Thomas M. Morin

@ThomasMorin1 www.tmMorin.com tommorin@bu.edu

EDUCATION

2017 – 2022 *(anticipated)*
Boston University
PhD Candidate, Computational Neuroscience
Graduate Program in Neuroscience

2013 – 2017
Tufts University
B.S., *magna cum laude*, Thesis Honors
Cognitive & Brain Science, Computer Science
Senior Honors Thesis: *Optimizing fPET-FDG*

TRAINING

2017 – Present
Department of Psychological & Brain Sciences, Boston University
Cognitive Neuroimaging Lab
PhD Student Researcher
Mentor: Chantal Stern, DPhil

Spring 2020
MIT IMPACT Program
Fellow

2017 – 2018
Department of Psychological & Brain Sciences, Boston University
Attention & Perception Neuroimaging Lab
Lab Rotation & Collaborating PhD Student
Mentor: David Somers, PhD

2015 – 2017
A. A. Martinos Center for Biomedical Imaging,
Massachusetts General Hospital, Harvard Medical School
Hooker Research Group
Research Intern
Mentors: Hsiao-Ying Wey, PhD, and Jacob Hooker, PhD

2014 – 2015
Department of Psychology, Tufts University
Memory and Cognition Lab
Undergraduate Research Assistant, May 2014 - May 2015
Mentor: Richard Chechile, PhD

HONORS AND AWARDS

2020 Third Prize, BU Grad. Prog. for Neuro. Interview Days Poster Session
2017 Honorable Mention, NSF Graduate Research Fellowship Program
2017 Joanne Mary Sullivan Prize, Tufts University Psychology Department
2017 Barton Term Scholar for Arts and Sciences, Tufts University
2016 SpaceX People's Choice Award, Out for Undergrad Engineering Conference
2016 Greg Ellenoff Internship Grant, Tufts University Career Center
2016 Psi Chi Honor Society, Tufts University Chapter

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PUBLICATIONS

FORTHCOMING

Morin, T.M., Moore, K.N., Isenburg, K.I., Ma, W., & Stern, C.E. Reconfiguration and activation of a frontoparietal-visual system supports abstract reasoning. *(in prep.)*

Moore, K.N., **Morin, T.M.**, Rosen, M.L., Somers, D.C., & Stern, C.E. Default mode precuneus and its role in long term memory-guided versus stimulus-guided attention. *(in prep.)*

PUBLISHED MANUSCRIPTS

Selected manuscript PDFs are available at https://www.tmmorin.com/work

Morin, T.M., Chang, A.E., Ma, W., McGuire, J.T. & Stern, C.E. (2021). Dynamic network analysis demonstrates the formation of stable functional networks during rule learning. *Cerebral Cortex*. https://doi.org/10.1093/cercor/bhab175

Gilbert, T.M., Zurcher, N.R., Wu, C.J., Bhanot, A., Hightower, B.G., Kim, M., Albrecht, D.S., Wey, H.Y., Schroeder, F.A., Rodriguez-Thompson, A., **Morin, T.M.**, Hart, K.L., Pellegrini, A.M., Riley, M.M., Wang, C., Stufflebeam, S.M., Haggarty, S.J., Holt, D.J., Loggia, M.L., Perlis, R.H., Brown, H.E., Roffman, J.L., Hooker, J.M. (2019). PET neuroimaging reveals histone deacetylase dysregulation in schizophrenia. *The Journal of Clinical Investigation*. https://doi.org/10.1172/JCI123743

Strebl, M.G., Campbell, A., Zhao, W.N., Riley, M.M., Chindavong, P., **Morin, T.M.**, Haggarty, S.J., Wagner, F.F., Ritter, T., Hooker, J.M. (2017). HDAC6 Brain Mapping with [^{18}F]Bavarostat Enabled by a Ru-Mediated Deoxyfluorination. *ACS Central Science*. 3(9), 1006-1014 http:/dx.doi.org/10.1021/acscentsci.7b00274

Placzek, M.S., Zhao, W., Wey, H.Y., **Morin, T.M.**, & Hooker, J.M. (2015). PET neurochemical imaging modes. *Seminars in Nuclear Medicine*, 46(1), 20-27 http://dx.doi.org/10.1053/j.semnuclmed.2015.09.001

CONFERENCE POSTERS & PRESENTATIONS

Selected poster PDFs and presentation slides are available at https://www.tmmorin.com/work

Isenburg, K., **Morin, T.M.**, Rosen, M.L., Somers, D.C., & Stern, C.E. *Network interactions during long-term memory guided versus stimulus-guided attention in humans*. Society for Neuroscience. 2021. Chicago, IL. (*Accepted*) [Poster]

Liapis, S.S.P., **Morin, T.M.**, McGuire, J.T., & Stern, C.E. *The dimensionality of representational space calibrates to abstract reasoning complexity.* Organization for Human Brain Mapping. 2021. (Online Meeting, Due to COVID-19) [Poster]

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Morin, T.M., Ma, W., Chang, A.E., & Stern, C.E. *Dynamic functional connectivity during context-dependent rule learning*. Organization for Human Brain Mapping. 2020. (Online Meeting, Due to COVID-19) [Poster]

Morin, T.M., Moore, K.N., & Stern, C.E. *An fMRI investigation of functional network connectivity during abstract reasoning*. Cognitive Neuroscience Society Annual Meeting. 2020. (Online Meeting, Due to COVID-19). [Poster]

Morin, T.M., Chang, A.E., & Stern, C.E. *Cortical contributions to perceptual and symbolic reasoning using a one-dimensional raven's progressive matrices task.* Society for Neuroscience. 2019. Chicago, IL. [Poster]

Ma, W., **Morin, T.M.**, Chang, A.E., & Stern, C.E. *An fMRI investigation of medial prefrontal network dynamics during a context-dependent rule learning task.* Society for Neuroscience. 2019. Chicago, IL. [Poster]

Morin, T.M. *Frontoparietal Control Network Contributions to Abstract Reasoning*. Boston University Graduate Program for Neuroscience Annual Retreat. 2019. Essex, MA. [Presentation]

Morin, T.M., Chang, A.E., & Stern, C.E. *An fMRI investigation of symbolic processing using a one-dimensional raven's progressive matrices task*. Henry I. Russek Student Achievement Day. 2019. Boston University, Boston, MA. [Poster]

Cohen, J.E., **Morin, T.M.**, & Stern, C.E. *Theta oscillations at critical junctures of overlapping mazes*. Cognitive Neuroscience Society Annual Meeting. 2018. Boston, MA. [Poster]

Morin, T.M. & Wey, H.Y. *Optimizing fPET-FDG*. Cognitive & Brain Science Senior Symposium. 2017. Tufts University, Medford, MA. [Poster]

Morin, T.M. *Branching Out: What a Tree Can Teach You About Your Brain?* Out For Undergrad Engineering Conference. 2016. Stanford University, Palo Alto, CA. [Presentation]

Morin, T.M. *Creating a Computer Simulation Tool for PET Neuroimaging*. Tufts University Undergraduate Research and Scholarship Symposium. 2016. Tufts University, Medford, MA. [Presentation]

TEACHING

2021	Guest Lecturer, Cog. *Neuro. of Reasoning*, Course: Grad. Cog. & Behavior, BU
2018-2021	Guest Lecturer, *Intro to Neuroimaging*, Course: Intro to Cog. & Brain Sci., Tufts
2017	Teaching Assistant, Introduction to Cognitive & Brain Science, Tufts University
2016	Teaching Assistant, American Sign Language I, II, and III, Tufts University

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MENTORSHIP

2020-2021	Bliss Cui, *Boston University, Undergrad Neuroscience Student Org. Mentee*
2020-Present	Jiahe Nu, *Boston University, High School RA, Undergraduate RA*
2019-2020	Roberto Luis-Fuentes, *Boston University, BME Senior Thesis Project*
2019-2020	Vincent Chang, *Boston University, BME Senior Thesis Project*
2019	Sheila Yee, *Boston University, Undergraduate Directed Study Student*
2018-2020	Weida Ma, *Boston University, Undergraduate RA, BME Senior Thesis Project*
2018	Neoreet Braha, *Boston University, Undergraduate Research Assistant*

ADDITIONAL EXPERIENCE

2021	Volunteer Editor, Application Statement Feedback Program
2020-Present	Graduate Coach, InGenius Prep | College Admissions Consulting
2017-2019	Volunteer Mentor to a High School Student, Big Brothers Big Sisters
2015-2017	Class of 2017 Representative, Tufts Psychology Society

SKILLS

PROGRAMMING LANGUAGES

- Fluent in Python, R, MATLAB, Shell Scripting
- Comfortable with C, C++
- Experience with HTML/CSS, Lisp

NEUROIMAGING & EXPERIMENTAL SOFTWARE

- AFNI, FSL, Freesurfer, Conn Toolbox, PMOD
- BIDS-compatible pipelines including fmriprep and NiBetaSeries
- PsychoPy; some experience with ePrime and PsychToolbox

KEY CONCEPTS

- Cognitive neuroscience of abstract reasoning, learning, and memory
- Network science and graph-based analyses of functional connectivity data
- Kinetic modeling and analysis of functional PET neuroimaging data
- fMRI and PET study design, data collection, and analysis