Stanford

Laura Michele Hack

Assistant Professor of Psychiatry and Behavioral Sciences (Public Mental Health and Population Sciences)

CLINICAL OFFICE (PRIMARY)

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Bio

BIO

Dr. Laura M. Hack is an Assistant of Psychiatry and Behavioral Sciences at Stanford University and the Veterans Affairs Palo Alto Health Care System (PAVAHCS). As Associate Director of the Novel & Precision Neurotherapeutics Program at the Stanford Center for Precision Mental Health, Dr. Hack leads a translational, patient-centered research group that designs and implements mechanistic clinical trials for biologically informed subtypes of Mood, Anxiety, and Trauma-related Disorders (MATRDs).

Her work spans repurposed pharmacologic interventions (e.g., guanfacine), neuromodulation techniques (e.g., repetitive transcranial magnetic stimulation [TMS]), and therapies involving altered states of consciousness (i.e., ketamine, MDMA, psilocybin, and anesthesia-induced dreaming). Across these modalities, Dr. Hack's focus is on tailoring treatment based on objective, biologically anchored markers that match the patient's profile.

Dr. Hack also directs the Stanford Precision Psychiatry Clinic, a high-touch, high-tech consultation service designed to support individuals with a primary diagnosis of major depression and often comorbid MATRDs. This clinic integrates the investigational use of high-definition neuroimaging (personalized brain circuit scores) with symptom profiling, neurocognitive testing, pharmacogenomic analysis, inflammatory biomarkers, and standard blood work. The aim is to generate individualized insights that inform treatment decisions and help patients better understand the biological underpinnings of their condition—often reducing self-blame and empowering engagement in care.

In her role as Deputy Director as well as Ketamine and Education Lead of the Precision Neuromodulation Clinic (PNC) at PAVAHCS, Dr. Hack specializes in delivering evidence-based, FDA-cleared interventions including TMS and intranasal ketamine for Veterans experiencing treatment-resistant depression, frequently in the context of comorbid PTSD.

CLINICAL FOCUS

- Psychiatry
- Repetitive transcranial magnetic stimulation (rTMS)

- Ketamine
- Precision psychiatry
- Mood, anxiety, and trauma-related disorders (MATRDs)

ACADEMIC APPOINTMENTS

- Assistant Professor-Univ Med Line, Psychiatry and Behavioral Sciences

ADMINISTRATIVE APPOINTMENTS

- Associate Director of Novel & Precision Neurotherapeutics Program, Stanford Center for Precision Mental Health, (2021- present)
- Deputy Director and Ketamine Lead, Precision Neuromodulation Clinic (PNC), VA Palo Alto Health Care System, Palo Alto Division, (2021- present)
- Director of the Stanford Precision Psychiatry Clinic, Stanford University School of Medicine, (2021- present)
- Clinical Lab Director, The Stanford Center for Cognitive and Neurobiological Imaging (CNI), (2021- present)
- Co-Director of Precision Psychiatry Elective for PGY-3 and PGY-4 residents, Stanford University School of Medicine, (2020- present)

HONORS AND AWARDS

- American College of Neuropsychopharmacology (ACNP) Travel Award, American College of Neuropsychopharmacology (ACNP) (2024)
- Alies Muskin Career Development Leadership Program (CDLP) Award, Anxiety and Depression Association of America (ADAA) (2023)
- NIH K23 Mentored Patient-Oriented Research Career Development Award, NIMH (2021)
- Career Development Institute for Psychiatry, University of Pittsburgh and Stanford University (2020)
- Faculty Leadership and Professional Development Award, Department of Psychiatry and Behavioral Sciences, Stanford University (2020)
- Research Colloquium for Junior Investigators, American Psychiatric Association (2019)
- Young Investigator Poster Competition, 2nd Place, NEI Congress (2018)
- Merit based Travel Fellowship Award, Society of Biological Psychiatry (2017)
- New Investigator Award, American Society of Clinical Psychopharmacology (2017)
- Psychiatry Resident Research Award, Emory University School of Medicine (2017)
- Outstanding Resident Award Program, Honorable Mention, NIMH (2016)
- Phi Kappa Phi Scholarship, Virginia Commonwealth University (2012)
- Early Career Investigator Program Finalist, World Congress of Psychiatric Genetics (2011)
- Merit based Alcohol Travel Award, International Society of Psychiatric Genetics (2009)
- Magna Cum Laude, The College of William & Mary (2006)
- Senior Thesis Honors in Neuroscience, The College of William & Mary (2006)
- Summer Research Fellowship, Howard Hughes Medical Institute (2004)
- James Monroe Scholarship, The College William & Mary (2002)

PROFESSIONAL EDUCATION

- Board Certification: Psychiatry, American Board of Psychiatry and Neurology (2021)
- Postdoctoral Fellowship, Mental Illness, Research, and Treatment through the MIRECC at the VA Palo Alto/Stanford University , Neuroscience (2021)
- Psychiatry Residency, Emory University School of Medicine , Psychiatry (2018)
- MD, Virginia Commonwealth University , Medicine (2014)
- PhD, Virginia Commonwealth Univerity , Human and Molecular Genetics (2014)
- BS, The College of William & Mary , Neuroscience (2006)

LINKS

- Williams PanLab: http://williamspanlab.com/
- Stanford Center for Precision Mental Health: https://www.stanfordpmhw.com/

Research & Scholarship

CLINICAL TRIALS

- The BIomarker Guided (BIG) Study for Depression, Not Recruiting

Publications

PUBLICATIONS

- **Conserved brain-wide emergence of emotional response from sensory experience in humans and mice.** *Science (New York, N.Y.)*
  Kauvar, I., Richman, E. B., Liu, T. X., Li, C., Vesuna, S., Chibukhchyan, A., Yamada, L., Fogarty, A., Solomon, E., Choi, E. Y., Mortazavi, L., Chau Loo Kung, G., Mukunda, et al
  2025; 388 (6750): eadt3971

- **Opioids diminish the placebo antidepressant response: Observational post hoc findings from a randomized controlled ketamine trial.** *Journal of affective disorders*
  Lii, T. R., Flohr, J. R., Okada, R. L., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.
  2025

- **Negative Affect Circuit Subtypes and Neural, Behavioral, and Affective Responses to MDMA: A Randomized Clinical Trial.** *JAMA network open*
  Zhang, X., Hack, L. M., Bertrand, C., Hilton, R., Gray, N. J., Boyar, L., Laudie, J., Heifets, B. D., Suppes, T., van Roessel, P. J., Rodriguez, C. I., Deisseroth, K., Knutson, et al
  2025; 8 (4): e257803

- **A Stratified Precision Medicine Trial Targeting Selective Mechanisms of Alpha 2A Agonism as a Treatment for the Cognitive Biotype of Depression: The Biomarker Guided (BIG) Study for Depression.** *Research square*
  Williams, L., Hack, L., Jubeir, J., Hilton, R., Tozzi, L., Boyar, L., Zhang, X., Lyons, T., Jo, B., O'Hara, R., Schatzberg, A.
  2025

- **Advancing precision psychiatry and targeted treatments: Insights from immunopsychiatry.** *Brain, behavior, and immunity*
  Miller, A. H., Berk, M., Bloch, G., Briquet-Laugier, V., Brouillon, C., Cuthbert, B. N., Dantzer, R., Davis, M. C., De Picker, L. J., Drevets, W. C., Eyre, H. A., Hack, L. M., Harrison, et al
  2025

- **A Stratified Precision Medicine Trial Targeting Alpha 2A Agonism as a Treatment for the Cognitive Biotype of Depression: The Biomarker Guided (BIG) Study for Depression**
  Hack, L.
  SPRINGERNATURE.2024: 56

- **Validating Potential EEG Biomarkers of Anesthesia-Induced Dream States for Future Therapeutic Application in Post-Traumatic Stress Disorder: Preliminary Results**
  Hack, L., Sikka, P., Kawai, M., Ben Deverett, Chow, H. S., Heifets, B.
  SPRINGERNATURE.2024: 117

- **Opioids Diminish the Placebo Antidepressant Response: A Post Hoc Analysis of a Randomized Controlled Ketamine Trial.** *medRxiv : the preprint server for health sciences*
  Lii, T. R., Flohr, J. R., Okada, R. L., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.
  2024

- **A cognitive neural circuit biotype of depression showing functional and behavioral improvement after transcranial magnetic stimulation in the B-SMART-fMRI trial** *NATURE MENTAL HEALTH*
  Tozzi, L., Bertrand, C., Hack, L., Lyons, T., Olmsted, A., Rajasekharan, D., Chen, T., Berlow, Y. A., Yesavage, J. A., Lim, K., Madore, M. R., Philip, N. S., Holtzheimer, et al

2024; 2 (8)

- **A cognitive neural circuit biotype of depression showing functional and behavioral improvement after transcranial magnetic stimulation in the B-SMART-fMRI trial.** *Nature. Mental health*
  Tozzi, L., Bertrand, C., Hack, L. M., Lyons, T., Olmsted, A. M., Rajasekharan, D., Chen, T., Berlow, Y. A., Yesavage, J. A., Lim, K., Madore, M. R., Philip, N. S., Holtzheimer, et al
  2024; 2 (8): 987-998

- **Personalized brain circuit scores identify clinically distinct biotypes in depression and anxiety.** *Nature medicine*
  Tozzi, L., Zhang, X., Pines, A., Olmsted, A. M., Zhai, E. S., Anene, E. T., Chesnut, M., Holt-Gosselin, B., Chang, S., Stetz, P. C., Ramirez, C. A., Hack, L. M., Korgaonkar, et al
  2024

- **Prevalence and characteristics of preoperative patients with depression.** *British journal of anaesthesia*
  Hietamies, T. M., Smith, A. E., Lii, T. R., Muzzall, E., Flohr, J., Okada, R. L., Andriella, Z. G., Nyongesa, C. A., Cianfichi, L. J., Hack, L. M., Heifets, B. D.
  2024

- **Targeting the Cognitive Biotype of Depression With a Selective Alpha 2A Receptor Agonist Using a Stratified Precision Medicine Design**
  Hack, L., Jubeir, J., Hilton, R., Tozzi, L., Schatzberg, A., O'Hara, R., Williams, L.
  ELSEVIER SCIENCE INC.2024: S165

- **Clinical Outcomes and Biomarkers From a Randomized Trial of Ketamine Masked by Surgical Anesthesia in Depressed Patients**
  Heifets, B., Lii, T., Smith, A., Flohr, J., Nyongesa, C., Cianfichi, L., Hack, L., Schatzberg, A.
  ELSEVIER SCIENCE INC.2024: S47

- **Opioid Use Diminishes Placebo Antidepressant Response Independently of Pain in a Ketamine Depression Trial: A Post Hoc Analysis**
  Lii, T., Smith, A., Flohr, J., Okada, R., Nyongesa, C., Cianfichi, L., Hack, L., Schatzberg, A., Heifets, B.
  ELSEVIER SCIENCE INC.2024: S184-S185

- **Insight From Integrating Objective Data Into Psychiatric Encounters** *PSYCHIATRIC ANNALS*
  Hack, L. M., Williams, L. M.
  2024; 54 (4): e113-e118

- **Reduction in Trauma-Related Symptoms After Anesthetic-Induced Intra-Operative Dreaming.** *The American journal of psychiatry*
  Hack, L. M., Sikka, P., Zhou, K., Kawai, M., Chow, H. S., Heifets, B.
  2024: appiajp20230698

- **Association of Neuropsychiatric Symptoms with Inflammation: Review Findings from the Workshop on Brain Immune Interactions**
  Jha, M., Sforzini, L., Milaneschi, Y., Godin, O., Hack, L. M., Pariante, C. M., Miller, A. H., Timmie, W. P., Leboyer, M.
  PERGAMON-ELSEVIER SCIENCE LTD.2024

- **Randomized trial of ketamine masked by surgical anesthesia in patients with depression.** *Nature mental health*
  Lii, T. R., Smith, A. E., Flohr, J. R., Okada, R. L., Nyongesa, C. A., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.
  2023; 1 (11): 876-886

- **Ketamine's acute effects on negative brain states are mediated through distinct altered states of consciousness in humans.** *Nature communications*
  Hack, L. M., Zhang, X., Heifets, B. D., Suppes, T., van Roessel, P. J., Yesavage, J. A., Gray, N. J., Hilton, R., Bertrand, C., Rodriguez, C. I., Deisseroth, K., Knutson, B., Williams, et al
  2023; 14 (1): 6631

- **A Cognitive Biotype of Depression and Symptoms, Behavior Measures, Neural Circuits, and Differential Treatment Outcomes: A Prespecified Secondary Analysis of a Randomized Clinical Trial.** *JAMA network open*
  Hack, L. M., Tozzi, L., Zenteno, S., Olmsted, A. M., Hilton, R., Jubeir, J., Korgaonkar, M. S., Schatzberg, A. F., Yesavage, J. A., O'Hara, R., Williams, L. M.
  2023; 6 (6): e2318411

- **Trial of Ketamine Masked by Surgical Anesthesia in Depressed Patients.** *medRxiv : the preprint server for health sciences*
  Lii, T. R., Smith, A. E., Flohr, J. R., Okada, R. L., Nyongesa, C. A., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.
  2023

- **A Cognitive Biotype of Depression Linking Symptoms, Behavior Measures, Neural Circuits, and Treatment Outcomes**
  Hack, L., Tozzi, L., Zenteno, S., Olmsted, A., Hilton, R., Yesavage, J., Schatzberg, A., O'Hara, R., Williams, L.
  ELSEVIER SCIENCE INC.2023: S72-S73

- **Ketamine's Acute Effects on Negative Brain States are Mediated Through Distinct Altered States in Humans**
  Zhang, X., Hack, L., Heifets, B., Suppes, T., Van Roessel, P., Yesavage, J., Gray, N., Hilton, R., Rodriguez, C., Deisseroth, K., Knutson, B., Williams, L.
  ELSEVIER SCIENCE INC.2023: S312

- **Acute Effects of MDMA on Negative Affective Brain Circuit Function: A Randomized Controlled Mechanistic Trial**
  Hack, L., Zhang, X., Heifets, B., Suppes, T., van Roessel, P., Yesavage, J., Gray, N., Hilton, R., Rodriguez, C., Deisseroth, K., Knutson, B., Williams, L.
  ELSEVIER SCIENCE INC.2023: S88

- **Acute Effects of MDMA on Intrinsic Functional Connectomes Associated With Altered States of Consciousness and Defensiveness**
  Zhang, X., Hack, L., Heifets, B., Suppes, T., van Roessel, P., Yesavage, J., Gray, N., Hilton, R., Rodriguez, C., Deisseroth, K., Knutson, B., Williams, L.
  ELSEVIER SCIENCE INC.2023: S87-S88

- **Anesthetic-Induced Intraoperative Dream Associated With Remission of a Psychiatric Disorder: A Case Report.** *A&A practice*
  Chow, H. S., Hack, L. M., Kawai, M., Heifets, B. D.
  2022; 16 (8): e01613

- **Deconstructing Ketamine-Induced Changes in Cortisol and Dissociative and Affective States in a Controlled Mechanistic Study**
  Hack, L. M., Zhang, X., Brawer, J., Gray, N., Heifets, B., Suppes, T., van Roessel, P., Rodriguez, C., Knutson, B., Williams, L.
  ELSEVIER SCIENCE INC.2022: S178-S179

- **Acute Ketamine Modulates Cognitive Control Network Activity During Cognitive Inhibition: Evidence From a Mechanistic Trial**
  Zhang, X., Hack, L., Brawer, J., Gray, N., Heifets, B., Suppes, T., van Roessel, P., Rodriguez, C., Knutson, B., Williams, L.
  ELSEVIER SCIENCE INC.2022: S225

- **Survivors of SARS-CoV-2 Infection Show Neuropsychiatric Sequelae Measured by Surveys, Neurocognitive Testing, and Magnetic Resonance Imaging: Preliminary Results**
  Hack, L., Brawer, J., Zhang, X., Wintermark, M., Jiang, B., Stetz, P., Yesavage, J., Grant, P., Bonilla, H., Subramanian, A., Williams, L.
  SPRINGERNATURE.2021: 205-206

- **Striato-Cortical Neuroimaging Markers in the Reward Network Distinguish Melancholic Depression and Response to Treatment: An iSPOT-D Report**
  Hack, L. M., Zhang, X., Williams, L. M.
  ELSEVIER SCIENCE INC.2021: S270

- **Epigenetic prediction of 17β-estradiol and relationship to trauma-related outcomes in women.** *Comprehensive psychoneuroendocrinology*
  Hack, L. M., Nishitani, S., Knight, A. K., Kilaru, V., Maddox, S. A., Seligowski, A. V., Jovanovic, T., Ressler, K. J., Smith, A. K., Michopoulos, V.
  2021; 6: 100045

- **Identifying response and predictive biomarkers for Transcranial magnetic stimulation outcomes: protocol and rationale for a mechanistic study of functional neuroimaging and behavioral biomarkers in veterans with Pharmacoresistant depression.** *BMC psychiatry*
  Williams, L. M., Coman, J. T., Stetz, P. C., Walker, N. C., Kozel, F. A., George, M. S., Yoon, J., Hack, L. M., Madore, M. R., Lim, K. O., Philip, N. S., Holtzheimer, P. E.
  2021; 21 (1): 35

- **Precision Psychiatry: Using Neuroscience Insights to Inform Personally Tailored, Measurement-Based Care**
  edited by Williams, L. M., Hack, L. M.
  American Psychiatric Association.2021

- **Ventral-Hippocampal Afferents to Nucleus Accumbens Encode Both Latent Vulnerability and Stress-Induced Susceptibility**
  Fischer, A., Holt-Gosselin, B., Fleming, S., Hack, L., Ball, T., Schatzberg, A., Williams, L.
  SPRINGERNATURE.2020: 312

- **The Effect of Selective D3 Agonism on Anhedonia Symptoms and Reward Neurocircuitry in Subjects With MDD and Prominent Anhedonia**
  Hack, L., Keller, A. S., Warthen, K. G., Whicker, C., Williams, L. M.

SPRINGERNATURE.2020: 96–97

- **Intrinsic reward circuit connectivity profiles underlying symptom and quality of life outcomes following antidepressant medication: a report from the iSPOT-D trial.** *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*
  Fischer, A. S., Holt-Gosselin, B., Fleming, S. L., Hack, L. M., Ball, T. M., Schatzberg, A. F., Williams, L. M.
  2020
- **A precision medicine-based, 'fast-fail' approach for psychiatry.** *Nature medicine*
  Williams, L. M., Hack, L. M.
  2020; 26 (5): 653–54
- **Functional Connectivity of Reward Circuitry is a Core Mechanistic Biomarker of Treatment Response and Quality of Life in Depression**
  Holt-Gosselin, B., Fischer, A., Fleming, S., Hack, L., Ball, T., Schatzberg, A., Williams, L. M.
  ELSEVIER SCIENCE INC.2020: S396–S397
- **Mechanistic Trial Evaluating the Effect of Repetitive Transcranial Magnetic Stimulation on RDoC Constructs in Treatment-Resistant Depression**
  Hack, L. M., Keller, A. S., Whicker, C., Williams, L. M.
  ELSEVIER SCIENCE INC.2020: S412–S413
- **Exploring Nonmotor Neuropsychiatric Manifestations of Parkinson Disease in a Comprehensive Care Setting.** *Journal of geriatric psychiatry and neurology*
  Dhingra, A., Janjua, A. U., Hack, L., Waserstein, G., Palanci, J., Hermida, A. P.
  2020: 891988720915525
- **Leveraging genome-wide data to investigate differences between opioid use vs. opioid dependence in 41,176 individuals from the Psychiatric Genomics Consortium.** *Molecular psychiatry*
  Polimanti, R., Walters, R. K., Johnson, E. C., McClintick, J. N., Adkins, A. E., Adkins, D. E., Bacanu, S., Bierut, L. J., Bigdeli, T. B., Brown, S., Bucholz, K. K., Copeland, W. E., Costello, et al
  2020
- **Shared genetic risk between eating disorder- and substance-use-related phenotypes: Evidence from genome-wide association studies.** *Addiction biology*
  Munn-Chernoff, M. A., Johnson, E. C., Chou, Y., Coleman, J. R., Thornton, L. M., Walters, R. K., Yilmaz, Z., Baker, J. H., Hubel, C., Gordon, S., Medland, S. E., Watson, H. J., Gaspar, et al
  2020: e12880
- **A large-scale genome-wide association study meta-analysis of cannabis use disorder.** *The lancet. Psychiatry*
  Johnson, E. C., Demontis, D. n., Thorgeirsson, T. E., Walters, R. K., Polimanti, R. n., Hatoum, A. S., Sanchez-Roige, S. n., Paul, S. E., Wendt, F. R., Clarke, T. K., Lai, D. n., Reginsson, G. W., Zhou, et al
  2020
- **Unpacking Genetic Risk Pathways for College Student Alcohol Consumption: The Mediating Role of Impulsivity.** *Alcoholism, clinical and experimental research*
  Ksinan, A. J., Su, J., Aliev, F., Dick, D. M.
  2019
- **Genes, Roommates, and Residence Halls: A Multidimensional Study of the Role of Peer Drinking on College Students' Alcohol Use.** *Alcoholism, clinical and experimental research*
  Smith, R. L., Salvatore, J. E., Aliev, F., Neale, Z., Barr, P., Dick, D. M.
  2019; 43 (6): 1254-1262
- **Moving pharmacoepigenetics tools for depression toward clinical use.** *Journal of affective disorders*
  Hack, L. M., Fries, G. R., Eyre, H. A., Bousman, C. A., Singh, A. B., Quevedo, J. n., John, V. P., Baune, B. T., Dunlop, B. W.
  2019; 249: 336–46
- **Transancestral GWAS of alcohol dependence reveals common genetic underpinnings with psychiatric disorders** *NATURE NEUROSCIENCE*
  Walters, R. K., Polimanti, R., Johnson, E. C., McClintick, J. N., Adams, M. J., Adkins, A. E., Aliev, F., Bacanu, S., Batzler, A., Bertelsen, S., Biernacka, J. M., Bigdeli, T. B., Chen, et al
  2018; 21 (12): 1656-+

- **Data-Driven Subtypes of Depression in a Treatment Resistant Cohort**
  Hack, L., Janjua, A., Dover, S., Posse, P.
  NATURE PUBLISHING GROUP.2018: S140

- **Polyepigenetic Prediction of PTSD Physiology Based on Estrogen Status**
  Seligowski, A., Maddox, S., Jovanovic, T., Michopolous, V., Hack, L., Lori, A., Ressler, K., Smith, A.
  ELSEVIER SCIENCE INC.2018: S141

- **DNA Methylation Across the Genome Associates With Serum Estrogen Levels and PTSD**
  Smith, A., Michopoulos, V., Maddox, S., Hack, L., Jovanovic, T., Ressler, K. J.
  ELSEVIER SCIENCE INC.2018: S86–S87

- **Practical outpatient pharmacotherapy for alcohol use disorder.** *Drugs in context*
  Kim, Y., Hack, L. M., Ahn, E. S., Kim, J.
  2018; 7: 212308

- **Suicide Prediction Using Machine Learning Techniques in Screening and Clinician-Derived Data**
  Hack, L., Jovanovic, T., Carter, S., Ressler, K., Smith, A.
  ELSEVIER SCIENCE INC.2017: S361

- **Genomewide Association Study of Alcohol Dependence Identifies Risk Loci Altering Ethanol-Response Behaviors in Model Organisms.** *Alcoholism, clinical and experimental research*
  Adkins, A. E., Hack, L. M., Bigdeli, T. B., Williamson, V. S., McMichael, G. O., Mamdani, M., Edwards, A. C., Aliev, F., Chan, R. F., Bhandari, P., Raabe, R. C., Alaimo, J. T., Blackwell, et al
  2017; 41 (5): 911-928

- **Epigenetic mechanisms involved in the effects of stress exposure: focus on 5-hydroxymethylcytosine.** *Environmental epigenetics*
  Hack, L. M., Dick, A. L., Provençal, N.
  2016; 2 (3): dvw016

- **Exposure to Glucocorticoids During Hippocampal Neurogenesis: Effects on DNA Hydroxymethylation**
  Hack, L. M., Provencal, N., Wiechmann, T., Koedel, M., Rex-Haffner, M., Anacker, C., Binder, E.
  ELSEVIER SCIENCE INC.2016: 94S

- **Integrating mRNA and miRNA Weighted Gene Co-Expression Networks with eQTLs in the Nucleus Accumbens of Subjects with Alcohol Dependence.** *PloS one*
  Mamdani, M., Williamson, V., McMichael, G. O., Blevins, T., Aliev, F., Adkins, A., Hack, L., Bigdeli, T., van der Vaart, A. D., Web, B. T., Bacanu, S. A., Kalsi, G., Kendler, et al
  2015; 10 (9): e0137671

- **GENOMEWIDE ASSOCIATION STUDY OF ALCOHOL DEPENDENCE IN AN IRISH SAMPLE IDENTIFIES RISK LOCI SUPPORTED BY MODEL ORGANISM STUDIES AND CONVERGENT EVIDENCE**
  Riley, B. P., Adkins, A. E., Hack, L. M., Bigdeli, T. B., Bettinger, J. C., Davies, A. G., Grotewiel, M. S., Prescott, C. A., Dick, D. M., Webb, B. T., Miles, M. F., Kendler, K. S.
  WILEY-BLACKWELL.2014: 220A

- **GENOMEWIDE ASSOCIATION STUDY OF ALCOHOL QUANTITATIVE TRAITS IN AN IRISH SAMPLE SUPPORTS THE USE OF PHENOTYPES BEYOND ALCOHOL DEPENDENCE DIAGNOSIS**
  Adkins, A. E., Hack, L. M., Bigdeli, T. B., Bettinger, J. C., Davies, A. G., Grotewiel, M. S., Prescott, C. A., Dick, D. M., Webb, B. T., Miles, M. S., Kendler, K. S., Riley, B. P.
  WILEY-BLACKWELL.2014: 309A

- **Summaries from the XIX World Congress of Psychiatric Genetics, Washington, DC, September 10-14, 2011.** *American journal of medical genetics. Part B, Neuropsychiatric genetics : the official publication of the International Society of Psychiatric Genetics*
  Dai, N., Foldager, L., Gallego, J. A., Hack, L. M., Ji, Y., Lett, T. A., Liu, B. C., Loken, E. K., Mandelli, L., Mehta, D., Power, R. A., Sprooten, E., Stephens, et al
  2012; 159B (1): 128-9

- **The Effects of leptin on thermosensitive neurons in the anterior hypothalamus of the rat**
  Askin, C. A., Hack, L. M., Griffin, J. D.
  FEDERATION AMER SOC EXP BIOL.2011

- **Limited associations of dopamine system genes with alcohol dependence and related traits in the Irish Affected Sib Pair Study of Alcohol Dependence (IASPSAD).** *Alcoholism, clinical and experimental research*
  Hack, L. M., Kalsi, G., Aliev, F., Kuo, P. H., Prescott, C. A., Patterson, D. G., Walsh, D., Dick, D. M., Riley, B. P., Kendler, K. S.
  2011; 35 (2): 376-85

- **Effects of leptin on the firing rates of thermoregulatory neurons in the anterior hypothalamus**
  Hack, L. M., Griffin, J. D.
  FEDERATION AMER SOC EXP BIOL.2006: A1247

PRESENTATIONS

- "Improving Suicide Risk Assessment Using Machine Learning: Application to A Traumatized Community Cohort" - Emory University School of Medicine (May 23, 2018)