Aaron Kucyi, PhD

aaron.kucyi@drexel.edu
kucyilab.com
github.com/DynamicBrainMind

Academic Appointments

2022 - present	Assistant Professor *Department of Psychological & 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 & 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*

Awards and Honors

2024	NARSAD Young Investigator Grant	*Brain and Behavior Research Foundation*
2023	Antelo Devereux Award for Junior Faculty	*Drexel University – College of Arts & Sciences*
2022	SOBP Early Career Investigator Travel Fellowship	*Society for Biological Psychiatry (SOBP)*
2022	Invited, Fund Consciousness Workshop for Early Career Researchers	*Templeton World Charity Foundation*
2020	Editors' Choice Award	*Human Brain Mapping*
2019	Stanford Bio-X Travel Award	*Stanford University*
2018	1st place in Research Poster Competition	*Gordon Research Seminar on Neurobiology of Cognition*
2017	CIHR Banting Fellowship (ranked 2nd in national competition)	*Canadian Institutes of Health Research (CIHR)*
2015	CPS Trainee Conference Travel Grant	*Canadian Pain Society (CPS)*
2014	IASP Congress Travel Award	*University of Toronto – Centre for the Study of Pain*

2012	CIHR Doctoral Award	*Canadian Institutes of Health Research (CIHR)*
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*
2011	Ontario Graduate Scholarship	*Ontario Government*
2011	Pain Scientist Scholarship	*University of Toronto – Centre for the Study of Pain*
2011	IMS Open Fellowship	*University of Toronto – Institute of Medical Science (IMS)*
2010	CIHR Master's Award (ranked 1st in national competition)	*Canadian Institutes of Health Research (CIHR)*
2010	IMS Entrance Award	*University of Toronto – Institute of Medical Science (IMS)*
2010	Invited, UWO Neuroscience Summer School	*University of Western Ontario*
2009	Invited, UBC Rising Stars of Research Conference	*University of British Columbia*
2008	NSERC Undergraduate Student Research Award	*Natural Sciences and Engineering Research Council of Canada*

Journal Publications

62. Treves, I.N., Marusak, H., Decker, A., **Kucyi, A.**, Hubbard, N., Bauer, C., Leonard, J., Grotzinger, H., Giebler, M.A., Torres, Y.C., Imhof, A., Romero, R., Calhoun, V., Gabrieli, J (2024). Dynamic functional connectivity correlates of trait mindfulness in early adolescence. **Biological Psychiatry: Global Open Science** [in press].

61. Kucyi, A., Anderson, N., Bounyarith, T., Braun, D., Shareef-Trudeau, L., Treves, I., Braga, R.M., Hsieh, P., Hung, S (2024). Individual variability in neural representations of mind-wandering. **Network Neuroscience** [in press].

60. Duong, A., Quabs, J., **Kucyi, A.,** Lusk, Z., Caspers, S., Buch, V., Parvizi, J (2023). 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.

Submitted Manuscripts

Shareef-Trudeau, L., Lydon-Staley, D., Medaglia, J., **Kucyi, A**. Brain-based predictive modeling of mind-wandering and involuntary thought: the idiographic approach [submitted].

Treves, I.N., **Kucyi, A.,** Park, M., Kral, T.R.A., Goldberg, S.B., Davidson, R.J., Rosenkranz, M., Whitfield-Gabrieli, S., Gabrieli, J. Connectome predictive modeling of trait mindfulness [revision submitted].

Morfini, F., **Kucyi, A.,** Zhang, J., Bauer, C.C., Bloom, P.A., Pagliaccio, D., Hubbard, N.A., Rosso, I.M., Yendiki, A., Ghosh, S.S., Pizzagalli, D.A., Gabrieli, J.D.E., Whitfield-Gabrieli, S., Auerbach, R.P. Brain functional connectivity predicts depression and anxiety during childhood and adolescence: a connectome-based predictive modeling approach [submitted].

Peer-Reviewed Preregistrations

Bounyarith, T., Braun, D., **Kucyi, A.** (2024). Examining the neural bases of spontaneous mental experiences with real-time fMRI. **Peer Community in Registered Reports** [Stage 1 preregistered report; in-principle acceptance of final report offered by 10 journals]. https://osf.io/sd4hu

Peer-Reviewed Conference Proceedings

Zhu, W., **Kucyi, A.**, Kramer, A. F., & Lin, Y. (2022, November). Multimodal Physiological Assessment of the Task-related Attentional States in a VR Driving Environment. In *2022 28th International Conference on Mechatronics and Machine Vision in Practice (M2VIP)* (pp. 1-5). IEEE.
**Best Conference Paper Award, M2VIP 2022*

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.

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

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 - 2024 Scholarly Materials & Research Equipment Award, *Office of Research & Innovation, Drexel University*

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

2023 Undergraduate Research Fund Grant, *Department of Psychological & Brain Sciences, Drexel University*

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

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)**
- Total funds awarded: $2,471,939

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

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

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

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

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

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

2011 Ontario Graduate Scholarship

- Total funds awarded: $15,000

2011 Pain Scientist Scholarship, *Centre for the Study of Pain, University of Toronto*

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

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

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

2010 - 2011 Institute of Medical Science Entrance Award and Open Fellowship, *Institute of Medical Science, University of Toronto*

- Total funds awarded: $10,000

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

- Total funds awarded: $4,500

Invited Symposia / Conference Talks

Cognitive Neuroscience Society (Data Blitz chair)	Toronto, ON	Apr. 2024
International Conference of Cognitive Neuroscience (Symposium speaker)	Virtual	May 2022
Organization for Human Brain Mapping (Symposium organizer and speaker)	Virtual	Jun. 2021
American Professional Society of ADHD and Related Disorders (Symposium speaker)	Virtual	Jan. 2021
Yale School of Medicine's 6th Scientific Workshop on Brain Functional Organization, Connectivity and Behavior (speaker)	Whistler, BC	Mar. 2020
Organization for Human Brain Mapping (Symposium speaker)	Rome, Italy	Jun. 2019
Cognitive Neuroscience Society (Data Blitz speaker)	San Francisco, CA	Mar. 2019
Gordon Research Seminar on Neurobiology of Cognition (Session discussion leader)	Newry, ME	Jul. 2018
Cognitive Neuroscience Society (Data Blitz speaker)	Boston, MA	Mar. 2018
Stanford University School of Medicine – Epilepsy Program Quarterly Conference (speaker)	Palo Alto, CA	Feb. 2018
Organization for Human Brain Mapping (Symposium organizer and speaker)	Geneva, Switzerland	Jun. 2016
Mind and Pain in Motion: International Workshop at Ruhr-University Bochum (speaker).	Bochum, Germany	Jun. 2016
Canadian Pain Society (Symposium speaker)	Prince Edward Island, Canada	May 2015
University of Toronto, Centre for the Study of Pain Annual Scientific Meeting (speaker)	Toronto, ON	Feb. 2014
World Congress on Pain (Topical Workshop speaker)	Buenos Aires, Argentina	Oct. 2014

University of Toronto, Centre for the Study of Pain Annual Scientific Meeting (speaker)	Toronto, ON	Feb. 2013
Society for Neuroscience (Nanosymposium speaker)	New Orleans, LA	Oct. 2012
Society for Neuroscience (Nanosymposium speaker)	Washington, DC	Nov. 2011

Invited Colloquia (Selected)

University of Pennsylvania – Lifespan Informatics and Neuroimaging Center	Philadelphia, PA	Oct. 2023
University of Tromsø – Institute of Psychology	Tromsø, Norway	Sept. 2023
Northwestern University – Cognitive Brain Mapping Group	Virtual	Feb. 2023
University of Chicago – Neurology Grand Rounds	Virtual	Apr. 2022
University of California, Berkeley, Cognitive Neuroscience Colloquium	Virtual	Mar. 2022
Cardiff University Brain Research Imaging Centre	Virtual	Feb. 2022
National Institutes of Health, Laboratory of Neuroimaging, NIAAA	Virtual	Dec. 2021
Veterans Affairs Boston, Neuroimaging Research for Veterans Center	Virtual	Jun. 2021
Icahn School of Medicine at Mount Sinai – Friedman Brain Institute	Virtual	Feb. 2021
Pontificia Universidad Católica of Chile, Laboratory for Cognitive and Evolutionary Neuroscience	Virtual	Dec. 2020
University of Massachusetts Boston, Greater Boston Neuroscience Club	Virtual	Oct. 2020
Brigham and Women's Hospital, Laboratory for Brain Network Imaging and Modulation	Virtual	Nov. 2020
Veterans Affairs, Boston Attention and Learning Lab	Virtual	May 2020
Icahn School of Medicine at Mount Sinai, Translational and Molecular Imaging Institute	New York, NY	Apr. 2019
University of Virginia – School of Engineering and Applied Science	Charlottesville, VA	Mar. 2019
Hôpital du Sacré-Cœur de Montréal	Montreal, QC	Mar. 2019
The Hospital for Sick Children – SickKids Research Institute	Toronto, ON	Dec. 2018
Martinos Center for Biomedical Imaging – Center for Integrative Pain Neuroimaging	Boston, MA	Mar. 2018
University of Western Ontario – Department of Psychology	London, ON	Dec. 2017
Stanford University – Affective Seminar Series	Stanford, CA	Dec. 2017
Harvard University – Schacter Memory Lab	Cambridge, MA	Aug. 2017
Stanford University – Poldrack Lab	Stanford, CA	Nov. 2016
Toronto Western Hospital – Neuroimaging Rounds	Toronto, ON	Oct. 2016
Centre for Addiction and Mental Health – Neuroimaging Rounds	Toronto, ON	Feb. 2014
Martinos Center for Biomedical Imaging – BrainMap Seminar Series	Boston, MA	Feb. 2014
University of Western Ontario – Lawson Health Research Institute	London, ON	Jan. 2014

The Hospital for Sick Children – Neuroimaging Rounds Toronto, ON Jun. 2013

Journal Reviewing and Editorial Service

Editorial Boards

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

Ad Hoc Peer Reviewing:

Cerebral Cortex	Nature Reviews Neuroscience
Cognition	Neuroimage (>30 assignments)
Cognitive, Affective & Behavioral Neuroscience	Neuroimage: Clinical
Consciousness and Cognition	Network Neuroscience
Cortex	Neuropsychologia
Creativity Research Journal	Pain
Current Opinion in Behavioral Sciences	Pain Medicine
eLife	Philosophical Transactions of the Royal Society B
Emotion	PLoS Computational Biology
eNeuro	PLoS One
Experimental Brain Research	Proceedings of the National Academy of Sciences
Frontiers in Integrative Neuroscience	Psychological Medicine
Human Brain Mapping (>5 assignments)	Science Advances
Journal of Neuroscience	Scientific Reports
Nature Communications (>10 assignments)	Translational Psychiatry

Grant Reviewing

Brain Canada Foundation (panel member)	2024
National Science Foundation (ad hoc)	2023, 2024
European Science Foundation (ad hoc)	2022
Ernest J. Del Monte Institute for Neuroscience, University of Rochester (ad hoc)	2022
Graduate Women in Science (GWIS) National Fellowship (ad hoc)	2022
US-Israel Binational Science Foundation (ad hoc)	2020, 2022

Teaching Experience

Primary Instructor at Drexel University

Course	Term/Year	# Enrolled	Course Evaluation	Instructor Evaluation
PSY 600: Human Functional Brain Networks	Winter 2024	9	4.44/5	5/5
PSY 330: Cognitive Psychology	Spring 2023	24	4.86/5	4.9/5
PSY T880: Special Topics in Clinical Neuroscience	Winter 2023	6	4.83/5	5/5

Primary Instructor at Northeastern University

Course	Term/Year	# Enrolled	Course Evaluation	Instructor Evaluation
PSYC 4674: Seminar in Cognitive Neuroscience	Spring 2022	18	4.8/5	4.9/5

Teaching Assistant

Course	Level	Institution	Date
NEPR 205: Neurosciences Anatomy Core	Graduate	Stanford University	Winter 2017
MScPT Neuroanatomy	Graduate	University of Toronto	Summer 2013
MSC1087: Neuroimaging Methods using MRI	Graduate	University of Toronto	Winter 2013
MScPT Neuroanatomy	Graduate	University of Toronto	Summer 2012

Guest Classroom Lectures

Course	Level	Institution/Program	Date
Investigations in Bioscience and Biotechnology: Neuroscience	High School	Stanford Pre-Collegiate Summer Institute	2017, 2018
NEPR 205: Neurosciences Anatomy Core	Graduate	Stanford University Neurosciences PhD Program	2017
PSYC 030: Introductory Psychobiology	Undergraduate	San Jose State University	2017
Neuroscience Enrichment Program	High School	University of Toronto	2013
International Brain Research Organization (IBRO) Neuroscience School on Neuropathic Pain	Graduate/post-graduate	Toronto Western Hospital	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.

Training Completed

Drexel Institute for Inclusive and Equitable Teaching Certificate (Winter 2023)

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

Laboratory Mentoring

PhD students

Sept. 2024 – present Lotus Shareef-Trudeau

Sept. 2024 – present Janet Li

Postdoctoral Fellows

Oct. 2023 – present David Braun (full-time)

Jun. 2023 – Dec. 2023 Christine Chesebrough (part-time)

Research Coordinators (full-time)

Jun. 2023 – present Tiara Bounyarith

Dec. 2022 – Aug. 2024 Lotus Shareef-Trudeau

Undergraduate Co-op students (full time)

Apr. 2023 – Sept. 2023 Swetha Rao

Volunteer or Part-Time Research Assistants

Mar. 2024 – present Ben Barsky (Drexel undergraduate student; ASURS Fund Scholar)

Oct. 2023 – present Swetha Rao (Drexel undergraduate student)

Academic Service

Drexel University

2024 - present	Coordinator of Undergraduate Research Participant Pool, Department of Psychological & Brain Sciences
2024	Panelist, Arts & Sciences Undergraduate Student-Faculty Research Support Fund
2024	Reviewer, Scholarly Materials & Equipment Research Awards
2023	Reviewer, Students Tackling Advanced Research (STAR) Scholars Program
2022	Reviewer, NSF GFRP Campus Review
2022	Speaker, Faculty Lightning Talks – Applied Cognitive & Brain Sciences Program

Outside of Drexel

2023 - present	Member, *Cognitive Neuroscience Society (CNS) Poster Committee*
2015-2017	Chair, *Organization for Human Brain Mapping (OHBM) Student and Postdoc Special Interest Group*
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

2024 - present	Necle Ece Yilmaz	Drexel University	Psychology MS
2023 - present	Elizabeth Espinal	Drexel University	Clinical Psychology PhD
2023 - present	Isaac Treves	Massachusetts Institute of	Brain and Cognitive Sciences

		Technology	PhD
2023-2024	Alexei Taylor	Drexel University	Applied Cognitive and Brain Sciences PhD
2023	Josephine Groot	Arctic University of Norway	Psychology PhD

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 interviews on *Top of Mind with Julie Rose* (Apr. 5, 2021), *Neurofelicity* (Mar. 27, 2024).

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.