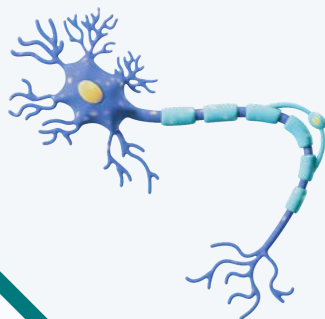
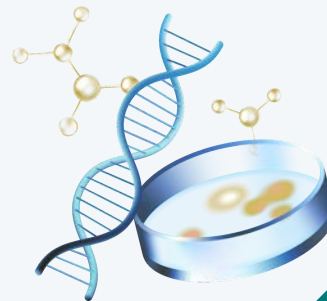




SPECIAL
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Genetics and Neuroscience



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IN THIS EDITION

New Publications in the Field - pg. 2-3
Karestan Koenen, PhD Interview - pg. 4-5
Job Opportunities and Events - pg. 6

Anna Constantino-Pettit (she/her) is a social work researcher whose work is dedicated to disrupting intergenerational cycles of trauma and psychopathology. Anna is principally focused on alleviating aspects of perinatal mental health – specifically, mood dysregulation, suicidality, and drug use – that are significantly affected by social determinants of health, and that impact both caregiver and early infant health and wellbeing.

Anna is also a clinical social worker and started her career as a therapist for parents whose infants were hospitalized in the Neonatal Intensive Care Unit at St. Louis Children's Hospital. This work was part of the Perinatal Behavioral Health Service, a co-located and multidisciplinary program at Washington University in St. Louis, which continues to serve perinatal individuals and their families under the joint leadership of Drs. Cynthia Rogers and Shannon Lenze.

Anna currently continues to work with Dr. Rogers in a research capacity as part of the Washington University Neonatal Developmental Research (WUNDER) lab. She is supported on a T32 (Developmental Neuroscience and Child Psychopathology) and co-mentored by Drs. Joan Luby and Deanna Barch.

Anna's current research emphasis is on epigenetics as a mechanism of intergenerational cycles of psychopathology. She has been working on the first analyses of genomic and epigenetic data in the Early Life Adversity, Biological Embedding, and Risk for Developmental Precursors of Mental Disorders (eLABLE) study, a prospective longitudinal cohort of 398 mother-infant dyads recruited during pregnancy and now in its Year 7 follow-up. The study includes serial neuroimaging data on the children starting at birth; ultimately, this research will provide insight on the role of environmental adversity on the early childhood epigenome and subsequent neurodevelopmental and behavioral trajectories.

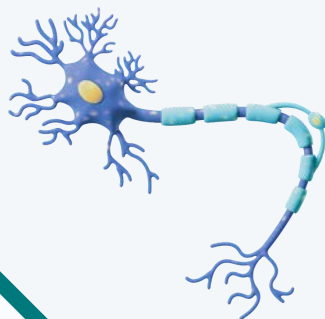
TRAINEE HIGHLIGHTS



HIGHLIGHTED PUBLICATIONS

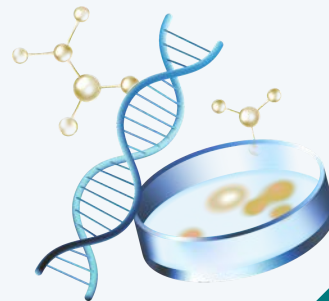
Constantino-Pettit, A., Tillman, R., Wilson, J., Lashley-Simms, N., Vatan, N., Atkinson, A., ... & Agrawal, A. (2024). Cannabis use and trajectories of depression and stress across the prenatal period. *JAMA Network Open*, 7(12), e2451597–e2451597.

Constantino-Pettit, A.*, Lean, R. E.*, Gorham, L. S., Herzberg, M. P., Anaya, B., Rogers, C. E., & Luby, J. L. (2025). Social Determinants of Health, the developing brain, and risk and resilience for psychopathology. *Neuropsychopharmacology*, 1–18.



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NEW PUBLICATIONS IN THE FIELD

ANXIETY



Zhang, Y.-Q., Zhang, Q., Yang, Y., Yu, L.-L., Fan, N.-L., Wu, Y., ... Li, S.-W. (2025). **Elevated NEGR1 in brain induces anxiety or depression-like phenotypes and synaptic dysfunction.** *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-025-03052-7>

Hwang, A., Skarica, M., Xu, S., Coudriet, J., Lee, C. Y., Lin, L., ... Girgenti, M. J. (2025). **Single-cell transcriptomic and chromatin dynamics of the human brain in PTSD.** *Nature*, 643(8072), 744–754. <https://doi.org/10.1038/s41586-025-09083-y>

Tuulari JJ, Bourgerly M, Iversen J, et al. **Exposure to childhood maltreatment is associated with specific epigenetic patterns in sperm.** *Mol Psychiatry*. 2025;30(6):2635–2644. <https://doi.org/10.1038/s41380-024-02872-3>

Ohi K, Fujikane D, Takai K, et al. **Clinical features and genetic mechanisms of anxiety, fear, and avoidance: A comprehensive review of five anxiety disorders.** *Mol Psychiatry*. August 19, 2025. <https://doi.org/10.1038/s41380-025-03155-1>

DEPRESSION



Li, Z.-Y., Fei, C.-J., Yin, R.-Y., Kang, J.-J., Ma, Q., He, X.-Y., ... Cheng, W. (2025). **Whole exome sequencing identified six novel genes for depressive symptoms.** *Molecular Psychiatry*, 30(5), 1925–1936. <https://doi.org/10.1038/s41380-024-02804-1>

Thapar, A., Oginni, O., Dennison, C. A., & Rice, F. (2025). **Youth depression: An overview of genetic findings and the challenge of heterogeneity.** *Journal of Affective Disorders*, 391, 120049. <https://doi.org/10.1016/j.jad.2025.120049>

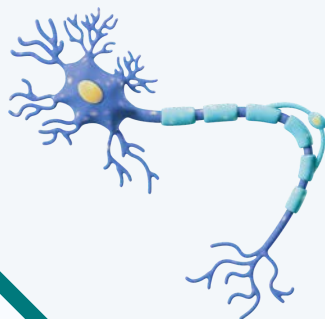
Cheng, J., Liu, Z., Zhu, R., Liu, Q., Han, H., Liu, N., ... Ma, N. (2025). **Identifying potential pathogenic oxidative stress-related genes in depression through multi-omics summary-data-based Mendelian randomization analysis.** *Journal of Affective Disorders*, 388, 119734. <https://doi.org/10.1016/j.jad.2025.119734>

Collins, N. (2025). **Groundbreaking studies expand genetic associations with depression and bipolar disorder.** *The Journal of the American Medical Association*, 333(17), 1476–1477. <https://doi.org/10.1001/jama.2025.2934>

Li, H., Liu, Q., Shan, Q., Xu, H., Wang, J., Liu, L., & Wang, Y. (2025). **Identification of mitochondrial-related causal genes for major depression disorder via integrating multi-omics.** *Journal of Affective Disorders*, 382, 540–548. <https://doi.org/10.1016/j.jad.2025.04.124>

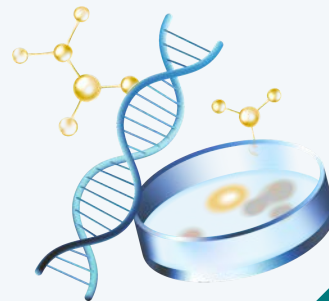


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NEW PUBLICATIONS IN THE FIELD

OCD



Strom, N. I., Gerring, Z. F., Galimberti, M., Yu, D., Halvorsen, M. W., Abdellaoui, A., ... et al. (2025). **Genome-wide analyses identify 30 loci associated with obsessive-compulsive disorder.** *Nature Genetics*, 57(6), 1389–1401. <https://doi.org/10.1038/s41588-025-02189-z>

Jannatdoust, P., Valizadeh, P., Bagherieh, S., Cattarinussi, G., Sambataro, F., Cirella, L., & Delvecchio, G. (2025). **Neuroimaging alterations in relatives of patients with obsessive-compulsive disorder: A review of magnetic resonance imaging studies.** *Journal of Affective Disorders*, 384, 180–207. <https://doi.org/10.1016/j.jad.2025.05.012>

Pol-Fuster, J., Fernández de la Cruz, L., Isomura, K., Sidorchuk, A., Kuja-Halkola, R., Lichtenstein, P., ... Mataix-Cols, D. (2025). **Association between bullying victimization and obsessive-compulsive disorder: a population-based, genetically informative study.** *Molecular Psychiatry*, 30(6), 2457–2462. <https://doi.org/10.1038/s41380-024-02849-2>

MULTIPLE DISORDERS



Kozhemiako, N., Mita, C., Panagiotaropoulou, G. M., Lewis, K. J., Sofer, T., & Purcell, S. M. (2025). **The interplay between sleep and mental health: A genetic perspective.** *Biological Psychiatry*. <https://doi.org/10.1016/j.biopsych.2025.06.024>

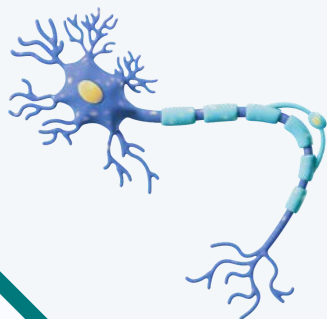
Agrawal, A., Bulik, C. M., Abebe, D. S., Andreassen, O. A., Atkinson, E. G., Choi, K. W., ... Coordinating Committee of the Psychiatric Genomics Consortium. (2025). **The Psychiatric Genomics Consortium: discoveries and directions.** *The Lancet Psychiatry*, 12(8), 600–610. [https://doi.org/10.1016/S2215-0366\(25\)00124-5](https://doi.org/10.1016/S2215-0366(25)00124-5)

Hogan, C. M., Merrill, S. M., Hernandez Valencia, E., McHayle, A. A., Sisitsky, M. D., McDermott, J. M., & Parent, J. (2025). **The impact of early life adversity on peripubertal accelerated epigenetic aging and psychopathology.** *Journal of the American Academy of Child and Adolescent Psychiatry*, 64(6), 724–733. <https://doi.org/10.1016/j.jaac.2024.04.019>

Nielsen, T. T., Bali, P., Grove, J., Mohr-Jensen, C., Werge, T., Dalsgaard, S., ... Polderman, T. J. C. (2025). **Genetic architecture and risk of childhood maltreatment across 5 psychiatric diagnoses.** *JAMA Psychiatry*, 82(8), 790–800. <https://doi.org/10.1001/jamapsychiatry.2025.0828>

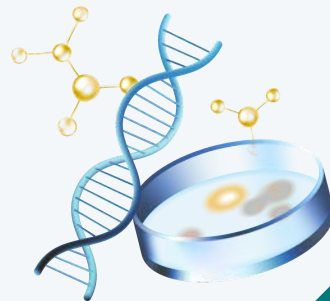


UP NEXT, AN
EXCLUSIVE...



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EXCLUSIVE INTERVIEW WITH **KARESTAN C. KOENEN, PHD**

Director, Broad Trauma Initiative, Broad Institute of MIT and Harvard
Co-Founder and Leader, PGC-PTSD Working Group
Professor of Psychiatric Epidemiology,
Harvard T.H. Chan School of Public Health



What do you see as the most urgent unanswered questions in trauma and PTSD research?

Despite significant advances, the urgency of unanswered questions in trauma and PTSD research cannot be overstated. One of the most pressing queries is: What are the biological mechanisms by which trauma, particularly when it occurs in childhood, shapes how individuals think, feel, and behave for the rest of their lives? This is the driving force behind the Broad Trauma Initiative (BTI) at the Broad Institute of MIT and Harvard, which I direct. There is a critical need to understand precisely how life course trauma "gets into the body"—affecting cellular and organ systems, altering biological pathways, and ultimately impacting both physical and mental health. Closing this knowledge gap is paramount for developing better diagnostics, preventive strategies, and targeted treatments for trauma survivors—especially in ways that are scalable and equitable across the globe.

Which emerging methodologies or technologies do you expect will reshape how we study trauma and resilience?

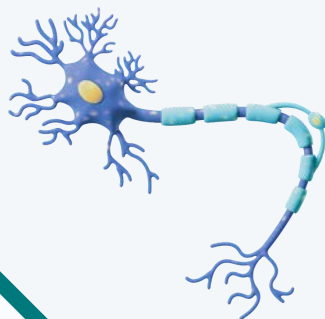
As we are witnessing at BTI, emerging methodologies and technologies hold the potential to revolutionize the study of trauma and resilience. Transformative approaches such as single-cell sequencing and multi-omic analyses can unveil trauma's "biological signatures" at unprecedented resolution. For instance, our collaborations with the Biology of Adversity Project are helping us decipher

how cells encode trauma—and which biological markers could serve as diagnostics, risk stratifiers, or treatment predictors. The combination of digital phenotyping via wearables and smartphones with AI and machine learning is also propelling us towards real-time, personalized assessment of trauma recovery. These tools will enable us to identify both vulnerability and resilience pathways—ushering in a new era of highly targeted, mechanism-based interventions.



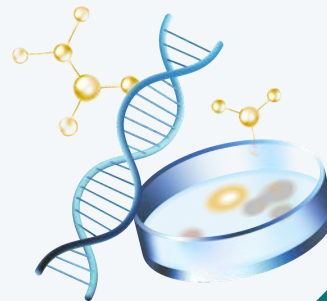
How will large-scale international collaborations (e.g., NeuroGAP, PGC-PTSD) shape the future of our field, and where should the next big consortium effort focus?

Large-scale, international collaborations have revolutionized our understanding of PTSD and trauma-related disorders. As a founding member and co-leader of the Psychiatric Genomics Consortium Posttraumatic Stress Disorder Working Group (PGC-PTSD), I have witnessed how joining forces across over 90 studies and 200 investigators from 12 countries has



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enabled us to achieve what would have been unthinkable in isolation. Our efforts began with the first meta-analysis of GWAS data for PTSD symptoms and diagnosis, growing from just over 3,000 cases and 17,000 controls, to our most recent GWAS that included over 130,000 cases and one million controls of European ancestry, with more than 13,000 cases and 40,000 controls of admixed ancestry. These collaborations, with their global reach and diverse perspectives, have now identified 95 genome-wide significant loci and 43 potential causal genes for PTSD.

“

There is a critical need to understand precisely how life course trauma "gets into the body"

”

The next frontier for consortia such as PGC-PTSD is expanding beyond European ancestry groups and ensuring accurate representation from global populations in all stages of research. It will be crucial to integrate multi-omic, clinical, and real-world data in partnership with underrepresented communities, and to invest in global capacity building so all partners can lead and benefit from discovery. Efforts such as GINGER take this further by training and mentoring the next generation of scientists globally, ensuring equity at every level, from participation to leadership.

How should the field address diversity, equity, and inclusion, both in the populations we study and among the researchers leading the work?

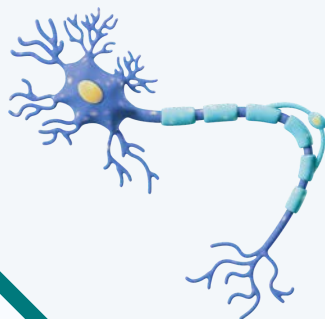
Inclusivity must be central at every stage—from research design to dissemination. We must expand recruitment strategies to ensure studies include persons with lived experience and those from underrepresented populations and report results in ways that reflect nuanced, intersectional experiences. Equally crucial is diversifying the scientific workforce and empowering researchers from historically underrepresented backgrounds in genetics and neuroscience.

I'm particularly proud of my involvement in supporting the launch of the GINGER (Global Initiative for Neuropsychiatric Genetics Education in Research) program which Dr. Lori Chibnik leads. GINGER represents a collaborative, global effort to address the "legacy of exclusion" that has long limited our understanding of genetics and mental health. Through education, mentorship, and infrastructure-building, GINGER empowers outstanding young scientists from Africa, Mexico, and other underrepresented regions—not just as participants, but as leaders and equal partners in research.

Working in partnership with Stanley Global, GINGER builds local research training capacity and fosters networks that enable researchers to advance their own groundbreaking studies. These efforts not only expand the diversity of genetic data available for psychiatric research but also scientists who best understand their communities' needs drive the next generation of discoveries.

Ultimately, diversity, equity, and inclusion are foundational for the best and most valid science. Building sustainable, equitable programs like GINGER helps ensure the field grows in ways that are truly global, impactful, and just.

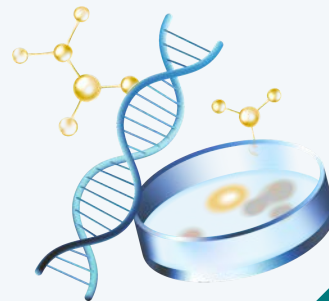
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OPPORTUNITIES

Postdoctoral Fellowship

at Genentech

<https://careers.gene.com/us/en/job/202507-118454/Postdoc-Hiring-Initiative-PHI-Open-Call-for-Postdocs>

Clinical Assistant Professor

Center for Women's Mood Disorders

<https://careers.insidehighered.com/job/3387134/center-for-women-s-mood-disorders-clinical-assistant-professor/>

Grad Student or Postdoc Fellow

Walter Reed Army Institute of Research – Silver Spring, MD

<https://jobs.chronicle.com/job/37866740/walter-reed-army-institute-of-research-silver-spring-md-grad-student-or-postdoc-fellow/>

Research Assistant

Wayne State University Department of Psychiatry

<https://jobs.chronicle.com/job/37870410/research-assistant-department-of-psychiatry>

Postdoctoral Fellowship

VA VISN 17 Center of Excellence

<https://www.mirecc.va.gov/visn17/fellowship.asp>

Pre-Doctoral Internship

VA VISN 17 Center of Excellence

<https://www.mirecc.va.gov/visn17/predocutorial.asp>

UPCOMING

ADAA

EVENTS

Positive Affect Treatment for Depression and Anxiety

September 10, 2025

1:00 PM – 2:00 PM EST

Beyond the Frontlines: Opportunities, Challenges, and Breakthrough Technologies for First Responder Mental Health

October 30, 2025

1:00 PM – 2:00 PM EST

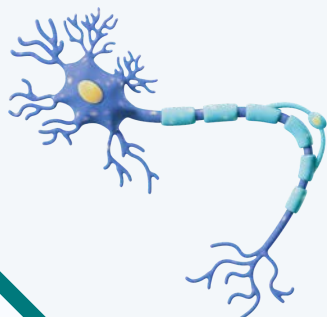
ADAA 2026 Conference

April 9, 2026 – April 11, 2026

Sheraton Grand Chicago

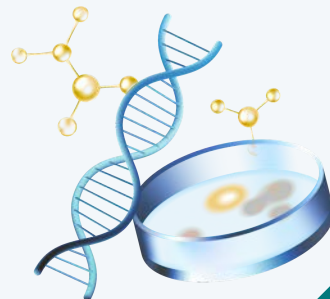
Riverwalk, Chicago, IL





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For feedback, questions and suggestions, please contact us.

Thank you for reading!

