

Francesca Morfini

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McLean Hospital
Department of Psychiatry
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Education and Training

2025 - Present **Postdoctoral Research Fellow**

Department of Psychiatry
Center for Depression, Anxiety and Stress Research
Advisor: Christian A. Webb, Ph.D.

Harvard Medical School
McLean Hospital

2019 - 2025 **Ph.D. in Psychology (Cognitive Neuroscience)** Northeastern University, USA

Advisors: Susan Whitfield-Gabrieli, Ph.D.
Randy P. Auerbach (Columbia University), Ph.D., ABPP
Juliet Y. Davidow, Ph.D.

2014 **M.S. in Psychology (Clinical)** San Raffaele University, Italy

Advisor: Laura Bellodi, M.D.

2011 **B.S. in Psychology and Neuroscience** San Raffaele University, Italy

Advisor: Clelia DiSerio, Ph.D.

Research interests

I am a Postdoctoral Research Fellow at McLean Hospital and Harvard Medical School. My research leverages machine learning and multimodal data (magnetic resonance imaging, ecological momentary assessments, passive sensing, etc.) to understand depression and anxiety in adolescence, with the goal of informing personalized interventions.

Honors and Awards

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| Society of Biological Psychiatry (SOBP) | Pre-Doc Travel Award | 2025 |
| Psychology Department Northeastern University | Travel Award | 2020-2024 |
| PhD Network Northeastern University | Travel Award | 2020-2024 |
| College of Science Northeastern University | Travel Award | 2020-2024 |
| International OCD Foundation | Travel Award | 2017 |
| European Union, ERASMUS Study Abroad | Scholarship | 2010 |

Funded Projects

Interdisciplinary Graduate Student Fellowship Morfini (PI) 07/01/2024 - 06/30/2025

Center for Cognitive and Brain Health (Northeastern University)

Title: *Cognitive control, brain maturation, and their relationship with concurrent and longitudinal depression and anxiety in adolescence*

Summary: This project seeks to prospectively predict depression and anxiety symptoms severity in adolescents leveraging baseline multimodal neuroimaging and cognitive features

Role: Principal Investigator

Amount awarded: \$42,781

Licensure

2016 - Present Licensed Psychologist, Italy (License #18591)

Research experience

- 2019-2025 **Ph.D. Graduate Student Researcher**
 Northeastern University, Boston, USA
 Department of Psychology
 Advisors: Susan Whitfield-Gabrieli, Ph.D. and Juliet Y. Davidow, Ph.D.
- 2018-19 **Visiting Scholar**
 Harvard University, Cambridge, MA
 Department of Psychology
 Mentor: Jill M. Hooley, Ph.D.
- 2016-18 **Research Assistant**
 University of California, Los Angeles, CA
 Semel Institute for Neuroscience and Human Behavior
 Mentor: Jamie Feusner, M.D.

Clinical experience

- 08-09/2016 **Clinical Trainee**
 Cognitive-Behavioral Therapy Training Program
 Anxiety Disorders Clinic
 University of California, Los Angeles, CA
 Supervisor: Jamie Feusner, M.D.
- 05-07/2016 **Clinical Trainee**
 Health Professional Observer Program
 Ronald Reagan Hospital
 University of California, Los Angeles, CA
 Supervisor: Michael Strober, Ph.D.
- 2016 - Present **Licensed Psychologist**
 Board of Psychologists of Lombardy, Italy
 Licensing number: 18591
- 2014-15 **Post-Graduate Clinical Intern**
 Center for Anxiety and Eating Disorders
 San Raffaele Hospital, Milan, Italy
 Supervisor: Laura Bellodi, M.D.

Publications

20 published manuscripts (15 peer-reviewed, 5 preprints) and 4 in preparation; [Google Scholar](#) h-index = 9.

† denotes a non-peer reviewed preprint

* denotes equal authorship

[15] Wang L., Zhou, N., Jaffe, N. M., Pidvirny, K., Tierney, A. O., Fisher, H. B., **Morfini, F.**, Forbes, E. E., Pizzagalli, D. A., Cai, T., Webb, C. A. (2025). Multimodal Prediction of Future Depressive Symptoms in Adolescents. *BMC Psychiatry*. <https://doi.org/10.1186/s12888-025-07665-8>

[14] **Morfini, F.**, Kucyi, A., Zhang, J., Bauer, C. C. C., Bloom, P. A., Pagliaccio, Ds., Hubbard, N., Rosso, I. M., Yendiki, A., Ghosh, S. S., Pizzagalli, D. A., Gabrieli, J. D., Whitfield-Gabrieli, S., Auerbach, R. P. (2025). Brain functional connectivity predicts depression and anxiety during childhood and adolescence: a connectome-based predictive modeling approach. *Imaging Neuroscience*, 3, https://doi.org/10.1162/IMAG_a.145

[13] Bauer, C. C. C., Zhang, J., **Morfini, F.**, Hinds, O., Wighton, P., Lee, Y., Stone, L. M. D., Awad, A. I., Okano, K., Hwang, M., Hammoud, J., Nestor, P., Whitfield-Gabrieli, S., Shinn, A. K., Niznikiewicz, M. A. (2025). Real-time fMRI neurofeedback modulates auditory cortex activity and connectivity in schizophrenia patients with auditory hallucinations: A controlled study. *Psychiatry Research: Neuroimaging*. 353, 112050. <https://doi.org/10.1016/j.psychresns.2025.112050>

>>>[† Preprint] (*BioRxiv*): <https://doi.org/10.1101/2025.01.13.632809>

[12] Zhang, J., Tusuzian, E., **Morfini, F.**, Bauer, C. C. C., Stone, L. M. D., Awad, A. I., Shinn, A., Niznikiewicz, M. A., Whitfield-Gabrieli, S. (2025). Brain structural and functional neuroimaging features are associated with improved auditory hallucinations in patients with schizophrenia after real-time fMRI neurofeedback. *Depression and Anxiety*, 2025(1), 2848929. <https://doi.org/10.1155/da/2848929>

[11] **Morfini, F.**, Bauer, C. C. C., Zhang, J., Whitfield-Gabrieli, S., Shinn, A. K., Niznikiewicz, M. A., (2024). Targeting the superior temporal gyrus with real-time fMRI neurofeedback: a pilot study of the indirect effects on self-referential processes in schizophrenia. *Schizophrenia Research*, 270, 358-365. <https://doi.org/10.1016/j.schres.2024.06.036>

[10] Cline, T. L., **Morfini, F.**, Tinney, E. M., Makarewycz, E., Lloyd, K., Olafsson, V., Bauer, C. C. C., Kramer, A. F., Raine, L. B., Gabbard-Durnam, L. J., Whitfield-Gabrieli, S., Hillman, C. H. (2024). Resting-state functional connectivity change in frontoparietal and default mode networks after acute exercise in youth. *Brain Plasticity*. <https://doi.org/10.3233/BPL-240003>

[9] Bloom, P. A., Pagliaccio, D., Zhang, J., Bauer, C. C. C., Kyler, M., Greene, K. D., Treves, I., **Morfini, F.**, Durham, K., Cherner, R., Bajwa, Z., Wool, E., Olfsson, V., Lee, R. F., Bidmead, F., Cardona, J., Kirshenbaum, J. S., Ghosh, S., Hinds, O., Wighton, P., Galfalvy, H., Simpson, H. B., Whitfield-Gabrieli, S., & Auerbach, R. P. (2023). Mindfulness-based real-time fMRI neurofeedback: a randomized controlled trial to optimize dosing for depressed adolescents. *BMC Psychiatry*. <https://doi.org/10.1186/s12888-023-05223-8>

[8] **Morfini, F.**, Whitfield-Gabrieli, S. and Nieto-Castañón, A. (2023) Functional connectivity MRI quality control procedures in CONN. *Frontiers in Neuroscience*. 17:1092125. <https://doi.org/10.3389/fnins.2023.1092125>

[7] Zhang, J., Raya, J., **Morfini, F.**, Urban, Z., Pagliaccio, D., Yendiki, A., Auerbach, R. P., Bauer, C. C. C., Whitfield-Gabrieli, S. (2023). Reducing default mode network connectivity with mindfulness-based fMRI neurofeedback: a pilot study among adolescents with affective disorder history. *Molecular Psychiatry*, 1-9. <https://doi.org/10.1038/s41380-023-02032-z>

[6] Moody, T. D., **Morfini, F.**, Cheng, G. K., Sheen, C., Kerr, W. T., Strober, M., Feusner, J. D. (2020). Brain activation and connectivity in anorexia nervosa and body dysmorphic disorder when viewing bodies: relationships to clinical symptoms and perception of appearance. *Brain Imaging and Behavior*, 7(9). <https://doi.org/10.1007/s11682-020-00323-5>

[5] Vaughn, D.A., Kerr, W. T., Moody, T. D., Cheng, G. K., **Morfini, F.**, Zhang, A., Leow, A. D., Strober, M., Cohen, M. S., Feusner, J. D. (2019). Differentiating weight-restored anorexia nervosa and body dysmorphic disorder using neuroimaging and psychometric markers. *PLOS ONE*, 14(5), p.e0213974.
<https://doi.org/10.1371/journal.pone.0213974>

[4] Reggente, N., Moody, T. D., **Morfini, F.**, Sheen, C., Rissman, J., O'Neill, J., Feusner, J. D. (2018). Multivariate resting-state functional connectivity predicts response to cognitive behavioral therapy in obsessive-compulsive disorder. *Proceedings of the National Academy of Sciences*, 115(9), pp.2222–2227.
<https://doi.org/10.1073/pnas.1716686115>

[3] Rangaprakash, D., Bohon, C., Lawrence, K. E., Moody, T. D., **Morfini, F.**, Khalsa, S. S., Strober, M., Feusner, J. D. (2018). Aberrant dynamic connectivity for fear processing in anorexia nervosa and body dysmorphic disorder. *Frontiers in Psychiatry*, 9. <https://doi.org/10.3389/fpsyg.2018.00273>

[2] Moody, T. D., **Morfini, F.**, Cheng, G. K., Sheen, C., Tadayonnejad, R., Reggente, N., O'Neill, J., Feusner, J. D. (2017). Mechanisms of cognitive-behavioral therapy for obsessive-compulsive disorder involve robust and extensive increases in brain network connectivity. *Translational Psychiatry*, 7(9), p.e1230. <https://doi.org/10.1038/tp.2017.192>

[1] Tadayonnejad, R., Deshpande, R., Ajilore, O., Moody, T. D., **Morfini, F.**, Ly, R., O'Neill, J., Feusner, J. D. (2017). Pregenual anterior cingulate dysfunction associated with depression in OCD: an integrated multimodal fMRI/1H MRS study. *Neuropsychopharmacology*, 43(5), pp.1146–1155.
<https://doi.org/10.1038/npp.2017.249>

Preprints

† denotes a non-peer reviewed preprint

* denotes equal authorship

[5] † Zhang, J., Bauer, C. C. C., **Morfini, F.**, Lee, Y., Stone, L. M. D., Awad, A. I., Okano, K., Hwang, M., Shinn, A. K., Niznikiewicz, M. A., Whitfield-Gabrieli, S. (2025). Real-time fMRI neurofeedback reduces default mode network and auditory cortex functional connectivity in schizophrenia.
<https://doi.org/10.1101/2025.01.02.631107>

[4] † Bloom, P. A., Pagliaccio, D., Bajwa, Z., Wool, E., Zhang, J., Bauer, C. C. C., Kyler, M., Greene, K. D., Treves, I., **Morfini, F.**, Durham, K., Kirshenbaum, J.S., Kim, N., Galfalvy, H., Simpson, B. H., Whitfield-Gabrieli, S., Auerbach, R. P. (2025). Impact of mindfulness-based real-time fMRI neurofeedback on self-referential processing in depressed adolescents: a dosing study. <https://doi.org/10.31234/osf.io/dshcm>

[3] † Qu, Y. L., Chopra, S., Qu, S., Cocuzza, C. V., Labache, L., Bauer, C. C. C., **Morfini, F.**, Whitfield-Gabrieli, S., Slavich, G. M., Joormann, J., Holmes, A. J. (2025). Shared and unique lifetime stressor characteristics and network connectivity predict adolescent anxiety and depression.
<https://doi.org/10.1101/2024.10.25.620373>

[2] † Zhang, J., Bloom, P. A., Pagliaccio, D., Bauer, C. C. C., Greene, K. D., **Morfini, F.**, Treves, I., Durham, K., Cherner, R., Bajwa, Z., Wool, E., Kyler, M., Kim, N., Simpson, B. H., Auerbach, R. P., Whitfield-Gabrieli, S. (2024). Mindfulness-based real-time fMRI neurofeedback for depressed adolescents: a randomized controlled dosing trial. <https://doi.org/10.31234/osf.io/sj236>

[1] † Bauer, C. C. C., Zhang, J., Raya, J., **Morfini, F.**, Pagliaccio, D., Yendiki, A., Auerbach, R. P., Niznikiewicz, M., A., Whitfield-Gabrieli, S. (2023). Rewiring neural circuits: meditation based neurofeedback and its neuroplastic effects on the pathological brain. *AIP Conference Proceedings* (Vol. 2947, No. 1). <https://doi.org/10.1063/5.0161404>

Thesis

Morfini, F., (2025). Neural Correlates of Future Depression and Anxiety in Adolescence (Doctoral dissertation, Northeastern University).

Morfini, F., (2014). Neurocognitive impulsivity and compulsivity in pathological gambling: a pilot study. Original title: “*Impulsività e compulsività neurocognitiva nel gioco d’azzardo patologico: uno studio pilota*”. (Master’s thesis, San Raffaele University).

Morfini, F., (2011). Violation of decision-making principles in risk evaluation among individuals with pathological addictions. Original title: “*Violazione dei principi decisionali di valutazione del rischio nei soggetti con dipendenze patologiche*”. (Bachelor’s thesis, San Raffaele University).

Manuscripts in preparation

* denotes equal authorship

Morfini, F., Whitfield-Gabrieli, S., Davidow, J.Y., Auerbach, R. P. (*in preparation*). Neuro-cognitive maturation subtypes of depression and anxiety in adolescence.

Zhang, J.* , **Morfini, F.***, Lee, Y., Nieto-Castañón, A., Yendiki, A., Hubbard, N., Siless, V., Frosch, I., Goncalves, M., Lo, N., Hofmann, S. G., Auerbach, R. P., Pizzagalli, D. A., Gabrieli, J. D., Whitfield-Gabrieli, S. (*in preparation*). Multimodal Brain Connectomics Predict Longitudinal Symptom Change in Adolescent Depression.

Zhang, J., Bauer, C. C. C., Chakrabarti, A., **Morfini, F.**, Lee, Y., Stone, L. M. D., Awad, A. I., Okano, K., Hwang, M., Shinn, A. K., Niznikiewicz, M. A., Whitfield-Gabrieli, S. (*in preparation*). Real-time fMRI neurofeedback reduces default mode network and auditory cortex functional connectivity in schizophrenia.

Mikolas, P., Pines, A. R., Zavaliangos-Petropulu, A., Morris, V., Al-Sharif, N., Lenzini, P., Makhoul, P., Akiki, T., **Morfini, F.**, Verhees, F. G., Ritter, P., Whitfield-Gabrieli, S., Sheline, Y. I., Bijsterbosch, J., Williams, L. M., Narr, K. L. (*in preparation*). Large language models assisted classification of symptom domains across anxious misery disorders.

Selected conference presentations (first author)

[19] **Morfini, F.**, Kucyi, A., Zhang, J., Bauer, C.C.C., Bloom, P.A., Pagliaccio, D., Whitfield-Gabrieli, S., Auerbach, R.P. (2025). Brain Functional Connectivity Predicts Depression and Anxiety During Childhood and Adolescence: A Connectome-Based Predictive Modeling Approach. *Trends in Psychology Summit*.

[18] **Morfini, F.**, Kucyi, A., Zhang, J., Bauer, C.C.C., Bloom, P.A., Pagliaccio, D., Whitfield-Gabrieli, S., Auerbach, R.P. (2025). Brain Functional Connectivity Predicts Depression and Anxiety During Childhood and Adolescence: A Connectome-Based Predictive Modeling Approach. *Cognitive Neuroscience Society*.

[17] **Morfini, F.**, Kucyi, A., Zhang, J., Bauer, C.C.C., Bloom, P.A., Pagliaccio, D., Whitfield-Gabrieli, S., Auerbach, R.P. (2025). Brain Functional Connectivity Predicts Depression and Anxiety During Childhood and Adolescence: A Connectome-Based Predictive Modeling Approach. *Society for Biological Psychiatry*.

[16] **Morfini, F.**, Kucyi, A., Zhang, J., Bauer, C.C.C., Bloom, P.A., Pagliaccio, D., Whitfield-Gabrieli, S., Auerbach, R.P. (2025). Brain Functional Connectivity Predicts Depression and Anxiety During Childhood and Adolescence: A Connectome-Based Predictive Modeling Approach. *Harvard Psychiatry Mysell Research Day*.

[15] **Morfini, F.**, Auerbach, R. P., Kramer, A. F., Davidow, Y., Whitfield-Gabrieli, S. (2024). Neuro-correlates of depression and anxiety in adolescents. *Flux International Society for Developmental Cognitive Neuroscience*.

[14] **Morfini, F.**, Kucyi, A., Zhang, J., Bauer, C. C. C., Bloom, P.A., Pagliaccio, D., Auerbach, R. P., Whitfield-Gabrieli, S. (2023). Brain Functional Connectivity Predicts Depression and Anxiety During Childhood and Adolescence: A Connectome-based Predictive Modeling Approach. *Society of Biological Psychiatry*.

[13] **Morfini, F.**, Zhang, J., Bauer, C.C., Stone, L. M. D., Shinn, A. K., Whitfield-Gabrieli, S., Niznikiewicz, M. A. (2022). Real-Time fMRI Neurofeedback from the Superior Temporal Gyrus Modulates Functional Connectivity Related to Self-Referential Processes in Schizophrenia. *Real-Time Functional Imaging and Neurofeedback Meeting*.

[12] **Morfini, F.**, Zhang, J., Bauer, C.C., Stone, L. M. D., Shinn, A. K., Whitfield-Gabrieli, S., Niznikiewicz, M. A. (2022). Real-Time fMRI Neurofeedback from the Superior Temporal Gyrus Modulates Functional Connectivity Related to Self-Referential Processes in Schizophrenia. *International Consortium for Schizotypy Research*.

[11] **Morfini, F.**, Zhang, J., Bauer, C.C., Shinn, A. K., Lee, Y., Awad, A. I., Stone, L. M. D., Northoff, G., Niznikiewicz, M. A., Whitfield-Gabrieli, S. (2022). Real-Time fMRI Neurofeedback for Auditory Hallucinations in Schizophrenia Reduces Aberrant Auditory Cortex Activity and Connectivity with the Default Mode Network. *Harvard Psychiatry Mysell Research Day*.

[10] **Morfini, F.**, Bauer, C. C. C., Zhang, J., Lee, Y., Raya, J., Awad, A. I., Stone, L. M. D., Shinn, A. K., Whitfield-Gabrieli, S., Niznikiewicz, M. A. (2021). Real-time fMRI neurofeedback from the superior temporal gyrus modulates self-referential processes in schizophrenia. *Society of Biological Psychiatry*.

[9] **Morfini, F.**, Bauer, C. C. C., Zhang, J., Lee, Y., Raya, J., Awad, A. I., Stone, L. M. D., Shinn, A. K., Whitfield-Gabrieli, S., Niznikiewicz, M. A. (2021). Real-time fMRI neurofeedback from the superior temporal gyrus modulates self-referential processes in schizophrenia. *Harvard Psychiatry Mysell Research Day*.

[8] **Morfini, F.**, Bauer, C. C. C., Zhang, J., Lee, Y., Raya, J., Awad, A. I., Stone, L. M. D., Shinn, A. K., Whitfield-Gabrieli, S., Niznikiewicz, M. A. (2021). Real-time fMRI neurofeedback from the superior temporal gyrus modulates self-referential processes in schizophrenia. *Schizophrenia International Research Society*.

[7] **Morfini, F.**, Lee, Y., Hirshfeld-Becker, D., Cutting, L., Bunge, S., Biederman J., & Whitfield-Gabrieli, S., (2020). Association of Intrinsic Brain Architecture with Changes in Attentional and Mood Symptoms During Development. *Massachusetts General Hospital Clinical Research Day*.

[6] **Morfini, F.**, Zhang, J., Lee, Y., Nieto-Castañón, A., Hubbard, N., Siless, V., Goncalves, M., Frosch, I., Lo, N., Hofmann, S. G., Auerbach, R. P., Pizzagalli, D. A., Yendiki, A., Gabrieli, J. D., Whitfield-Gabrieli, S. (2020). Resting State Connectivity Associated with Changes in Anxiety Symptoms in Adolescence over One Year. *Research Innovation Scholarship Entrepreneurship*.

[5] **Morfini, F.**, Zhang, J., Lee, Y., Nieto-Castañón, A., Hubbard, N., Siless, V., Goncalves, M., Frosch, I., Lo, N., Hofmann, S. G., Auerbach, R. P., Pizzagalli, D. A., Yendiki, A., Gabrieli, J. D., Whitfield-Gabrieli, S. (2020). Resting State Connectivity Associated with Changes in Anxiety Symptoms in Adolescence over One Year. *Society of Biological Psychiatry*.

[4] **Morfini, F.**, Greco, R., Naman, K., Feusner, J. D., Motivala, S. J. (2017). Cross-sectional and Longitudinal Relationships Between Poor Sleep and Symptom Severity in Obsessive-Compulsive Disorder. *UCLA Brain Research Institute*.

[3] **Morfini, F.**, Moody, T. D., Cheng, G. K., Feusner, J. D. (2017). Brain Activation and Connectivity in Body Dysmorphic Disorder and Anorexia Nervosa when Viewing Bodies. *UCLA Brain Research Institute*.

[2] **Morfini, F.**, Moody, T. D., Cheng, G. K., Strober, M., Feusner, J. D. (2017). Abnormal Brain Activation and Connectivity in Body Dysmorphic Disorder and Anorexia Nervosa When Viewing Bodies. *American College of Neuropsychopharmacology*.

[1] **Morfini, F.**, Casero, F., Bassetti, E., Galimberti, E., Baud-Bovy, G., Tettamanti, A., Gatti, R. (2015). Body schema and body image in anorexia nervosa patients: action- oriented protocol. *European Congress of Psychology*.

Selected conference presentations (co-authored)

[26] Greene, K. D., Zhang, J., **Morfini, F.**, Lee, Y. J., Castañón, A. N., Yendiki, A., Hubbard, N. A., Siless, V., Frosch, I., Goncalves, M., Lo, N., Hoffmann, S. G., Auerbach, R. P., Pizzagalli, D. A., Gabrieli, J. D., & Whitfield-Gabrieli, S. (2025). Functional connectivity between the anterior cingulate cortex and dorsolateral prefrontal cortex as a marker for depression in adolescents. *Society of Biological Psychiatry*.

[25] Hennessy, R., **Morfini, F.**, Cohen, A. O., Casey, B. J., Galván, A., Shoham, D., Davidow, J. Y., (2024). Adolescent memory-driven value integration differs by valence. *Flux International Society for Developmental Cognitive Neuroscience*.

[24] Cline, T. L., Watrous, J. N. H., Nwakamma, M., Tinney, E. M., McDonald, K. M., **Morfini, F.**, Raine, L. B., Gabbard-Durnam, L. J., Kramer, A. F., Whitfield-Gabrieli, S., Hillman, C. H. (2023). Acute Effects of a Single Bout of Exercise on Functional Brain Networks in Children. *Society for Prevention Research*.

[23] Tusuzian, E., Firlie, B., Akoh, N., Zhang, J., Bauer, C. C. C., **Morfini, F.**, Shinn, A. K., Niznikiewicz, M. A., Whitfield-Gabrieli, S., (2023). Cortical Thickness Predictors of Neurofeedback Success in Reducing Auditory Hallucinations in Schizophrenia. *Society of Biological Psychiatry*.

- [22] Tusuzian, E., Firlie, B., Akoh, N., Zhang, J., Bauer, C. C. C., **Morfini, F.**, Shinn, A. K., Niznikiewicz, M. A., Whitfield-Gabrieli, S., (2023). Cortical Thickness Predictors of Neurofeedback Success in Reducing Auditory Hallucinations in Schizophrenia. *Research Innovation Scholarship Entrepreneurship*.
- [21] Bauer, C. C. C., Zhang, J., **Morfini, F.**, Shinn, A., Stone, L. M. D., Awad, A. I., Quin, E., Andrikidis, E., Lee, Y., Nestor, P., Whitfield-Gabrieli, S. & Niznikiewicz, M. A. (2023). fMRI feedback reduces auditory hallucinations and regulates akin network activation and connectivity. *Organization for Human Brain Mapping*.
- [20] Cline, T. L., Watrous, J. N. H., Tinney, E. M., Nwakamma, M., McDonald, K. M., **Morfini, F.**, Raine, L. B., Gabbard-Durnam, L. J., Kramer, A. F., Whitfield-Gabrieli, S., Hillman, C. H. (2023). Multivariate Pattern Analysis of Functional Brain Network Connectivity after Acute-to-Vigorous Physical Activity in Children. *American College of Sports Medicine*.
- [19] Bauer, C.C., Zhang, Shaffer, C., **Morfini, F.**, Niznikiewicz, M. A., Kucyi, A., Akoh, N., Whitfield-Gabrieli, S. (2022). Mindful or Mind Full? Ask Your Participants. *Real-Time Functional Imaging and Neurofeedback Meeting*.
- [18] Shaffer, C., Zhang, Raya, J., **Morfini, F.**, Auerbach, R. P., Bauer, C.C., Whitfield-Gabrieli, S. (2022). Baseline Connectivity of Key Self-Reference Nodes Predicts Real-Time Neurofeedback Performance in Adolescents with a History of Affective Disorders. *Real-Time Functional Imaging and Neurofeedback Meeting*.
- [17] Zhang, J., **Morfini, F.**, Lee, Y., Stone, Awad, A. I., L. M. D., Shinn, A. K., Niznikiewicz, M. A., Urban, Z., Raya, J., Kim, M., Jones, R. J., Yendiki, A., Pagliaccio, D., Auerbach, R. P., Ghosh, S., Bauer, C.C., Whitfield-Gabrieli, S. (2022). Mindfulness-Based Real-Time fMRI Neurofeedback Targeting the Default Mode Network in Schizophrenia and Depression. *Real-Time Functional Imaging and Neurofeedback Meeting*.
- [16] Zhang, J., **Morfini, F.**, Lee, Y., Stone, Awad, A. I., L. M. D., Shinn, A. K., Niznikiewicz, M. A., Urban, Z., Raya, J., Kim, M., Jones, R. J., Yendiki, A., Pagliaccio, D., Auerbach, R. P., Bauer, C.C., Whitfield-Gabrieli, S. (2022). Mindfulness-Based Real-Time fMRI Neurofeedback Targeting the Default Mode Network in Schizophrenia and Depression. *McGovern Institute Annual Symposium*.
- [15] Kucyi, A., **Morfini, F.**, Whitfield-Gabrieli, S. (2022). Connectome-based predictive modeling of spontaneous experiences during resting state fMRI. *Society of Biological Psychiatry*.
- [14] Shinn, A. K., Zhang, J., Bauer, C.C., **Morfini, F.**, Lee, Y., Awad, A. I., Stone, L. M. D., Northoff, G., Niznikiewicz, M. A., Whitfield-Gabrieli, S. (2022). Real-Time fMRI Neurofeedback for Auditory Hallucinations in Schizophrenia Reduces Aberrant Auditory Cortex Activity and Connectivity with the Default Mode Network. *American College of Neuropsychopharmacology*.
- [13] Zhang, J., Bauer, C.C., Shinn, A. K., **Morfini, F.**, Lee, Y., Stone, L. M. D., Y., Awad, A. I., Northoff, G., Whitfield-Gabrieli, S., Niznikiewicz, M. A. (2021). Real-Time fMRI Neurofeedback for Auditory Hallucinations in Schizophrenia Reduces Aberrant Auditory Cortex Activity and Connectivity with the Default Mode Network. *American College of Neuropsychopharmacology*.
- [12] Zhang, J., Bauer, C.C., **Morfini, F.**, Lee, Y., Awad, A. I., Stone, L. M. D., Northoff, G., Shinn, A. K., Niznikiewicz, M. A., Whitfield-Gabrieli, S. (2021). Baseline functional connectivity between default mode

network and auditory cortex predicts improvement in auditory hallucination following real-time neurofeedback in schizophrenia. *Society of Biological Psychiatry*.

- [11] Lee, Y., Zhang, J., **Morfini, F.**, Raya, J., Hubbard, N., Ghosh, S., Auerbach, R. P., Hofmann, S. G., Henin, A., Yendiki, A., Gabrieli, J. D., Whitfield-Gabrieli, S. (2021). Baseline functional connectivity predicts changes in attentional and mood symptoms in adolescents with depression and/or anxiety. *Society of Biological Psychiatry*.
- [10] Bauer, C. C. C., Zhang, J., **Morfini, F.**, Lee, Y., Raya, J., Awad, A. I., Stone, L. M. D., Shinn, A. K., Whitfield-Gabrieli, S., Niznikiewicz, M. A. (2021). Baseline functional connectivity between default mode network and auditory cortex predicts improvement in auditory hallucination following real-time neurofeedback in schizophrenia. *Society of Biological Psychiatry*.
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- [6] Cheng, G. K., **Morfini, F.**, Moody, T. D., Feusner, J. D. (2017). Brain Activation and Connectivity in BDD and Anorexia Nervosa when Viewing Bodies. *International OCD Foundation*.
- [5] Tadayon-Nejad, R., Deshpande, R., Moody, T. D., **Morfini, F.**, Ly, R., O'Neill, J., Feusner, J. D. (2017). Biochemical-connectivity-psychological model of comorbid depression in OCD: an integrated fMRI/1H MRS study. *Society of Biological Psychiatry*.
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Open science contributions

[Software Manual] Bauer, C. C. C., Zhang, J., **Morfini, F.**, Kucyi, A., Raya, J., Urban, Z., Ghosh, S., Hinds, O., Auerbach, R. P., Pagliaccio, D., Whitfield-Gabrieli, S. (2022). Multivariate and Univariate Real-Time Functional Imaging (MURFI) User Manual. A manual for the installation and use of MURFI, a software package for real-time processing of functional brain images for neuroscience applications.
<https://doi.org/10.17504/protocols.io.b5afq2bn>

Invited talks

- 2025 (Oct.) **Northeastern University**, Research on Iron group, Boston, MA, USA
"Brain-tissue iron for depression: new insights from (B)OLD fMRI data"
- 2025 (June) **University of Rhode Island**, Dr. Logan Lab, Kingston, RI, USA
"Neural correlates of future severity of anxiety and depression in adolescence"
- 2025 (Mar.) **McLean Hospital/Harvard Medical School**, Dr. Webb Lab, Boston, MA, USA
"Neural correlates of future severity of anxiety and depression in adolescence"
- 2024 (Nov.) **Harvard University**, Dr. Somerville Lab, Boston, MA, USA
"Neural correlates of future severity of anxiety and depression in adolescence"
- 2024 (Nov.) **Northeastern University**, Neuroscience Seminar Series, Boston, MA, USA
"Neural correlates of future severity of anxiety and depression in adolescence"
- 2024 (Nov.) **Columbia University**, Dr. Auerbach Lab, New York, NY, USA
"Neural correlates of future severity of anxiety and depression in adolescence"
- 2024 (Oct.) **Massachusetts General Hospital/Harvard Medical School**, Dr. Choi Lab, Boston, MA, USA
"Brain features associated with prospective severity of anxiety and depression in adolescence"
- 2022 (July) **Columbia University**, Dr. Auerbach Lab, New York, NY, USA
"Brain Functional Connectivity Predicts Anxiety and Depression in Children and Adolescents: A Machine-Learning Study of Independent Longitudinal Samples"
- 2021 (June) **Northeastern University**, Research on AdoLescence group, Boston, MA, USA
"Multimodal Prediction of Depressive Symptom Improvement in Adolescence"
- 2021 (Mar.) **Northeastern University**, Master's Convention, Boston, MA, USA
"Understanding Depressive Symptoms Change in Adolescence"
- 2021 (Feb.) **Northeastern University**, Center for Cognitive and Brain Health, Boston, MA, USA
"Understanding Depressive Symptoms Change Over Time in Adolescence"
- 2020 (May) **Northeastern University**, Boston Psychology Graduate Symposium, Boston, MA, USA
"Resting-State Connectivity Associated with Changes in Anxiety Symptoms in Adolescence"
- 2020 (Mar.) **Northeastern University**, Provost and Board of Directors (with advisor), Boston, MA, USA
"What Northeastern should do next for PhD education and increase success in research."

The importance of the matching process between Faculty Mentor and Ph.D. student"
 (Canceled due to COVID)

- 2020 (Feb.) **Northeastern University**, Research on AdoLescence group, Boston, MA, USA
"Brain Connectomics Predict Longitudinal Symptom Change in Depression"
- 2018 (Nov.) **Harvard University**, Dr. Hooley Lab, Cambridge, MA, USA
"Abnormal Brain Activation and Connectivity in Anorexia Nervosa and Body Dysmorphic Disorder"

Invited lectures

- 2024, 2022 **Harvard -MIT**, Health Sciences and Technology Program, Boston, MA, USA
 Functional Magnetic Resonance Imaging: Data Acquisition and Analysis
 Directors: Anastasia Yendiki, Jonathan Polimeni
- 2023 **Organization for Human Brain Mapping**, Educational Course, Montreal, Canada
 Making Quality Control Part of Your Analysis: Learning with the FMRI Open QC Project
"Functional Connectivity MRI Quality Control Procedures in CONN"
- 2021 **Northeastern University**, Boston, MA, USA
 MRI Users Group Workshop Series
"Optimization of BIDS-App on High Performance Computing Clusters"

Teaching experience

Teaching assistant for international workshops (I), doctoral (PhD), and undergraduate (U) courses.

| <u>Institution and Semester</u> | <u>Title</u> | <u>Course Level</u> | <u>Professor</u> |
|---|--------------------------------------|---------------------|------------------|
| Massachusetts General Hospital / Harvard Medical School | | | |
| 2025 (Sept.) | Predictive Models in Neuroimaging | I | Nieto-Castañón |
| Martinos Center / Massachusetts General Hospital / Harvard Medical School Joint Program | | | |
| 2022 (Oct.) | fMRI Connectivity Analysis with CONN | I | Nieto-Castañón |
| 2021 (Oct.) | fMRI Connectivity Analysis with CONN | I | Nieto-Castañón |
| 2021 (Mar.) | fMRI Connectivity Analysis with CONN | I | Nieto-Castañón |
| Northeastern University | | | |
| 2024 (Spring) | Laboratory in Cognition | U | Eidson |
| 2023 (Spring) | Graduate Quantitative Methods II | PhD | DeSteno |
| 2022 (Fall) | Statistics in Psychological Research | U | Eidson |
| 2022 (Spring) | Statistics in Psychological Research | U | Halko |
| 2021 (Fall) | Statistics in Psychological Research | U | Halko |
| 2020 (Fall) | Statistics in Psychological Research | U | Halko |
| 2020 (Spring) | Laboratory in Cognition | U | Baker |

Mentoring experience

| <u>Semester</u> | <u>Name</u> | <u>Institution</u> | <u>Subsequent Position</u> |
|-----------------|----------------|-------------------------|--|
| 2021 - 2022 | Tanushka Dewan | Northeastern University | Continued Undergraduate Studies |
| 2021 | Chelsea Ajunwa | MIT | PhD in Psychology, Northeastern University |
| 2021 | Arjun Valay | Northeastern University | Continued Undergraduate Studies |

| | | | |
|-------------|-------------------|-------------------------|---|
| 2021 - 2022 | Emma Tusuzian | Northeastern University | Clinical Research Assistant II, McLean Hospital |
| 2020 | Kathryn Margiotta | Northeastern University | Clinical Research Assistant II, McLean Hospital |

Leadership and service

| | |
|----------------|--|
| 2025 | Abstract Reviewer , Flux Society |
| 2024 | Editor , Application Statement Feedback Program (ASFP) for underrepresented communities |
| 2021 | Organizer and Founder (with Dr Davidow), MRI Group Seminars, Northeastern University |
| 2019 - 2020 | Organizer , Seminars for Center for Cognitive and Brain Health, Northeastern University |
| 2020 - present | Mentor (2-3 students/semester), Graduate Mentoring Program, Northeastern University |
| 2020 - present | Graduate Guide , Prospective PhD Interview Weekend, Northeastern University |

Ad hoc reviewer (alphabetical order)

ORCID <https://orcid.org/0000-0002-0330-6131>

- Biological Psychiatry
- BMC Medicine
- BMC Psychiatry
- Brain Imaging and Behavior
- Brain Research
- Child and Adolescent Psychiatry and Mental Health
- Child Psychology and Psychiatry, (J. of)
- Developmental Cognitive Neuroscience
- Frontiers in Neuroimaging
- Frontiers in Psychiatry
- Imaging Neuroscience
- European (J. of) Medical Research
- Molecular Neurobiology
- NeuroImaging: Clinical
- Neuropsychopharmacology
- Open Research Europe
- Psychiatric Research, (J. of)
- Psychiatric and Brain Science, (J. of)
- Psychopathology and Clinical Science, (J. of)
- Psychophysiology Practice and Research, (J. of)
- Schizophrenia Research
- Scientific Reports
- Translational Psychiatry

Professional associations

Anxiety and Depression Association of America (ADAA)

American Psychological Association (APA)

Flux Society

Organization for Human Brain Mapping (OHB)

Society of Biological Psychiatry (SOBP)

Outreach

| | |
|-------------|---|
| 2024 | Presenter at the high school lecture series at Northeastern University <i>“Introductory demonstration on brain functional connectivity”</i> |
| 2022 | Speaker for Grad School Mentoring Program at Northeastern University <i>“Degree Programs in Psychology: PhD vs PsyD”</i> |
| 2020 | Speaker for ABCT Think Tank on Neuroscience <i>“How Clinicians Can Use Contemporary Neurocognitive Research in the Real World”</i> |
| 2011 - 2016 | Fundraiser, Center for Research and Innovation in Neurological Disorders, Italy |

Selected skills

Programming languages Python, MATLAB, R, Unix bash, HTML

| | |
|---|---|
| Magnetic resonance imaging (MRI) | Software: FSL, CONN Toolbox, SPM, BIDS-App, fMRIprep, MRIQC, Murfi system for real-time fMRI neurofeedback, BrainNetViewer; Python packages: nipype, nilearn, statsmodels, pandas, ... |
| Electroencephalogram (EEG) | HAPPE, MNE-Python |
| Statistics | Machine learning: scikit-learn, multivariate pattern analysis (MVPA), connectome-based predictive modelling (CPM); Bayesian statistics: pyJags, pyStan; Misc: R, SPSS, python-packages (NumPy, SciPy, ...) |
| Reproducible science | Git/Github, JupyterLab, Singularity, SLURM HPC systems |
| Stimuli preparation | PsychoPy, PsychToolbox, Presentation NBS, E-Prime, ImageMagick, FantaMorph, ImageJ |
| Laboratory | Eye-tracking, BIOPAC, BIAS, CANTAB |
| Clinical | Licensed clinical psychologist for: diagnostic interviews, psychological and counseling support for individuals and groups, neurocognitive testing, psychological testing |

Languages

English: Fluent

Spanish: Fluent

Italian: Native

References

Available upon request