

**Date Submitted:** 2018-04-14 20:49:59

**Confirmation Number:** 824497

**Template:** Full CV

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## **Dr. Shannon Kolind**

Correspondence language: English

Sex: Female

Date of Birth: 10/27

Canadian Residency Status: Canadian Citizen

Country of Citizenship: Canada

## **Contact Information**

The primary information is denoted by (\*)

### **Address**

#### Courier

UBC MRI Research Centre  
University of British Columbia  
Room M10, Purdy Pavilion  
2221 Wesbrook Mall  
Vancouver British Columbia V6T 2B5  
Canada

#### Primary Affiliation (\*)

S199 - 2211 Wesbrook Mall  
University of British Columbia  
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Work (\*) shannon.kolind@ubc.ca

Work skolind@alumni.uvic.ca

## Dr. Shannon Kolind

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### Language Skills

| Language | Read | Write | Speak | Understand | Peer Review |
|----------|------|-------|-------|------------|-------------|
| English  | Yes  | Yes   | Yes   | Yes        | Yes         |
| French   | Yes  | Yes   | Yes   | Yes        | Yes         |

### Degrees

|                 |   |
|-----------------|---|
| 2003/9 - 2009/5 | Doctorate, Doctor of Philosophy, Physics, University of British Columbia<br>Degree Status: Completed<br>Supervisors: Dr. Alex MacKay, 2003/9 - 2009/5   |
| 2001/9 - 2003/8 | Master's Thesis, Master's of Science (M.Sc.) - Masters, Physics, University of British Columbia<br>Degree Status: Completed<br>Supervisors: Dr. Alex MacKay, 2001/9 - 2003/8; Dr. Qing-San Xiang, 2001/9 - 2003/8 |
| 1996/9 - 2001/4 | Bachelor's, Bachelor's of Science (B.Sc.) with Distinction, Physics, University of Victoria<br>Degree Status: Completed   |

### Credentials

|                 |   |
|-----------------|---|
| 2011/6 - 2011/6 | General Electric Epic Pulse Programming Environment, General Electric |
| 2010/5 - 2010/5 | Siemens Idea Pulse Programming Environment, Siemens                   |
| 2004/5 - 2004/5 | Philips Pulse Programming Environment, Philips                        |

### Recognitions

|        |  |
|--------|--|
| 2013/5 | Young Investigator Award - 200 (Pound sterling)<br>International Society for Magnetic Resonance in Medicine<br>Prize / Award<br>The competition is open to clinical and basic scientists at the undergraduate, graduate, postgraduate, resident, and fellow levels working in MR research in academia, industry, or research institutions. |
| 2013/5 | Travel Award - 300 (Canadian dollar)<br>International Society for Magnetic Resonance in Medicine<br>Prize / Award<br>The ISMRM Travel Award assists members in attending the Annual Meeting.   |

- 2012/10 Travel Award - 1,500 (Canadian dollar)  
Western Pacific endMS Regional Research and Training Centre  
Prize / Award  
The Travel Award assists members in attending the Meeting.
- 2011/5 Poster Award, Finalist  
International Society for Magnetic Resonance in Medicine  
Distinction  
Finalist in the poster competition.
- 2011/5 Travel Award - 1,275 (Canadian dollar)  
Guarantors of Brain  
Prize / Award  
The Travel Award assists members in attending the Meeting.
- 2010/5 Poster Award, 2nd Place  
International Society for Magnetic Resonance in Medicine  
Distinction  
Neuroimaging
- 2010/1 Travel Award - 1,000 (Canadian dollar)  
Gordon Research Conference  
Prize / Award  
The Travel Award assists members in attending the Meeting.
- 2009/9 Travel Award - 1,285 (Canadian dollar)  
Guarantors of Brain  
Prize / Award  
The Travel Award assists members in attending the Meeting.
- 2007/5 Travel Award - 1,000 (Canadian dollar)  
International Society for Magnetic Resonance in Medicine  
Prize / Award  
The Travel Award assists members in attending the Meeting.
- 2007/3 Student Oral Presentation Award, 2nd Prize - 150 (Canadian dollar)  
WESCAN Conference  
Distinction
- 2005/5 Travel Award - 1,000 (Canadian dollar)  
International Society for Magnetic Resonance in Medicine  
Prize / Award  
The Travel Award assists members in attending the Meeting.
- 2004/5 Travel Award - 1,000 (Canadian dollar)  
International Society for Magnetic Resonance in Medicine  
Prize / Award  
The Travel Award assists members in attending the Meeting.
- 2001/1 - 2003/12 Top-Up Award - 10,000 (Canadian dollar)  
University of British Columbia  
Prize / Award
- 2000/1 Undergraduate Student Research Award - 4,000 (Canadian dollar)  
Natural Sciences and Engineering Research Council of Canada (NSERC)  
Prize / Award
- 2000/1 - 2001/12 Amoco Scholarship - 2,500 (Canadian dollar)  
Amoco  
Prize / Award

|                  |   |
|------------------|---|
| 1999/1 - 2000/12 | Criswick Award - 1,000 (Canadian dollar)<br>Criswick<br>Prize / Award                                       |
| 1999/1 - 2000/1  | Scholarship - 400 (Canadian dollar)<br>Don Ingham Memorial<br>Prize / Award                                 |
| 1999/1 - 2000/1  | Distinguished Alumni Award Scholarship - 1,000 (Canadian dollar)<br>University of Victoria<br>Prize / Award |
| 1998/1 - 1999/1  | Scholarship - 1,030 (Canadian dollar)<br>Wood's Trust<br>Prize / Award                                      |
| 1998/1 - 1999/1  | Faculty Scholarship - 500 (Canadian dollar)<br>University of Victoria<br>Prize / Award                      |
| 1998/1 - 1999/1  | Presidents Scholarship - 970 (Canadian dollar)<br>University of Victoria<br>Prize / Award                   |
| 1996/6           | Governor General's Bronze Award<br>Governor General of Canada<br>Distinction                                |

## User Profile

**Research Interests:** My primary interest is in developing new imaging tools (specifically magnetic resonance imaging) to answer clinical and biological questions. I am particularly interested in imaging techniques that are sensitive to myelin, axons, or inflammation.

**Research Specialization Keywords:** Computer Programming, Electronics, Hardware Interfacing, Imaging, Magnetic Resonance, Multiple Sclerosis, Myelin, Neurology, Pathology, Theoretical Modeling

**Research Centres:** University of British Columbia - Vancouver Campus

**Technological Applications:** Medical equipment, Monitoring and diagnostic equipment, Radiology / Imaging

**Disciplines Trained In:** Physics

**Research Disciplines:** Neurosciences, Physics

**Areas of Research:** Central Nervous System Inflammatory Diseases, Multiple Sclerosis, Neurodegenerative Diseases, Spinal Cord Diseases

**Fields of Application:** Biomedical Aspects of Human Health, Pathogenesis and Treatment of Diseases

## Employment

|        |   |
|--------|---|
| 2017/3 | Assistant Professor (Associate Member)<br>Department of Physics and Astronomy, Faculty of Science, University of British Columbia<br>Full-time<br>Tenure Status: Tenure Track |
| 2017/1 | Investigator<br>ICORD, International Collaboration on Repair Discoveries<br>Full-time<br>Tenure Status: Non Tenure Track  |

2016/4 Assistant Professor (Associate Member)  
Department of Radiology, Faculty of Medicine, University of British Columbia  
Full-time  
Tenure Status: Tenure Track

2015/7 Investigator  
Centre for Brain Health, University of British Columbia  
Full-time  
Tenure Status: Non Tenure Track

2015/7 Assistant Professor  
Department of Medicine, Division of Neurology, Medicine, University of British Columbia  
Full-time  
Tenure Status: Tenure Track

2012/1 Visiting Researcher  
Neuroimaging, Institute of Psychiatry, University of London - King's College  
Part-time  
Tenure Status: Non Tenure Track

2012/1 - 2015/6 Postdoctoral Fellow  
Medicine (Neurology), Medicine, University of British Columbia  
Full-time  
Tenure Status: Non Tenure Track

2009/4 - 2011/12 Postdoctoral Research Physicist  
Neuroimaging, Institute of Psychiatry, University of London - King's College  
Full-time  
Tenure Status: Non Tenure Track

2009/1 - 2011/12 Postdoctoral Fellow  
Nuffield Department of Clinical Neurosciences, Centre for Functional Magnetic Resonance  
of the Brain (FMRIB Centre), University of Oxford  
Full-time  
Tenure Status: Non Tenure Track

2001/9 - 2008/12 Teaching Assistant  
Physics and Astronomy, Science, University of British Columbia  
Part-time  
Tenure Status: Non Tenure Track

2001/5 - 2001/8 Research Officer  
Biophysics, Physics, PTD Technologies  
Full-time  
Tenure Status: Non Tenure Track

2000/5 - 2000/8 Research Student  
Medical Physics, Science, Simon Fraser University  
Full-time  
Tenure Status: Non Tenure Track

1999/5 - 1999/12 Research Student  
Institute for Microstructural Sciences, Science, National Research Council Canada  
Full-time  
Tenure Status: Non Tenure Track

1998/1 - 1998/4 Research Student  
Dominion Astrophysical Observatory, Science, National Research Council Canada  
Full-time  
Tenure Status: Non Tenure Track

1997/5 - 1997/8      Research Student  
 Digital Remote Sensing, Science, Pacific Forestry Centre  
 Full-time  
 Tenure Status: Non Tenure Track

## Affiliations

The primary affiliation is denoted by (\*)

2017/3                Assistant Professor, Associate Member, Physics and Astronomy, University of British Columbia

2017/1                Investigator, International Collaboration on Repair Discoveries

2016/4                Assistant Professor, Associate Member, Radiology, University of British Columbia

(\*) 2015/7            Assistant Professor, Medicine (Neurology), University of British Columbia

2015/7                Investigator, Djavad Mowafaghian Centre for Brain Health

## Research Funding History

### Awarded [n=7]

2018/1 - 2021/1      The Impact of Alemtuzumab on Cognition in People with Relapsing Forms of MS, Contract  
 Principal Investigator      Clinical Research Project?: Yes

#### Funding Sources:

2018/1 - 2021/1      Genzyme Corp.  
 Phase IV Clinical Trial Analysis  
 Total Funding - 1,233,130 (Canadian dollar)  
 Funding Competitive?: No

2018/1 - 2021/1      A prospective 24-month investigator sponsored trial to determine the course of cognitive  
 Principal Applicant      function and how it relates to MRI measures and functional connectivity in healthy controls  
 across time, Grant, Operating  
 Clinical Research Project?: Yes

#### Funding Sources:

2018/2 - 2021/2      Genzyme Corp.  
 Investigator Sponsored Study  
 Total Funding - 1,221,323 (Canadian dollar)  
 Funding Competitive?: No

2017/5 - 2020/5      Establishing an Imaging Biomarker for Disease Progression in Multiple Sclerosis, Grant,  
 Principal Investigator      Operating  
 Clinical Research Project?: Yes

#### Funding Sources:

2017/4 - 2020/4      Multiple Sclerosis Society of Canada  
 Operating Grant (Biomed)  
 Total Funding - 292,500 (Canadian dollar)  
 Funding Competitive?: Yes

2015/7 - 2018/7      The Importance of Diffusely Abnormal White Matter on Disability and Progression in  
 Co-investigator      Multiple Sclerosis: Insights from Imaging and Immunology, Grant, Operating  
 Clinical Research Project?: Yes

**Funding Sources:**

2015/7 - 2018/7 Multiple Sclerosis Society of Canada  
Operating Grant  
Total Funding - 343,727 (Canadian dollar)  
Funding Competitive?: Yes

2017/6 - 2018/4 Canadian MS Progression Cohort (Co-Pillar Lead, Co-Principal Investigator), Grant  
Principal Investigator Clinical Research Project?: Yes

**Funding Sources:**

2017/7 - 2018/5 Multiple Sclerosis Society of Canada  
MS Society of Canada-Brain Canada-Biogen MS Progression  
Cohort Planning Grant  
Total Funding - 250,000 (Canadian dollar)  
Funding Competitive?: Yes

2015/2 - 2018/2 Brain Myelin Mapping to Quantify Demyelination and Repair in MS in a Phase 3 Trial of  
Co-investigator Ocrelizumab – Open Label Extension, Contract  
Clinical Research Project?: Yes

**Funding Sources:**

2015/2 - 2018/10 F. Hoffmann-la Roche Ltd. (Basel, Switzerland)  
Phase III Clinical Trial Substudy  
Total Funding - 2,000,000 (Canadian dollar)  
Funding Competitive?: No

2015/9 - 2017/9 Determining the Efficacy of SA237 for the Prevention of New Lesion Development on MRI  
Co-investigator Compared to Placebo in Patients with Neuromyelitis Optica (NMO) and Neuromyelitis  
Optica Spectrum Disorder (NMOSD) in a Phase 3 Trial of SA237, Contract  
Clinical Research Project?: Yes

**Funding Sources:**

2015/9 - 2018/9 Chugai Biopharmaceuticals  
Phase III Clinical Trial Substudy  
Total Funding - 274,817 (Canadian dollar)  
Funding Competitive?: No

**Completed [n=14]**

2012/8 - 2016/7 Brain Myelin Mapping to Quantify Demyelination and Repair in Multiple Sclerosis in a  
Co-investigator Phase 3 Trial of Ocrelizumab, Grant, Operating  
Clinical Research Project?: Yes

**Funding Sources:**

2012/8 - 2016/7 F. Hoffmann-la Roche Ltd. (Basel, Switzerland)  
Phase III Clinical Trial Substudy  
Total Funding - 2,400,000 (Canadian dollar)  
Funding Competitive?: No

2015/1 - 2016/1 Pain in the Neck: Relationship between Cervical Spinal Cord Microstructure, Metabolite  
Collaborator Concentrations, and Neuropathic Pain after Spinal Cord Injury, Grant, Operating  
Clinical Research Project?: Yes

**Funding Sources:**

2015/1 - 2016/1 International Collaboration on Repair Discoveries (ICORD)  
Seed Grant  
Total Funding - 19,835 (Canadian dollar)  
Funding Competitive?: Yes

2013/1 - 2014/12 Developing Magnetic Resonance Spectroscopy and High Field Spinal Cord MRI as a Tool  
Collaborator for Studying the Pathology and Symptoms of Neuromyelitis Optica, Grant, Operating  
Clinical Research Project?: Yes

**Funding Sources:**

2013/1 - 2014/12 Guthy-Jackson Charitable Foundation  
Operating Grant  
Total Funding - 113,531 (United States dollar)  
Funding Competitive?: Yes

2012/1 - 2013/12 Developing Whole Brain and Spinal Cord Markers of Pathology in Neuromyelitis Optica  
Principal Applicant and Multiple Sclerosis, Fellowship

**Funding Sources:**

2012/1 - 2013/12 Michael Smith Foundation for Health Research  
Postdoctoral Fellowship  
Total Funding - 88,000 (Canadian dollar)  
Funding Competitive?: Yes

2012/7 - 2013/7 Clinically Feasible Whole-Brain Quantitative Relaxation Time Imaging With Combined  
Co-investigator Synthetic Image Generation, Grant, Operating  
Clinical Research Project?: No

**Funding Sources:**

2012/7 - 2013/7 GE Healthcare (formerly General Electric Medical Systems)  
Investigator Led Grant  
Total Funding - 150,000 (United States dollar)  
Funding Competitive?: Yes

2009/1 - 2011/12 Correlating Magnetic Resonance Changes with Clinical Multiple Sclerosis Symptoms:  
Principal Applicant Whole Brain Multi-Component Relaxation along Specific Fibre Pathways, Fellowship

**Funding Sources:**

2009/1 - 2011/12 Multiple Sclerosis Society of Canada  
Postdoctoral Fellowship  
Total Funding - 117,000 (Canadian dollar)  
Funding Competitive?: Yes

2011/1 - 2011/9 Toward Whole-CNS Myelin Mapping: Spinal Cord Myelin Imaging in Primary Progressive  
Principal Investigator Multiple Sclerosis, Grant, Operating  
Clinical Research Project?: Yes

**Funding Sources:**

2011/1 - 2011/9 Wellcome Trust (The)  
Value In People Award  
Total Funding - 25,000 (Pound sterling)  
Funding Competitive?: Yes

2010/4 - 2011/1 Establishing the Viability of Myelin Water Imaging as a Biomarker in Multiple Sclerosis;  
Principal Investigator Characterizing Differences in Myelin Water from Control Subjects, Grant, Operating  
Clinical Research Project?: Yes



**Funding Sources:**

2010/4 - 2011/1 University of Oxford (Oxford, UK)  
 John Fell OUP Research Fund  
 Total Funding - 7,117 (Pound sterling)  
 Funding Competitive?: Yes

2007/9 - 2008/9  
 Principal Applicant Research Studentship, Fellowship

**Funding Sources:**

2007/9 - 2008/9 Multiple Sclerosis Society of Canada  
 Research Studentship  
 Total Funding - 20,000 (Canadian dollar)  
 Funding Competitive?: Yes

2005/9 - 2007/9  
 Principal Applicant Killam Predoctoral Fellowship, Fellowship

**Funding Sources:**

2005/9 - 2007/9 Killam Trusts  
 Killam Predoctoral Fellowship  
 Total Funding - 50,000 (Canadian dollar)  
 Funding Competitive?: Yes

2005/9 - 2006/8  
 Principal Applicant Doctoral Research Award, Fellowship

**Funding Sources:**

2005/9 - 2006/8 Canadian Institutes of Health Research (CIHR)  
 Doctoral Research Award  
 Total Funding - 22,000 (Canadian dollar)  
 Funding Competitive?: Yes

2003/9 - 2005/8  
 Principal Applicant Canada Graduate Scholarship, Doctoral Research Award, Fellowship

**Funding Sources:**

2003/9 - 2005/8 Natural Sciences and Engineering Research Council of Canada  
 (NSERC)  
 Canada Graduate Scholarship, Doctoral Research Award  
 Total Funding - 70,000 (Canadian dollar)  
 Funding Competitive?: Yes

2001/9 - 2003/8  
 Principal Applicant Postgraduate Scholarship, Masters Research Award, Fellowship

**Funding Sources:**

2001/9 - 2003/8 Natural Sciences and Engineering Research Council of Canada  
 (NSERC)  
 Postgraduate Scholarship, Masters Research Award  
 Total Funding - 34,600 (Canadian dollar)  
 Funding Competitive?: Yes

1998/9 - 2000/8  
 Principal Applicant Women in Engineering and Science Program, Fellowship

**Funding Sources:**

1998/9 - 2000/8 National Research Council Canada (NRC) (Ottawa, ON)  
 Women in Engineering and Science Program  
 Total Funding - 33,000 (Canadian dollar)  
 Funding Competitive?: Yes

## Courses Taught

- 2017/09/05 - 2018/04/27 Supervisor, Medicine, University of British Columbia  
 Course Title: Flexible Enhanced Learning II  
 Course Code: MEDD 429  
 Course Level: Undergraduate  
 Number of Students: 1
- 2018/03/12 - 2018/04/13 Case-Based Learning Tutor, Medicine, University of British Columbia  
 Course Title: Foundations of Medical Practice II  
 Course Code: MEDD 412C  
 Course Level: Undergraduate  
 Number of Students: 8
- 2017/04/24 - 2017/05/26 Supervisor, Medicine, University of British Columbia  
 Course Title: Flexible Enhanced Learning I  
 Course Code: MEDD 419  
 Course Level: Undergraduate  
 Number of Students: 4
- 2012/01/01 - 2012/12/31 Lecturer, Masters in Science (Neuroimaging), King's College London
- 2001/09/01 - 2008/12/31 Teaching Assistant, Physics, Science, University of British Columbia

## Course Development

Organizing Committee Member, Multiple Sclerosis Society of Canada

Course Title: 2016 endMS Summer School

I was involved in developing the curriculum, coordinating speakers and workshops, and giving lectures for the 2016 edition of this annual event.

Coordinator/Developer, University of British Columbia

Course Title: Pathology 548: Foundations of the Pathogenesis, Diagnosis and Treatment of Multiple Sclerosis

I have committed to acting as a coordinator for a graduate course under development at UBC. This course will explore the state of research into multiple sclerosis with emphasis on immunology and imaging. I will be involved in curriculum development, coordinating lecturers and examinations, evaluation of the students, and lecturing.

Organizer and Moderator, University of British Columbia

Course Title: Advanced Magnetic Resonance Imaging in Multiple Sclerosis Weekly Meeting and Seminar Series

I organize and moderate this weekly meeting, which has an average of 25 attendees, all working within the world of advanced MRI as it pertains to MS research. Students, clinical fellows, junior and senior researchers participate from fields including physics, neurology, radiology, experimental medicine, computer science, statistics, etc. We alternate between update-meetings where trainees report on progress and their goals for the following 2 weeks, and short presentations of findings/results. We also practice communication such as elevator pitches.

Coordinator/Overseer, UBC MRI Research Centre  
 Course Title: 2016 EPIC Pulse Programming Course  
 Four-day course with 10 attendees from UBC learning how to program a General Electric (GE) MRI scanner. I hosted the primary instructor, Professor Gareth Barker of King's College London, organized logistics, and assisted with presenting material and working through exercises.

Overseer, University of British Columbia  
 Course Title: Magnetic Resonance Imaging Physics Weekly Meeting and Seminar Series  
 I oversee the organization of a weekly meeting (with a trainee under my supervision performing the coordination) under the theme of MRI physics. This meeting is attended by an average of 30 people with an interest in the development and application of MRI in terms of acquisition, analysis, and interpretation. Topics typically include presentation of research results, introductions to new MRI techniques, tutorials in the use of software, journal article review, and grant-writing tutorials.

## Program Development

Planning Committee Member, University of British Columbia  
 Program Title: UBC MS Connect Education Program  
 Program Description: I am on the committee for the UBC MS Connect Education Program. This program involves researchers, clinicians and trainees from a broad variety of backgrounds, all working in the field of multiple sclerosis. Currently we are determining the new direction of the program, building the curriculum and planning educational activities for the coming year.

Chair and Organizer, University of British Columbia  
 Program Title: MRI Collaboration Workshop  
 Program Description: This course was designed by local clinicians, radiologists and researchers to focus on the current and future use of clinical and advanced magnetic resonance imaging (MRI) in multiple sclerosis (MS) and white matter disorders.

## Student/Postdoctoral Supervision

### Bachelor's [n=24]

|   |  |
|---|--|
| 2017/9 - 2018/8<br>Principal Supervisor | Heather Yong (In Progress) , University of British Columbia<br>Student Degree Start Date: 2017/9<br>Thesis/Project Title: Validation of myelin specific MRI techniques<br>Present Position: Research Student                                     |
| 2017/8 - 2018/8<br>Principal Supervisor | Emilie Nevill (In Progress) , University of British Columbia<br>Student Degree Start Date: 2017/8<br>Thesis/Project Title: Linking cognition to myelin imaging<br>Present Position: Research Student   |
| 2017/5 - 2017/9<br>Principal Supervisor | Kimberley Chang (Completed) , University of British Columbia<br>Student Degree Start Date: 2017/5<br>Thesis/Project Title: Myelin as a marker for progression in Primary Progressive MS<br>Present Position: Undergraduate Medical Student (UBC) |
| 2017/5 - 2017/9<br>Principal Supervisor | Gorisha Agarwal (Completed) , Indian Institute of Technology<br>Student Degree Start Date: 2017/5<br>Thesis/Project Title: Developing better user interfaces for MS/MRI analysis tools<br>Present Position: Undergraduate Student                |

- 2016/9 - 2017/1  
Principal Supervisor Alykhan Thobani (Completed) , University of British Columbia  
Student Degree Start Date: 2016/9  
Thesis/Project Title: Programming new methods of relaxation analysis.  
Present Position: Undergraduate Student
- 2016/9 - 2017/9  
Principal Supervisor Dayna Ortner (Completed) , University of British Columbia  
Student Degree Start Date: 2016/9  
Thesis/Project Title: Applications of Advanced MRI in Clinical Trials  
Present Position: Nursing Student (UBC)
- 2016/5 - 2017/1  
Principal Supervisor Ludmila Litvin (Completed) , Technische Universität Dortmund  
Student Degree Start Date: 2016/7  
Thesis/Project Title: Radiation treatment of venous malformation - case study.  
Present Position: Undergraduate Student
- 2016/5 - 2016/8  
Principal Supervisor Alyssa Fegen (Completed) , University of British Columbia  
Student Degree Start Date: 2016/5  
Thesis/Project Title: Analyzing advanced MR of cortical grey matter in MS patients treated with Ocrelizumab or Interferon  
Present Position: Undergraduate Student
- 2016/1 - 2016/8  
Principal Supervisor Anne Matthies (Completed) , Friedrich-Alexander-Universität Erlangen-Nürnberg  
Student Degree Start Date: 2016/4  
Thesis/Project Title: Comparison of cerebellar and brainstem volume in multiple sclerosis and neuromyelitis optica.  
Present Position: Undergraduate Student
- 2016/1 - 2016/8  
Principal Supervisor Leo Sporn (Completed) , University of British Columbia  
Student Degree Start Date: 2015/12  
Thesis/Project Title: Factors Affecting GRASE Myelin Water Imaging Acquisition  
Present Position: Master's Student (UBC)
- 2015/9 - 2016/8  
Principal Supervisor Kimberley Chang (Completed) , University of British Columbia  
Student Degree Start Date: 2015/9  
Thesis/Project Title: Total Water Content Measurement Using Multi-echo T2 Relaxation  
Present Position: Undergraduate Medical Student (UBC)
- 2015/9 - 2017/8  
Principal Supervisor Lisa Lee (Completed) , University of British Columbia  
Student Degree Start Date: 2015/9  
Thesis/Project Title: Multi-centre Multi-vendor Myelin Water Imaging  
Present Position: Master's Student (UBC)
- 2015/9 - 2015/12  
Principal Supervisor Janet Lam (Completed) , University of British Columbia  
Student Degree Start Date: 2015/9  
Thesis/Project Title: Correlation between myelin imaging measurements and clinical scores in multiple sclerosis  
Present Position: Undergraduate student (University of British Columbia)
- 2015/8 - 2015/10  
Principal Supervisor Anika Wurl (Completed) , University of British Columbia  
Student Degree Start Date: 2015/8  
Thesis/Project Title: Total Water Content Measurement in Neuromyelitis Optica  
Present Position: MSc Student (Martin-Luther-University Halle-Wittenberg)
- 2015/8 - 2015/10  
Principal Supervisor Shuhan Xiao (Completed) , University of British Columbia  
Student Degree Start Date: 2015/8  
Thesis/Project Title: Total Water Content Measurement in New Lesions Over 2 Years in a Clinical Trial of Multiple Sclerosis  
Present Position: Undergraduate Student (Heidelberg University)

2015/5 - 2016/8  
Principal Supervisor Emma Eberts (Completed) , University of British Columbia  
Student Degree Start Date: 2015/5  
Thesis/Project Title: Spinal Cord Volume Measurements in Progressive Multiple Sclerosis  
Present Position: Research Assistant

2014/4 - 2017/12  
Principal Supervisor Julia Schubert (Completed) , University of British Columbia  
Student Degree Start Date: 2014/4  
Thesis/Project Title: Brain Metabolites and Myelin Content in Multiple Sclerosis  
Present Position: Research Associate, King's College London

2014/3 - 2016/7  
Principal Supervisor Alice Lee (Completed) , University of British Columbia  
Student Degree Start Date: 2014/3  
Thesis/Project Title: Neuromyelitis Optica Patient Outreach and Healthy Control Myelin Water Imaging  
Present Position: Research Assistant

2013/7 - 2013/10  
Principal Supervisor Elisabeth Baumann (Completed) , University of British Columbia  
Student Degree Start Date: 2013/7  
Thesis/Project Title: Myelin Changes in Neuromyelitis Optica Grey Matter and Lesion  
Present Position: Graduate Student, Lund University

2013/7 - 2013/10  
Principal Supervisor Clara Tabea Strunk (Completed) , University of British Columbia  
Student Degree Start Date: 2013/7  
Thesis/Project Title: Spinal Cord Myelin Water Imaging in Neuromyelitis Optica and Multiple Sclerosis  
Present Position: Undergraduate Student (University of Osnabrueck)

2013/4 - 2013/8  
Principal Supervisor Emily Campbell (Completed) , University of British Columbia  
Student Degree Start Date: 2016/5  
Thesis/Project Title: Managing clinical trial sub-study  
Present Position: Law Student, University of Toronto

2013/1 - 2013/4  
Principal Supervisor Praveena Manogaran (Completed) , University of British Columbia  
Student Degree Start Date: 2013/1  
Thesis/Project Title: Corticospinal tract integrity measured using transcranial magnetic stimulation and magnetic resonance imaging in neuromyelitis optica and multiple sclerosis  
Present Position: PhD Student (University of Zurich)

2012/5 - 2013/8  
Principal Supervisor Margarita Gorodezky (Completed) , University of British Columbia  
Student Degree Start Date: 2012/5  
Thesis/Project Title: Water content measurements using mcDESPOT  
Present Position: PhD Student (Imperial College London)

2012/5 - 2012/9  
Principal Supervisor Anna Bley (Completed) , University of British Columbia  
Student Degree Start Date: 2012/5  
Thesis/Project Title: Automated spinal cord segmentation  
Present Position: MSc Student (Humboldt University)

**Bachelor's Honours [n=3]**

2017/9 - 2018/4  
Principal Supervisor Jasmyne Kassam (In Progress) , University of British Columbia  
Student Degree Start Date: 2017/9  
Thesis/Project Title: Longitudinal change in mcDESPOT parameters besides myelin water fraction in multiple sclerosis  
Present Position: Honours Thesis Student

- 2017/9 - 2018/4  
Principal Supervisor Poljanka Johnson (In Progress) , University of British Columbia  
Student Degree Start Date: 2017/9  
Thesis/Project Title: Myelin and axonal changes in primary lateral sclerosis brain and spinal cord  
Present Position: Honours Thesis Student
- 2016/9 - 2017/5  
Principal Supervisor Adam Dvorak (Completed) , University of British Columbia  
Student Degree Start Date: 2016/9  
Thesis/Project Title: Pilot Study for Myelin Water Imaging in Cervical Spinal Cord (SCIPS)  
Present Position: Master's Student

**Master's non-Thesis [n=1]**

- 2012/2 - 2012/6  
Principal Supervisor Vignan Yogendrakumar (Completed) , University of British Columbia  
Student Degree Start Date: 2012/2  
Thesis/Project Title: Tract-based analysis of myelin in MS  
Present Position: Neurology Resident (University of Ottawa)

**Master's Thesis [n=6]**

- 2017/9 - 2019/8  
Principal Supervisor Lisa Lee (In Progress) , University of British Columbia  
Student Degree Start Date: 2017/9  
Thesis/Project Title: Role of myelin in progressive versus relapsing multiple sclerosis  
Present Position: Master's Student
- 2017/9 - 2018/9  
Co-Supervisor Anika Wurl (In Progress) , MLU Halle-Wittenberg  
Student Degree Start Date: 2017/9  
Thesis/Project Title: Diffusion basis spectrum imaging acquisition and analysis optimisation  
Present Position: Master's Student
- 2017/9 - 2019/8  
Principal Supervisor Adam Dvorak (In Progress) , University of British Columbia  
Student Degree Start Date: 2017/9  
Thesis/Project Title: Development of quantitative MRI techniques for spinal cord imaging  
Present Position: Master's Student
- 2014/9 - 2016/5  
Co-Supervisor Emil Ljungberg (Completed) , University of British Columbia  
Student Degree Start Date: 2014/9  
Student Degree Received Date: 2016/5  
Thesis/Project Title: Myelin and Axon Imaging in the Spinal Cord  
Present Position: MSc Student
- 2013/9 - 2015/8  
Co-Supervisor Praveena Manogaran (Completed) , University of British Columbia  
Student Degree Start Date: 2013/9  
Student Degree Received Date: 2015/8  
Thesis/Project Title: Mechanisms Of White Matter Injury In Multiple Sclerosis And Neuromyelitis Optica  
Present Position: PhD Student (University of Zurich)
- 2011/1 - 2012/12  
Principal Supervisor Anna Combes (Completed) , Institute of Psychiatry, King's College London  
Student Degree Start Date: 2011/1  
Student Degree Received Date: 2012/12  
Thesis/Project Title: Relationship between atrophy and clinical scores in primary progressive MS  
Present Position: PhD Student (KCL/UBC)

**Doctorate [n=3]**

- 2017/5 - 2019/5  
Principal Supervisor  
Shawna Abel (In Progress) , University of British Columbia  
Student Degree Start Date: 2017/5  
Thesis/Project Title: Cognition in MS  
Present Position: PhD Student
- 2017/1 - 2020/1  
Co-Supervisor  
Emil Ljungberg (In Progress) , King's College London  
Student Degree Start Date: 2017/2  
Thesis/Project Title: Bringing new MRI techniques to different scanner vendors  
Present Position: PhD Student
- 2014/1 - 2017/8  
Co-Supervisor  
Anna Combes (In Progress) , King's College London  
Student Degree Start Date: 2014/1  
Thesis/Project Title: Using MRI to Distinguish Neuromyelitis Optica (NMO) from MS  
Present Position: PhD Student (UBC/KCL)

**Post-doctorate [n=2]**

- 2013/10 - 2016/10  
Co-Supervisor  
Katrina McMullen (Completed) , University of British Columbia  
Student Degree Start Date: 2013/10  
Thesis/Project Title: Cognition in Multiple Sclerosis and Neuromyelitis Optica  
Present Position: Doctorate in Clinical Psychology, Department of Psychology, Institute of Psychiatry, Psychology & Neuroscience, King's College London
- 2013/1 - 2016/6  
Co-Supervisor  
Erin MacMillan (Completed) , University of British Columbia  
Student Degree Start Date: 2013/1  
Thesis/Project Title: Magnetic Resonance Spectroscopy in Neurological Disease  
Present Position: Clinical Scientist, Philips Healthcare, UBC/SFU Vancouver

**Staff Supervision**

- Number of Scientific and Technical Staff: 3  
Number of Visiting Researchers: 0  
Number of Highly Qualified Personnel in Research Training: 10  
Number of Personnel: 13  
Number of Volunteers: 0

**Event Administration**

- 2017/2 - 2017/9  
Organiser, Chair, Judge, MRI Collaboration Conference, Workshop, 2017/7 - 2017/7

**Mentoring Activities**

- 2015/7  
Student Advisor, University of British Columbia  
Number of Mentorees: 10  
I dedicate a minimum of 30 minutes per week to each trainee I supervise. We review their latest work and plan for the future. I am also available to them for further guidance as needed

- 2013/1 Mentor, University of British Columbia Hospital  
 Number of Mentorees: 1  
 Mentorees: Erin MacMillan  
 Acted as an experienced and trusted advisor in career planning, goal setting, developing contacts as well as identifying helpful resources. Mentoree is now working as a clinical scientist for a major MRI manufacturer.
- 2012/1 - 2015/8 Mentor, University of British Columbia Hospital  
 Number of Mentorees: 1  
 Mentorees: Sandra Meyers  
 Acted as an experienced and trusted advisor in career planning, goal setting, developing contacts as well as identifying helpful resources. Mentoree proceeded to a position as a Medical Physics Resident at the Princess Margaret Cancer Centre in Toronto, Canada. She became an Assistant Professor at the University of California San Diego in 2017.

## Journal Review Activities

- Reviewer, Journal of Neurology, Neurosurgery, and Psychiatry  
 Reviewer, Scientific Reports  
 Reviewer, Clinical Neurology and Neurosurgery  
 Reviewer, Magnetic Resonance in Medicine  
 Reviewer, NMR in Biomedicine  
 Reviewer, Medical Physics  
 Reviewer, PlosOne  
 Reviewer, NeuroImage  
 Reviewer, Biomedical Engineering  
 Reviewer, Neurobiology of Aging  
 Reviewer, Neuroimage Clinical  
 Reviewer, Journal of Magnetic Resonance Imaging  
 Reviewer, Brain Research  
 Reviewer, Archives of Ophthalmology

## Conference Review Activities

- 2017/2 Session Moderator, ISMRM White Matter Study Group Workshop: Quantitative MRI in White Matter Disorders: Useful, Usable, Used?
- 2017/2 Judge, ISMRM White Matter Study Group Workshop poster competition
- 2016/5 Session Moderator, ISMRM: White Matter Changes Across the Lifespan
- 2016/4 Facilitator, Imaging Modalities and Basic Science Research of the MS Disease State (Satellite Meeting to 68th Annual American Academy of Neurology Meeting, Vancouver, Canada)
- 2015/1 Session Moderator, ISMRM: Microstructure in CNS
- 2013/6 Judge, UBC Experimental Medicine Poster Competition
- 2010/1 Judge, ISMRM White Matter Study Group Student Poster Competition



## Graduate Examination Activities

2011/4 - 2011/4      Examiner, Douglas Dean III, Engineering, Brown University

## Research Funding Application Assessment Activities

External Reviewer, Multiple Sclerosis Society of Great Britain and Northern Ireland, Organization, Academic Reviewer

External Reviewer, University of Missouri Spinal Cord Injuries Research Program, Organization, Academic Reviewer

## Event Participation

2017/5      Participant, Sociabank Walk to End MS

2015/11      Organizer, 2016 endMS Summer School, Vancouver, BC.  
Determine the curriculum, invite speakers, give lectures, coordinate schedules.

2015/1      Organizer, Women Against MS luncheon  
Volunteer, organize trainee volunteers, event planning and preparation, assistance with lead-up events, day-of-event activities.

2013/10      Organizer, Vancouver Neuromyelitis Optica Day  
Volunteer and organizer for entire event; including preparation and day-of event activities.

2013/10      Team Captain, endMS Snapquest Fundraiser for the MS Society of Canada  
Top point earner and top 3 fundraiser for the event.

## Community and Volunteer Activities

2018/1      Presenter, Various Secondary Schools  
We have recently started organizing science days for secondary school students, typically in grade 10, to visit UBC. Students see presentations by scientists in the Djavad Mowafaghian Centre for Brain Health, tour laboratories, and interact with graduate students and scientists. Our first experience with over 100 students from the Prince of Wales Secondary School on January 22nd, 2018 was a great success. This experience will be repeated at least twice more with other schools this year, dates to be determined.

2017/3      Mentor, Wonder Women Networking Evening (Society for Women in Science and Technology)  
This evening connects young science, technology and engineering enthusiasts with mentors in a range of fields and is set to inspire the next generation of female scientists. I acted as a mentor with a physics background to talk with participants about what career pathways they can take with a degree in physics.

2014/12      Organizing Committee, Women Against Multiple Sclerosis (MS Society of Canada)  
I am on the organizing committee for events and fund raisers for Women Against MS. This involves planning events, volunteering at the events themselves, and following up with participants.

2013/1      Organizing Committee, Patient Information Days  
I am involved in planning and executing several patient outreach events, including information days for people living with neuromyelitis optica, research participant days, and charity walks.

- 2012/9                   Presenter, Various Elementary Schools  
Along with some of my trainees, I regularly visit elementary school classrooms and introduce fun with physics, with a particular focus on medical research and often emphasising women in science.
- 2015/8 - 2016/8       Organizing Committee, MS Society of Canada endMS Summer School  
3-day conference with ~30 trainees working in multiple sclerosis research across Canada. I was on the organizing committee, gave a lecture, gave tours, and interacted with attendees throughout the conference. **Mean evaluation score (out of 5): 4.7**

## Knowledge and Technology Translation

- 2016/10               Co-Director, Technology Transfer and Commercialization  
Activity Description: I am a co-director, along with Dr. Roger Tam, of MS/MRI. The MS/MRI research group is dedicated to providing innovative and reliable advanced and conventional imaging biomarkers for multiple sclerosis clinical trials and research. We strive to meet international regulatory standards for good clinical practice. We have adopted standard operating procedures and quality assurance systems that meet current standards, compliant with FDA, Health Canada, and Vancouver Coastal Health Research Institute Policies and Procedures. As co-director, I have instigated new projects, applied for contracts, implemented a quality system, and undergone qualification for future work. This entity will be instrumental to making my imaging work accessible to large research studies and corporate work.
- 2014/9               Consortium Member, Policy/Regulation Development  
Group/Organization/Business Serviced: North American Imaging in Multiple Sclerosis Consortium  
Target Stakeholder: Academic Personnel  
Outcome / Deliverable: As a member of the North American Imaging in MS Consortium, I participate in workshops shaping recommendations for best practice of MRI in MS research and clinical practice, and multi-centre studies.  
Activity Description: As a member of the North American Imaging in Multiple Sclerosis (NAIMS) consortium, I participate in multi-centre efforts to standardise MRI protocols, perform multi-centre studies, and form a consensus on issues such as diagnostic criteria. As a member I have attended meetings during international conferences, as well as a dedicated workshop in 2015 titled "The role of central vein lesions in MS" and in 2016 titled "Imaging Outcome Measures for Proof-of-Concept Clinical Trials Assessing Neuroprotection and/or Repair in MS" where I gave an invited presentation.
- 2013/1               Organizing Committee Member and Presenter, Community Engagement  
Activity Description: I am involved in planning and executing several patient outreach events through our clinics, including information days for people living with multiple sclerosis or neuromyelitis optica, research participant days, and charity walks. The opportunity to present the research we have been conducting to the people living with these diseases is incredibly rewarding, and the feedback from participants is very helpful for planning future steps.

- 2008/11      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: Acorda Therapeutics  
 Target Stakeholder: Industry/Business-Medium (100 to 500 employees)  
 Outcome / Deliverable: Neuro Imaging & Optic Measures Advisory Board Meeting  
 Activity Description: I frequently consult on clinical trial design for industry partners. I have participated on several advisory boards for pharmaceutical companies and MRI scanner manufacturers. The impact of this interaction is direct influence on the outcomes used in clinical trials; direct influence on which new MRI sequences will become available to the community; funding international clinical trial research substudies; building networks; and communicating results with knowledge users and decision makers.
- 2017/3 - 2017/3      Mentor, Community Engagement  
 Group/Organization/Business Serviced: Wonder Women Networking Evening  
 Target Stakeholder: General Public  
 Outcome / Deliverable: Mentorship to young women interested in scientific careers  
 Evidence of Uptake/Impact: Formed new collaborations and recruited a graduate student  
 References / Citations / Web Sites: makepossible.ca  
 Activity Description: I act as a mentor at the Wonder Women Networking Evening through the Society for Women in Science and Technology (SCWIST). This evening connects young science, technology and engineering enthusiasts with mentors in a range of fields and is set to inspire the next generation of female scientists. I act as a mentor with a physics background to talk with participants about what career pathways they can take with a degree in physics.
- 2015/11 - 2015/11      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: Vertex Pharmaceuticals  
 Target Stakeholder: Industry/Business (>500 employees)  
 Outcome / Deliverable: Remyelination Advisory Board
- 2015/5 - 2015/5      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: Genzyme Corporation  
 Target Stakeholder: Industry/Business (>500 employees)  
 Outcome / Deliverable: MS Neuropreservation Advisory Board
- 2014/6 - 2014/6      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: Genzyme Corporation  
 Target Stakeholder: Industry/Business (>500 employees)  
 Outcome / Deliverable: Neuroprotection in MS Advisory Board
- 2012/10 - 2012/10      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: F. Hoffmann-La Roche  
 Target Stakeholder: Industry/Business (>500 employees)  
 Outcome / Deliverable: Ocrelizumab: Magnetic Resonance and Nuclear Medicine Imaging Advisory Board
- 2011/11 - 2011/11      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: General Electric  
 Target Stakeholder: Industry/Business (>500 employees)  
 Outcome / Deliverable: Multiple Sclerosis Diagnosis: Improving Patient Management Through Better Technology
- 2011/1 - 2011/1      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: Novartis and General Electric  
 Target Stakeholder: Industry/Business (>500 employees)  
 Outcome / Deliverable: Novartis/GE Advisory Meeting

2008/9 - 2008/9      Advisory Board Member, Consultation Service  
 Group/Organization/Business Serviced: Philips MR Musculoskeletal Imaging Council  
 Target Stakeholder: Industry/Business (>500 employees)  
 Outcome / Deliverable: Metal Artefact Reduction  
 Activity Description: Metal Artefact Reduction

## Committee Memberships

2017/11      Committee Member, PhD Committee Membership - Jessie Fu, University of British Columbia

2017/9      Committee Member, PhD Committee Membership - Sun Nee Tan, University of British Columbia

2017/6      Committee Member, UBC MRI Centre Scanner Operator Level of Ability Committee, University of British Columbia

2017/6      Committee Member, UBC MRI Research Centre Core Group, University of British Columbia

2017/1      Committee Member, PET/MR Selection Committee, University of British Columbia

2017/1      Committee Member, Women Against MS, MS Society of Canada

2017/1      Committee Member, PhD Committee Membership - Jiayue Cai, University of British Columbia

2016/1      Committee Member, MRI Scanner Selection Committee, University of British Columbia

2016/1      Committee Member, UBC MS Program Organizing Committee, University of British Columbia Hospital

2016/1      Committee Member, PhD Committee Membership - Robert Baumeister, University of British Columbia

2016/1 - 2017/3      Committee Member, ISMRM White Matter Study Group Workshop, ISMRM Committee member (posters), Judge (poster competition), Moderator

2016/1 - 2016/9      Committee Member, MS Summer School, University of British Columbia

2016/1 - 2016/2      Committee Member, Hiring Committee, University of British Columbia  
 Involved in the hiring process for a candidate in the Division of Neurology at UBC, interviewing the candidate and providing a report.

2010/1 - 2011/12      Committee Member, ISMRM White Matter Study Group Workshop, ISMRM Member of the organizing committee

2009/1 - 2010/12      Committee Member, White Matter Study Group, ISMRM Student Representative

2000/1 - 2001/12      Committee Member, Physics and Astronomy Student Society, University of Victoria  
 Elected Executive

## Other Memberships

- 2015/4 Consortium Member, North American Imaging in Multiple Sclerosis Consortium  
As a member of the NAIMS consortium, I participate in multi-centre efforts to standardise MRI protocols, perform multi-centre studies, and form a consensus on issues such as diagnostic criteria. As a member I have attended meetings during international conferences, as well as a dedicated workshop in 2015 titled "The role of central vein lesions in MS" and in 2016 titled "Imaging Outcome Measures for Proof-of-Concept Clinical Trials Assessing Neuroprotection and/or Repair in MS" where I gave an invited presentation.

## Presentations

1. (2018). PHYSICS! And Brains. And MRI. And MS. UBC Prince of Wales Secondary School Science Day, Vancouver, Canada  
Main Audience: General Public  
Invited?: Yes, Keynote?: No
2. (2018). Advanced MRI. MS Society of Canada UBC tour, Vancouver, Canada  
Main Audience: Decision Maker  
Invited?: Yes, Keynote?: No
3. (2018). Myelin Water Imaging for Quantitative MRI in Multiple Sclerosis and other Neurological Diseases. Imaging Sciences Visiting Scholars Lecture, Seattle, United States  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: Yes
4. (2017). Myelin-specific MRI for in vivo spinal cord. Invited Presentation for the ICORD Seminar Series, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes
5. (2017). Imaging Advances In Neuromyelitis Optica Spectrum Disorders (NMOSD). Invited Guest Presentation for the Department of Diagnostic and Interventional Neuroradiology, Dresden University Hospital, Dresden, Germany  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: Yes
6. (2017). Myelin-Specific MRI. Invited Presentation for the Department of Physics and Astronomy, University of British Columbia, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes
7. (2016). Resolution of Chronic White Matter Lesions. Invited Presentation for the North American Imaging in MS (NAIMS) Workshop: Imaging Outcome Measures for Proof-of-Concept Clinical Trials Assessing Neuroprotection and/or Repair in MS, Toronto, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
8. (2016). Advanced MRI in a Phase III Clinical Trial for MS. Invited Presentation for UBC Neuroscience Grand Rounds, Vancouver, Canada  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: No

9. (2016). Advanced MRI in a Phase III Clinical Trial for MS. Invited Presentation for the UBC MRI Research Centre Retreat, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
10. (2016). Advanced MRI. Roche Tour of the Djavad Mowafaghian Centre for Brain Health, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
11. (2016). Advanced MRI. MS Society of Canada Summer School, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
12. (2016). Assessing Neuroprotection and Repair with Alemtuzumab. Invited Presentation for Genzyme Corporation, Boston, United States  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: No
13. (2016). Myelin Water Imaging. Invited Presentation for Acorda Therapeutics Neuro Imaging & Optic Measures Advisory Board Meeting, Rye Brook, United States  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: No
14. (2016). Advanced MRI Measures. Research Participant Day for Clinical Trials, University of British Columbia, Vancouver, Canada  
Main Audience: General Public  
Invited?: Yes, Keynote?: No
15. (2016). Advanced MRI. MS Society of Canada Tour of the Djavad Mowafaghian Centre for Brain Health, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
16. (2016). Advanced MRI. Biogen Tour of the Djavad Mowafaghian Centre for Brain Health, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
17. (2016). Myelin Water Imaging in Neuromyelitis Optica. UBC MS Connect Seminar, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
18. (2015). Advancing MRI Beyond Anatomical Assessment. University of British Columbia Radiology Grand Rounds, Vancouver, Canada  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: Yes
19. (2015). Myelin-Specific MRI: From Development to Application in Clinical Trials. Invited oral presentation for University of Manitoba, Winnipeg, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes
20. (2015). MRI Evidence for Neuroprotection with Alemtuzumab in MS: Myelin Water Fraction. MS Neuroprotection Advisory Board, Paris, France  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: No

21. (2015). Advanced MRI. Preceptorship on Advances in Multiple Sclerosis (MS) and Neuro-Myelitis Optica (NMO), Vancouver, Canada  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: No
22. (2015). Advanced MRI in MS Clinical Trials. Invited Oral Presentation for the University of British Columbia MRI Research Groups 9th Annual Retreat, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
23. (2014). Myelin-Related Advanced MRI Demonstrates Different Degrees of Change Between Various White Matter Tracts in MS. American Academy of Neurology Annual Meeting, Philadelphia, United States  
Main Audience: Researcher  
Invited?: No, Keynote?: No
24. (2014). Demyelination and Remyelination of CNS: Non-Conventional Neuroimaging. Invited Oral Presentation at the Neuroprotection in Multiple Sclerosis Advisory Board, Paris, France  
Main Audience: Decision Maker  
Invited?: Yes, Keynote?: No
25. (2014). Scientific art “Joy of MRI Cooking” for the Great Italian Food and Art Challenge. Display visited by several thousand registrants (1st Prize). International Society for Magnetic Resonance in Medicine 23rd Scientific Meeting and Exhibition, Milan, Italy  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
26. (2014). Myelin Water Imaging of Demyelinating Diseases. Invited Oral Presentation at Colorado Children's Hospital, University of Colorado Denver, United States  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes
27. (2014). Imaging Myelin in the Spinal Cord. Advanced Spinal Cord Imaging in MS Symposium, Toronto, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
28. (2013). Magnetic Resonance Imaging in MS. UBC MS Clinical Trials Group Retreat, Whistler, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
29. (2013). Advanced MRI Imaging Techniques in the Phase III Ocrelizumab ORCHESTRA Programs in Patients with MS at the University of British Columbia. Invited Oral Presentation for F. Hoffmann-la Roche Ltd, Basel, Switzerland  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: No
30. (2013). mcDESPOT in PPMS Brain & Spinal Cord Describes Both Cognitive & Motor Impairment. ISMRM Workshop on Multiple Sclerosis as a Whole-Brain Disease, London, United Kingdom  
Main Audience: Researcher  
Invited?: No, Keynote?: No
31. (2013). New – and Fast – Ways to Image Myelin. Invited Oral Presentation at the Blizard Institute, Barts and The London School of Medicine & Dentistry, London, United Kingdom  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
32. (2012). Are There Better Ways Than DTI to Image White Matter?. Invited oral presentation for British Columbia Children's Hospital, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No

33. (2012). Differentiating Between Primary Progressive Multiple Sclerosis and Primary Lateral Sclerosis Using Multi-Component Relaxation. European Society for the Magnetic Resonance in Medicine and Biology 29th Annual Meeting, Lisbon, Portugal  
Main Audience: Researcher  
Invited?: No, Keynote?: No
34. (2012). Myelin Water Imaging Using mcDESPOT in Neurodegenerative Disease. endMS Network, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
35. (2011). Relaxometry. Advanced Neuroimaging Seminar for Department of Neuroimaging, Institute of Psychiatry, King's College London, London, United Kingdom  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
36. (2011). Multi-Component Relaxation: Basic Techniques and Applications. International Workshop on Advanced White Matter Imaging, Reykjavik, Iceland  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
37. (2011). Multi-Component Relaxation: Basic Techniques and Applications. GE/Novartis advisory meeting, London, United Kingdom  
Main Audience: Decision Maker  
Invited?: Yes, Keynote?: No
38. (2011). Myelin Water Imaging In Vivo. Invited Oral Presentation for Imperial College Centre for the Developing Brain, London, United Kingdom  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
39. (2011). Myelin Water Imaging with Applications in Multiple Sclerosis. Novartis MS Innovation Exchange Session at the European Congress of the Committee for the Treatment and Research in Multiple Sclerosis, Amsterdam, Netherlands  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
40. (2010). Latest Physics Developments in MRI – What Might These Offer?. Multiple Sclerosis Diagnosis: Improving Patient Management Through Better Technology Meeting, London, United Kingdom  
Main Audience: Decision Maker  
Invited?: Yes, Keynote?: No
41. (2010). Spinal Cord Imaging in Multiple Sclerosis. 21st Annual Oxbridge Neurology Meeting, Oxford, United Kingdom  
Main Audience: Researcher  
Invited?: Yes
42. (2010). Myelin Water Imaging in MS. Invited Oral Presentation at Oxford Demyelinating Diseases Research Group, Oxford, United Kingdom  
Main Audience: Researcher  
Invited?: Yes
43. (2010). Rapid Three-Dimensional Myelin Water Fraction Imaging of the Cervical Spinal Cord. International Society for Magnetic Resonance in Medicine 18th Scientific Meeting and Exhibition, Stockholm, Sweden  
Main Audience: Researcher
44. (2010). Correlating Magnetic Resonance Changes with Multiple Sclerosis Symptoms: Whole Brain Multi-Component Relaxation along Specific Fibre Pathways. endMS Research Conference, Whistler, Canada  
Main Audience: Researcher



45. (2010). Multi-Component Relaxometry in Motor Neuron Disease. 1st Neuroimaging Symposium in ALS, Oxford, United Kingdom  
Main Audience: Researcher
46. (2009). Rapid In Vivo Multi-Component Relaxation Imaging of the Spinal Cord. British Chapter of the International Society for Magnetic Resonance in Medicine 15th Annual Meeting, Cardiff, United Kingdom  
Main Audience: Researcher
47. (2009). Audiovisual performance “Fruition: The Return” for Sounds and Visions of MR – The Return of Aloha. Plenary Session attended by several thousand registrants. International Society for Magnetic Resonance in Medicine 17th Scientific Meeting and Exhibition, Honolulu, United States  
Main Audience: Researcher
48. (2008). Complementary Information from Two Magnetic Resonance Imaging Techniques Reveals Differences between Multiple Sclerosis Lesions. 30th Annual WESCAN Meeting, Vancouver,  
Main Audience: Researcher
49. (2006). Identification of Destructive Lesions in Multiple Sclerosis: Complimentary Insights from Diffusion and T2 Relaxation. 23rd Annual Meeting of the European Society of Magnetic Resonance in Medicine and Biology., Warsaw, Poland  
Main Audience: Researcher
50. (2006). Audiovisual performance “Magnetic Beats” for Sounds and Visions of MR – Reloaded. Plenary Session attended by several thousand registrants. International Society for Magnetic Resonance in Medicine 14th Scientific Meeting and Exhibition, Seattle, United States  
Main Audience: Researcher
51. (2005). Correlation of Diffusion Measures with Multicomponent T2-Relaxation Data in Multiple Sclerosis Lesions and Normal Appearing White Matter. 13th Annual Meeting of the International Society of Magnetic Resonance in Medicine, Miami,  
Main Audience: Researcher

## Text Interviews

- |            |  |
|------------|--|
| 2016/04/01 | New MRI technique could help improve therapeutics for MS, Chronicle of Neurology + Psychiatry  |
| 2016/01/15 | Researcher Profile, Djavad Mowafaghian Centre for Brain Health, Djavad Mowafaghian Centre for Brain Health Newsroom<br>Description / Contribution Value: <a href="http://www.centreforbrainhealth.ca/news/2016/01/15/bridging-gap-between-imaging-research-and-patient-care-ms">http://www.centreforbrainhealth.ca/news/2016/01/15/bridging-gap-between-imaging-research-and-patient-care-ms</a> |
| 2016/01/15 | Bridging the gap between imaging research and patient care in MS, Djavad Mowafaghian Centre for Brain Health Newsroom<br><a href="http://www.centreforbrainhealth.ca/news/2016/01/15/bridging-gap-between-imaging-research-and-patient">http://www.centreforbrainhealth.ca/news/2016/01/15/bridging-gap-between-imaging-research-and-patient</a>   |
| 2015/11/20 | MS Researcher Profile, Women Against MS, Word on WAMS (MS Society of Canada webpage, 2015)<br>Description / Contribution Value: <a href="http://mssoc.convio.net/site/PageNavigator/Misc/BCY/WAMS_BC_Y_News.html">http://mssoc.convio.net/site/PageNavigator/Misc/BCY/WAMS_BC_Y_News.html</a>  |

## Publications

### Journal Articles

1. Yoo Y, Tang L, Brosch T, Li DKB, Kolind S, Vavasour I, Rauscher A, MacKay A, Trabousee A, Tam R. (2018). Deep Learning of Joint Myelin and T1w MRI features in normal-appearing brain tissue to distinguish between multiple sclerosis patients and healthy controls. *NeuroImage: Clinical*. 17: 169-178.  
Co-Author  
Published,  
Refereed?: Yes
2. Meyers SM, Kolind SH, MacKay AL. (2017). Simultaneous measurement of total water content and myelin water fraction in brain at 3T using a T2 relaxation based method. *Magnetic Resonance Imaging*. 37: 187-194.  
Co-Author  
Published,  
Refereed?: Yes
3. Vavasour I, Huijskens S, Li DKB, Trabousee A, Maedler B, Kolind S, Rauscher A, Moore GRW, MacKay A, Laule C.(2017). Global loss of myelin water over 5 years in multiple sclerosis normal appearing white matter. *Multiple Sclerosis Journal*. EPUB Ahead of Print: 1-12.  
Co-Author  
In Press,  
Refereed?: Yes
4. Combes AJE, Matthews L, Lee JS, Li DKB, Carruthers R, Trabousee AL, Barker GJ, Palace J, Kolind S. (2017). Cervical cord myelin water imaging shows degenerative changes over one year in multiple sclerosis but not neuromyelitis optica spectrum disorder. *Neuroimage Clinical*. 16: 17-22.  
Last Author  
Published,  
Refereed?: Yes
5. Yoo Y, Tang LYW, Kim S, Kim HJ, Lee LE, Li DKB, Kolind S, Trabousee A, Tam R.(2017). Hierarchical multimodal fusion of deep-learned lesion and tissue integrity features in brain MRIs for distinguishing neuromyelitis optica from multiple sclerosis. *The Medical Image Computing and Computer Assisted Intervention Society (MICCAI)*.  
Co-Author  
In Press,  
Refereed?: Yes
6. Yoo Y, Tang LYW, Li DKB, Metz L, Kolind S, Trabousee AL, Tam R. (2017). Deep learning of brain lesion patterns and user-defined clinical and MRI features for predicting conversion to multiple sclerosis from clinically isolated syndrome. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization*.  
Co-Author  
In Press,  
Refereed?: Yes
7. Ljungberg E, Vavasour I, Tam R, Yoo Y, Rauscher A, Li DKB, Trabousee A, MacKay A, Kolind S.(2017). Rapid Myelin Water Imaging in Human Cervical Spinal Cord. *Magnetic Resonance in Medicine*. 78(4): 1482-1487.  
Last Author  
Published,  
Refereed?: Yes

8. Liu H, MacMillan EL, Jutzeler CR, Ljungberg E, MacKay AL, Kolind SH, Mädler B, Li DKB, Dvorak MF, Curt A, Laule C, Kramer JLK.(2017). Assessing structure and function of myelin in cervical spondylotic myelopathy: Evidence of demyelination.Neurology. 89(6): 602-610.  
Co-Author  
Published,  
Refereed?: Yes
9. Thomas AG , Dennis A , Rawlings NB , Stagg CJ , Matthews L , Morris M , Kolind SH , Foxley S , Jenkinson M , Nichols TE , Dawes H , Bandettini PA , Johansen-Berg H. (2016). Multi-modal characterization of rapid anterior hippocampal volume increase associated with aerobic exercise.NeurolImage. 131: 162-70.  
Co-Author  
Published,  
Refereed?: Yes
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