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Date Submitted: 2017-03-30 11:59:00
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Template: CIHR Academic

Dr. Timothy Bardouille

Correspondence language: English
Sex: Male
Date of Birth: 9/04
Canadian Residency Status: Canadian Citizen
Country of Citizenship: Canada, United Kingdom

Contact Information

The primary information is denoted by (*)

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Website

Corporate	www.bioticimaging.ca

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Canadian Common CV commun canadien

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Dr. Timothy Bardouille

Language Skills

Language	Read	Write	Speak	Understand
English	Yes	Yes	Yes	Yes
French	No	No	No	No

User Profile

Disciplines Trained In: Neurosciences

Research Disciplines: Neurosciences, Computer Science, Applied Mathematics, Physics, Physiotherapy

Areas of Research: Cognition, Algorithms, Learning and Memory, Plasticity / Neuronal Regeneration, Rehabilitation

Fields of Application: Biomedical Aspects of Human Health

Research Specialization Keywords: connectivity, cortical oscillations, magnetoencephalography, neurorehabilitation, neuroscience

Degrees

2005/1 - 2010/4
Doctorate, Doctorate, Medical Sciences, University of Toronto
Degree Status: Completed
Supervisors: Dr. Bernhard Ross; Terry Picton

1997/9 - 1999/5
Master's Thesis, Masters of Science - Masters, Physics, Dalhousie University
Degree Status: Completed
Supervisors: Dr. Gerhard Stroink

1993/9 - 1997/5
Bachelor's Honours, Bachelor's of Science, Physics, Queen's University at Kingston
Degree Status: Completed

Recognitions

2011/1
Discovery Award for Innovation - 0
Discovery Centre - Halifax
Distinction

Employment

2013/4
Research Scientist
IWK Health Centre

2014/9 - 2019/9	Adjunct Professor Psychology and Neuroscience, Dalhousie University
2012/1 - 2017/1	Adjunct Professor Computer Science, Dalhousie University
2012/1 - 2017/1	Adjunct Professor Physiotherapy, Dalhousie University
2010/3 - 2013/3	Research Officer National Research Council Canada
2002/10 - 2010/3	MEG Physicist-Programmer Baycrest Centre for Geriatric Care
2000/1 - 2002/10	Physicist CTF Systems Inc
1996/5 - 1997/9	Research Assistant Physics, Queen's University at Kingston

Affiliations

The primary affiliation is denoted by (*)

(*) 2010/10	Scientific Staff, Diagnostic Imaging, IWK Health Centre

Leaves of Absence and Impact on Research

2004/5 - 2004/10	Parental, Baycrest Centre for Geriatric Care Parental leave

Research Funding History

Awarded [n=23]

2014/10 - 2019/10
Co-applicant

Developing Pushbutton MRI Technologies for the Clinical Environment

Co-applicant : Chris Bowen; Lauren Petley; Sharon Clarke; Xiaowei Song;

Principal Applicant : Steven Beyea

Funding Sources:

2014/10 - 2019/10 Atlantic Canada Opportunities Agency
Atlantic Innovation Fund
Total Funding - 2,988,419 (Canadian dollar)
Funding Competitive?: Yes

2016/10 - 2018/10
Co-applicant

Cognitive dysfunction in systemic lupus erythematosus: a pilot neuroimaging study

Co-applicant : Alon Friedman; John Fisk; Steven Beyea; Tonya Omisade;

Principal Applicant : John Hanly

Funding Sources:

2016/12 - 2018/12 Capital District Health Authority (The) (CDHA) (Nova Scotia)
Category Two
Total Funding - 15,000 (Canadian dollar)
Funding Competitive?: Yes

2015/7 - 2018/6
Co-applicant

BIOTIC: The BIOmedical Translational Imaging Centre

Co-applicant : Chris Bowen; James Rioux; Kim Brewer; Lauren Petley; Steve Patterson;

Principal Applicant : Steven Beyea

Funding Sources:

2015/7 - 2018/6 Brain Canada
Platform Support Grant
Total Funding - 230,154 (Canadian dollar)
Funding Competitive?: Yes

2017/4 - 2018/4
Co-applicant

Interocular inhibition: an opportunity to determine how binocular integration is taking place within the various visual areas of the occipital cortex

Co-applicant : Mike Craig;

Principal Applicant : Francois Tremblay

Funding Sources:

2016/11 - 2017/11 IWK Health Centre (Halifax, NS)
Category A
Total Funding - 5,000 (Canadian dollar)
Funding Competitive?: Yes

2017/1 - 2018/1
Principal Applicant

Establishing Multi-Vendor Reproducibility of Imaging Neural Networks with Magnetoencephalography (MEG): Towards Future Multi-Site Trials

Co-applicant : Ben Dunkley; Margot Taylor

Funding Sources:

2016/10 - 2017/10 IWK Health Centre (Halifax, NS)
Category B
Total Funding - 14,455 (Canadian dollar)
Funding Competitive?: Yes

2016/10 - 2017/10
Co-applicant

Creating a New Algorithm for Data-Driven Processing of Resting-State fMRI Networks

Co-applicant : Javeria Hashmi;

Principal Applicant : Steven Beyea

Funding Sources:

2015/12 - 2016/12 Capital District Health Authority (The) (CDHA) (Nova Scotia)
Radiology Research Fund
Total Funding - 5,000 (Canadian dollar)
Funding Competitive?: Yes

2016/4 - 2017/4
Co-applicant

Promotus – Towards Movement: Translating a wearable technology for brain recovery from the lab to the customer

Co-applicant : Denise Lalanne; Matthew MacLellan;

Principal Applicant : Shaun Boe

Funding Sources:

2016/4 - 2017/4 InNOVAcorp (Nova Scotia)
Early Stage Commercialization Grant
Total Funding - 40,000 (Canadian dollar)
Funding Competitive?: Yes

2014/1 - 2017/1
Principal Applicant

Functional Imaging of Recovery in Pediatric Traumatic Brain Injury

Co-investigator : Ismail Mohamed; Kevin Gordon; Lauren Petly; Patrick McGrath;

Principal Applicant : Aaron Newman

Funding Sources:

2014/1 - 2017/1 Nova Scotia Health Research Foundation (NSHRF)
Total Funding - 145,976 (Canadian dollar)
Funding Competitive?: Yes

2014/8 - 2016/8
Co-investigator

Motor imagery with neurofeedback: establishing feasibility in patients post-stroke

Co-applicant : Gail Eskes;

Principal Applicant : Shaun Boe

Funding Sources:

2014/9 - 2015/9 Capital Health (Nova Scotia)
Category 2 Research Fund
Total Funding - 15,000 (Canadian dollar)
Funding Competitive?: Yes

2015/11 - 2016/7
Principal Applicant

Staying A Head of the Game: Developing an Advanced Head Tracking System for Clinical and Research Applications

Co-applicant : Denise Lalanne; Manjari Murthy; Matthew MacLellan; Santosh Vema Krishna Murthy; Steven Beyea

Funding Sources:

2015/11 - 2016/7 InNOVAcorp (Nova Scotia)
Early Stage Commercialization Grant
Total Funding - 47,773 (Canadian dollar)
Funding Competitive?: Yes

2014/2 - 2016/2
Principal Applicant

Research Associateship Grant

Co-applicant : Manjari Murthy

Funding Sources:

2014/2 - 2016/2 IWK Health Centre (Halifax, NS)
Total Funding - 39,500 (Canadian dollar)
Funding Competitive?: Yes

2013/1 - 2016/1
Co-investigator

Determination of the brain networks involved with resting and reflex-mediated cardiovascular control in humans: Influence of Sex and Healthy Ageing

Co-investigator : Ryan D'Arcy;

Principal Investigator : Derek Kimmerly

Funding Sources:

2013/1 - 2016/1 Nova Scotia Health Research Foundation (NSHRF)
Total Funding - 82,054 (Canadian dollar)
Funding Competitive?: Yes

2015/1 - 2016/1
Principal Applicant

Improving Patient Compliance to Non-invasive Language Mapping using Engaging Videos

Co-applicant : Dan McNeely; Manjari Murthy; Tynan Stevens;

Principal Applicant : Steven Beyea

Funding Sources:

2015/1 - 2016/1 Capital Health (Nova Scotia)
Radiology Research Fund
Total Funding - 9,798 (Canadian dollar)
Funding Competitive?: Yes

2013/1 - 2015/12
Co-investigator

Multimodal longitudinal imaging of cognitive status in pediatric focal epilepsy

Co-investigator : Paula Brna; Peter Camfield;

Collaborator : Robert McInerney;

Principal Investigator : Ismail Mohamed

Funding Sources:

2013/1 - 2015/12 Nova Scotia Health Research Foundation (NSHRF)
Total Funding - 148,861 (Canadian dollar)
Funding Competitive?: Yes

2014/11 - 2015/11
Principal Applicant

Strengthening BIOTIC's Human Resources Infrastructure: Hiring a Research Coordinator to Stimulate BIOTIC's Growth and Development

Co-applicant : Denise Lalanne; Manjari Murthy; Matthew MacLellan; Steven Beyea

Funding Sources:

2014/11 - 2015/11 Nova Scotia Health Research Foundation (NSHRF)
REDI CATALYST AWARD
Total Funding - 47,276 (Canadian dollar)
Funding Competitive?: Yes

2014/4 - 2015/4
Principal Applicant

Technology Transfer of a Brain-Computer Interface to a Low-Cost, Portable Commercial Platform

Principal Applicant : Shaun Boe

Funding Sources:

2014/4 - 2015/4 Brain Repair Centre
Knowledge Translation
Total Funding - 29,964 (Canadian dollar)
Funding Competitive?: Yes

2012/3 - 2015/3
Principal Investigator

The role of neural networks in motor recovery: Paving the road to post-stroke rehabilitation

Principal Investigator : Boe, Shaun

Funding Sources:

2012/3 - 2015/3 Nova Scotia Health Research Foundation (NSHRF)
Operating grant
Total Funding - 149,952 (Canadian dollar)
Funding Competitive?: Yes

2013/1 - 2015/1
Principal Investigator

Real Time Neuroimaging as a Therapeutic and Monitoring Tool in Post-Stroke Recovery: No Patient Left Behind

Principal Investigator : Shaun Boe

Funding Sources:

2013/1 - 2014/1 Nova Scotia Health Research Foundation (NSHRF)
Total Funding - 15,000 (Canadian dollar)
Funding Competitive?: Yes

2012/1 - 2015/1
Co-investigator

Neuronal connectivity within the motor network in children with congenital hemiplegia: Correlation with functional impairments and implications for rehabilitation

Principal Investigator : Ismail Mohamed

Funding Sources:

2012/1 - 2015/1 IWK Health Center
Total Funding - 14,112 (Canadian dollar)
Funding Competitive?: Yes

2014/5 - 2014/12
Principal Applicant

Stakeholder Town Hall on the Future of Epilepsy Care at the IWK Health Centre

Funding Sources:

2014/5 - 2014/12 IWK Health Centre (Halifax, NS)
Bringing People Together Award
Total Funding - 907 (Canadian dollar)
Funding Competitive?: Yes

2011/6 - 2014/9
Co-investigator

The Building Blocks of Language: The Interplay between Speaker Differences and Non-idiomatic Multi-word Sequence Frequency Effects on Speech Production

Co-investigator : Antoine Tremblay;

Principal Investigator : Newman, Aaron

Funding Sources:

2011/6 - 2014/9 Social Sciences and Humanities Research Council of Canada (SSHRC)
Operating grant
Total Funding - 187,750 (Canadian dollar)
Funding Competitive?: Yes

2012/4 - 2013/5
Principal Investigator

Real time neuroimaging and mental imagery

Principal Investigator : Shaun Boe

Funding Sources:

2012/4 - 2013/5 Dalhousie University
Total Funding - 5,000 (Canadian dollar)
Funding Competitive?: Yes

2012/1 - 2013/1
Principal Investigator

Causality and Connectivity in MEG/EEG Scans of Inter-Ictal Activity: Finding the Instigator in the Epileptic Brain

Co-investigator : David Clarke; Ismail Mohamed; Kirk Feindel; Mark Sadler; Mike Esser; Ryan D'Arcy

Funding Sources:

2012/1 - 2014/1 IWK Health Center
Category B award
Total Funding - 11,000 (Canadian dollar)
Funding Competitive?: Yes

Completed [n=1]

2012/1 - 2013/1
Principal Investigator

The Role of Neural Networks in Motor Learning: A Road Map for Rehabilitation

Co-investigator : Shaun Boe

Funding Sources:

2012/1 - 2013/1 IWK Health Centre
Category A award
Total Funding - 3,000 (Canadian dollar)
Funding Competitive?: Yes

Declined [n=1]

2013/1 - 2014/1
Co-investigator

Identification of brain networks involved with resting and reflex- mediated central neural cardiovascular control in humans

Co-investigator : Ryan D'Arcy;

Principal Investigator : Derek Kimmerly

Funding Sources:

2013/1 - 2014/12 Nova Scotia Health Research Foundation (NSHRF)
Total Funding - 14,948 (Canadian dollar)
Funding Competitive?: Yes

Student/Postdoctoral Supervision

Bachelor's Honours [n=2]

Principal Supervisor — John Lincoln (In Progress) , Dalhousie University
Student Degree Start Date: 2012/9
Student Degree Expected Date: 2016/4

Co-Supervisor — Rober Bashra (Completed) , Dalhousie University
Student Degree Start Date: 2012/9
Student Degree Received Date: 2013/5
Project Description: Optimized machine learning for the prediction of brain state based on source-projected MEG data following median nerve stimulation
Present Position: Student

Master's Thesis [n=6]

Principal Supervisor — Sarah McLeod (In Progress) , Dalhousie University
Student Degree Start Date: 2015/9
Student Degree Expected Date: 2017/8

Principal Supervisor — Alexander Rudiuk (In Progress) , Dalhousie University
Student Degree Start Date: 2014/9
Student Degree Expected Date: 2016/8

Co-Supervisor — Ross Story (Completed) , Dalhousie University
Student Degree Start Date: 2013/9
Student Degree Received Date: 2015/8

Academic Advisor — Alicia Gianfriddo (Completed) , Dalhousie University
Student Degree Start Date: 2012/9
Student Degree Received Date: 2014/8

Co-Supervisor — Ron Bishop (Completed) , School of Physiotherapy
Student Degree Start Date: 2012/9
Student Degree Received Date: 2014/8

Academic Advisor — Holly Van Gestel (Completed) , Kinesiology
Student Degree Start Date: 2012/1
Student Degree Received Date: 2013/12

Knowledge and Technology Translation

2013/2 - 2013/2 — Primary Conference Organizer, Research Uptake Strategies
Group/Organization/Business Serviced: Halifax Neuroimaging Community (BrainStorm)
Target Stakeholder: Academic Personnel
Outcome / Deliverable: I proposed, found funding for, and led planning of a full-day workshop to provide a local opportunity for 40 researchers to receive hands-on training in the BrainStorm MEG/EEG data analysis software. The developers of BrainStorm (at Montreal Neurological Institute) led the workshop to promote the effective use of this software in the local neuroscience community. This helped build the capacity of our neuroscience sector to generate the best possible results from our studies. A networking reception followed the workshop to provide an informal environment to discuss MEG/EEG research, and encourage collaboration between groups and sites.
Evidence of Uptake/Impact: BrainStors is now being used at MEG/EEG labs in Halifax.
References / Citations / Web Sites: http://neuroimage.usc.edu/brainstorm/WorkshopHalifax2013

International Collaboration Activities

2010/6 - 2015/8 — MEG ScientistFinland
This project is a 5 year research project that will expand the functionality of Magnetencephalography (MEG) through research in pre-surgical planning of epilepsy, and tumours; for cognitive and clinical research of the brain, as well as new applications of MEG as it relates to neurological and neuropsychiatric disorders such as stroke, Alzheimer's disease, autism, schizophrenia, pain research and brain injuries. Ultimately, the objective is to combine MEG and MRI into functional diagnostic applications and tools, and to use Halifax capabilities to drive MEG into the marketplace. As a result, the following will be undertaken: • New diagnostics applications will be developed and implemented on the Elekta platform • New hardware devices will be developed and implemented on the Elekta platform • New clinical applications will be discovered and made available for licensing • New biomarkers of brain disease/disorders will be identified and characterized

2014/8 - 2014/8 — Organizer, Canada
"Zero – to – Hero" An overview of MEG data acquisition, analysis andinterpretation

2014/8 - 2014/8 — Organizer, Canada
The 'How' and 'Why' of Real-Time Neuroimaging in MEG: Implementation and Clinical Applications The recent advent of in-line analysis pipelines during MEG data acquisition (i.e.,"real-time MEG") has spurred scientists to explore new, hitherto inaccessible,research directions. Real-time MEG provides high-resolution estimates of the temporal dynamics of activity in targeted brain areas in under a second. Neurofeedback and BCI applications in MEG represent a paradigm shift in how we use MEG technology. This symposium focuses on the use of real-time neurofeedback in MEG. The panel will present some of the approaches that have been developed for providing source-specific sub-second neurofeedback during MEG scans. Applications of MEG neurofeedback in the basic sciences and in the clinical realms (specifically, tinnitus and stroke) will be presented. Speakers will also discuss the future directions of this burgeoning sub-field of MEG research.

Presentations

1. Boe, S.G.(2014). Laterality of motor imagery based brain activity is modulated by neurofeedback: Implications for Neurorehabilitation. BioMag 2014, Halifax, Canada
   Main Audience: Researcher
   Invited?: No
2. Shaun Boe. (2013). Functional Connectivity in Motor Function: Methods and Clinical Applications. Scale-free Dynamics and Networks in Neurosciences, Montreal, Canada
   Main Audience: Researcher
   Invited?: Yes
3. D'Arcy, R., McWhinney, S.R., Newman, A.J., Bardouille, T.(2013). Combined spatial MEG and fMRI Laterality Mapping for Language: Merging technologies for optimization in epilepsy. International Society for the Advancement of Clinical MEG 2013, Sapporo, Japan
   Main Audience: Researcher
   Invited?: Yes

Publications

Journal Articles

1. Friesen CL, Bardouille T, Neyedli HF, Boe SG.(2017). Combined Action Observation and Motor ImageryNeurofeedback for Modulation of Brain Activity. Front Hum Neurosci. 10(10): 692.
   Co-Author
   Published
   Refereed?: Yes
   Number of Contributors: 4
2. Berrigan, P., Bardouille, T., Maclellan, M., Mohamed, I.S., Murthy, M. (2016). Cost-Utility Analysis ofMagnetoencephalography Used to Inform Intracranial Electrode Placement in Patientswith Drug Resistant Epilepsy: A Model Based Analysis. J. Eval Clinical Practice. 22(6): 224-9.
   Co-Author
   Published
   Refereed?: Yes
   Number of Contributors: 5
3. Tremblay, A. Asp, E. Johnson, A. Migdał, M.Z. Bardouille, T. Newman, A.J.(2016). What the Networks Tell us about Serial and Parallel Processing: An MEG Study of Language Networks and N-gram Frequency Effects in Overt Picture Description. Mental Lexicon.
   Co-Author
   Accepted
   Refereed?: Yes
4. Stevens, TR Bardouille, T Stroink, G Boe, SG Patterson, S Beyea, SD. (2016). Fully Automated Quality Assurance and Localization of Volumetric MEG for Single-Subject Mapping. Journal of Neuroscience Methods. 266: 21-31.
   Co-Author
   Accepted
   Refereed?: Yes
5. Solomon J Boe S Bardouille T. (2015). Reliability for non-invasive somatosensory cortex localization: Implications for pre-surgical mapping.Clinical Neurology and Neurosurgery. 139: 22409.
   Last Author
   Published
   Refereed?: Yes

6. McWhinney SR Bardouille T D'Arcy RC Newman AJ. (2015). Asymmetric Weighting to Optimize Regional Sensitivity in Combined fMRI-MEG Maps.Brain Topography.
   Co-Author
   Published
   Refereed?: Yes

7. Kraeutner, S. Gionfriddo, A. Bardouille, T. Boe, S.G. (2014). Motor imagery-based brain activity parallels that of motor execution: Evidence from magnetic source imaging of cortical oscillations. Brain Research. 1588: 81-91.
   Co-Author
   Published
   Refereed?: Yes

8. Little, G. Boe, S.G. Bardouille, T.(2014). Head movement compensation in real-time magnetoencephalographic recordings. MethodsX. : 275-282.
   Last Author
   Published
   Refereed?: Yes

9. Boe, S.G. Gionfriddo, A. Kraeutner, S. Tremblay, A. Little, G. Bardouille, T. (2014). Laterality of Brain Activity During Motor Imagery is Modulated by the Provision of Source Level Neurofeedback. Neuroimage. 1(101): 159-167.
   Last Author
   Published
   Refereed?: Yes

10. Krishnamurthy, S.V. MacLellan, M. Beyea, S. Bardouille, T.(2014). Faster and Improved 3-D Head Digitization using Kinect. Frontiers in Neuroscience. 8: 326.
    Last Author
    Published
    Refereed?: Yes

11. D'Arcy RC , Bardouille T , Newman AJ , McWhinney SR , Debay D , Sadler RM , Clarke DB , Esser MJ. (2012). Spatial MEG Laterality maps for language: Clinical applications in epilepsy.Human brain mapping. 34(8)
    Co-Author
    Published
    Refereed?: Yes

12. Timothy Bardouille Shaun Boe. (2012). State-Related Changes in MEG Functional Connectivity Reveal the Task-Positive Sensorimotor Network. PLos One. 7: e48682.
    First Listed Author
    Published
    Refereed?: Yes

13. Timothy Bardouille, Santosh V. Krishnamurthy, Sujoy Ghosh Hajra, and Ryan C.N. D'Arcy. (2012). Improved Localization Accuracy in Magnetic Source Imaging using a 3D Laser Scanner. IEEE Trans Biomed Eng. 59(12): 3491-3497.
    First Listed Author
    Published
    Refereed?: Yes
    Number of Contributors: 4

Conference Publications

1. Radic, J.A.E. Rutherford, H.C. Macaulay, R. Sadler, R.M. Bardouille, T. Ross, A. Clarke, D.B. (2015). Seizure reduction following resection of focaloligodendroglial hyperplasia. Canadian Association of Neuropathologists
   Poster
   Co-Author
   Published, Invited?: No
2. Stevens, T. Clarke, D. Stroink, G. Bardouille, T. D'Arcy, RC Beyea, S.(2014). OPTIMIZING fMRI AND MEG FOR PRESURGICAL MAPPING. BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No
3. Gionfriddo, A Kraeutner, S Bardouille, T Boe, SG. (2014). LATERALITY OF MOTOR IMAGERY BASED BRAIN ACTIVITY IS MODULATED BY REAL-TIME NEURO-FEEDBACK .BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No
4. McWhinney, S Bardouille, T D'Arcy, RC Newman, A. (2014). INTEGRATION OF FMRI AND MEG FOR OPTIMIZED SPATIAL SENSITIVITY TO NEURAL ACTIVITY. BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No
5. Kraeutner, S Gionfriddo, A Bardouille, T Boe, SG. (2014). LEARNING TO IMAGINE:BRAIN ACTIVITY FROMMOTOR IMAGERY PARALLELSTHAT OF MOTOR EXECUTIONAFTER REPEATED SESSIONS. BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No
6. Bishop, R Choi, A Bardouille, T Boe, SG. (2014). ASSESSING THE DYNAMICS OF BRAIN CONNECTIVITY:NETWORK CHANGES RESULTING FROM LEARNING REVEALED USING GRAPH THEORY. BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No
7. Choi, A Bishop, R Bardouille, T Boe, SG. (2014). EXAMINING THE EFFECTS OF WITHIN-SESSION MOTOR LEARNING ON BRAIN ACTIVITY OBTAINED USING MEG. BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No
8. Song, X. Clarke, M Leblanc, E Bardouille, T. Fisk, J Darvesh, S. Beyea, S D'Arcy, RC Rockwood, K. (2014). CHANGES IN PREFRONTAL ACTIVATION IN EARLY ALZHEIMER'S DISEASE: A MAGNETOENCEPHALOGRAPHY (MEG) STUDY. BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No
9. Story, R Bardouille, T Boe, SG. (2014). EVALUATING MACHINE LEARNING TECHNIQUES FOR OPTIMIZING MOTOR IMAGERY NEUROFEEDBACK. BioMag 2014
   Poster
   Co-Author
   Published, Invited?: No

10. Solomon, J Boe, SG Bardouille, T.(2014). INTERSESSION RELIABILITY FOR SOMATOSENSORY CORTEX LOCALIZATION: IMPLICATIONS FOR PRE-SURGICAL. BioMag 2014
    Poster
    Last Author
    Published, Invited?: No

11. Alicia Gionfriddo Sarah Kraeutner Timothy Bardouille Shaun Boe. (2014). Laterality of motor imagery based brain activity is modulated by neurofeedback in non-disabled individuals. Organization for Human Brain Mapping
    Abstract
    Co-Author
    Submitted, Invited?: No

12. Tynan Stevens David Clarke Steven Beyea Timothy Bardouille. (2014). Comparing fMRI and MEG for Pre-surgical Language and Motor Mapping. Organization for Human Brain Mapping
    Abstract
    Last Author
    Submitted, Invited?: No

13. Xiaowei Song Maggie Clarke Tim Bardouille Sultan Darvesh John Fisk Steven Beyea Ryan D'Arcy Ken Rockwood. (2014). Increased prefrontal activation in early Alzheimer’s disease during an episodic memory task: Preliminary results from a MEG study. Organization for Human Brain Mapping
    Abstract
    Co-Author
    Submitted, Invited?: No

14. Ron Bishop Shaun Boe Timothy Bardouille. (2014). Quantifying the Sensorimotor Network Using Functional Connectivity and Graph Theory. Organization for Human Brain Mapping
    Abstract
    Last Author
    Submitted, Invited?: No

15. Sarah Kraeutner Alicia Gionfriddo Timothy Bardouille Shaun Boe. (2014). Motor imagery as a modality of skill acquisition: Source analysis of motor execution and imagery. Organization for Human Brain Mapping
    Abstract
    Co-Author
    Submitted, Invited?: No

16. Timothy Bardouille Tynan Stevens Shaun Boe Steven Beyea. (2014). Enhanced Clinical MEG Pre-Surgical Functional Mapping: Reliability and Spatiotemporal Clustering. Organization for Human Brain Mapping
    Abstract
    First Listed Author
    Submitted, Invited?: No

17. Stevens, T., D'Arcy, R., Clarke, D., Bardouille, T., Beyea, S.(2013). Pre-Surgical Mapping using Functional MRI (fMRI) and Magnetoencephalography (MEG): Which has better spatial precision?. RSNA 2013
    Poster
    Co-Author
    Accepted, Invited?: No

18. Boe, SG., Bardouille, T.(2012). MEG Correlates of Single-Session Learning Using a Visuomotor Task. BioMag 2012
    Poster
    Co-Author
    Accepted, Invited?: No

19. Bardouille T., Boe SG.(2012). MEG Functional Connectivity Reveals a Task-Positive Sensorimotor Network. BioMag 2012
    Poster
    First Listed Author
    Accepted, Invited?: No
20. McWhinney, S.R., Bardouille, T., Newman, A.J., DeBay, D., Sadler, R.M., Clarke, D.B., Esser, M.J., D'Arcy, R.C.N.(2012). Spatial MEG Laterality Maps for Language. BioMag 2012
    Poster
    Co-Author
    Accepted, Invited?: No
21. Dick, BD, Bardouille, T., Clarke, M., D'Arcy, RCN.(2012). Effects of somatic stimulation on working memory function using a dual task paradigm as measured by magnetoencephalography (MEG). BioMag 2012
    Poster
    Co-Author
    Accepted, Invited?: No
22. Bardouille, T., Krishnamurthy, SV., Hajra, SG., D'Arcy, RCN.(2012). Improved Accuracy in MEG Source Localization using a 3D Laser Scanner. BioMag 2012
    Poster
    First Listed Author
    Accepted, Invited?: No
23. Feindel, KW., Bardouille, T., Esser, MJ., Mohamed, I., Sadler, RM., Rahey, SR., Clarke, DB., Schmidt, MH., D'Arcy, RCN.(2012). Presurgical workup in refractory epilepsy: The search for interictal MEG correlates of the seizure onset zone. BioMag 2012
    Poster
    Co-Author
    Accepted, Invited?: No

Intellectual Property

Patents

1. Method and system for head digitization and co-registration of medical imaging data. Canada. 82273-2. 2015/07/31.
   Patent Status: Pending