**Publications**

**Original, peer-reviewed articles:**

1. Marino C, Rjabtsenkov P, Sharp C, Ali Z, Pineda E, Bavdekar S, Garg T, Jordan K, Halvorsen M, Aponte C, Blue J, **Zhu X,** Suarez-Jimenez B, (2025): Using Virtual Reality to Study Spatial Mapping and Threat Learning. npj Science of Learning.
2. Shi B, Liu Y, Xie S, **Zhu X,** Wang Y (2024): Network-Assisted Mediation Analysis with Neuroimaging Mediators, Machine Learning for Healthcare.
3. Tomas et al., (2024): Data-driven approach to dynamic resting state functional connectivity in post-traumatic stress disorder: An ENIGMA-PGC PTSD study. Human Brain Mapping.
4. **\*Zhu X**, Zhang C, Hellerstein D, Feusner JD, Wheaton MG, Gomez G, Schneier F (2024). Single-Dose Psilocybin Alters Resting State Functional Networks in Patients with Body Dysmorphic Disorder. Psychedelics.
5. **\***Haim-Nachum S, Amsalem D, Lazarov A, Soraya S, Neria Y, **Zhu X** (2024): Childhood Maltreatment Classification Approaches and their Associations with Trauma-Related Psychopathologies. npj Mental Health Research.
6. Li R, **Zhu X**, Lee S. (2024): Network-Assisted Mediation Discovery with Neuroimaging Mediators. Machine Learning for Healthcare.
7. Zhang A, Wengler K, **Zhu X**, Horga G, Goldberg TE, Lee S, and For Alzheimer’s Disease Neuroimaging Initiative. (2024): Altered hierarchical gradients of intrinsic neural timescales in mild cognitive impairment and Alzheimer’s disease. Journal of Neuroscience.
8. **\***Kim Y, Ravid O, Zhang X, Kim Y, Neria Y, Lee S, He X, **Zhu X** (2024): Explaining Deep Learning-Based Representations of Resting State Functional Connectivity Data: Focusing on Interpreting Nonlinear Patterns in Autism Spectrum Disorder. Frontiers in Psychiatry, section Computational Psychiatry.
9. Li R, **Zhu X**, Lee S (2024): Model Selection for Exposure-Mediator Interaction. Data Science in Science.
10. Kim, BG., Kim, G., Abe, Y. et al. (2024): White matter diffusion estimates in obsessive-compulsive disorder across 1653 individuals: machine learning findings from the ENIGMA OCD Working Group. Molecular Psychiatry.
11. Yang J, Huggins A, Sun D, Baird C, Haswell C, Frijling J, Olff M, van Zuiden M, Koch S, Nawijn L, Veltman D, Suarez-Jimenez B, **Zhu X**, Neria Y, Hudson A, Mueller S, Baker J, Lebois L, Kaufman M, Qi R, Lu G, Řiha P, Rektor I, Dennis E, Ching C, Thomopoulos S, Salminen L, Jahanshad N, Thompson P, Stein D, Koopowitz S, Ipser J, Seedat S, Plessis S, van den Heuvel L, Li Wang, Ye Zhu, Gen Li, Sierk A, Manthey A, Walter H, Daniels J, Schmahl C, Herzog J, Liberzon I, King A, Angstadt M, Davenport N, Sponheim S, Disner S, Straube T, Hofmann D, Grupe D, Nitschke J, Davidson R, Larson C, DeRoon-Cassini T, Blackford J, Olatunji B, Gordon E, May G, Nelson S, Abdallah C, Levy I, Harpaz-Rotem I, Krystal J, Morey R, and Sotiras A (2023): Examining the Association between Posttraumatic Stress Disorder and Disruptions in Cortical Networks Identified Using Data-Driven Methods. Neuropsychopharmacology.
12. **\*Zhu X**, Kim Y, Ravid O, He X, Suarez-Jimenez B, Zilcha-Mano S, Lazarov A, Lee S, Abdallah CG, Angstadt M, Averill CL, Baird CL, Baugh LA, Blackford JU, Bomyea J, Bruce SE, Bryant RA, Cao Z, Choi K, Cisler J, Cotton AS, Daniels JK, Davenport ND, Davidson RJ, DeBellis MD, Dennis EL, Densmore M, deRoon-Cassini T, Disner SG, Hage WE, Etkin A, Fani N, Fercho KA, Fitzgerald J, Forster GL, Frijling JL, Geuze E, Gonenc A, Gordon EM, Gruber S, Grupe DW, Guenette JP, Haswell CC, Herringa RJ, Herzog J, Hofmann DB, Hosseini B, Hudson AR, Huggins AA, Ipser JC, Jahanshad N, Jia-Richards M, Jovanovic T, Kaufman ML, Kennis M, King A, Kinzel P, Koch SBJ, Koerte IK, Koopowitz SM, Korgaonkar MS, Krystal JH, Lanius R, Larson CL, Lebois LAM, Li G, Liberzon I, Lu GM, Luo Y, Magnotta VA, Manthey A, Maron-Katz A, May G, McLaughlin K, Mueller SC, Nawijn L, Nelson SM, Neufeld RWJ, Nitschke JB, O'Leary EM, Olatunji BO, Olff M, Peverill M, Phan KL, Qi R, Quidé Y, Rektor I, Ressler K, Riha P, Ross M, Rosso IM, Salminen LE, Sambrook K, Schmahl C, Shenton ME, Sheridan M, Shih C, Sicorello M, Sierk A, Simmons AN, Simons RM, Simons JS, Sponheim SR, Stein MB, Stein DJ, Stevens JS, Straube T, Sun D, Théberge J, Thompson PM, Thomopoulos SI, van der Wee NJA, van der Werff SJA, van Erp TGM, van Rooij SJH, van Zuiden M, Varkevisser T, Veltman DJ, Vermeiren RRJM, Walter H, Wang L, Wang X, Weis C, Winternitz S, Xie H, Zhu Y, Wall M, Neria Y, Morey RA. (2023): [Neuroimaging-based classification of PTSD using data-driven computational approaches: A multisite big data study from the ENIGMA-PGC PTSD consortium.](https://www.ncbi.nlm.nih.gov/pubmed/37858907/)Neuroimage.
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18. Zilcha-Mano S, Duek O, Suarez-Jimenez B, **Zhu X,** Lazarov A, Helpman L, Korem N, Malka M, Harpaz-Rotem I, Neria Y (2023): Underlying Hippocampal Mechanism of PTSD-Treatment Outcome: Evidence from Two Clinical Trials. Biological Psychiatry: Global Open Science.
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20. **\***Keefe JR,\* Suarez-Jimenez B,\* **Zhu X,\*** Lazarov A, Durosky A, SuchS , Marohasy C, Lissek S, Neria Y (2022): Elucidating Behavioral and Functional Connectivity Markers of Emotionally Aversive Versus Emotionally Neutral Discrimination in PTSD. Depression and Anxiety.
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**An asterisk (\*) is used to denote first or senior author.**

Book Chapters:

1. Neria Y, **Zhu X,** Fisher P, Prasad N, Hamilton AJ, (2025): Discovering Brain Based Mechanisms and Predictors of Clinical Outcomes of EAT for Patients with PTSD. Guide to Equine Assisted Therapy.
2. Lowell A, Durosky A, Hilburn A, Helpman L, **Zhu X**, Neria Y, (2017): Posttraumatic Stress Disorder Following 9/11: What We Know Now. In S. Opotow and Z.B. Shemtob (Ed.), After the Aftermath: New York City in the Years After 9/11: Conflict, Continuity, and Change. *Fordham University Press*.

**In submission:**

1. \*Zhang C, Haim-Nachum S, Prasad N, Suarez-Jimenez B, Zilcha-Mano S, Lazarov A, Neria Y, **Zhu X**: PTSD subtypes and their underlying neural biomarkers: A systematic review. (under revision)
2. Varangis E, Liu J, Miao Y, **Zhu X**, Stern Y, Lee S (2025): Neural flexibility is higher in Alzheimer’s Disease, and predict Alzheimer’s disease transition. (In submission)
3. Varangis E, Habeck Cm Zhu X; Coors A, Stern Y, Lee S, (2025): Quantifying Cognitive Reserve Through a Formative Framework. (In submission)
4. Zheng X, Ravid O, Barry AJ, Kim Y, Wang Q, Kim Y, **Zhu X,** He X (2025): A Denoising Variational Autoencoder for the diagnosis of Autism based on Resting-state fMRI. (In submission)
5. Cheryl Ru, Zhen See et al., (2025): A whole-brain voxel-based analysis of structural abnormalities in PTSD: an ENIGMA-PGC study. (In submission)
6. Ross et al., Resolution Limit-Free Community Detection Reveals Unique Patterns of Resting-State Network Connectivity in Posttraumatic Stress Disorder: A PGC-ENIGMA PTSD Consortium Investigation. (In submission)
7. G. Rakesh et al., Network Centrality and Modularity of Structural Covariance Networks in Posttraumatic Stress Disorder: A Multisite ENIGMA-PGC Study. Brain Connectivity. (In submission)
8. L.E. Salminen et al., Clinical phenotypes of trauma-related mental distress differentially relate to hippocampal subfield volumes in over 1900 participants. Depression and Anxiety. (In submission)
9. H. Xie et al., A mega-analysis of vertex and gyral cortical thickness differences in adults with and without PTSD. Molecular Psychiatry. (In submission)
10. C. See. et al., A whole-brain meta-analysis of grey matter volume differences in PTSD: a multisite ENIGMA-PGC study. (In submission)
11. Steele N et al., Volumetric Differences of Thalamic Nuclei are Associated with Post-Trauma Psychopathology. (In submission)
12. Radua et al., Neural Correlates of Human Fear Conditioning and Sources of Variability: A Mega-Analysis and Normative Modelling Study of fMRI Data from 2,199 Individuals. (In submission)
13. Alex et al., Infant Subcortical Brain Volumes Associated with Maternal Obesity and Diabetes: A Large Multicohort Study. (In submission)