MEG@MCGILL

www.mcgill.ca/bic/core-facilities/meg

Our Mission

The MEG Program @ McGill was created September 2011 as part of the Montreal Neurological Institute's McConnell Brain Imaging Centre.

Our mission is to provide state-of-the-art support and expertise to investigators interested in using MEG as a tool for their cognitive and clinical neuroscience studies.

Our Team

Sylvain Baillet, PhD, Professor
Director of MEG Research
McConnel Brain Imaging Centre

Elizabeth Bock, MSc
Manager, MEG Lab

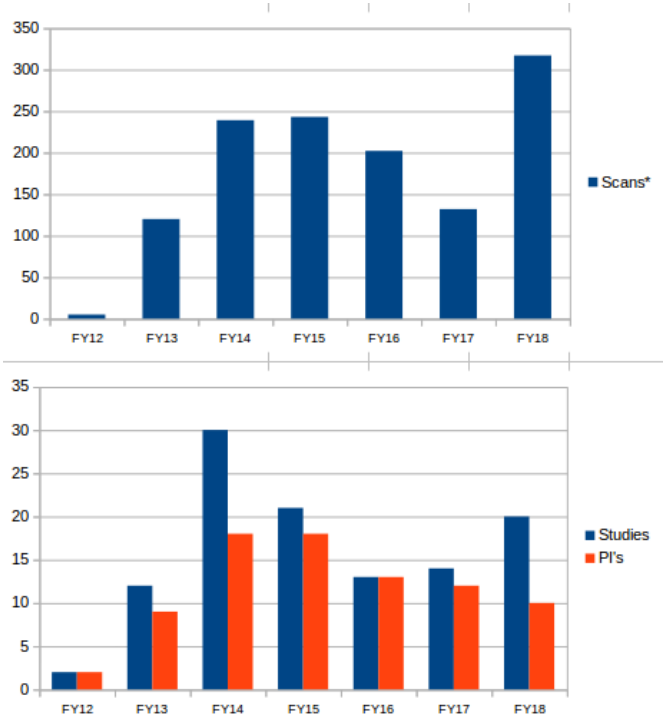
Marc Lalancette, MSc
Manager, MEG Lab
(starting May 2018)

Martin Cousineau, MSc
Software Developer of Brainstorm

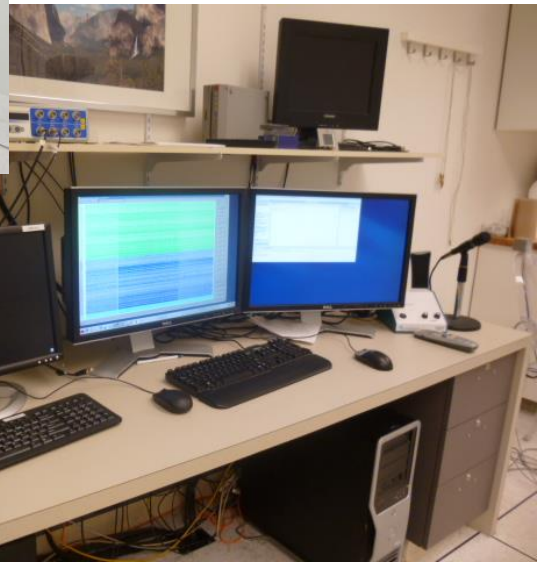
Our Program

Over 50 MEG Studies from over 30 research labs

- **Cognitive neuroscience studies**, including resting state, pain, decision making, working memory, speech, motor learning, cross-modal entrainment, 3D perception, auditory frequency tagging, neurofeedback, language, posture, sleep, attention, auditory perception and memory, vision research and more.
- **Clinical research with special populations**, including epilepsy, Alzheimer's disease, ADHD, autism, spinal cord stimulation, Amusia, MCI, stroke, Parkinson's and the list is growing

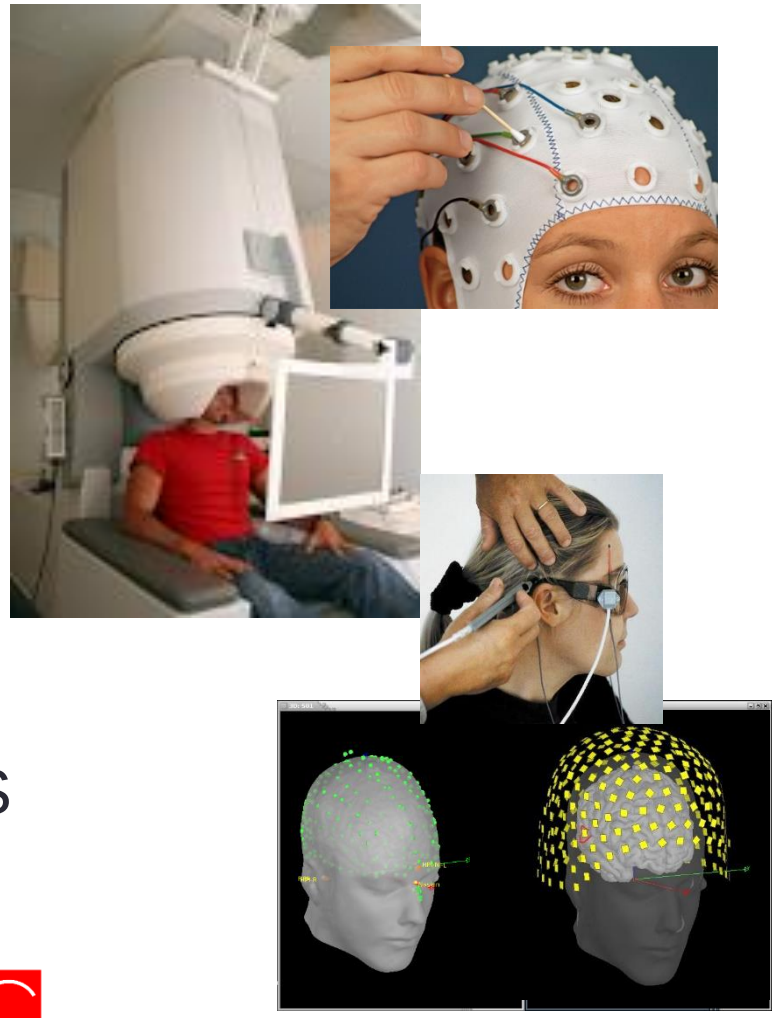


The MEG@McGill



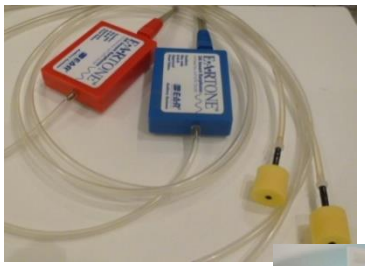
Data Collection

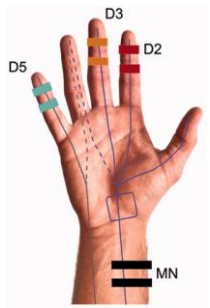
- 275 gradiometers, CTF system
- Integrated 64 channel EEG
- Integrated subject stim and response
- Sampling rate up to 12kHz
- Typical measurements ~ 10Gb/hour
- Data storage, formatting and sharing solutions, including BIDS formatting and open science cataloging



Subject stimulus and response

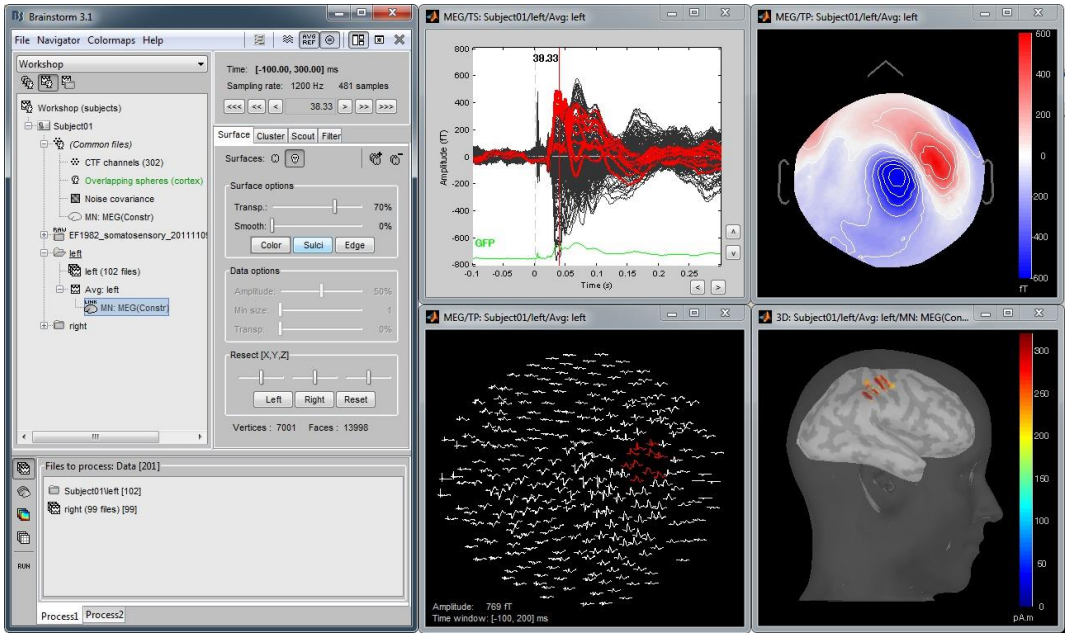
- Matlab, Psychtoolbox, Presentation, ePrime
- Auditory, visual, somatosensory, olfactory, pain, etc.
- Button response, finger tapping, speech, keyboard, joystick, hand gripper
- Event markers and timing info integrated datasets





Data Analysis

- Brainstorm suite of tools
- Hands-on training opportunities
- One-on-one assistance for learning best practices



Brainstorm
http://neuroimage.usc.edu/brainstorm

USC University of Southern California
Cleveland Clinic
McGill
neuro

Access

www.mcgill.ca/bic/core-facilities/access

- To start a new MEG study
  - Contact the Director of MEG Research (sylvain.baillet@mcgill.ca)
  - Approval from MEG Research Committee and Research Ethics Board
  - Develop and test your paradigm, perform pilot scans
- Booking through central scheduler: mni-bic.mcgill.ca
- MEG Operator certification
  - Training is done during pilot sessions and the first three subjects
  - Access to the MEG after hours and weekends
  - Discounted rates

Access

Non-Profit Agency funded	$500/hour, with technical assistance $400/hour, for certified users
Development Pilot	$200/hour
Anatomical MRI (T1)	$100/participant
Technical Assistance Availability	Contact MEG Manager
User Certification	Require 3 sessions of requested study at $500/hour. User certification remains valid for all future sessions and studies of the requestor
Industry Sponsored Scans	Contact Core Director

Hours of operation:

- 24Hrs/7 days a week for certified users
- 08:30-17:30, Monday-Friday with technical assistance

Training Opportunities

- MEG@McGill Comprehensive Training: A week of hands-on training experience with MEG imaging from paradigm design to advanced data analysis

  www.mcgill.ca/bic/training-events/meg-training-program
- IPN rotations and summer internships
- Brainstorm hands-on training