribute to □₄-Integrin Dependent Leukocyte Recruitment to the CNS in Experimental Autoimmune Encephalomyelitis. *2002 Keystone Symposia:* "Molecular Mechanisms of Leukocyte Trafficking". Steamboat Springs, CO. April 9-14, 2002. **This** presentation was awarded a travel scholarship for Kerfoot SM.
- 8) **Kerfoot S.M.** and Kubes P. P-selectin and α_4 -Integrin Together Act to Recruit Leukocytes to the CNS in Experimental Autoimmune Encephalomyelitis. *EB 2002, New Orleans, LA*. April 20-24, 2002. **This presentation was selected for an platform oral presentation.**
- 7) **Kerfoot S.M.,** Andonegui G. and Kubes P. Pertussis toxin induces P-selectin dependent recruitment of lymphocytes to the CNS. *EB 2002, New Orleans, LA.* April 20-24, 2002. **This presentation was selected for an platform oral presentation.**
- 6) **Kerfoot SM.** and Kubes P. P-selectin and α₄-integrin together act to recruit leukocytes to the CNS in experimental autoimmune encephalomyelitis. *2001 Emerald Lake Symposium on Asthma and Hypersensitivity, Emerald Lake, BC.* Sept. 27-30, 2001. **This presentation was selected for an platform oral presentation.**
- 5) **Kerfoot SM**, Bell R, and Kubes P. Fractalkine recruits monocytes and lymphocytes from whole blood under shear conditions. *2000 MS Society of Canada Symposium, Banff, Alberta*. Dec. 2-5, 2000
- 4) **Kerfoot S.M.,** McCafferty D.M. and Kubes P. Oncostatin M is a proinflammatory mediator specific for P-selectin expression and recruitment of neutrophils. *EB, San Diego, CA. April 15-18, 2000*
- 3) **Kerfoot S.M.** and Kubes P. Fractalkine recruits monocytes, lymphocytes and neutrophils from whole blood under shear conditions. *FASEB J.* 2000; 14(4): A705. *EB, San Diego, CA. April 15-18, 2000*
- Hickey M.J., Sihota E.G., Kerfoot S., Amrani A., Santamaria P.A. and Kubes P. Roles of leukocyte and parenchyma-associated inducible nitric oxide synthase in modulation of leukocyte recruitment. FASEB J. 2000; 14(4): A403
- Fritzler M.J., Kerfoot S.M., Feasby T.E., Zochodne D.W., Westendorf J.M., Dalmau J.O. and Chan E.K.L. Autoantibodies from patients with idiopathic ataxia bind to M-phase phosphoprotein-1 (MMP-1). *In*, <u>Autoantigens Autoantibodies Autoimmunity</u>, Vol. 1, Report on the 5th Dresden symposium on Autoantibodies, October 18-21, Dresden, Germany. Conrad K, Humbel R-L, Meurer M, Shoenfeld Y, Tan E.M. (eds). Pabst Scientific Publishers, Lengerich, Germany. P. 617, 2000