

Highlighted Faculty Publications
Department of Psychiatry and Behavioral Neuroscience
Jan-July 2020

We are delighted to share some of the products of recent research by members of the Department of Psychiatry and Behavioral Neuroscience. Below is a selection of recent publications of our faculty. The list is not exhaustive: Altogether the Department boasts over 100 publications in peer-reviewed journals in the past 6 months! We encourage you to browse through these interesting citations to see what everyone is doing. If you see opportunities for collaborations, please reach out!



Austin Blum, MD, JD, Resident

****Blum, AW, and DA Ross (2020) Losing control: Impulsivity in psychiatry. Clinical Commentary, Biological Psychiatry, E1-E2. *This clinical commentary points to the importance of impulsive behaviors in psychiatry, and reviews recent advances in our understanding of the neurobiology of impulsivity.***



Michael Marcangelo, MD and Y Nina Gao, MD PhD

Gao YN and M Marcangelo (2020) Association of early treatment with chronicity and hazard of hospitalization after new Adjustment Disorder. *Amer J Psychotherap y*, <https://doi.org/10.1176/appi.psychotherapy.20190019> *This paper suggests, surprisingly, that early medication treatment for Adjustment Disorder may lead to worse patient outcomes.*



Karam Radwan, MD

Radwan K, Coccaro EF. Comorbidity of disruptive behavior disorders and intermittent explosive disorder. *Child Adolesc Psychiatry Ment Health*. 2020;14:24. doi:10.1186/s13034-020-00330-w *This study supported the hypothesis that IED is a discrete disorder in adolescents. Diagnosing IED early in childhood will help to intervene and mitigate risk factors associated with aggression.*



Andrea King, PhD

****King AC, Cao D, de Wit H, O'Connor SJ, Hasin DS.** The role of alcohol response phenotypes in the risk for alcohol use disorder. *BJPsych Open.* 2019;5(3):e38. doi:10.1192/bjo.2019.18 *This paper reviews the findings from Dr. King's longitudinal study on acute response to alcohol as a risk factor for future alcohol problems. Her research challenges dogma in the field.*

Asvat Y, King AC, Smith LJ, Lin X, Hedeker D, Henderson TO. Substance use behaviors in adolescent and young adult cancer patients: Associations with mental and physical health. *Psychooncology.* 2020;29(6):1068-1076. doi:10.1002/pon.5378 *This results from a unique collaboration between Dr. King, Tara Henderson in Pediatrics, Don Hedeker in Health Sciences, and Yasmin Asvat. It examines risk behaviors in adolescent and young adult cancer patient survivors.*

Vena A, Miloslavich K, Howe M, Cao D, King AC. Exposure to JUUL use: cue reactivity effects in young adult current and former smokers *Tob Control.* doi:10.1136/tobaccocontrol-2019-055553. *This paper examines the use of JUUL, which is popular in young people, and its effectiveness as a salient cue evoking smoking urge and behavior.*



Sonya Dinizulu, PhD

Dinizulu SM, Suarez LM, Simpson D, Abdul-Adil J, Jacobson KC. Psychometric properties of the Community Violence-Prevention Activation Measure (CV-PAM): Evaluating provider activation toward community violence prevention. *J Community Psychol.* 2020;48(2):545-561. *In this timely article the authors developed a scale to identify factors that motivate and activate community members to address community violence.*



Jon Grant, MD, JD

Grant JE, Dougherty DD, Chamberlain SR. Prevalence, gender correlates, and co-morbidity of trichotillomania. *Psychiatry Res.* 2020;288:112948. doi:10.1016/j.psychres.2020.112948. *This article is the first large prevalence study of trichotillomania in the community (>10,000 sample) and shows that the disorder is common and equally prevalent in men and women.*

Grant JE, Keuthen NJ, Stein DJ, Lochner C, Chamberlain SR. Duration of illness and cortical thickness in trichotillomania: Preliminary evidence for illness change over time. *Eur Neuropsychopharmacol.* 2020;32:88-93. doi:10.1016/j.euroneuro.2020.01.002. *This is the first study showing that duration of illness is*

associated with different levels of cortical thickness and thereby suggests that the illness of trichotillomania appears to change over time.

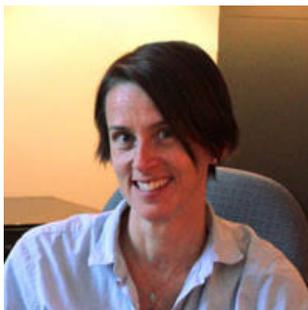


Harriet de Wit, PhD

*Bershad, AK, KH Preller, R Lee, S Keedy, J Wren-Varvis, MP Bremmer, H de Wit (2020) A low dose of LSD alters resting state amygdalar functional connectivity. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*. This paper shows how a very low dose of LSD, which some people might use to 'microdose', changes amygdala function in ways that could improve mood.

de Wit H, Bershad AK. (2020) MDMA enhances pleasantness of affective touch. *Neuropsychopharmacology* 45(1):217-239. doi:10.1038/s41386-019-0473-x This study showed that a single dose of MDMA, or ecstasy, increases pleasantness of the sense of touch.

Radoman, M, NA Crane, SM Gorka, J Weafer, SA Langenecker, H de Wit, KL Phan. (2020) Bilateral caudate activation to monetary reward receipt is associated with alcohol craving. *Neuropsychopharmacology* Jun 6. doi: 10.1038/s41386-020-0728-6. PMID: 32505126 This study shows that reactivity of the brain reward circuits to a monetary reward are correlated with pleasurable responses to alcohol.



Kate Keenan, PhD

Tung I, Keenan K, Stepp SD, Hipwell AE. The moderating effects of traumatic stress on vulnerability to emotional distress during pregnancy. *Dev Psychopathol*. 2020;32(2):673-686. doi:10.1017/S0954579419000531. The associations between childhood adversity and pregnancy emotional distress were moderated by prenatal intimate partner violence, supporting a life span conceptualization of pregnancy health.

Keenan K, Berona J, Hipwell AE, Stepp SD, Romito MT. Validity of the Trier Social Stress Test in studying discrimination stress *Stress*. 2020;1-7. doi:10.1080/10253890.2020.1741545. We adapted a widely used measure of stress reactivity to study the impact of experiences with discrimination on biological systems involved in regulating the stress response.

Tung I, Beardslee J, Pardini D, Chung T, Keenan K, Hipwell AE. Adolescent childbirth, miscarriage, and abortion: associations with changes in alcohol, marijuana, and cigarette use. *J Child Psychol Psychiatry*. 2020;61(1):104-111. doi:10.1111/jcpp.13112. Pregnant adolescents who gave birth had a 25%–50% within-individual reduction in alcohol, marijuana, and cigarette use that remained significantly lower than pre-pregnancy levels after childbirth.



Candice Norcott, PhD

Norcott, C., Keenan, K., Wroblewski, K., Hipwell, A., & Stepp, S. (In press). The Impact of Adolescent Sexual Harassment Experiences in Predicting Sexual Risk-Taking in Young Women. *Journal of Interpersonal Violence*. <https://doi.org/10.1177/0886260519845733> *Using prospectively collected data from a community-based samples, this study showed that sexual harassment by peers in adolescence was predictive of sexual behavior in early adulthood including frequency of sex, acquisition of STIs, and the number of partners. These associations remained after controlling for other nonsexual forms of peer victimization and depression. This is evidence that early encounters with gender-based harassment impacts women's health.*



Kristen Jacobson, PhD

Dinizulu SM, Suarez LM, Simpson D, Abdul-Adil J, Jacobson KC. Psychometric properties of the Community Violence-Prevention Activation Measure (CV-PAM): Evaluating provider activation toward community violence prevention. *J Community Psychol*. 2020;48(2):545-561. *In this timely article the authors developed a scale to identify factors that motivate and activate community members to address community violence.*



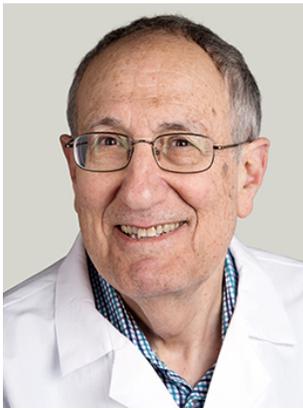
Royce Lee, MD

*Lee RJ, Gozal D, Coccaro EF, Fanning J. Narcissistic and Borderline Personality Disorders: Relationship With Oxidative Stress. *J Pers Disord*. 2020;34(Supplement):6-24. doi:10.1521/pedi.2020.34.supp.6 *This is the first report of a potential biomarker of narcissistic personality disorder: 8-hydroxydeoxyguanosine (8-OH-DG). The biomarker is elevated in narcissistic and borderline personality disorder but not other personality disorders.*

Coccaro EF, Lee RJ. Disordered Aggression and Violence in the United States. *J Clin Psychiatry*. 2020;81(2):19m12937. doi:10.4088/JCP.19m12937 *This analysis of population based data from the National Comorbidity Surveys revealed that problematic aggression is encountered in 8% of US adults. We report two major findings: 1. there are no race differences in problematic aggression after accounting for SES; 2. Americans with problematic aggression are more likely to carry guns and use them in problematic ways. These findings have major implications for policies relevant to reframing aggression as a public health problem.*

Coccaro, EF, RJ Lee, 5-HT_{2c} agonist, lorcaserin, reduces aggressive responding in intermittent explosive disorder: A pilot study. *Human Psychopharmacology: Clinical and Experimental* 2019 34 (6), e2714 *Modulation of the 5-HT_{2c} receptor reduces laboratory based aggressive behavior.*

Bassett, SM, DH Kim, L Takahashi, SM Dinizulu, R Lee, DR Voisin A Latent Class Analysis of Factors Associated with Levels of Aggression among Low-Income African American Youth in Chicago *Journal of Social Service Research* 2019, 1-10. *In a study of aggression in low income African American youth a subtype of high aggression was associated with high levels of community violence.*



Elliott Gershon, MD

Asif, H., Alliey-Rodriguez, N., Keedy, S. et al. GWAS significance thresholds for deep phenotyping studies can depend upon minor allele frequencies and sample size. *Mol Psychiatry* (2020).

<https://doi.org/10.1038/s41380-020-0670-3>

Alliey-Rodriguez N, Grey TA, Shafee R, Asif H, Lutz O, Bolo NR, et al. NRXN1 is associated with enlargement of the temporal horns of the lateral ventricles in psychosis. *Transl Psychiatry*. 2019;9(1):230. doi: 10.1038/s41398-019-0564-9.

Ji L, Meda SA, Tamminga CA, Clementz BA, Keshavan MS, Sweeney JA, et al. Characterizing functional regional homogeneity (ReHo) as a B-SNIP psychosis biomarker using traditional and machine learning approaches. *Schizophr Res*. 2020;215:430-8. doi: 10.1016/j.schres.2019.07.015.

Parker DA, Hamm JP, McDowell JE, Keedy SK, Gershon ES, Ivleva EI, et al. Auditory steady-state EEG response across the schizo-bipolar spectrum. *Schizophr Res*. 2019;209:218-26. doi: 10.1016/j.schres.2019.04.014.



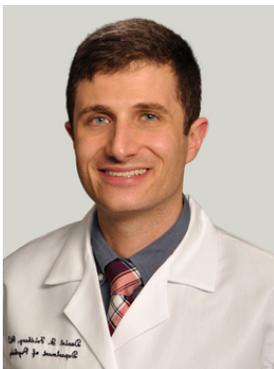
Jennifer Wildes, PhD

Attia E, Steinglass JE, Walsh BT, et al. Olanzapine Versus Placebo in Adult Outpatients With Anorexia Nervosa: A Randomized Clinical Trial [*Am J Psychiatry*. 2019;176(6):449-456. doi:10.1176/appi.ajp.2018.18101125. *This study documented the beneficial effects of olanzapine versus placebo on weight gain (without metabolic side effects) in adult outpatients with anorexia nervosa. It is the largest RCT of olanzapine in patients with anorexia nervosa, and one of the only RCTs to document the efficacy of a medication in acute anorexia nervosa.*

Graham AK, Wildes JE, Reddy M, Munson SA, Barr Taylor C, Mohr DC. User-centered design for technology-enabled services for eating disorders. *Int J Eat Disord*. 2019;

52(10):1095-1107. doi:10.1002/eat.23130. *This manuscript was written by my K Awardee (and former UChicago psychology intern and postdoc), Andrea Kass Graham. It provides an overview of the “user centered design process” and describes how it could be applied to increase patient engagement and the reach of technology-enabled services (e.g., apps; on-line interventions) for eating disorders.*

Jennings Mathis K, Anaya C, Rambur B, et al. Workforce Diversity in Eating Disorders: A Multi-Methods Study [published online ahead of print, 2020 Apr 8]. *West J Nurs Res.* 2020;193945920912396. *This paper aligns well with the on-going conversations in the Department about cultural competence/anti-racism efforts. The study surveyed eating disorder professionals living in 24 countries to characterize demographic and professional characteristics and identify perceived barriers to increasing diversity in the field.*



Dan Fridberg, PhD

Wang, Y., Fridberg, D.J., Leeman, R.F., Cook, R.L., & Porges, E.C. (2019). Wrist-worn alcohol biosensors: strengths, limitations, and future directions. *Alcohol, 81*, 83-92. *This collaboration with colleagues from the University of Florida reviews developments in wrist-worn biosensor technology, including data from preliminary versions of these devices. New alcohol biosensor technology may provide clinicians and researchers with an objective marker of real-world alcohol use.*

Fridberg, D.J., Faria, J., Cao, D., & King, A.C. (2019). Real-time mobile monitoring of drinking episodes in young adult heavy drinkers: development and comparative survey study. *JMIR mHealth and uHealth, 7*(11), e13765. *This study demonstrated the feasibility, acceptability, and a smartphone-based, ecological momentary assessment method for measuring alcohol use and related outcomes during real-world binge drinking episodes. The results indicate that smartphone-based assessments are a practical way to assess alcohol-related outcomes outside of the laboratory.*



Andrea Mann, DO, MPhil

Mann A, Tarshis T, Joshi SV. An Exploratory Survey of Career Choice, Training, and Practice Trends in Early Career Child and Adolescent Psychiatrists and Fellows *Acad Psychiatry.* 2020;10.1007/s40596-019-01167-y. doi:10.1007/s40596-019-01167-y *There has been a shortage of child and adolescent psychiatrists in the US for decades. This article examines factors that influence psychiatrists to specialize in child and adolescent psychiatry.*



Sarah Keedy, PhD.

Hermes, EN, JR Bishop, VT Okuneye, CA Tamminga, MS Keshavan, GD Person, GA Clementz, JE McDowell, EI IVleve, ES Gershon, J Sweeney, S Keedy. No connectivity alterations for striatum, default mode, or salience network in association with self-reported antipsychotic medication dose in a large chronic patient group [published online ahead of print, 2020 Jul 2]. *Schizophr Res.* 2020;S0920-9964(20)30369-8. doi:10.1016/j.schres.2020.06.017 *This 'negative' finding is important because it was conducted in a large sample of patients.*



Daniel Yohanna, MD

Nagele P, Brown F, Bass V, Yohanna D: Prolonged Remission of Major Depressive Disorder after Single Nitrous Oxide Inhalation Treatment, 2020, *Front. Psychiatry* doi: 10.3389/fpsy.2020.00692