Aaron Kucyi, PhD

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Academic Appointments

2022 - Present — Assistant Professor
Department of Psychological and Brain Sciences, Drexel University, Philadelphia, PA

2019 - 2022 — Principal Research Scientist/Lecturer
Department of Psychology, Northeastern University, Boston, MA

2016 - 2019 — Postdoctoral Scholar
Department of Neurology and Neurological Sciences, Stanford University, Stanford, CA

2014 - 2016 — Research Fellow
Department of Psychiatry, Massachusetts General Hospital, Boston, MA
Department of Psychiatry, Harvard Medical School, Boston, MA

Education

2010 - 2014 — Ph.D.
Institute of Medical Science & Collaborative Program in Neuroscience
University of Toronto, Toronto, ON

2005 - 2009 — B.Sc. Hons. (First Class with Distinction)
Biology
York University, Toronto, ON

Selected Awards and Honors

2024	NARSAD Young Investigator Grant	*Brain and Behavior Research Foundation*
2023	Antelo Devereux Award for Junior Faculty	*Drexel University*
2017	Banting Fellowship	*Canadian Institutes of Health Research*

External Research Funding

2024 – 2026 — Brain and Behavior Research Foundation (NARSAD) Young Investigator Grant
"Controlling mind-wandering with closed-loop connectomic neuromodulation"
- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $70,000

2023 – 2026 — NSF Major Research Instrumentation: Track 2
"Development of a Platform for Accessible Data-Intensive Science and Engineering"
- **Role (Kucyi): Senior Personnel (PI: Joshua Agar)**
- Total funds awarded: $3,997,550

2023-2024 — NIH-NIMH R21
"Real-time fMRI for insular cortex brain state-triggered experience sampling"
- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $416,625

2022 - 2024 NIH-NIMH R21

"Investigating electroencephalographic predictors of default mode network anticorrelation for personalized neurofeedback"

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $415,097

2019 - 2023 NIH-NINDS R01

"Impact of intimate partner violence-related mild traumatic brain injuries on neural, cognitive and psychological health of women"

- **Role (Kucyi): Consultant (PI: Eve Valera)**
- Consultant funds allocated: $20,000

2017 - 2019 Canadian Institutes of Health Research (CIHR) Banting Postdoctoral Fellowship

"Intracranial neuromodulation of the human default mode network"

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $140,000

2015-2017 Canadian Institutes of Health Research (CIHR) Fellowship

"Dynamic cerebro-cerebellar networks for cognitive function in ADHD and patients with neurological damage"

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $100,000

2012-2015 Canadian Institutes of Health Research (CIHR) Doctoral Award

"Brain mechanisms underlying temporal fluctuations in spontaneous pain investigated with functional and structural MRI"

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $105,000

2011 Ontario Government Scholarship

- Total funds awarded: $15,000

2010-2011 Canadian Institutes of Health Research (CIHR) Master's Award

"Perception and modulation of pain qualities associated with chronic pain"

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $17,500

2008 Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Student Research Award

- Total funds awarded: $4,500

Internal Research Funding

2023-2024 Scholarly Materials & Research Equipment Award

Office of Research & Innovation, Drexel University

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $10,840

2023-2024 Antelo Devereux Award for Junior Faculty

College of Arts and Sciences, Drexel University

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $10,000

2023 Undergraduate Research Fund Grant

Department of Psychological & Brain Sciences, Drexel University

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $5,000

2011 Pain Scientist Scholarship

Centre for the Study of Pain, University of Toronto

- **Role (Kucyi): Principal Investigator**
- Total funds awarded: $12,500

2010-2011 Institute of Medical Science Entrance Award and Open Fellowship

Institute of Medical Science, University of Toronto

- Total funds awarded: $10,000

Journal Publications

60. Duong, A., Quabs, J., **Kucyi, A.,** Lusk, Z., Caspers, S., Buch, V., Parvizi, J. Subjective states induced by intracranial electrical stimulation matches the cytoarchitectonic organization of the human insula. **Brain Stimulation** 16(6):1653-1665.

59. **Kucyi, A.,** Kam, J.W.Y., Andrews-Hanna, J.R., Christoff, K., Whitfield-Gabrieli, S (2023). Recent advances in the neuroscience of spontaneous and off-task thought: implications for mental health. **Nature Mental Health** 1:827-840.

58. Westlin, C., Theriault, J.E., Katsumi, Y., Nieto-Castañon, A., **Kucyi, A.,** Ruf, S.F., Brown, S., Pavel, M., Erdogmus, D., Brooks, D.H., Quigley, K.S., Whitfield-Gabrieli, S., Barrett, L.F (2023). Improving the Study of Brain-Behavior Relationships by Revisiting Basic Assumptions. **Trends in Cognitive Sciences** 27(3):246-257.

57. Parvizi, J., Veit, M.J., Barbosa, D.A.N., **Kucyi, A.,** Perry, C. Majumdar, A., Chen, F., Yih, J., Pinheiro-Chagas, P., Gross, J.J., Fisher, R., McNab, J.A., Falco-Walter, J., Halpern, C.H (2022). Complex Emotions Induced by Electrical Stimulation of the Human Hypothalamus. **Brain Stimulation** 15(3):615-623.

56. Demertzi, A., **Kucyi, A.,** Ponce-Alvarez, A., Keliris, G.A., Whitfield-Gabrieli, S., Deco, G. Functional network antagonism and consciousness (2022). **Network Neuroscience** 6(4):998-1009.

55. Morris, T.P., **Kucyi, A.,** Anteraper, S.A., Geddes, M.R., Nieto-Castañon, A., Burzynkska, A., Gothe, N.P., Fanning, J., Salerno, E.A., Whitfield-Gabrieli, S., Hillman, C.H., McAuley, E., Kramer, A.F.

Resting State Functional Connectivity Provides Mechanistic Predictions of Future Changes in Sedentary Behavior (2022). **Scientific Reports** 12(1):1-11.

54. Veit, M.J., **Kucyi, A.,** Zhang, C., Zhao, B., Hu, W., Guo, Z., Yang, B., Sava-Segal, C., Perry, C., Zhang, J., Zhang, K., Parvizi, J. Temporal Order of Signal Propagation Within and Across Intrinsic Brain Networks (2021). **Proceedings of the National Academy of Sciences** 118 (48):e2105031118.

53. Zhang, J.*, **Kucyi, A.*,** Raya, J., Nielsen, A., Nomi, J.S., Damoiseaux, J., Greene, D.J., Horovitz, S.G., Uddin, L.Q., Whitfield-Gabrieli, S (2021). What have we really learned from functional connectivity in clinical populations? **Neuroimage** 242:118466.

52. Shigeta, T., Henry, D., **Kucyi, A.**, Bex, P., Kramer, A., Hillman, C. Acute Exercise Effects on Inhibitory Control and the Pupillary Response in Young Adults (2021)**. International Journal of Psychophysiology** 170:218-228.

51. Yamashita, A., Rothlein, D., **Kucyi, A.**, Valera, E.M., Germine, L., Wilmer, J., DeGutis, J., Esterman, M. Variable rather than extreme slow reaction times distinguish brain states during sustained attention (2021). **Scientific Reports** 11(1):14883.

50. Parvizi, J., Braga, R.M., **Kucyi, A.,** Veit, M., Perry, C.M., Sava-Segal. C., Zeineh, M., van Staalduinen, E.K., Henderson, J.M., Markert, M. Altered Sense of Self During Seizures in the Posteromedial Cortex (2021). **Proceedings of the National Academy of Sciences** 118(29):e2100522118.

49. Yamashita, A., Rothlein, D., **Kucyi, A.,** Valera, E.M., Esterman, M. Brain state-based detection of attentional fluctuations and their modulation (2021). **Neuroimage** 236:118072.

48. Kucyi, A., Esterman, M., Capella, J., Green, A., Uchida, M., Biederman, J., Gabrieli, J.D.E., Valera, E.M., Whitfield-Gabrieli, S (2021). Prediction of stimulus-independent and task-unrelated thought from functional brain networks. **Nature Communications** 12(1):1-17.

47. Akkol, S., **Kucyi, A.**, Zhao, B., Zhang, C., Sava-Segal, C., Razavi, B., Zhang, J., Zhang, K., Parvizi, J. Intracranial electroencephalography reveals selective responses to cognitive stimuli in the periventricular heterotopias (2021). **Journal of Neuroscience** 41(17):3870-3878.

46. Zuberer, A., **Kucyi, A.,** Yamashita, A., Wu, C., Walter, M., Valera, E.M., Esterman, M (2021). Integration and segregation across large-scale intrinsic brain networks as a marker of sustained attention and task-unrelated thought. **Neuroimage** 229:117610.

45. Kucyi, A., Parvizi, J (2020). Pupillary dynamics link spontaneous and task-evoked activations recorded directly from human insula. **Journal of Neuroscience** 40(32):6207-6218.

44. Fox, K.C.R., Shi, L., Baek, S., Raccah, O., Foster, B.L., Margulies, D.S., **Kucyi, A.**, Parvizi, J (2020). Intrinsic network architecture predicts the effects elicited by intracranial stimulation of the human brain. **Nature Human Behaviour** 4(10):1039-1052.
**News and Views: "Hot or not." Koch, C. (2020) Nature Human Behavior.*

43. Kucyi, A., Daitch, A., Raccah, O., Zhao, B., Zhang, C., Esterman, M., Zeineh, M., Halpern, C.H., Zhang, K., Zhang, J., Parvizi, J (2020). Electrophysiological dynamics of antagonistic brain networks reflect attentional fluctuations. **Nature Communications** 11(1):325.

42. Lurie, D.J., Kessler, D., Bassett, D.S., Betzel, R.F., Breakspear, M., Keilholz, S., **Kucyi, A.**, Liégeois, R., Lindquist, M., McIntosh, A.R., Poldrack, R.A., Shine, J.M., Thompson, Bielczyk, N., Douw, L., Kraft, D., Muthuraman, M., Pasquini, L., Razi, A., Vidaurre, D., Xie, H., W.M., Calhoun, V.D (2020). On the nature of resting fMRI and time-varying connectivity. **Network Neuroscience** 4(1):30-69.

41. Cash, R., Cocchi, L., Anderson, R., Rogachov, A., **Kucyi, A.,** Barnett, A., Zalesky, A., Fitzgerald, P.B (2019). A multivariate neuroimaging biomarker of individual outcome to transcranial magnetic stimulation in depression. **Human Brain Mapping** 40(16):4618-4629.
** Winner of the 2020 Human Brain Mapping Editors' Choice Award*

40. Maillet, D., Beaty, R.E., **Kucyi, A.**, Schacter, D.L (2019). Large-scale network interactions involved in dividing attention between the external environment and internal thoughts to pursue distinct goals. **Neuroimage** 197:49-59.

39. Albrecht, D.S., Kim, M., Akeju, O., Torrado-Carvajal, A., Edwards, R.R., Zhang, Y., Bergan, C., Protsenko, E., **Kucyi, A.**, Wasan, A.D., Hooker, J.M., Napadow, V., Loggia, M.L (2019). The neuroinflammatory component of negative affect in patients with chronic pain. **Molecular Psychiatry** 26(3):864-874.

38. Necka, E.A., Lee, I., **Kucyi, A.**, Cheng, J.C.C., Yu, Q., Atlas, L.Y (2019). Applications of dynamic functional connectivity to pain and its modulation. **Pain Reports** 4(4):e752.

37. Raccah, O., Daitch, A., **Kucyi, A.**, Parvizi, J (2018). Direct Cortical Recordings Suggest Temporal Order of Task Evoked Responses in Human Default and Dorsal Attention Networks. **Journal of Neuroscience** 38(48):10305-10313.

36. Cheng, J.C., Rogachov, A., Hemington, K.S., **Kucyi, A.**, Bosma, R.,L., Lindquist, M., Inman, R.D., Davis, K.D (2018). Multivariate machine learning distinguishes cross-network dynamic functional connectivity patterns in state and trait neuropathic pain. **Pain** 159(9):1764-1776.

35. Kucyi, A., Schrouff, J., Bickel, S., Foster, B.L., Shine, J.M., Parvizi, J (2018). Intracranial electrophysiology reveals reproducible intrinsic functional connectivity within human brain networks. **Journal of Neuroscience** 38(17):4230-4242.

34. Fox, K.C.R., Foster, B.L., **Kucyi, A.**, Daitch, A.L., Parvizi, J (2018). Intracranial electrophysiology of the human default network. **Trends in Cognitive Sciences** 22(4):307-324.

33. Kucyi, A., Tambini, A., Sadaghiani, S., Keilholz, S.D., Cohen, J.R (2018). Spontaneous cognitive processes and the behavioral validation of time-varying brain connectivity. **Network Neuroscience** 2(4):397-417.
**Invited contribution from Network Neuroscience editor-in-chief*

32. Kucyi, A. (2018). Just a thought: How mind-wandering is represented in dynamic brain connectivity. **Neuroimage** 180:505-514.
**Invited contribution to Neuroimage special issue on Brain Connectivity Dynamics*

31. Shine, J.M., **Kucyi, A.**, Foster, B.L., Bickel, S., Wang, D., Liu, H., Poldrack, R.A., Hsieh, F., Hsiang, J.C., Parvizi, J (2017). Distinct patterns of temporal and directional connectivity among intrinsic networks in the human brain. **Journal of Neuroscience** 37(40):9667-9674.

30. Kucyi, A., Esterman, M., Valera, E.M. (2017). Reply to Csifcsák and Mittner: Fitting data to neural models of mind-wandering. **Proceedings of the National Academy of Sciences** 114(30):E6033.

29. Rastoji, A., Cash, R., Dunlop K., Vesia, M., **Kucyi, A.,** Ghahremani, A., Downar, J., Chen, J., Chen, R (2017). Lateral cerebellar continuous theta burst stimulation reduces cognitive cerebello-cerebral functional connectivity. **Neuroimage** 158:48-57.

28. Song, A.H., **Kucyi, A.,** Napadow, V., Brown, E.N., Loggia, M.L., Akeju, O (2017). Pharmacological modulation of noradrenergic arousal circuitry disrupts functional connectivity of the locus coeruleus in humans. **Journal of Neuroscience** 37(29):6938-6945.

27. Cheng, J.C., Bosma, R.L., Hemington, K.S., **Kucyi, A.,** Lindquist, M.A., Davis, K.D (2017). Slow-5 dynamic functional connectivity reflects the capacity to sustain cognitive performance during pain **Neuroimage** 157:61-68.

26. Hodkinson, D.J., Veggeberg, R., **Kucyi, A.,** Van Dijk, R.A., Wilcox, S.L., Scrivani, S.J., Burstein, R., Becerra, L., Borsook, D (2017) Corticocortical connections of primary sensory areas and associated symptoms in migraine. **eNeuro** 3(6):e0163-16.

25. Kucyi, A., Hove, M.J., Esterman, M., Hutchison, R.M., Valera, E.M (2017). Dynamic Brain Network Correlates of Spontaneous Fluctuations in Attention. **Cerebral Cortex** 27(3):1831-1840.

24. Valera, E.M., **Kucyi, A** (2017). Brain injury in women experiencing intimate-partner violence: Neural mechanistic evidence of an "invisible" trauma. **Brain Imaging and Behavior** 11(6):1664-1677.

23. Kucyi, A., Davis, K.D (2017). The neural code for pain: from single cell electrophysiology to the dynamic pain connectome. **The Neuroscientist** 23(4):397-414.

22. Kucyi, A., Esterman, M., Riley, C.S., Valera, E.M (2016). Spontaneous default network activity reflects behavioral variability independent of mind-wandering. **Proceedings of the National Academy of Sciences** 113(48):13899-13904.
**Comment: "Linking brain networks and behavioral variability to different types of mind-wandering." Csifcsák, G., Mittner, M. (2017) PNAS.*

21. Cantor, J.M., Lafaille, S.J. **Kucyi, A.**, Soh, D.W., Girard, T.A., Mikulis, D.J (2016). Independent components analysis of resting state fMRI in pedophiles. **Journal of Sexual Medicine** 13(10):1546-54.

20. Kucyi, A., Salomons, T.V., Davis, K.D (2016). Cognitive behavioral training reverses the effect of pain exposure on brain-network activity. **Pain** 157(9):1895-904.

19. Coulombe, M.A., Erpelding, N., **Kucyi, A.,** Davis, K.D (2016). Intrinsic functional connectivity of periaqueductal gray subregions in humans. **Human Brain Mapping** 37(4):1514-30.

18. Hemington, K.S., Wu, Q., **Kucyi, A.,** Inman, R.D., Davis, K.D (2016). Abnormal cross-network functional connectivity in chronic pain and its association with clinical symptoms. **Brain Structure and Function** 221(8):4203-4219.

17. Taylor, K.S., **Kucyi, A.,** Millar, P.J., Murai, H., Kimmerly, D.S., Morris, B.L., Bradley, T.D., Floras, J.S (2016). Association between Resting State Brain Functional Connectivity and Muscle Sympathetic Burst Incidence. **Journal of Neurophysiology** 115(2):662-73.

16. Davis, K.D., **Kucyi, A.,** Moayedi, M (2015). The Pain Switch: an "ouch" detector. **Pain** 156(11):2164-6.

15. Kucyi, A., Sheinman, A., Defrin, R (2015). Distinguishing feigned from sincere performance in psychophysical pain testing. **Journal of Pain** 16(10):1044-53.

14. Cheng, J.C., Erpelding, N., **Kucyi, A.,** DeSouza, D.D., Davis, K.D (2015). Individual differences in temporal summation of pain reflect pro- and anti-nociceptive brain structure and function. **Journal of Neuroscience** 35(26):9689-700.

13. Kucyi, A., Hove, M.J., Biederman, J., Van Dijk, K.R.A., Valera, E.M (2015). Disrupted functional connectivity of cerebellar default network areas in attention-deficit/hyperactivity disorder. **Human Brain Mapping** 36(9):3373-86.

12. Chan, J.L.C., **Kucyi, A.**, DeSouza, J.F.X (2015). Stable task representations under attentional load revealed with multivariate pattern analysis of human brain activity. **Journal of Cognitive Neuroscience** 27(9):1789-1800.

11. Kucyi, A., Davis, K.D (2015). The dynamic pain connectome. **Trends in Neurosciences** 38(2):86-95.

10. Kucyi, A., Davis, K.D (2014). Dynamic functional connectivity of the default mode network tracks daydreaming. **NeuroImage** 100:471-80.

9. Kucyi, A., Moayedi, M., Weissman-Fogel, I., Goldberg, M., Freeman, B., Tenenbaum, H., Davis, K.D (2014). Enhanced medial prefrontal-default mode network functional connectivity in chronic pain and its association with pain rumination. **Journal of Neuroscience** 34(11):3969-3975.

8. Kucyi, A., Salomons, T.V., Davis, K.D (2013). Mind wandering away from pain dynamically engages antinociceptive and default mode brain networks. **Proceedings of the National Academy of Sciences** 110(46):18692-7.
**Highlight: "Pain: A wandering brain reduces pain?" Wellberg, L. (2013) Nature Reviews Neuroscience.*

7. Kucyi, A., Hodaie, M., Davis, K.D (2012). Lateralization in intrinsic functional connectivity of the temporoparietal junction with salience- and attention-related brain networks. **Journal of Neurophysiology** 108(12):3382-92.

6. Chan, J.L., **Kucyi, A** (2012). What can fMRI tell us about functional variability in the oculomotor system and saccade performance? **Journal of Neurophysiology** 107(9):2295-2297.

5. Kucyi, A., Moayedi, M., Weissman-Fogel, I., Hodaie, M., Davis, K.D (2012). Hemispheric asymmetry in white matter connectivity of the temporoparietal junction with the insula and prefrontal cortex. **PLoS One** 7(4):e35589.

4. Salomons, T.V., **Kucyi, A** (2011). Does Meditation Reduce Pain Through a Unique Neural Mechanism? **Journal of Neuroscience** 31(36): 12705-7.

3. Kucyi, A., Alsuwaidan, M.T., Liauw, S.S. McIntyre, R.S (2010). Aerobic Physical Exercise as a Possible Treatment for Neurocognitive Dysfunction in Bipolar Disorder. **Postgraduate Medicine** 122(6):107-116.

2. McIntyre, R.S., Danilewitz, M., Liauw, S., Kemp, D.E., Nguyen, H.T., Kahn, L.S., **Kucyi, A.**, Soczynska, J.K., Woldeyohannes, H.O., Lachowski, A., Kim, B., Nathanson, J., Alsuwaidan, M., Taylor, V (2010). Bipolar Disorder and Metabolic Syndrome: An International Perspective. **Journal of Affective Disorders** 126(3):366-87.

1. Alsuwaidan, M.T., **Kucyi, A.**, Law, C.W.Y., McIntyre, R.S (2009). Exercise and Bipolar Disorder: A Review of Neurobiological Mediators. **NeuroMolecular Medicine** 11(4):328-36.

Book Chapters

Kucyi, A., Sadaghiani, S. How can I analyze large-scale intrinsic functional networks with iEEG? (2023). In N. Axmacher, J. Parvizi (Eds.) **Intracranial EEG: A Guide for Cognitive Neuroscientists.** Berlin: Springer.

Kucyi, A., Chan, J.L., Bickel, S., Parvizi, J. Functional Neuroimaging II: fMRI and resting state fMRI (2019). In J.A. Brown, J.G. Pilitsis, M. Schulder (Eds.) **Functional Neurosurgery: The Essentials**. New York: Thieme Publishers.

Kucyi, A. Pain and Spontaneous Thought (2018). In K.C.R Fox, K. Christoff (Eds.) **Oxford Handbook of Spontaneous Thought**. New York: Oxford University Press.

Chan, J.L., **Kucyi, A.,** DeSouza, J.F.X (2015). Oculomotor System. In A.W. Toga, M.M. Mesulam, & S. Kastner (Eds.) **Brain Mapping: An Encyclopedic Reference**. Oxford, UK: Elsevier.

Conference Lectures

International Conference of Cognitive Neuroscience (Symposium speaker). May 2022 (Virtual).

Organization for Human Brain Mapping 2021 (Symposium organizer and speaker). Jun. 2021 (Virtual).

American Professional Society of ADHD and Related Disorders (Symposium speaker). Jan. 2021 (Virtual).

Yale School of Medicine's 6th Scientific Workshop on Brain Functional Organization, Connectivity and Behavior (Workshop speaker). Whistler, BC, Mar. 2020.

Organization for Human Brain Mapping 2019 (Symposium speaker). Rome, Italy, Jun. 13, 2019.

Cognitive Neuroscience Society 2019 (Data Blitz speaker). San Francisco, CA, Mar. 23, 2019.

Gordon Research Seminar on Neurobiology of Cognition 2018 (Session discussion leader). Newry, ME, Jul. 22, 2018.

Cognitive Neuroscience Society 2018 (Data Blitz speaker). Boston, MA, Mar. 24, 2018.

Stanford University School of Medicine – Epilepsy Program Quarterly Conference (speaker). Palo Alto, CA, Feb. 16, 2018.

Organization for Human Brain Mapping 2016 (Symposium organizer and speaker). Geneva, Switzerland. June 27, 2016.

Ruhr-University Bochum, *Mind and Pain in Motion: International Workshop* (speaker). Bochum, Germany. June 23, 2016.

Canadian Pain Society 2015 (Symposium speaker). Prince Edward Island, Canada, May 22, 2015.

University of Toronto, *Centre for the Study of Pain Annual Scientific Meeting 2014* (speaker). Toronto, ON, Feb. 25, 2014.

World Congress on Pain 2014 (Topical Workshop speaker). Buenos Aires, Argentina, Oct. 11, 2014.

University of Toronto, *Centre for the Study of Pain Annual Scientific Meeting 2013* (speaker). Toronto, ON, Feb. 26, 2013.

Society for Neuroscience 2012 (Nanosymposium speaker). New Orleans, LA.

Society for Neuroscience 2011 (Nanosymposium speaker). Washington, DC.

Invited Lectures (Selected)

University of Pennsylvania, *Lifespan Informatics and Neuroimaging Center*. Oct. 31, 2023.

University of Tromsø, Norway, *Institute of Psychology*. Sept. 21, 2023.

Northwestern University, *Cognitive Brain Mapping Group*. Feb. 15, 2023 (Virtual).

University of Chicago, *Neurology Grand Rounds*. Apr. 21, 2022 (Virtual).

University of California, Berkeley, *Cognitive Neuroscience Colloquium*. Mar. 28, 2022 (Virtual).

Cardiff University. *Cardiff University Brain Research Imaging Centre* Seminar. Feb. 14, 2022 (Virtual).

National Institutes of Health, *Laboratory of Neuroimaging, NIAAA*. Dec. 10, 2021 (Virtual).

Veterans Affairs Boston, *Neuroimaging Research for Veterans Center*. Jun. 15, 2021 (Virtual).

Icahn School of Medicine at Mount Sinai, *Friedman Brain Institute*. Feb. 22, 2021 (Virtual).

Pontificia Universidad Católica of Chile, *Laboratory for Cognitive and Evolutionary Neuroscience*. Dec. 10, 2020 (Virtual).

University of Massachusetts Boston, *Greater Boston Neuroscience Club*. Oct. 30, 2020 (Virtual).

Brigham and Women's Hospital, *Laboratory for Brain Network Imaging and Modulation*. Nov. 10, 2020 (Virtual).

Veterans Affairs/Boston University, *Boston Attention and Learning Lab*. May 7, 2020 (Virtual).

Icahn School of Medicine at Mount Sinai, *Translational and Molecular Imaging Institute*. New York, NY. Apr. 1, 2019.

University of Virginia, *School of Engineering and Applied Science*. Mar. 27, 2019. Charlottesville, VA.

Hôpital du Sacré-Cœur de Montréal, *Research Center*. Montreal, QC. Mar. 25, 2019. Montreal, QC.

The Hospital for Sick Children/University of Toronto, *SickKids Research Institute*. Dec. 18, 2018. Toronto, ON.

Martinos Center for Biomedical Imaging, *Center for Integrative Pain Neuroimaging*. Boston, MA. Mar. 28, 2018.

University of Western Ontario, *Department of Psychology*. London, ON. Dec. 21, 2017.

Stanford University, *Affective Science Seminar Series*. Stanford, CA. Dec. 7, 2017.

Harvard University, *Schacter Memory Lab*. Aug. 28, 2017.

Stanford University, *Poldrack Lab*. Stanford, CA. Nov. 29, 2016.

Toronto Western Hospital/University of Toronto, *Neuroimaging Rounds*. Toronto, ON. Oct. 11, 2016.

Centre for Addiction and Mental Health (CAMH)/University of Toronto, *Neuroimaging Rounds*. Toronto, ON, Feb. 14, 2014.

Martinos Center for Biomedical Imaging/Massachusetts General Hospital, *BrainMap Seminar Series*. Boston, MA, Feb. 7, 2014.

University of Western Ontario, *Lawson Health Research Institute*. London, ON, Jan. 17, 2014.

The Hospital for Sick Children/University of Toronto, *Neuroimaging Rounds*. Toronto, ON, Jun. 26, 2013.

Journal Reviewing and Editorial Service

Ad Hoc Peer Reviewing:

Cerebral Cortex
Cognition
Cognitive, Affective & Behavioral Neuroscience
Consciousness and Cognition
Cortex
Creativity Research Journal
Current Opinion in Behavioral Sciences
eLife
Experimental Brain Research
Neuroimage
Neuroimage: Clinical
Network Neuroscience
Neuropsychologia
Pain
Pain Medicine
PLoS Computational Biology
PLoS One
Philosophical Transactions of the Royal Society B

Frontiers in Integrative Neuroscience	Proceedings of the National Academy of Sciences
Human Brain Mapping	Psychological Medicine
Journal of Neuroscience	Science Advances
Nature Communications	Scientific Reports
Nature Reviews Neuroscience	Translational Psychiatry

Editorial Boards

Technology, Mind and Behavior special issue: "Understanding involuntary thought and affect through big data and AI" (2023-2024).

Grant Reviewer

National Science Foundation (NSF)	2023
European Science Foundation	2022
Ernest J. Del Monte Institute for Neuroscience, University of Rochester	2022
Graduate Women in Science (GWIS) National Fellowship	2022
US-Israel Binational Science Foundation	2020, 2022

Prior Research Experience

2008-2010	Research Assistant, York University
2008-2010	Research Assistant, University Health Network (Toronto)

Teaching Experience

Courses Taught

Drexel University (2023-Present)

PSY 330: Cognitive Psychology (Spring 2023 - undergraduate)

- Instructor rating: 4.9/5

PSY T880: Special Topics in Clinical Neuroscience (Winter 2023 – graduate)

- Instructor rating: 5/5

Northeastern University (2022)

PSYC 4674: Seminar in Cognitive Neuroscience (Spring 2022 - undergraduate)

- Instructor rating: 4.9/5

Teaching Assistantships

Stanford University

NEPR 205: Neurosciences Anatomy Core (Winter 2017)

University of Toronto

MScPT Neuroanatomy (Summer 2012; Summer 2013)

MSC1087: Neuroimaging Methods using MRI (Winter 2013)

Guest Classroom Lectures

Investigations in Bioscience and Biotechnology: Neuroscience (high school summer course). *Stanford Pre-Collegiate Summer Institute* (Aug. 2017, Jul. 2018).

NEPR 205: Neurosciences Anatomy Core (graduate course), *Stanford University* (Mar. 2017)

PSYC 030: Introductory Psychobiology (undergraduate course), *San Jose State University* (Feb. 2017)

Neuroscience Enrichment Program (high school summer course), *University of Toronto* (Dec. 2013)

International Brain Research Organization (IBRO) Neuroscience School on Neuropathic Pain, *Toronto Western Hospital* (May 2013).

Data Analysis Tutorials

"Connectome-based predictive modeling analysis": Northeastern University. July 6, 2020 (Virtual).

"Functional connectivity in intracranial EEG and fMRI": EEG Methods Club at Stanford University. June 20, 2017.

"Resting state fMRI data preprocessing": multiple presentations (2013-2016) to investigators and affiliates at the University of Toronto and Harvard/MIT/MGH.

Participation in Teaching Training

Drexel Institute for Inclusive and Equitable Teaching (Winter 2023)

Stanford Postdoc Teaching Certificate (60 hours of training, 2017-2019)

Laboratory Mentoring (Full Time Trainees)

Postdocs

2023 - Present: David Braun, Ph.D.

Research Coordinators

2022 - Present: Lotus Shareef-Trudeau, B.A.

2023 - Present: Tiara Bounyarith, B.A.

Undergraduate Students

04/2023 - 09/2023: Swetha Rao, BS/MD program, co-op student

Academic Service

External Committees

2015-2017 Chair, *Organization for Human Brain Mapping (OHBM) Student and Postdoc Special Interest Group*

Internal Committees

2015-2016 Coordinator, BrainMap Seminar Series, *Martinos Center for Biomedical Imaging, Massachusetts General Hospital/Harvard-MIT Health Sciences and Technology*

2012-2014 Co-Chair, *University of Toronto Centre for the Study of Pain (UTCSP) Knowledge Translation and Networking Committee*

2011-2013 Coordinator, *Toronto Western Research Institute Neuroimaging Rounds*

2011-2013 Writer/Editor, *Institute of Medical Science Magazine, University of Toronto*

2010-2014 Member-at-Large, *Toronto Western Research Institute Trainee Affairs Committee*

Dissertation and Thesis Committees (External and Internal)

Drexel University

2023-Present: Elizabeth Espinal (Drexel Clinical Psychology PhD Program)

2023-Present: Alexei Taylor (Drexel Applied Cognitive and Brain Sciences PhD Program)

Massachusetts Institute of Technology

2023-Present: Isaac Treves (MIT Brain and Cognitive Sciences PhD Program)

UiT The Arctic University of Norway

2023: Josephine Groot (UiT Psychology PhD Program) – External Evaluator/Opponent

Travel and Conference Awards

2022	SOBP Early Career Investigator Travel Fellowship (declined)	*Society for Biological Psychiatry*
2022	Invited, Fund Consciousness Workshop for Early Career Researchers	*Templeton World Charity Foundation*
2019	Stanford Bio-X Travel Award	*Stanford University*
2018	First Place in Research Poster Competition	*Gordon Research Seminar on Neurobiology of Cognition*
2015	CPS Trainee Conference Travel Grant	*Canadian Pain Society (CPS)*
2014	IASP Congress Travel Award	*University of Toronto – Centre for the Study of Pain*
2011-2012	University of Toronto Conference Travel Grant (x3)	*University of Toronto - School of Graduate Studies*
2011	Society for Neuroscience 2011 Travel Award	*University of Toronto - Neuroscience Program*
2011	Invited, NIH Advanced Summer Neuroimaging Program	*National Institutes of Health (NIH), University of California, Los Angeles*
2010	Invited, UWO Neuroscience Summer School	*University of Western Ontario*
2009	Invited, UBC Rising Stars of Research Conference	*University of British Columbia*

Science Outreach (Selected)

Lecturer/Demonstrator, *Stanford 2017 Brain Day*, May 12, 2017. Jane Lathrop Stanford Middle School, Palo Alto, CA.

Lecturer/Demonstrator, *Brain Awareness Week* (Dana Foundation), grades 6-8. April 7, 2015. Timilty Middle School, Roxbury, MA.

University of Toronto *Brain Day* Teacher, grade 4 class. April 2, 2014. Rivercrest Junior School, Toronto, Ontario.

Volunteer, "Virtual Dream" exhibit demonstrating EEG brain-computer-interface at Nuit Blanche (Toronto public arts festival), Oct. 5, 2013.

Speaker and Panelist (invited), Ontario Science Centre's *Café Scientifique*. "Science in Society: for Better or for Worse?" October 22, 2011, the Rivoli, Toronto, Ontario.

University of Toronto *Brain Day* Teacher, grade 6 class. March 9, 2011, Our Lady of Sorrows Catholic School, Toronto, Ontario.

Media Coverage (Selected)

Podcast interview on SiriusXM 143 national radio: *Top of Mind with Julie Rose*. Apr. 5, 2021.

MIT McGovern Institute News: "What's happening in your brain when you're spacing out?" Mar. 23, 2021.

Featured in *Popular Science* magazine: "What happens when we daydream?" May 15, 2020.

Research on mind wandering and pain referenced in *TED-Ed* animation: "How does your brain respond to pain?" Jun. 2., 2014.

Research on mind wandering and pain covered by *National Public Radio (NPR)*: "How a Wandering Brain Can Help People Cope With Pain." Oct. 29, 2013.

Named on list "Neuroscience on Twitter: 30 High-Profile Scientists Who Tweet," *Huffington Post*, June 11, 2012.