

## 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, DeRoos-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, deRoos-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. *Neuroimage*.
13. Huggins A, C. Lexi Baird, Melvin Briggs, Sarah Laskowitz, Ahmed Hussain, Samar Fouda, Courtney Haswell, Delin Sun, Lauren Salminen, Neda Jahanshad, Sophia Thomopoulos, Dick Veltman, Jessie Frijling, Miranda Olff, Mirjam van Zuiden, Saskia Koch, Laura Nawijn, Li Wang, Ye Zhu, Gen Li, Dan Stein, Jonathan Ipser, Soraya Seedat, Stefan du Plessis, Leigh van den Heuvel, Benjamin Suarez-Jimenez, **Xi Zhu**, Yoojean Kim, Xiaofu He, Sigal Zilcha-Mano, Amit Lazarov, Yuval Neria, Jennifer Stevens, Kerry Ressler, Tanja Jovanovic, Sanne van Rooij, Negar Fani, Anna Hudson, Sven Mueller, Anika Sierk, Antje Manthey, Henrik Walter, Judith Daniels, Christian Schmahl, Julia Herzog, Pavel Řiha, Ivan Rektor, Lauren Lebois, Milissa Kaufman, Elizabeth Olson, Justin Baker, Isabelle Rosso, Anthony King, Israel Liberzon, Mike Angststadt, Nicholas Davenport, Scott Sponheim, Seth Disner, Thomas Straube, Davia Hofmann, Rongfeng Qi, Guangming Lu, Lee Baugh, Gina Forster, Raluca Simons, Jeffrey Simons, Vincent Magnotta, Kelene Fercho, Adi Maron-Katz, Amit Etkin, Andrew Cotton, Erin O'Leary, Hong Xie, Xin Wang, Yann Quidé, Wissam El-Hage, Shmuel Lissek, Hannah Berg, Steven Bruce, Josh Cisler, Marisa Ross, Ryan Herringa, Daniel Grupe, Jack Nitschke, Richard Davidson, Christine Larson, Terri deRoos-Cassini, Carissa Tomas, Jacklynn Fitzgerald, Jennifer Blackford, Bunmi Olatunji, William Kremen, Michael Lyons, Carol Franz, Evan Gordon, Geoffrey May, Steven Nelson,, Chadi Abdallah, Ifat Levy, Ilan Harpaz-Rotem, John Krystal, Emily Dennis, David Tate, David Cifu, William Walker, Elisabeth Wilde, Ian Harding, Rebecca Kerestes, Paul Thompson, and Rajendra Morey. (2023): Smaller total and subregional cerebellar volumes in posttraumatic stress disorder: a mega-analysis by the ENIGMA-PGC PTSD workgroup. *Molecular Psychiatry*.
  14. Kim H, **Zhu X**, Zhao Y, Bell S, Gehrman P, Cohen D, Devanand DP, Goldberg TE, Lee S. (2023): Resting-State Functional Connectivity Changes in Older Adults with Sleep Disturbance and the Role of Amyloid Burden. *Molecular Psychiatry*.
  15. Suarez-Jimenez B\*, Lazarov A\*, **Zhu X**, Pine DS, Bar-Haim Y, Neria Y (2023): Brain Correlates of Intrusive Traumatic Re-experiencing Domain (ITRED) – Findings from the ENIGMA PTSD Consortium. *Biological Psychiatry: Global Open Science*.
  16. Alon Y, Bar-Haim Y, Gober CD, Suarez-Jimenez B, **Zhu X**, Neria Y, Lazarov A. (2023): Eye-tracking Indices of Attention Allocation and Attention Bias Variability Are Differently Related to Trauma Exposure and PTSD. *Journal of Anxiety Disorders*.

17. Han L, Dima D, **Zhu X**, Schmaal L (2023): Editorial: Women in Psychiatry 2022: Computational Psychiatry. *Frontiers Psychiatry*.
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*.
19. **\*Zhu X**, Suarez-Jimenez B, Lindquist M, Lissek S, Neria Y (2022): Sequential Fear Generalization and Network Connectivity in Trauma Exposed Humans With and Without Psychopathology. *Communications Biology*.
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*.
21. Sun D, Rakesh G, Haswell CC, Logue M, Baird CL, O'Leary EN, Cotton AS, Xie H, Tamburrino M, Chen T, Dennis EL, Jahanshad N, Salminen LE, Thomopoulos SI, Rashid F, Ching CRK, Koch SBJ, Frijling JL, Nawijn L, van Zuiden M, **Zhu X**, Suarez-Jimenez B, Sierk A, Walter H, Manthey A, Stevens JS, Fani N, van Rooij SJH, Stein M, Bomyea J, Koerte IK, Choi K, van der Werff SJA, Vermeiren RRJM, Herzog J, Lebois LAM, Baker JT, Olson EA, Straube T, Korgaonkar MS, Andrew E, Zhu Y, Li G, Ipser J, Hudson AR, Peverill M, Sambrook K, Gordon E, Baugh L, Forster G, Simons RM, Simons JS, Magnotta V, Maron-Katz A, du Plessis S, Disner SG, Davenport N, Grupe DW, Nitschke JB, deRoos-Cassini TA, Fitzgerald JM, Krystal JH, Levy I, Olff M, Veltman DJ, Wang L, Neria Y, De Bellis MD, Jovanovic T, Daniels JK, Shenton M, van de Wee NJA, Schmahl C, Kaufman ML, Rosso IM, Sponheim SR, Hofmann DB, Bryant RA, Fercho KA, Stein DJ, Mueller SC, Hosseini B, Phan KL, McLaughlin KA, Davidson RJ, Larson CL, May G, Nelson SM, Abdallah CG, Goma H, Etkin A, Seedat S, Harpaz-Rotem I, Liberzon I, van Erp TGM, Quidé Y, Wang X, Thompson PM, Morey RA. A comparison of methods to harmonize cortical thickness measurements across scanners and sites. *Neuroimage*. 2022 Nov 1; 261:119509. doi: 10.1016/j.neuroimage.2022.119509. Epub 2022 Jul 30. PubMed PMID: 35917919.
22. **\*Zhu X**, Liu Y, Habeck CG, Stern Y, Lee S, For-The-Alzheimer's-Disease-Neuroimaging-Initiative. Transfer learning for cognitive reserve quantification. *Neuroimage*. 2022 Sep; 258:119353. doi: 10.1016/j.neuroimage.2022.119353. Epub 2022 Jun 4. PubMed PMID: 35667639; PubMed Central PMCID: PMC9271605.
23. Sun D, Rakesh G, Clarke-Rubright EK, Haswell CC, Logue MW, O'Leary EN, Cotton AS, Xie H, Dennis EL, Jahanshad N, Salminen LE, Thomopoulos SI, Rashid FM, Ching CRK, Koch SBJ, Frijling JL, Nawijn L, van Zuiden M, **Zhu X**, Suarez-Jimenez B, Sierk A, Walter H, Manthey A, Stevens JS, Fani N, van Rooij SJH, Stein MB, Bomyea J, Koerte I, Choi K, van der Werff SJA, Vermeiren RRJM, Herzog JI, Lebois LAM, Baker JT, Ressler KJ, Olson EA, Straube T, Korgaonkar MS, Andrew E, Zhu Y, Li G, Ipser J, Hudson AR, Peverill M, Sambrook K, Gordon E, Baugh LA, Forster G, Simons RM, Simons JS, Magnotta VA, Maron-Katz A, du Plessis S, Disner SG, Davenport ND, Grupe D, Nitschke JB, deRoos-Cassini TA, Fitzgerald J, Krystal JH, Levy I, Olff M, Veltman DJ, Wang L, Neria Y, De Bellis MD, Jovanovic T, Daniels JK, Shenton ME, van de Wee NJA, Schmahl C, Kaufman ML, Rosso IM, Sponheim SR, Hofmann DB, Bryant RA, Fercho KA, Stein DJ, Mueller SC, Phan KL, McLaughlin KA, Davidson RJ, Larson C, May G, Nelson SM, Abdallah CG, Goma H, Etkin A, Seedat S, Harpaz-Rotem I, Liberzon I, Wang X, Thompson PM, Morey RA. Remodeling of the Cortical Structural Connectome in

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24. Zilcha-Mano S, **Zhu X**, Lazarov A, Suarez-Jimenez B, Helpman L, Kim Y, Maitlin C, Neria Y, Rutherford BR. Structural brain features signaling trauma, PTSD, or resilience? A systematic exploration. *Depress Anxiety*. 2022 Jun 16;. doi: 10.1002/da.23275. [Epub ahead of print] PubMed PMID: 35708133.
  25. Eder-Moreau E, **Zhu X**, Fisch CT, Bergman M, Neria Y, Helpman L. Neurobiological Alterations in Females With PTSD: A Systematic Review. *Front Psychiatry*. 2022;13:862476. doi: 10.3389/fpsy.2022.862476. eCollection 2022. PubMed PMID: 35770056; PubMed Central PMCID: PMC9234306.
  26. Suarez-Jimenez B, Lazarov A, **Zhu X**, Pine DS, Bar-Haim Y, Neria Y. Attention allocation to negatively-valenced stimuli in PTSD is associated with reward-related neural pathways. *Psychol Med*. 2022 Jun 2;:1-9. doi: 10.1017/S003329172200157X. PubMed PMID: 35652602.
  27. Amsalem D, Lopez-Yianilos A, Lowell A, Pickover AM, Arnon S, **Zhu X**, Suarez-Jimenez B, Ryba M, Bergman M, Such S, Zalman H, Sanchez-Lacay A, Lazarov A, Markowitz JC, Neria Y. Treatment dropout among veterans and their families: Quantitative and qualitative findings. *Psychol Trauma*. 2022 May;14(4):578-586. doi: 10.1037/tra0001109. Epub 2021 Sep 16. PubMed PMID: 34582228; PubMed Central PMCID: PMC8924016.
  28. **\*Zhu X**, Lazarov A, Dolan S, Bar-Haim Y, Dillon DG, Pizzagalli DA, Schneier F. Resting state connectivity predictors of symptom change during gaze-contingent music reward therapy of social anxiety disorder. *Psychol Med*. 2022 Mar 22;:1-9. doi: 10.1017/S0033291721005171. PubMed PMID: 35314008.
  29. Neria Y, Lazarov A, **Zhu X**. Identifying Neurobiological Markers of Posttraumatic Stress Disorder Using Resting-State Functional Magnetic Resonance Imaging Data: The Promise of Data-Driven Computational Approaches. *Biol Psychiatry Cogn Neurosci Neuroimaging*. 2022 Feb;7(2):121-123. doi: 10.1016/j.bpsc.2021.11.002. PubMed PMID: 35131047.
  30. Clausen AN, Fercho KA, Monsour M, Disner S, Salminen L, Haswell CC, Rubright EC, Watts AA, Buckley MN, Maron-Katz A, Sierk A, Manthey A, Suarez-Jimenez B, Olatunji BO, Averill CL, Hofmann D, Veltman DJ, Olson EA, Li G, Forster GL, Walter H, Fitzgerald J, Théberge J, Simons JS, Bomyea JA, Frijling JL, Krystal JH, Baker JT, Phan KL, Ressler K, Han LKM, Nawijn L, Lebois LAM, Schmaal L, Densmore M, Shenton ME, van Zuiden M, Stein M, Fani N, Simons RM, Neufeld RWJ, Lanius R, van Rooij S, Koch SBJ, Bonomo S, Jovanovic T, deRoos-Cassini T, Ely TD, Magnotta VA, He X, Abdallah CG, Etkin A, Schmahl C, Larson C, Rosso IM, Blackford JU, Stevens JS, Daniels JK, Herzog J, Kaufman ML, Olf M, Davidson RJ, Sponheim SR, Mueller SC, Straube T, **Zhu X**, Neria Y, Baugh LA, Cole JH, Thompson PM, Morey RA. Assessment of brain age in posttraumatic stress disorder: Findings from the ENIGMA PTSD and brain age working groups. *Brain Behavior*. 2022 Jan;12(1):e2413. doi: 10.1002/brb3.2413. Epub 2021 Dec 14. PubMed PMID: 34907666; PubMed Central PMCID: PMC8785613.
  31. Kim H, Levine A, Cohen D, Gehrman P, **Zhu X**, Devanand DP, Lee S, Goldberg TE. The Role of Amyloid, Tau, and APOE Genotype on the Relationship Between Informant-Reported Sleep

- Disturbance and Alzheimer's Disease Risks. *J Alzheimers Dis.* 2022;87(4):1567-1580. doi: 10.3233/JAD-215417. PubMed PMID: 35491776.
32. Helpman L, **Zhu X**, Zilcha-Mano S, Suarez-Jimenez B, Lazarov A, Rutherford B, Neria Y. Reversed patterns of resting state functional connectivity for females vs. males in posttraumatic stress disorder. *Neurobiol Stress.* 2021 Nov;15:100389. doi: 10.1016/j.ynstr.2021.100389. eCollection 2021 Nov. PubMed PMID: 34527793; PubMed Central PMCID: PMC8433283.
  33. Fisher PW, Lazarov A, Lowell A, Arnon S, Turner JB, Bergman M, Ryba M, Such S, Marohasy C, **Zhu X**, Suarez-Jimenez B, Markowitz JC, Neria Y. Equine-Assisted Therapy for Posttraumatic Stress Disorder Among Military Veterans: An Open Trial. *J Clin Psychiatry.* 2021 Aug 31;82(5). doi: 10.4088/JCP.21m14005. PubMed PMID: 34464523.
  34. Wang X, Xie H, Chen T, Cotton AS, Salminen LE, Logue MW, Clarke-Rubright EK, Wall J, Dennis EL, O'Leary BM, Abdallah CG, Andrew E, Baugh LA, Bomyea J, Bruce SE, Bryant R, Choi K, Daniels JK, Davenport ND, Davidson RJ, DeBellis M, deRoon-Cassini T, Disner SG, Fani N, Fercho KA, Fitzgerald J, Forster GL, Frijling JL, Geuze E, Gomaa H, Gordon EM, Grupe D, Harpaz-Rotem I, Haswell CC, Herzog JI, Hofmann D, Hollifield M, Hosseini B, Hudson AR, Ipser J, Jahanshad N, Jovanovic T, Kaufman ML, King AP, Koch SBJ, Koerte IK, Korgaonkar MS, Krystal JH, Larson C, Lebois LAM, Levy I, Li G, Magnotta VA, Manthey A, May G, McLaughlin KA, Mueller SC, Nawijn L, Nelson SM, Neria Y, Nitschke JB, Olff M, Olson EA, Peverill M, Luan Phan K, Rashid FM, Ressler K, Rosso IM, Sambrook K, Schmahl C, Shenton ME, Sierk A, Simons JS, Simons RM, Sponheim SR, Stein MB, Stein DJ, Stevens JS, Straube T, Suarez-Jimenez B, Tamburrino M, 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, Zhu Y, **Zhu X**, Thompson PM, Morey RA, Liberzon I. Cortical volume abnormalities in posttraumatic stress disorder: an ENIGMA-psychiatric genomics consortium PTSD workgroup mega-analysis. *Mol Psychiatry.* 2021 Aug;26(8):4331-4343. doi: 10.1038/s41380-020-00967-1. Epub 2020 Dec 7. PubMed PMID: 33288872; PubMed Central PMCID: PMC8180531.
  35. Dennis EL, Disner SG, Fani N, Salminen LE, Logue M, Clarke EK, Haswell CC, Averill CL, Baugh LA, Bomyea J, Bruce SE, Cha J, Choi K, Davenport ND, Densmore M, du Plessis S, Forster GL, Frijling JL, Gonenc A, Gruber S, Grupe DW, Guenette JP, Hayes J, Hofmann D, Ipser J, Jovanovic T, Kelly S, Kennis M, Kinzel P, Koch SBJ, Koerte I, Koopowitz S, Korgaonkar M, Krystal J, Lebois LAM, Li G, Magnotta VA, Manthey A, May GJ, Menefee DS, Nawijn L, Nelson SM, Neufeld RWJ, Nitschke JB, O'Doherty D, Peverill M, Ressler KJ, Roos A, Sheridan MA, Sierk A, Simmons A, Simons RM, Simons JS, Stevens J, Suarez-Jimenez B, Sullivan DR, Théberge J, Tran JK, van den Heuvel L, van der Werff SJA, van Rooij SJH, van Zuiden M, Velez C, Verfaellie M, Vermeiren RRJM, Wade BSC, Wager T, Walter H, Winternitz S, Wolff J, York G, Zhu Y, **Zhu X**, Abdallah CG, Bryant R, Daniels JK, Davidson RJ, Fercho KA, Franz C, Geuze E, Gordon EM, Kaufman ML, Kremen WS, Lagopoulos J, Lanius RA, Lyons MJ, McCauley SR, McGlinchey R, McLaughlin KA, Milberg W, Neria Y, Olff M, Seedat S, Shenton M, Sponheim SR, Stein DJ, Stein MB, Straube T, Tate DF, van der Wee NJA, Veltman DJ, Wang L, Wilde EA, Thompson PM, Kochunov P, Jahanshad N, Morey RA. Altered white matter microstructural organization in posttraumatic stress disorder across 3047 adults: results from the PGC-ENIGMA PTSD consortium. *Mol Psychiatry.* 2021 Aug;26(8):4315-

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38. **\*Zilcha-Mano S\***, **Zhu X\***, Suarez-Jimenez B, Pickover A, Tal S, Such S, Marohasy C, Chrisanthopoulos M, Salzman C, Lazarov A, Neria Y, Rutherford BR. Diagnostic and Predictive Neuroimaging Biomarkers for Posttraumatic Stress Disorder. Biol Psychiatry Cogn Neurosci Neuroimaging. 2020 Jul;5(7):688-696. doi: 10.1016/j.bpsc.2020.03.010. Epub 2020 Apr 11. PubMed PMID: 32507508; PubMed Central PMCID: PMC7354213.
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40. **\*Suarez-Jimenez B\***, **Zhu X\***, Lazarov A, Mann JJ, Schneier F, Gerber A, Barber JP, Chambless DL, Neria Y, Milrod B, Markowitz JC. Anterior hippocampal volume predicts affect-focused psychotherapy outcome. Psychol Med. 2020 Feb;50(3):396-402. doi: 10.1017/S0033291719000187. Epub 2019 Feb 18. PubMed PMID: 30773148; PubMed Central PMCID: PMC6698431.
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**An asterisk (\*) is used to denote first or senior author.**

#### Book Chapters:

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61. Lowell A, Duroskey A, Hilburn A, Helpman L, **Zhu X**, Neria Y, (2017): Posttraumatic Stress Disorder Following 9/11: What We Know Now. In S. Opatow 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:

62. **\*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)
63. 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)
64. Varangis E, Habeck Cm Zhu X; Coors A, Stern Y, Lee S, (2025): Quantifying Cognitive Reserve Through a Formative Framework. (In submission)



65. 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)
66. Cheryl Ru, Zhen See et al., (2025): A whole-brain voxel-based analysis of structural abnormalities in PTSD: an ENIGMA-PGC study. (In submission)
67. 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)
68. 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)
69. 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)
70. H. Xie et al., A mega-analysis of vertex and gyral cortical thickness differences in adults with and without PTSD. Molecular Psychiatry. (In submission)
71. C. See. et al., A whole-brain meta-analysis of grey matter volume differences in PTSD: a multisite ENIGMA-PGC study. (In submission)
72. Steele N et al., Volumetric Differences of Thalamic Nuclei are Associated with Post-Trauma Psychopathology. (In submission)
73. 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)
74. Alex et al., Infant Subcortical Brain Volumes Associated with Maternal Obesity and Diabetes: A Large Multicohort Study. (In submission)