

DEPARTMENT OF PSYCHIATRY

Building on a legacy of
clinical innovation



Pioneering Treatment Programs, Multidisciplinary Research, and Training the Next Generation

Mount Sinai's Department of Psychiatry is one of the most productive in the nation. We are ranked #7 in NIH funding* for psychiatry, and in 2021 we published over 850 papers, saw over 816,000 outpatient visits, and received \$49,000,000 in active grants. And we have more than 300 faculty, with seven highly cited researchers** and seven in the National Academy of Medicine. Our faculty practice group saw more than 55,000 appointments in 2021, 70% of which were virtual.

Our patients are the drivers for everything we do. They are the reason we carefully nurture our trainees, pursue bold ideas in research, and provide every level of care for just about every mental health condition. And to better serve them, we are building a new mental health center in the Lower East Side of Manhattan, set to open its doors in early 2023: The Rivington Health Center. This research-driven facility will integrate mental health, substance abuse, and primary care treatment in a section of the city that is currently a mental health services desert. We're planning several inventive programs such as a crisis respite program for those who don't have a safe home for their crisis recovery, as well as holistic accompaniments. The center represents the largest private investment in mental health in the history of the state of New York, and we are honored to have this unique opportunity to serve our Manhattan community.

Whether you're interested in our research, treatment, or educational programs as a scientist, colleague, patient, or trainee, I hope you find this brochure an informative introduction to our department.



René Kahn, MD, PhD

Esther and Joseph Klingenstein
Professor and Chair, Department
of Psychiatry and Behavioral
Health

Icahn School of Medicine at
Mount Sinai
Mount Sinai Health System

*Source: Blue Ridge Institute for Medical Research Ranking Tables of NIH Funding to U.S. Medical Schools in 2021

**Source: Clarivate Highly Cited Researchers, 2021 Recipients

Pioneering Research

The Icahn School of Medicine at Mount Sinai is an international leader in biomedical research, and has more than 5,000 faculty and nearly 2,000 students, residents and fellows. At the Department of Psychiatry, we have over 300 faculty, and one third are researchers. They collaborate with geneticists, neuroscientists, molecular biologists, and neurologists to elucidate the causes and mechanisms that lead to psychiatric disease. We have over 40 labs led by renowned investigators, and an array of research centers, divisions, and programs listed below. Learn more about each at icahn.mssm.edu/psychiatry.

• Addiction Institute of Mount Sinai

Yasmin Hurd, PhD

This institute aims to expand insights about human biology and population health among those with addictive disorders, and to develop novel treatment interventions grounded in scientific evidence. An example is the cannabidiol (CBD) program, which



was founded based on Dr. Hurd's preclinical studies showing that CBD reduced drug-seeking behavior and normalized neurobiological systems altered by the use of heroin. This led to human clinical trials for CBD as a potential treatment for opioid use disorders.

• ADHD and Related Disorders Center of Excellence

Jeffrey Newcorn, MD

This center examines the clinical and neurobiological basis of differential response to ADHD treatments, using data from clinical, pharmacogenetic and fMRI

measures, as well as the neurobiological basis of substance abuse risk in individuals with ADHD. The center's researchers have studied or helped to develop many of the emerging drugs in the ADHD field today. For example, they found that methylphenidate (stimulant medication) and atomoxetine (non-stimulant) have both common and unique mechanisms of action, illustrating why some people will respond better to one or the other. They also found that activation in a particular brain region (caudate) while off medication predicted preferential response to methylphenidate over atomoxetine.

• Alzheimer's Disease Research Center

Mary Sano, PhD

This center aims to expand knowledge about the diagnosis, treatment, and prevention of cognitive impairment, Alzheimer's disease, and related disorders. Through lab,

translational, and clinical research, the center has contributed to major advances in detection of cognitive change as well as pharmacologic and non-pharmacologic interventions. In particular, the center pioneered remote assessment of cognitive and behavioral problems, maximizing the opportunity to detect, treat, and manage patients with Alzheimer's disease and related dementias.

• **Center for Computational Psychiatry**

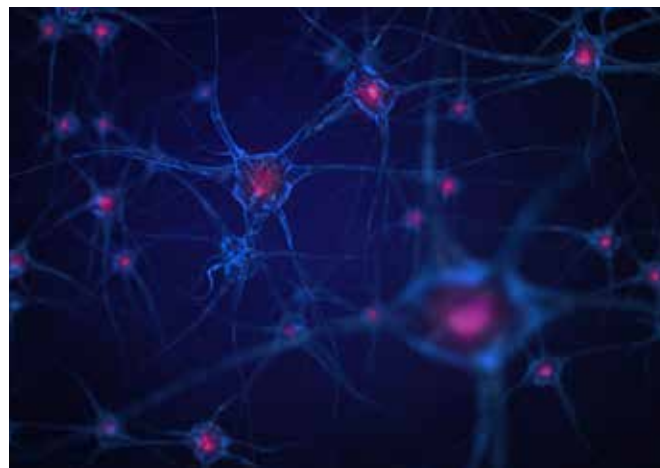
Xiaosi Gu, PhD

This team identifies links between brain, behavior, and mental health using algorithms and computational tools. The end goal of this research is to develop quantitative tools and knowledge that can directly benefit clinical practice (e.g. rapid stratification of patients or objective markers for treatment outcome). An example is the center's use of machine learning and neuroimaging to predict how patients with autism spectrum disorder or personality disorders will function in social environments. This can lead to early detection and intervention for social functional deficits across several mental health conditions.

• **Center for Disease Neurogenomics**

Panos Roussos, MD, PhD

Working at the forefront of precision medicine, the overarching goal of this center is to understand the biology and improve outcomes for patients suffering from neurodevelopmental, neuropsychiatric, and neurodegenerative diseases. Investigators leverage multi-scale genomics data, deep phenotyped clinical populations, machine learning approaches, and in vitro and in vivo models to identify novel genetic variants, genes, and regulatory mechanisms implicated in disease, as well as novel molecular biomarkers and therapeutic targets.



• **Center for Psychedelic Psychotherapy and Trauma Research**

Rachel Yehuda, PhD

In partnership with the James J. Peters Department of Veterans Affairs Medical Center, this center examines the therapeutic potential of psychedelic compounds PTSD and other trauma-related symptoms. Its first study, launched in 2021, is an MDMA trial comparing 2 vs. 3 sessions of MDMA-assisted psychotherapy. The study has an imaging component, and examines brain and molecular markers to understand who best benefits from these treatments and which mechanisms are associated with resilience post-treatment.

• **Child Behavioral Health and Science Center**

Alexander Kolevzon, MD

This center works to translate discoveries made in the lab into new treatments for behavioral health disorders in children and adolescents. An example is researching the efficacy of non-invasive vagus nerve stimulation for the treatment of anorexia nervosa. This work is based on evidence that the vagus nerve plays a critical role in the feedback between the gut and the brain and in regulating appetite, fullness, and visceral feelings in stomach.



• **Depression and Anxiety Center for Discovery and Treatment**

James Murrough, MD, PhD

This center conducts research to advance the treatment of depression, anxiety, and mood disorders using a variety of techniques including neuroimaging, molecular, and genetic approaches. An example is the first randomized control trial of repeated ketamine administration for chronic PTSD showing evidence of efficacy of repeated ketamine infusions in reducing symptom severity.

• **Jeff and Lisa Blau Adolescent Consultation Center for Resilience and Treatment**

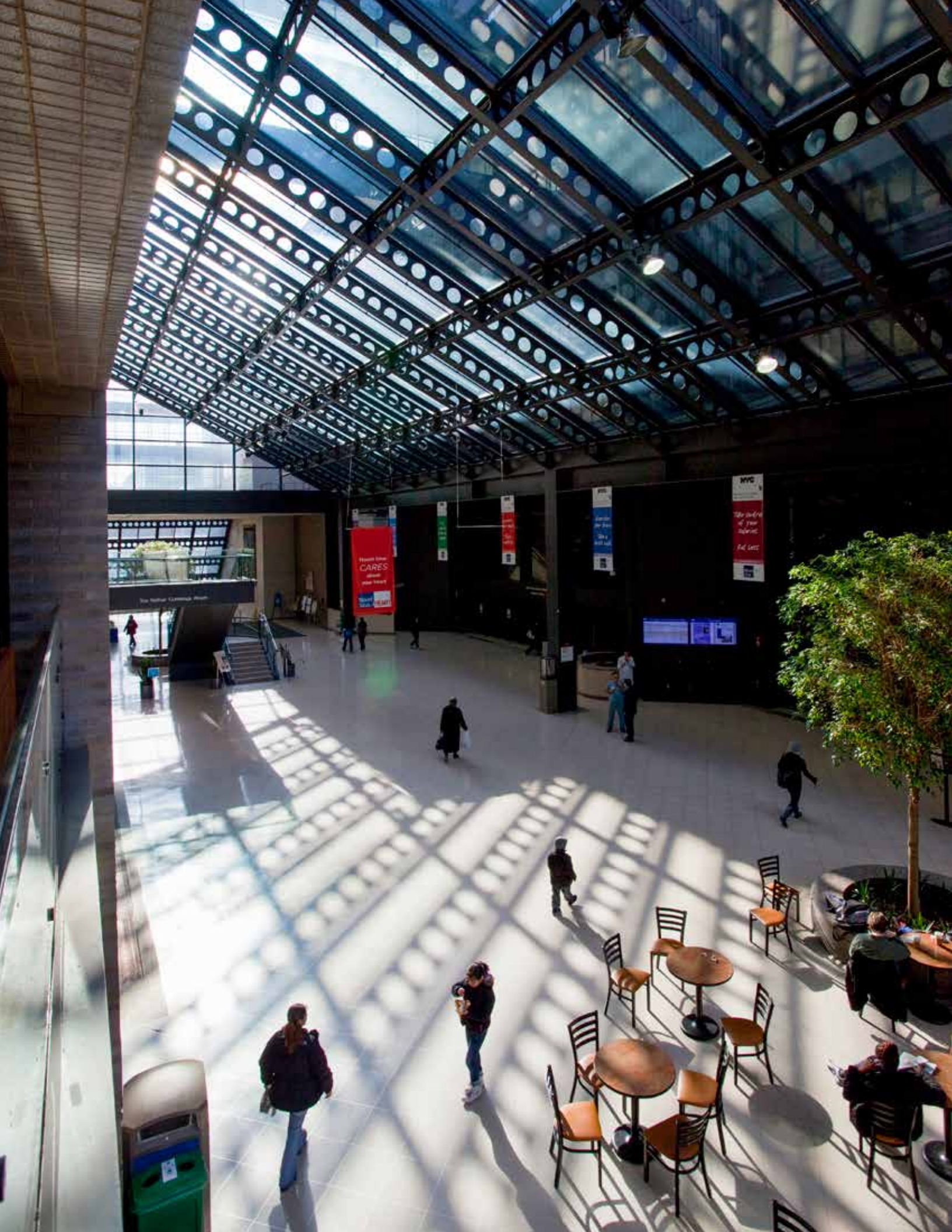
Alexander Charney, MD, PhD; René Kahn, MD, PhD

This center will accelerate the development of novel and breakthrough therapeutics for psychotic illnesses, including schizophrenia; develop, and participate in, trials examining and validating treatment interventions in psychosis and schizophrenia; and expand translational research focusing on neurodevelopment in order to understand illness trajectories.

• **Mental Illness Research, Education and Clinical Centers**

René Kahn, MD, PhD

Located at the James J. Peters VA Medical Center in the Bronx, this group conducts research to determine the causes, identify predictors, and develop treatments for individuals with serious mental illness, with particular emphasis on schizophrenia and suicide. For example, the team is developing a program to bridge the period from being in active service to veteran status in order to prevent mental health complications, such as suicide.



Pioneering Research *(continued)*

- **Nash Family Center for Advanced Circuit Therapeutics**

Helen Mayberg, MD

This interdisciplinary center focuses on innovative research strategies to advance the use of deep brain stimulation (DBS) and other therapies to treat medication-resistant neuropsychiatric disorders such as depression and OCD. Dr. Mayberg discovered how Brodmann Area 25 in the brain could be targeted through DBS more than a decade ago, and in 2019 her team published the first long-term results of DBS for severe depression showing that the antidepressant effects continued over several years.

- **Seaver Autism Center for Research and Treatment**

Joseph Buxbaum, PhD

This center studies genetic and environmental risk factors, making use of model systems to explore pathobiology, carrying out biomarker discovery and clinical trials, and developing optimized treatments. The center co-leads the Autism Sequencing Consortium, which has identified over 100 autism risk genes; the center then studies model systems and individuals with mutations in these genes with the aim of developing novel therapies. For example, the center studies the SHANK3 gene in model systems and has seen over 100 individuals with mutations in this gene, and conducts neurobiologically-informed clinical trials in this disorder.



We educate and train medical students, research scientists, psychiatrists, psychologists, physician assistants, nurses, and social workers via residency programs, fellowships, and internships across the Mount Sinai Health System. A selection are listed below, and you can view the full list at icahn.mssm.edu/psychiatry.

- **Residencies**

Our department has three psychiatry residencies: The Mount Sinai Hospital, Mount Sinai Morningside and West Hospitals, and Mount Sinai Beth Israel. The Mount Sinai Hospital program features a research track option including a physician-scientist program and a seven-year, NIMH-funded combined residency and PhD program. We also offer a combined pediatrics, general psychiatry, and child and adolescent psychiatry training program, known as the Triple Board Program. This five-year residency offers board eligibility in all three disciplines.

- **Research Fellowships**

Our NIMH-funded T32 Clinical Neuroscience Research Fellowship trains psychiatrists, clinically trained PhDs, psychologists, and social workers to formulate original research on etiology, pathogenesis, course, treatment, and prevention of serious mental illness. Upon completion of this program, clinician-scientists will be uniquely poised to bridge

the gap between basic neurobiology and clinical disease. This combination is critical for advancing our understanding of the neurobiology of psychiatric disorders and for developing treatments for psychiatric illnesses.

The Seaver Autism Center houses several fellowships for graduate students, postdoctoral fellows, and junior faculty in areas such as genetic analysis, development of model systems for autism spectrum disorder, neuroimaging studies, and development and assessment of behavioral and pharmacological interventions.

Through our affiliation with the James J. Peters VA Medical Center in the Bronx, we offer fellowships in psychosis, suicide, and major mental illness. The two-year, interdisciplinary fellowships train psychiatrists and psychologists to become leading recovery-oriented researchers and care providers with a focus on serious mental illness and suicidality in veterans.

- **Clinical Fellowships**

The Addiction Institute of Mount Sinai houses two addiction psychiatry fellowships, one at Mount Sinai West and Morningside Hospitals and one at Mount Sinai Beth Israel. Both are open to physicians who have completed a psychiatry residency. In addition, we offer an addiction medicine fellowship, open to physicians who have completed their residency



in any specialty. Rotations include a dedicated hospital-based inpatient detoxification/rehabilitation unit, Mount Sinai's system-wide opioid treatment program (the largest in New York City) and an addiction consultation service in a large academic teaching hospital.

Consultation-liaison fellowships at The Mount Sinai Hospital, Mount Sinai West and Morningside Hospitals, and Mount Sinai Beth Israel educate graduates of psychiatric residencies to evaluate, diagnose, and manage all aspects of psychiatric care in the medically ill. Also known as psychosomatic medicine, this specialty involves collaborating

with general practitioners in caring for patients who have simultaneously occurring psychiatric and general medical conditions.

The fellowship in child and adolescent psychiatry at The Mount Sinai Hospital employs a developmental training model, teaching fellows how different disorders present at different ages, and how to assess them in a developmentally appropriate manner.

Geriatric psychiatry fellowships at The Mount Sinai Hospital and Mount Sinai Beth Israel provides exposure to patients with anxiety disorders, depression, psychosis, Alzheimer's disease, Lewy body dementia, frontotemporal dementias, post-stroke neuropsychiatric conditions, and more.

Our transgender psychiatry fellowship is the only one of its kind in the nation. Fellows will learn about transgender medicine and surgery including transgender-specific psychiatric evaluation and diagnostics, transgender-specific cultural sensitivity, hormone therapy, and indications and contraindications for surgery.

- **Psychology Internships**

The doctoral internships in clinical psychology at Mount Sinai Morningside and West and Mount Sinai Beth Israel offer generalist training in clinical psychology. Interns are exposed to a variety of clinical settings, populations, and applications of psychological interventions.

The pre-doctoral internship at the Adolescent Health Center serves children, adolescents, and young adults ranging from ages 10-26. Interns provide individual, group and family therapy, and also conduct psychological assessments.

Adult psychology internship at The Mount Sinai Hospital is dedicated to providing extensive instruction in neuropsychological and psychological test administration, interpretation, and report writing, as well as in psychodynamically-oriented and cognitive-behavioral outpatient psychotherapy.

Every Level of Care

Mount Sinai Psychiatry offers every level of psychiatric care at The Mount Sinai Hospital, Mount Sinai Beth Israel, Mount Sinai West, and Mount Sinai Morningside. Visit mountsinai.org/psychiatry for contact information for the various locations.

- **Emergency**

Our dedicated psychiatric emergency department is open 24 hours a day. We treat patients age 13 and older, while pediatric specialists treat younger patients in the pediatric emergency room.

- **Inpatient**

Our inpatient staff provide a range of therapies as part of an individualized treatment and support program for each patient, including psychopharmacology, individual psychotherapy, group therapy, specialized therapy such as art or pet-assisted therapy,



substance abuse counseling, and after care planning.

- **Partial Hospital**

Our partial hospital program serves as a transition between inpatient and outpatient care and provides intensive, highly structured outpatient behavioral health services to stabilize patients suffering from acute mental health symptoms. Patients may enter the program from an outpatient or inpatient setting, and engage in active treatment four hours per day, five days per week for a maximum of six weeks.

- **Outpatient**

Our clinicians provide treatment for almost every psychiatric disorder or mental health condition in an outpatient setting—addiction, psychosis, personality disorders, eating and weight disorders, mood disorders, ADHD and learning disorders, and more.

- **Telehealth**

Telemedicine visits are available via phone or video as a convenient option for outpatient care. Most outpatient appointments can take place via telehealth with the exception of procedures, such as electroconvulsive therapy.

Expert Specialists: Faculty Practice Associates

The Mount Sinai Psychiatry Faculty Practice Associates is a group of highly specialized, expert clinicians who are renowned in the field for both patient care and contributions to research. In addition to evidence-based care, they often provide opportunities to participate in research trials. To make an appointment, call 212-659-8752.



- **Child and Adolescent Psychiatry**

Alexander Kolevzon, MD, leads this group comprised of specialists in autism, ADHD and other developmental disorders, neuropsychological evaluations, and OCD.



- **Eating and Weight Disorders**

Tom Hildebrandt, PsyD, is the director of this group that specializes in anorexia, bulimia, binge eating, and obesity.



- **Schizophrenia**

Led by René Kahn, MD, PhD, this group features experts in schizophrenia, and evaluating adolescents at risk for developing psychotic disorders.



- **Treatment-Resistant Depression**

James Murrough, MD, PhD, is the director of this program which offers next-generation therapeutics such as esketamine nasal spray* and transcranial magnetic stimulation.



- **Women's Mental Health**

Led by Veerle Bergink, MD, PhD, this program features experts in reproductive psychiatry, as well as difficulties with mood related to menstrual cycles and the arrival of menopause.

*Mount Sinai was involved in the research that led to the development of this new treatment method for treatment-resistant depression and receives financial remuneration from the manufacturer of SPRAVATO. Mount Sinai's Dean is a co-inventor of patents related to this new treatment method and as such receives remuneration through Mount Sinai from the manufacturer. For more information about these financial interests and Mount Sinai's leadership role in SPRAVATO, please visit bit.ly/esketamine-development.

We provide treatment via an array of specialized programs and services for almost every mental health condition—see below for the full list. Visit mountsinai.org/psychiatry for contact information for the various locations.

- **Addiction and Substance Misuse**

The Addiction Institute of Mount Sinai offers detox, rehab, outpatient services (including intensive outpatient care), medication-assisted treatment, and a halfway house. The institute also houses specialty programs for adolescents, people with hepatitis C, crystal methamphetamine, and others.

- **ADHD and Learning Disorders**

Our Center of Excellence in ADHD and Related Disorders features state of the art neuropsychological evaluations for children, and evaluation and treatment for ADHD and related disorders across the lifespan including psychopharmacology, cognitive behavioral therapy, dialectical behavioral therapy, parent training, and more.



- **Anxiety**

Treatment options for anxiety at our clinics include therapy such as cognitive behavioral therapy and supportive psychotherapy, anti-anxiety medication, or a combination.

- **Autism**

The Seaver Autism Center provides genetic evaluations, state of the art assessments, support for parents and siblings, and patient care through our Faculty Practice Associates group (see p. 10).

- **Bipolar Disorder**

Treatment options to decrease severity and frequency of mood episodes for patients with bipolar disorders include psychotherapy and/or medication such as antipsychotics, lithium, and anti-seizure medications.

- **Child and Adolescent Psychiatry**

The Child Behavioral Health and Science Center offers parent-infant dyadic therapy, parent training and support, social skills training, psychodynamic psychotherapy, trauma-focused therapy, cognitive behavioral therapy, dialectical behavioral therapy, family therapy, group therapy, medication management.

- **Depression**

Our clinics provide talk therapy, including cognitive behavioral therapy and supportive psychotherapy, and medication management. Our Depression and Anxiety Center also offers next-generation therapeutics such as esketamine nasal spray (see p.10).

- **Eating and Weight Disorders**

The Center of Excellence in Eating and Weight Disorders treats patients with enhanced cognitive behavioral therapy, family-based therapy, acceptance-based mirror exposure, and other therapeutic methods—sometimes in combination with medication if needed.

- **Geriatric Psychiatry**

Our Division of Geriatric Psychiatry collaborates closely with the Alzheimer's Disease Research Center, and offers comprehensive neuropsychological assessments, individual and group therapy, psychopharmacology, educational workshops, and support for caregivers.

- **OCD, Tics, and Tourette's Disorder**

Our clinicians provide talk therapy including exposure and response prevention and mindfulness, as well as medication management for OCD. If these do not help, cutting edge therapies such as deep brain stimulation are an option. Our Tourette Association of America Center of Excellence offers comprehensive behavioral intervention for tics and Tourette's disorder, including habit reversal therapy.

- **Personality Disorders**

Our Center for the Intensive Treatment of Personality Disorders offers integrated, personalized treatment plans that can include psychodynamic therapy, dialectical behavioral therapy, mentalization-based therapy, cognitive therapy, mindfulness and meditation training, and medication management.

- **Schizophrenia and Psychosis**

Through the Jeff and Lisa Blau Adolescent Consultation Center for Resilience and Treatment, we offer cognitive remediation, psychoeducation, antipsychotic and other medication management, and cognitive behavioral therapy. We also offer specialized assessments for identifying psychosis risk in young people, and tailored interventions.

- **Trauma and PTSD**

Our clinicians provide cognitive behavioral therapy, cognitive processing therapy, prolonged exposure therapy, eye movement desensitization and reprocessing, and medication management. In addition, the Center for Child Trauma and Resilience provides specialized treatment for children and adolescents.

- **Women's Mental Health**

Pregnant women and new mothers can have special mental health needs, and we offer medication and therapeutic treatment options tailored for before, during, and after pregnancy. Our clinicians also treat women having difficulties with mood related to their menstrual cycles or menopause.

Taking Care of Our Own

Our department is committed to serving the mental health needs of our own internal Mount Sinai community. We provide mental health services to students and trainees through the Student Trainee and Mental Health Program, and the COVID-19 pandemic inspired the launch of the Center for Stress, Resilience, and Personal Growth for all faculty and staff.

- **Employee Services: Center for Stress, Resilience, and Personal Growth**

Launched in 2020, this center provides all Mount Sinai employees with access to resilience workshops, outreach activities, individual behavioral health care, and a self-assessment and resilience-enhancing app. Our resilience workshops are designed to give our faculty, students, and staff tools to meet life's challenges, big and small, and to build on their inherent strengths. In developing these workshops, we have drawn on our extensive expertise in trauma interventions and resilience research. Our workshops (both virtual and in-person) focus on five evidence-based factors: Realistic optimism, facing fears, social support, self-care, and finding meaning and purpose. Learn more at icahn.mssm.edu/CSRPG.

- **Student and Trainee Services: Student and Trainee and Mental Health Program**

Through this program, all students (medical and graduate) and trainees (residents, clinical fellows, and postdoctoral fellows) have access to free confidential mental health services, regardless of their insurance plan. The program offers initial consultation, crisis intervention, psychotherapy, counseling, medication management, referrals, and group therapy such as organizational skills to deal with ADHD, processing racial trauma, and using DBT/CBT skills to deal with anxiety during COVID-19. Learn more at icahn.mssm.edu/STMH.



Diversity, Equity, and Inclusion

In collaboration with Mount Sinai's Office for Diversity and Inclusion, in 2020 we launched our 40-member Psychiatry Diversity, Equity, and Inclusion Steering Committee spanning The Mount Sinai Hospital, Mount Sinai Beth Israel, Mount Sinai West, and Mount Sinai Morningside. The committee includes faculty, staff, and trainees, and meets twice per month to work towards ending structural racism in psychiatry, to create just, equitable, and exemplary care for all of our patients and improve diversity among medical practitioners, staff, and trainees.

- **Recruitment and retention**

The recruitment and retention subcommittee recognizes the necessity of having a racially and ethnically diverse faculty that reflects the demographic diversity of New York City, and focuses on evaluating and modifying recruiting practices, exploring barriers to underrepresented minority faculty retention, assessing work satisfaction, creating new interventions, and developing reevaluation practices.

- **Training and education**

The mission of the training/education subcommittee is to create an environment in which we are continually educating both trainees and faculty on social justice and diversity to improve equity and inclusion and to dismantle racism. This includes recruiting trainees to reflect the communities served, educating on diversity and structural inequity, mentoring and supporting our academic communities, faculty development, addressing bias in clinical care and supervision, and retention/career planning.

- **Clinical services**

The clinical services subcommittee recognizes that racism, culture, and systemic factors intersect with and influence mental health and well-being. We believe that a consistent commitment to understanding and responding to these intersections is essential to providing effective and ethical clinical care. We are committed to continuous learning and promotion of cultural humility within our clinical services, fostering and enhancing knowledge regarding social determinants of health and how these impact our patients and clinical assessments and outcomes, and improving diversity in our clinical spaces.

- **Research**

The research subcommittee aims to ensure speaker diversity in panels, symposia, and grand rounds; ensure diversity in all groups with decision-making power; improve transparency with research participants and the community; create a research environment that allows diverse trainees to thrive; and establish partnerships with our community to better represent traditionally underrepresented groups in research, while providing avenues to improve patient care by listening to their specific concerns and areas of interest.

Learn more about our subcommittees and about our lecture series at icahn.mssm.edu/psychiatry-dei.



Mount Sinai Morningside



The Mount Sinai Hospital



Mount Sinai West



**Icahn School of Medicine
at Mount Sinai**



Mount Sinai Beth Israel

**Icahn School of Medicine at Mount Sinai
Mount Sinai Health System
New York City**

www.mountsinai.org/psychiatry
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