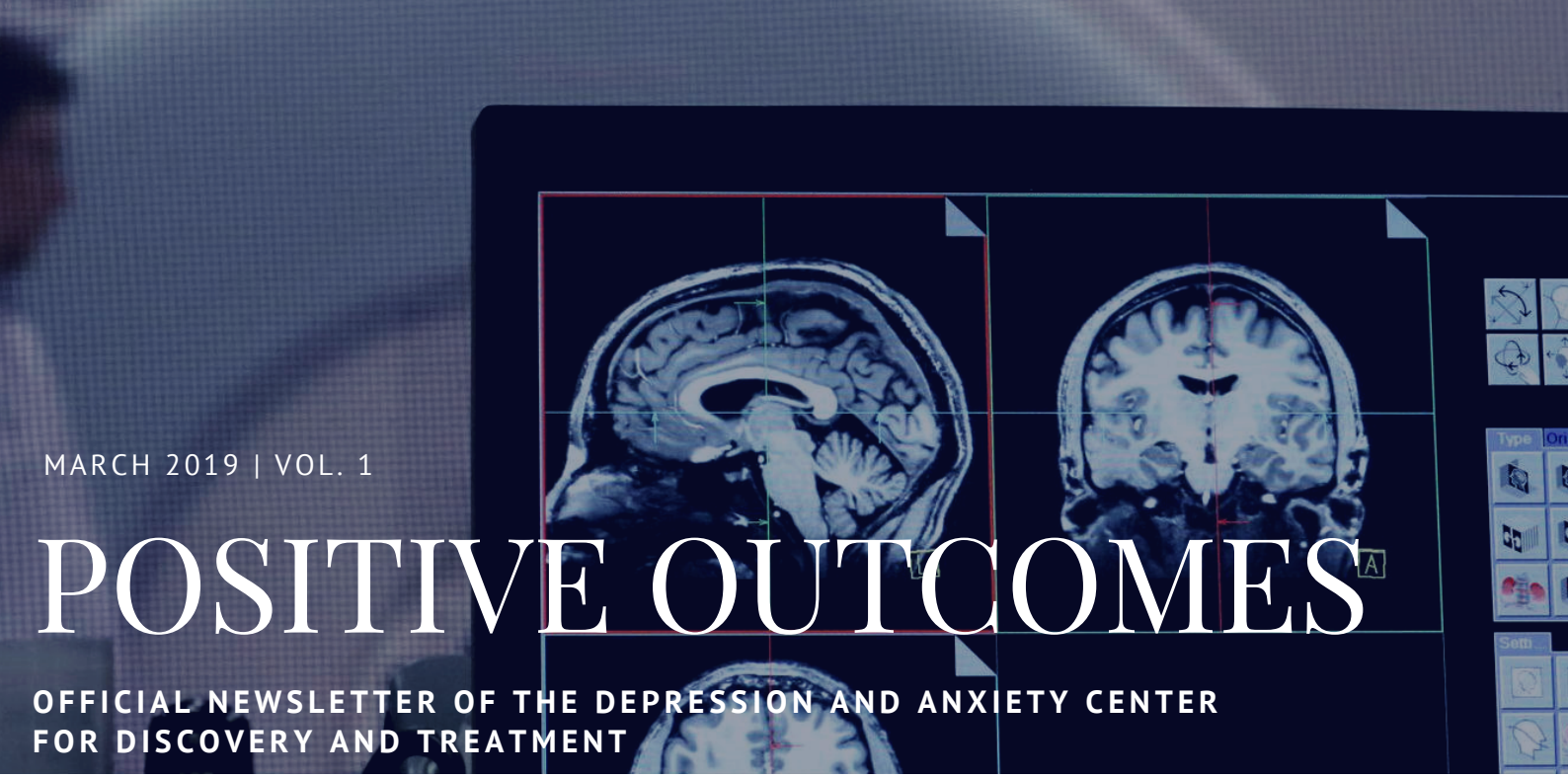

MARCH 2019 | VOL. 1

POSITIVE OUTCOMES

OFFICIAL NEWSLETTER OF THE DEPRESSION AND ANXIETY CENTER FOR DISCOVERY AND TREATMENT

INTRODUCING THE CENTER

The Depression and Anxiety Center for Discovery and Treatment (DAC) evolved from the Mood and Anxiety Disorders Program at Mount Sinai, founded by Dr. Dennis Charney in 2006. The Program quickly became one of the major research programs in the Department, with continuous funding from the National Institutes of Health over the past decade.

As part of the Department of Psychiatry at the Icahn School of Medicine at Mount Sinai, DAC is one of the leading centers for the study of mood and anxiety disorders, including depression, bipolar disorder, generalized anxiety disorder, panic disorder, and post-traumatic stress disorder (PTSD). We work to understand the causes of these illnesses and create treatments to improve the lives of patients and their families.

Our ongoing research aims to develop cutting-edge antidepressants, psychotherapy strategies, and device-based therapies (e.g., transcranial magnetic stimulation). We also conduct experimental work, both within and independent of clinical treatment studies, aimed at identifying the biological (e.g., genetic, epigenetic, immunological), neurobiological (e.g., functional and structural brain), and psychological factors that contribute to the onset, progression, and course of mood and anxiety disorders. Given the interdisciplinary nature of our research, we work closely with our colleagues in The Friedman Brain Institute, the Translational and Molecular Imaging Institute, the Immunology Institute, and many departments and divisions across the School of Medicine and within the Mount Sinai Health System.

MEETING UPDATES

SCIENCE SEMINAR

At these meetings, staff and faculty present recent research in the fields of depression and anxiety.

Upcoming Meetings

3/6/19
3/20/19
4/3/19
5/1/19
6/12/19

DEPRESSION CLUB

At these meetings, staff and faculty present translational research in the field of depression.

Upcoming Meetings

3/27/19
4/17/19
5/22/19
6/26/19

All meetings take place at 2pm in the Dean's Large Conference Room on the 21st floor of Annenberg.

To be added to the mailing list please email abigail.collins@mssm.edu

Icahn School of Medicine at Mount Sinai
Depression and Anxiety Center for Discovery and Treatment

RECENT AWARDS

Charles A. Dana Foundation Grant

Building on recent preclinical work conducted by collaborators in the Russo Lab, this grant will fund a 3-year translational study using advanced neuroimaging techniques on a 7T scanner to characterize the relationship between peripheral immune profiles, neural circuits, and integrity of the stress-sensitive BBB across Major Depressive Disorder (MDD)patients with varying severity of anhedonia, and healthy non-depressed volunteers.

National Institute of Health R01 Grant

This R01 will be the first study to localize and characterize the locus coeruleus, a very small brainstem nucleus, in humans with a variety of anxiety disorders. The locus coeruleus has long been implicated in fear circuitry from both pre-clinical and post-mortem models, and is the primary source of norepinephrine in the central nervous system, although it remains largely unstudied due to its extremely small size. With advances in MRI technology and a unique MRI sequence developed by Mount Sinai researchers, we are hoping to better understand the locus coeruleus' role in stress circuitry.

Nash Family Research Scholar Award

With this award, we intend to conduct the first non-invasive protocol for direct and individualized VTA activity self-regulation in humans with MDD using brain-machine interface technology with ultra-high field 7-Tesla MRI. As the ventral tegmental area (VTA) is a major source of dopamine in the brain and its activity mediates reward-learning, motivation, volition and affective tone, we expect that successful VTA self-regulation will lead to improved symptoms in MDD.

Want to stay up-to-date on our latest research breakthroughs and more?

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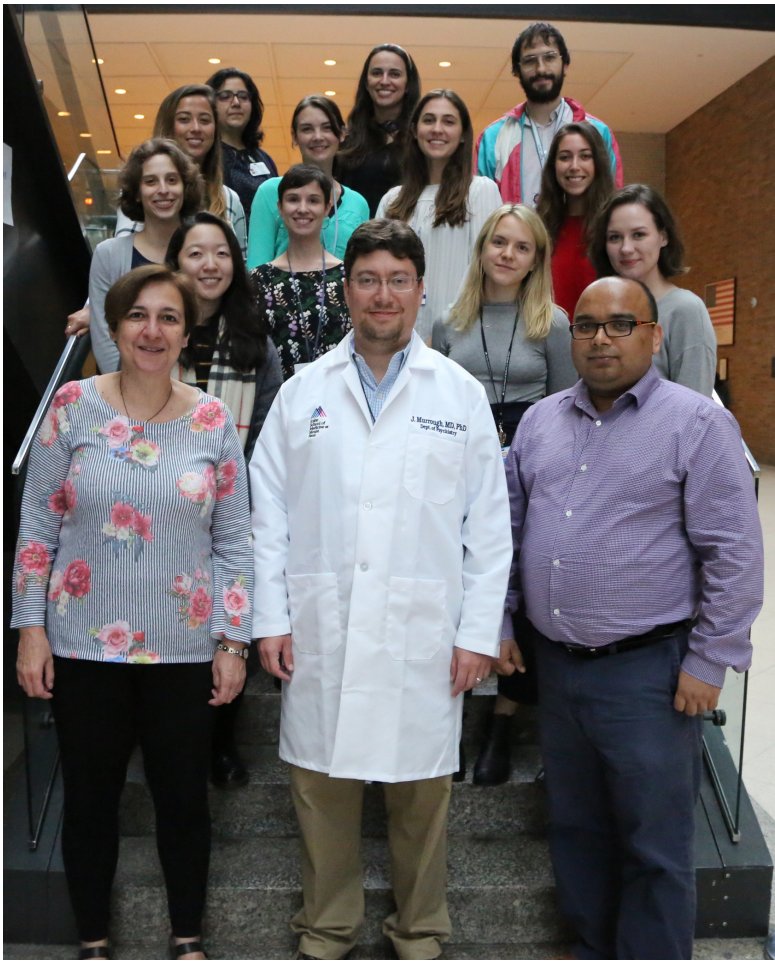

RECENT PUBLICATIONS

Stern ER, Shahab R, Grimaldi SJ, Leibu E, **Murrough JW,** Fleysher L, Parides MK, Coffey BJ, Burdick KE, Goodman WK. (2019). High-dose ondansetron reduces activation of interoceptive and sensorimotor brain regions. Neuropsychopharmacology 44:390–398. doi: 10.1038/s41386-018-0174-x

Oh KY, Van Dam NT, Doucette JT, **Murrough JW**. (2019). Effects of chronic physical disease and systemic inflammation on suicide risk in patients with depression: a hospital-based case–control study. Psychological Medicine 1-9. doi: 10.1017/s0033291718003902

Wilkinson ST, Farmer C, Ballard ED, Mathew SJ, Grunebaum MF, **Murrough JW,** Sos P, Wang G , Gueorguieva R, Zarate CA. (2019). Impact of midazolam vs. saline on effect size estimates in controlled trials of ketamine as a rapid-acting antidepressant. Neuropsychopharmacology 0:1-6. doi: 10.1038/s41386-019-0317-8

Mathew SJ, Wilkinson ST, Altinay M, Asghar-Ali A, Chang LC, Collins KA, Dale RM, Hu B, Krishnan K, Kellner CH, Malone DA, **Murrough JW**, Ostroff RB, Sanacora G, Shao M, Anand A. (2019). ELEctroconvulsive therapy (ECT) vs. Ketamine in patients with Treatment-resistant Depression: The ELEKT-D study protocol. Contemporary Clinical Trials. 19-26. doi: 10.1016/j.cct.2018.12.009

Icahn School of Medicine at Mount Sinai

Depression and Anxiety Center for Discovery and Treatment