



**Mount  
Sinai**

2  
Pediatric Mood and  
Anxiety Disorders  
Program

3  
The Beatrix Hamburg  
Medical Student Training  
Fellowship

4  
The HEARTS Program

5  
Comprehensive  
Adolescent Rehabilitation  
and Education Service

## CHILD BEHAVIORAL HEALTH AND SCIENCE CENTER

# news

FALL 2014

### From the Director

The Mount Sinai Health System has made a commitment to child behavioral health with the ambition to elevate the reputation of the Child Behavioral Health and Science Center to a national level of excellence. With significant expertise across a broad array of specialty areas, including OCD, Tics and Tourette's, Mood and Anxiety Disorders, ADHD, Eating and Weight Disorders, Neuropsychology, Autism Spectrum Disorder, Trauma, and Substance Abuse – the Center has tremendous depth and breadth and is well poised to be truly outstanding.

Several new initiatives will be established to support the mission of the Center, including a Pediatric Psychopharmacology Program to facilitate experimental therapeutics across specialty areas, a Pediatric Neuroimaging Program to expand on



Alex Kolevzon, MD, *Director*

*continued on page 3*



Jacob Ham, PhD, *Director*

### The HEARTS Program: Healing Emotions and Achieving Resilience to Traumatic Stress

The HEARTS Program, directed by Jacob Ham, PhD, represents a partnership between Mount Sinai Beth Israel and Mount Sinai St. Luke's. It was developed in 2009 through a \$1.2M, three-year grant from the Substance Abuse and Mental Health Service Administration's (SAMHSA) National Child Traumatic Stress Initiative. This funding also provides membership in the National Child Traumatic Stress Network ([www.NCTSN.org](http://www.NCTSN.org)), which represents the 100+ currently and previously funded centers that collaborate to "raise the standard of care and improve access to services for traumatized children, their families and communities through the United States."

The 2009 funding was used to deliver trauma-informed treatments through our child divisions, advance science, educate others in our community and nationally, and influence policy and practices. Some relevant highlights of our work are that we trained 65 clinicians and trainees in two evidence-based treatments for traumatic stress

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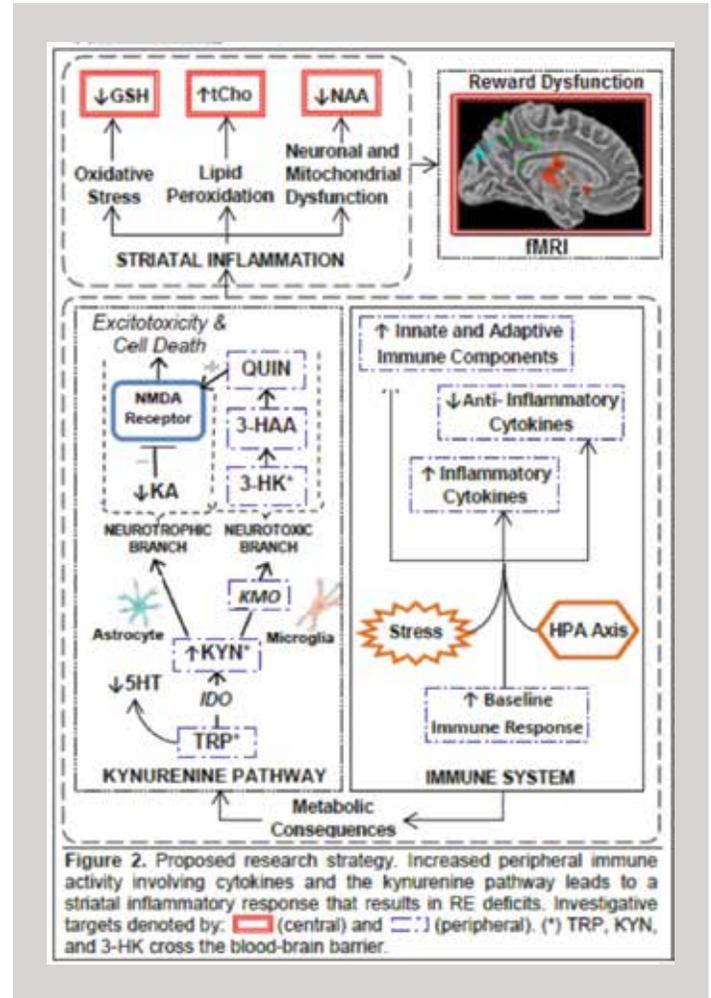
Vilma Gabbay, MD, Chief

## RESEARCH UPDATE:

# Pediatric Mood and Anxiety Disorders Program

Adolescence represents a critical period of development during which many prodromal psychiatric symptoms and conditions first emerge, including mood and anxiety disorders, substance abuse, and psychosis. Across species, adolescence is often defined as a period of time when reward seeking behaviors are dominant, attributed to the maturation of corticolimbic and frontal regions related to the neural reward circuitry. Despite these observations, there has been sparse biological research studying reward processes in adolescents, and such research has been limited to the study of categorically diagnosed disorders. The laboratory of Dr. Vilma Gabbay seeks to investigate these processes through a recently awarded NIH Research Domain Criteria (RDoC) focused R01. The RDoC approach seeks to find new ways of classifying mental disorders based on dimensions of observable behavior and neurobiological measures.

The impaired ability to experience pleasure (i.e., anhedonia) has been identified through previous research by Dr. Gabbay as a promising target for this dimensional investigative approach. Anhedonia can be quantified, is tied to dysfunction of the neural reward circuitry, and often presents in adolescence as a prodromal symptom to a wide range of psychiatric conditions. The first goal of the project is to investigate the associations of peripheral and striatal inflammation with anhedonia severity in adolescents with a range of psychiatric symptoms and healthy controls. Specifically, Dr. Gabbay and her Co-Investigators will examine proinflammatory cytokines and metabolites, the kynurenine pathway, and utilize proton MR spectroscopy to measure levels of glutathione, choline, and N-acetylaspartate in the striatum.



A second goal of the study is to investigate associations between inflammation and reward circuitry dysfunction using fMRI. In addition to using more traditional resting state analyses to examine intrinsic functional connectivity of the striatum, a novel task-based paradigm has been developed to distinguish between the anticipation and ultimate receipt of rewards. Specifically, this task combines a monetary incentive delay task with a reward flanker task to examine which distinct aspects of reward-processing are impaired with anhedonia. A final exploratory aim of the project is to examine the role of hypothalamic-pituitary-adrenal axis activity in relation to the previously examined inflammatory processes and reward circuitry impairments. Overall, Dr. Gabbay hopes that this research will help identify biomarkers of psychiatric illness early in adolescence to improve treatment options before the disorders take hold.

# The Beatrix Hamburg Medical Student Training Fellowship in Child and Adolescent Psychiatry

SPONSORED BY THE KLINGENSTEIN

THIRD GENERATION FOUNDATION (KTGF):

Despite the accelerating pace of discovery in the field of Child and Adolescent Psychiatry, exposure during medical school remains limited. Indeed, medical students participating in focus groups sponsored by the American Academy of Child and Adolescent Psychiatry (AACAP) have often expressed surprise to learn of the full spectrum of clinical, research, administrative, and training aspects of the field.

It is to remedy this gap that the Child Behavioral Health and Science Center at Mount Sinai offers the Beatrix Hamburg Medical Student Training Fellowship, named in honor of our former Division Chief and a nationally renowned psychiatrist. The program provides significant clinical exposure, teaching, and mentorship for medical students at all levels of training. We expose students to rotations in different areas of Child and Adolescent Psychiatry, including inpatient, outpatient, therapeutic nursery, consultation and liaison, school-based consultation, and research. Faculty and senior residents serve as mentors and are paired with students. Students and mentors meet individually on a regular basis, and monthly dinner meetings are also held with the entire group to process clinical experiences, share ideas, and listen to invited guest speakers present on a variety of topics of interest to students. Each year, students from medical schools across the country with KTGF funded mentorship programs convene for an annual conference to socialize, network, and present their clinical experiences and research in Child and Adolescent Psychiatry.

The Hamburg Fellowship is designed to keep pace with the increasing scientific breakthroughs over the past years that have revealed growing evidence of the biochemical and neurological underpinnings of a wide range of

childhood mental disorders. We take students out of the classroom to gain clinical exposure and mentorship in the first year of medical school when students are most in need of these experiences. Our students appreciate the full spectrum of clinical, research, administrative, and training aspects of the field of child and adolescent psychiatry. The program also pairs students with research mentors and sponsors research electives through additional support from the Icahn School of Medicine at Mount Sinai and AACAP.

Using survey instruments, we found that students believe clinical experiences and mentorship are extremely helpful methods to learn about medicine and in choosing a career. Students surveyed also believe that psychiatry is intellectually stimulating and see the extent of patient interaction as a positive factor. These results are reported in a recent paper first-authored by Joshua Stein, a graduate of the Hamburg Fellowship and currently a third-year resident in the Triple Board Program at Mount Sinai. This paper compiled survey data collected between 2008 and 2011 from participants across ten medical schools with KTGF funded medical student training fellowship programs (Stein et al., *Acad Psychiatry*. 2013 Sep;37(5):321-4).

Participation in the Hamburg Fellowship shifts attitudes about psychiatry and the perception of childhood mental disorders. Early exposure to child psychiatry in medical school may also reduce stigma and potentially serve to attract more students to the field. We hope that exposing medical students to our field will also benefit children with mental disorders by raising sensitivity and awareness regardless of whether the students choose to specialize in child and adolescent psychiatry.

## From the Director

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existing programs and create an infrastructure at Mount Sinai that supports a broad range of imaging modalities, and a Community Outreach Program dedicated to disseminating our best practices to community providers across the country.

We are also very excited about opportunities to expand and specialize our training programs. Discussions are underway to develop a combined track in general and child psychiatry in addition to a physician scientist track in child psychiatry. Another key to our success will be to integrate child psychology and psychiatry training in order to foster cross-collaboration and learning across disciplines.

We have a fantastic team of clinicians and clinical researchers in childhood mental health disorders to advance science and promote excellence in delivering healthcare for children, adolescents, and families.

We are very pleased to introduce this first installment of a biannual newsletter that will serve to highlight the remarkable clinical, research, and educational programs across the Child Behavioral Health and Science Center.

# The HEARTS Program: Healing Emotions and Achieving Resilience to Traumatic Stress

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(Attachment, Self-Regulation and Competence and Child Parent Psychotherapy) and integrated a validated PTSD screening tool to the standard intake in three of our programs. These programs screened 1,500 children and treated 197 children and families during the three project years. Nearly all of these families (91%) reported positive perceptions of care through our program and more than 78% of them remained stable or improved in all domains of functioning measured through our evaluation.

In 2012, HEARTS successfully reapplied for funding—this time for four years and \$1.6M. For this funding cycle, we are expanding our impact outside our hospital walls and helping to spread trauma-informed practices to agencies throughout NYC, particularly those serving youth involved in juvenile justice and child welfare. Our partner sites include the NYC Department of Probation, Riker’s Island correctional facility, Brooklyn Treatment Court, an Adolescent Diversion Court, an alternative to detention and incarceration program, two foster and adoption agencies, and an adolescent community residence. We provide staff trainings and consultation on trauma-informed practices and even provide trauma-informed therapy groups on-site at some of our juvenile justice partner agencies. The treatment we deliver is called *Trauma Affect Regulation: Guide for Education and Therapy* (TARGET). We are becoming

certified clinicians and trainers in TARGET and will host a learning community focused on agency-wide implementation of TARGET in five juvenile justice agencies. We also provide trainings on trauma to independent programs involved with other larger city initiatives or agencies, such as Raising the Age, the Young Men’s Initiative, the Department of Youth and Community Development’s Runaway and Homeless Youth Programs, and the Youth Justice Training Collaborative.

Because of our growing success and reputation, we are expanding in our leadership role in helping NYC develop trauma-informed practices across child service systems. We work closely with the NYC Office of Mental Health to help them integrate trauma-informed practices in such programs as the Adolescent Community Residences and other mental health agencies. Christopher Branson, PhD, Director of HEARTS Juvenile Justice Programs, serves on the NYC Administration for Children’s Services (ACS) Juvenile Justice Oversight Board and was recently invited to join a NYC Juvenile Justice Task Force by the newly appointed ACS Commissioner, Gladys Carrión. Our success has also led to other training and consultation opportunities that will help us grow and sustain the program outside of SAMHSA funding, even outside of NYC.

One such highlight is that we were hired to provide year-long training and consultation to advance trauma-informed practices in Florida’s Department of Juvenile Justice.

Since its inception, HEARTS has helped screen over 1,000 children for trauma, helped treat over 350 children, youth and families, trained nearly 100 clinicians in our Child Psychiatry divisions and hundreds more outside our divisions, and is growing in its influence in helping to transform NYC’s child serving systems so that more and more children and families impacted by traumatic stress are appropriately identified and effectively served.



HEARTS Impact and Growth

# Comprehensive Adolescent Rehabilitation and Education Service

AT MOUNT SINAI ST. LUKE'S



Shilpa Taufique, PhD  
Director

The Comprehensive Adolescent Rehabilitation and Education Service (CARES) at Mount Sinai St. Luke's is an integrated program for adolescents with co-occurring disorders that provides screening, assessment, treatment planning, treatment delivery, and continuing care for mental health, substance abuse, physical

health, and education services. CARES serves New York City public high school students whose school performance was previously hindered by significant emotional and behavioral difficulties. CARES offers a fully integrated academic experience through the NYC Department of Education's Re-Start Division and students may earn a Regents Diploma or a Generalized Equivalency Diploma (GED), depending on their academic progress and goals. *The CARES program is designed for adolescents who require a significant level of structure and skill building to turn their lives around.*

CARES provides a focused, individualized, safe, and therapeutic environment in which a multidisciplinary team of expert psychiatrists, psychologists, social workers, creative arts therapists, and substance abuse clinicians provide comprehensive services to each patient. These services may include individual, group, and family therapy, medication management, crisis intervention, case management, and academic achievement services.

CARES treatment uses several evidenced-based practices, depending on the needs of the individual:

- Dialectical Behavior Therapy (DBT)
- Motivational Interviewing and Stages of Change
- Motivation Enhancement Therapy
- Cognitive Behavior Therapy
- Affect, Self-Regulation, Competence for Trauma
- DBT for Families

Overwhelming data from local, national, and state sources underscore the dire need for integrated adolescent mental health and substance abuse services in New York City. These data highlight the need to improve accessibility, effectiveness, and continuity of care provided by existing systems. Studies show that integrated treatment is more effective than traditional separate treatment. CARES provides integrated treatment in a unique and effective way.

CARES is very excited to be part of the Icahn School of Medicine at Mount Sinai and the new Mount Sinai Health System. The program provides high-quality patient-centered care through enhanced interaction among health professionals and trainees from diverse disciplines and collaborative practice. As such, CARES serves as a critical training ground for students of all disciplines in the health care field. We look forward to contributing to the School's training mission and are committed to enhancing and extending the scope of medical education.

There is a dearth of research and outcome data on treatment for adolescents with co-occurring disorders. However, ongoing research with the adult population confirms that evidenced-based treatments in an integrated setting like CARES yields better outcomes. With the new changes to our Health System and affiliation with the Icahn School of Medicine, CARES is positioned to be a leader in the field of co-occurring disorders. We are thrilled to have the support and opportunity to conduct outcome-based research and program evaluation that has the potential to establish the standard of care for the field.

# Announcements

- We are very pleased to announce the initiation of a new Center of Excellence at the Mount Sinai Beth Israel site, The Center for Child Trauma and Resilience led by Dr. Jacob Ham. This Center will incorporate outstanding clinical service, training, and research to promote resilience in childhood and advance science around the treatment of traumatic disorders. Dr. Ham is joined by his team:  
Christopher Branson, PhD, *Director of Juvenile Justice Programs*     Whitney Rog, PsyD, *Postdoctoral Psychology Fellow*  
Emily Upshur, PhD, *Clinical Director*     Annabelle Moore, *Project Coordinator*  
Jennifer Jones, PsyD, *Postdoctoral Psychology Fellow*     Haley Meskunas, *Research Assistant*
- The Center for Child Trauma and Resilience is also launching a new training project for five key agencies serving justice-involved youth: Riker's Island, the Department of Probation, the Red Hook Community Justice Center's adolescent diversion program, the Center for Community Alternatives and Brooklyn Drug Court's alternative to incarceration program.
- The Division of ADHD and Learning Disorders announces several new group treatments for ADHD. We offer executive skills training for adults, organizational skills training for children and teens, and social skills groups for 4-6 year olds. There is a component for parents and work with teachers involved with each student. For more information, please call Dr. Maria Edman at 212-241-4423.
- The Mount Sinai Child Behavioral Health and Science Center would like to invite you to a reception at the 2014 AACAP Annual Meeting. Date: October 23rd, 2014 • Time: 9pm • Place: "Top of the Hyatt" – Manchester Grand Hyatt Hotel, San Diego, CA.

## Congratulations to:

**Justin Key**, a second year medical student at Mount Sinai, for receiving the AACAP 2014 Summer Medical Student Fellowship for his project: *Development of a Sensory Reactivity Assessment for Minimally Verbal Children with Neurodevelopmental Disorders*.

**Erin Li**, a fourth year medical student at Mount Sinai, for receiving the Autism Science Foundation Predoctoral Fellowship for her project: *Mapping the Neurobehavioral Phenotype in Phelan McDermid Syndrome*.

**Tim Rice**, a second year Child and Adolescent Psychiatry (CAP) Fellow, for receiving the AACAP 2014 Pilot Research Award for his project: *Mediators and Moderators of Group Cognitive-Behavioral Therapy for Pediatric Obsessive-Compulsive Disorder*.

**Lesha Shah**, a second year CAP Fellow, for receiving the AACAP 2014 Systems of Care Special Program Clinical Projects Award.

**Joseph Buxbaum** for receiving an NIH R01 grant: *Population-based Autism Genetics and Environment Study*.

**Barbara Coffey** for being awarded the Tourette Syndrome Association Center of Excellence in Tics and Tourette Disorder.

**Vilma Gabbay** for receiving an NIH R01 grant: *Neuroinflammation and Positive Valence System (PVS) Deficits in Adolescents*.

**Alex Kolevzon** for receiving an NIH U54 grant: *Developmental Synaptopathies Associated with TSC, PTEN and SHANK3 Mutations*.

**Juan Pedraza, Jeffrey Newcorn, and Stephanie Duhoux** for receiving a new innovation grant from the 4D Technology Development Program at Mount Sinai to study biomarkers in ADHD.

**Ting Wang** for receiving an NIH R21 grant: *Neural Effects of Sustained Oxytocin Treatment in Children with Autism*.