Two years ago, Michael Nevarez, MD—whose lifelong passion was to help youth with psychiatric illness—found himself at a crossroads in his medical career. Like most physicians who have finished their residencies and fellowships, Dr. Nevarez had amassed much debt borrowing for eight years of education. He was married and starting a family. Clinical work pays a salary, but research doesn’t—unless you get a grant.

“There are so many unanswered questions,” says Dr. Nevarez. “To apply and get funding for new, original research ideas is a daunting challenge. You have excitement, energy and desire to explore, but not enough research experience to qualify for high-level government grants.”

It was precisely for young physicians and doctorate-level faculty like Dr. Nevarez that the Louis V. Gerstner III Research Scholars Program was launched in 2014 through the generosity of the Gerstner Family Foundation, joined by other donors. Each year a committee of senior clinician-scientists selects two or three promising junior faculty to receive a Gerstner Scholar Award. These two-year awards enable recipients to dedicate 50 percent of their time to pursuing research in the field of attention deficit hyperactivity disorder (ADHD) and related disorders. Since the program’s inception, the research careers of ten scholars have been jump-started by this highly competitive award.

“It’s been a true gift to our institution,” says Timothy E. Wilens, MD, chief of the Division of Child and Adolescent Psychiatry and director of the Gerstner Scholar Awards. “It’s an amazing catalyst for people starting their early research careers, and highly successful in providing fertile ground for them to focus on one of the most common neurobehavioral disorders, ADHD.”

Dr. Nevarez is one of three new scholars selected for the 2017-2019 class. The Gerstner Scholar award will allow Dr. Nevarez to decipher the biological mechanisms behind an identified association between having ADHD and experiencing poor health outcomes in mid-life and beyond. He will do so by analyzing more than 86 years of data collected through the Harvard Study of Adult Development. He is also exploring connections between the body’s inflammatory process and ADHD and other mental health disorders like depression, as well as the potential relationship between adversity, inflammation and overall health.

The other two new Gerstner Research Scholars are equally motivated to study unanswered questions that will help their patients. Allison S. Baker, MD, a psychiatrist in Mass General’s Ammon-Pinizzotto Center for Women’s Mental Health, wants to learn more about the reproductive safety of ADHD medications during pregnancy and while breastfeeding postpartum. Many women choose to discontinue or reduce the dose of their medications, but not much is known about the impact of that decision on the

(Continued on page 7)
From the Chief

Like the great hospital we are part of, the Department of Psychiatry pursues four missions: patient care, teaching, research and community health. Mass General’s first order of business is to deliver the best possible care to current patients and to be ready to do the same for the next patient who walks through the door or who comes to the emergency room. Adequate insurance payments for some medical interventions make possible specialty care, like psychiatry, that is less well reimbursed. So far, it has worked out.

While the hospital also provides a rich infrastructure for teaching and research, actual activities in these domains can only be minimally funded by the hospital or by Harvard Medical School (where Mass General is its oldest and largest teaching hospital). In the case of research, our scientists and physician-researchers are heavily reliant on federal funding, although under constant threat of cutback. With teaching, the training of residents, interns and fellows—the next generation of caregivers—is done through the donated time of physicians and other clinical mentors in their role as faculty members.

Increasingly, philanthropy is helping to support these two vital missions. This issue of Mindscapes highlights significant partnerships that are having a tremendous impact. The Gerstner Family Foundation enables the best and brightest graduates to begin research careers. The Abra Prentice Foundation provides stable permanent support for a senior physician-scientist. The Ryan Licht Sang Bipolar Foundation seeds pilot studies to position investigators to secure federal funding. Lee Ann Ingram and her family contribute to the department’s endowment for long-term financial stability.

During this season of giving, we celebrate and thank these individuals whose generosity is transforming the efforts of those who strive to advance our knowledge of psychiatric illnesses and of those who strive to relieve suffering. We wish you and yours the joy of the holidays and a healthy, happy New Year.

Jerrold F. Rosenbaum, MD
Psychiatrist-in-Chief,
Massachusetts General Hospital
Stanley Cobb Professor of Psychiatry,
Harvard Medical School

Awards

Alik S. Widge, MD, PhD, faculty member of the division of Neurotherapeutics, has received the 2017 One Mind / Janssen Rising Star Translational Research Award. Dr. Widge’s study will focus on identifying the precise brain circuits that govern the inflexibility of thinking common among patients with schizophrenia, major depression or obsessive compulsive disorders, and testing whether neuro-stimulation of these circuits can improve mental flexibility.

Joy B. Rosen, MS, vice president for Behavioral Health, was awarded the Spirit of Compassion Award at the 2017 Annual Friend & Leader Award Dinner on June 19, hosted by the Massachusetts Association for Mental Health, Inc. The award recognizes a person who has made a significant difference in the disabled community. Rosen oversees the administration of the Department of Psychiatry, Benson–Henry Institute for Mind Body Medicine, and Home Base Program, and works closely with the Center for Community Health Improvement.

In Memoriam

On Sept. 22, friends and colleagues joined with family and loved ones to honor the life of longtime MGH psychiatrist, Chester M. Pierce, MD, during a special memorial celebration at Harvard University. Dr. Pierce died at the age of 89 in September 2016. During his distinguished career he received many notable honors and recognitions, including being named the first African-American full professor at Mass General, and having the MGH Division of Global Psychiatry renamed the Chester M. Pierce Global Psychiatry Division.

The inaugural Avery D. Weisman, MD Grand Rounds Lecture in Consultation Psychiatry took place in the hospital’s Ether Dome on Nov. 16. The lecture was held in conjunction with the annual New England Journal of Medicine Clinico-pathological Conference. Dr. Weisman founded the Psychiatric Consultation Service that now bears his name. He was a prolific writer, mostly on topics related to the existential core of psychoanalysis, coping with cancer and other life-threatening illnesses, and end-of-life care. Dr. Weisman died in January 2017 at the age of 103.

Avery D. Weisman, MD
The Partners Biobank

Vast Genetic Repository Spurs Medical Research

**Depression.** Bipolar disorder. Schizophrenia. Suicidal ideation. These conditions have something in common: we still don’t know the entire scale and scope of how they manifest—or how to predict them. To better help understand mental disease, Mass General is offering patients the opportunity to participate in the Partners HealthCare Biobank, a huge repository of genetic information designed to advance the diagnosis, treatment and prevention of disease.

**CONTRIBUTING TO MEDICAL RESEARCH**
The goal of the decade-old program is to understand how people’s health is affected by their genes, lifestyle and environment. Patients at Mass General and at other Partners affiliates are typically recruited by physicians, nurses and other providers. Patients can also enroll in the study online at biobank.partners.org. Consenting patients then undergo a one-time blood draw, and agree to have their blood sample linked to their electronic health record and to be contacted in the future for research opportunities of interest to them.

Information gathered and stored in the Partners Biobank is protected by stringent privacy safeguards based on federal laws and regulations such as the Health Insurance Portability and Accountability Act (HIPAA) and the Genetics Information Non-Discrimination Act (GINA), which is a federal law protecting genetic information from being used when people apply for health insurance or employment. Additionally, a participant’s identity is protected by assigning a code to each sample when it is received, and the key to the code is kept separately from the person’s blood sample and health information. If Partners researchers want to access any identifiable information, they must also obtain approval from the Partners ethics committee (Institutional Review Board).

**SEARCHING FOR BIOMARKERS**
“The information and samples stored within the Partners Biobank can be used by researchers at Mass General, as well as other Partners institutions, to make discoveries about the causes, treatment and prevention of disease,” said Jordan W. Smoller, MD, ScD, co-director of the Partners Biobank at Mass General and director of the Psychiatric and Neurodevelopmental Genetics Unit. “For example, we can look at DNA and other biomarkers that may help predict disease or response to treatment, the interplay of genes, environment and other factors that make some people more likely or less to respond to treatment, and the biological and molecular features that underlie disease.”

Since the first patients enrolled in 2009 and with over 2,000 new patients now being enrolled each month, researcher teams have used the growing Biobank repository for 80 studies. In addition to psychiatric disorders, research is underway across the spectrum of human disease, including rheumatoid arthritis, multiple sclerosis, milk and other food allergies, brain aneurysms, inflammatory bowel disease and cardiomyopathy.

“Much of this research seeks to move towards our goal of “precision medicine,” said Smoller. “In psychiatry, treatments have been a one-size-fits-all approach, and because we have a limited understanding of many of these illnesses, treatment is often a trial and error process. The hope is that this large-scale data, coupled with new insights, can do far better in matching individuals who are suffering from mental illness to the best course of treatment.” Smoller believes it’s essential for those affected with psychiatric disorders to be included in the Biobank. “Joining the Biobank is an easy but important way to contribute to a better future for mental health care,” he notes.

**SHARING RESULTS**
As of July 2017, the Partners Biobank has started returning research results to Biobank participants when a high risk genetic variant, called a mutation, has been detected. This is done when screening tests and other preventive measures can be taken to impact their health care. Currently, the Biobank has more than 75,000 participants across Partners sites. To learn more about the Partners Biobank, including how to enroll, please visit biobank.partners.org.

“Joining the Biobank is an easy but important way to contribute to a better future for mental health care.”

— Jordan W. Smoller, MD, ScD
Tennessee native and philanthropist

Lee Ann Ingram sees beauty and courage where others may only see flaws. Her passionate commitment to the cause of mental health care is fueled by this sensitive worldview. “We live in a society where there’s enormous pressure to appear perfect,” said Mrs. Ingram. “I have so much respect for people who have the strength to shatter this facade, admit that they have a problem and seek professional help.”

Lifelong interest in Mental Health

Lee Ann’s life lessons in mental health advocacy began at an early age. Her father, Connie Summers, was a prime mover of community mental health solutions in the state of Tennessee. As a child in the early 1950s, Mr. Summers witnessed the harsh realities of mid-century institutionalization while living on the grounds of the Tennessee State Mental Hospital where his father was a resident physician. Finding a more humane and effective way to treat mental illness became central to his life’s mission, and his daughter, Lee Ann, was inspired by his example. “My father instilled in me a distaste for the status-quo in mental health care,” said Lee Ann. “He was never comfortable seeing people receive inadequate treatment and neither am I,” she added.

Lee Ann’s commitment to mental health care is also driven by her own personal struggles as a teenager. “I went to a private school where thin was in. Before I knew it, I was 72-pounds and suffering from anorexia,” she recalls. “I still remember being that little girl in her room crying out for help and hoping someone would listen.” Lee Ann believes that private school students represent a particularly vulnerable slice of the population that often suffers mental illness in silence.

Helping Struggling Adolescents

In 2007, Lee Ann teamed with Centerstone, one of the nation’s largest community behavioral health care providers, to create Coaching4Teens, a free, confidential counseling program for private school students in Middle Tennessee. Lee Ann commented: “I told the people at Centerstone that if we prevented one teen suicide, it would all be worth it. Somewhere there’s a teenage girl crying in her room like I was. I want to make sure that she doesn’t feel alone,” said Lee Ann.

Since its inception, the Coaching4Teens Program has helped more than 65,000 students from 373 private schools in Middle Tennessee.

Lee Ann, who lives with her husband Orrin on a picturesque farm in Franklin, Tennessee, was introduced to the work of Mass General’s Department of Psychiatry approximately 12 years ago through a chance conversation with Carroll Carpenter, co-founder of the MGH Leadership Council for Psychiatry. Seated next to one
another at a garden club event in Delaware, Mrs. Carpenter initiated conversation with Lee Ann by asking her what she was most passionate about. Reflecting on the moment, Lee Ann found her question refreshing: “It was a beautiful way to start a conversation,” she says. “I shared with her my commitment to mental health advocacy and my work with Centerstone, and she told me about similar work that she was doing with Mass General. It was a special moment.”

**CATALYZING PARTNERSHIP WITH CENTERSTONE**

It is no surprise that two dynamic volunteers and change-agents like Lee Ann Ingram and Carroll Carpenter would quickly turn engaging conversation into action by exploring possible collaborations between Mass General and Centerstone. Upon touring Mass General and meeting with senior leaders in the Department of Psychiatry, Lee Ann was inspired to invest in the research/clinical care continuum. “My philanthropy had always targeted community mental health,” said Mrs. Ingram, “and my visit to Mass General was a real eye opener. I could see the critical feedback loop between academic research and community-based clinical practice.”

“**There are only a handful of places in the world capable of finding cures and better treatments for serious mental health conditions like major depression, schizophrenia, and addiction, and my husband Orrin and I believe Mass General is at the top of the list. We invest in the best.**”

— Lee Ann Ingram

Lee Ann’s commitment to the Department of Psychiatry has deepened over the years, with support for the Cox Family Professorship in Psychiatry at Harvard Medical School that is currently held by Dr. Evins. Her most recent gift is in support of an MGH Endowed Chair in Psychiatry for the Learning and Emotional Assessment Program. The program, which is directed by chair incumbent Ellen Braaten, PhD, assesses children and students (ages 2-22) who have attentional and behavioral difficulties, and provides consultation to parents, teachers and care providers.

When asked why a resident of Tennessee would include an institution in Boston among her top philanthropic priorities, Lee Ann was emphatic in her response: “There are only a handful of places in the world capable of finding cures and better treatments for serious mental health conditions like major depression, schizophrenia, and addiction disorders, and my husband Orrin and I believe Mass General is at the top of the list. We invest in the best.”

When she’s not advocating on behalf of the causes she holds dear, you’ll most likely find Lee Ann Ingram at Riverview Farm in Franklin, Tennessee or Wellington, Florida working with her horses. A competitive jumper, all-around sportswoman and animal lover, Lee Ann Ingram is truly a person of heart and a person of action.

**WAYS TO GIVE**

Bequests have provided vital support throughout Mass General’s history. You too can remember the hospital in your estate plan and create a legacy to advance medicine. Call the Office of Planned Giving at (617) 726-2200 for more information on how to include Mass General in your will.
Celebrating the Abra Prentice Foundation MGH Chair

Dr. Marlene Freeman named inaugural incumbent

Marlene P. Freeman, MD, associate director of the Ammon-Pinizzotto Center for Women’s Mental Health, was honored as the inaugural incumbent of the Abra Prentice Foundation MGH Chair in Women’s Mental Health at a celebration on October 5, 2017 in Mass General’s historic Ether Dome.

Dr. Freeman completed medical school at Northwestern University Medical School, residency at the Harvard Longwood Psychiatry Residency Program and a research fellowship in the Biological Psychiatry Program at the University of Cincinnati College of Medicine. Following five years on the faculty of the University of Arizona Medical School, she joined the Ammon-Pinizzotto Center faculty in 2005. Her research and clinical expertise is in the areas of mood disorders in women in relation to pregnancy, the post-partum period and menopause. She has a particular interest in complementary and alternative medicines as first line or ancillary treatments.

The chair was made possible through the generosity of the Chicago-based Abra Prentice Foundation, and will help advance research, care and education in women’s mental health. In her remarks, Mrs. Abra Prentice Wilkin congratulated Dr. Freeman and expressed her aspirations for what the new MGH Chair will represent. “Our world is currently in the midst of unprecedented lunacy and troubled times,” said Mrs. Wilkin. “However, it is important that we keep our heads about us while others are losing theirs. I can’t think of a better way than by supporting the future of sanity and the good doctors in this room who will lead us there.” Mrs. Wilkin is also a member of the MGH Leadership Council for Psychiatry.

More than 75 colleagues, family members and Psychiatry faculty attended the program in the Ether Dome and the reception that followed.

Ryan Licht Sang Bipolar Foundation

Neuroscience Briefing

Joyce and Dusty Sang of Chicago, IL, visited Mass General on November 1, 2017 for a briefing on psychiatric neuroscience. In 2005, the Sangs established the Ryan Licht Sang Bipolar Foundation in memory of their son Ryan to foster awareness, understanding and research for early-onset bipolar disorder. Over the last decade, the foundation has supported Mass General through grants for conferences on early onset bipolar disorder and for efforts to find an empirical, biomarker test for the illness.

The Foundation’s black and white symbol, designed by Joyce Sang, represents the opposite poles of depression and mania associated with bipolar disorder.
mother’s and baby’s health. With as many as one in five women suffering with a mood or anxiety disorder during pregnancy, the implications of Dr. Baker’s research are profound for many women, their children and families.

Mary Alexis Iaccarino, MD, is exploring the connection between traumatic brain injury, from a blast or a sports-related concussion, and ADHD. While it’s known that individuals with ADHD are at higher risk for multiple concussions and sustained cognitive problems following injury, she wants to understand why this is. By using functional neuroimaging to examine the brain circuitry of young adult athletes with a sports-related concussion, she hopes the outcomes will yield a biomarker for the diagnosis of concussion, and evidence-based therapies for young student athletes with ADHD.

As Gerstner Research Scholars, Drs. Nevarez, Baker and Iaccarino will use the resulting data from the projects to apply for their own funding, toward the goal of becoming independent researchers.

One of the first recipients of the Gerstner Scholar Award in 2014-2016 has been able to advance her own career as well as the understanding of ADHD and substance use disorder (SUD). Amy Yule, MD, medical director of the Addiction Recovery Management Service at Mass General, used her award to assess the role of ADHD and other risk factors in determining which adolescents and young adults with substance use disorder are at risk of overdosing, one of the leading causes of death in this age group.

Dr. Yule found that those with ADHD in addition to SUD (a common combination) are not at increased risk of overdose, but those with depression, anxiety, an eating disorder or who have had psychiatric hospitalizations are. Screening patients with SUD for a history of psychiatric illness and treating it aggressively with their SUD could potentially prevent thousands of overdose fatalities.

With her findings, soon to be published in the Journal of Clinical Psychiatry, Dr. Yule secured a prestigious four-year career development award from the National Institute of Drug Abuse. These so-called K-level awards are the first brass ring of funding needed to be an independent investigator.

“If not for the Gerstner Scholar Award, I don’t think I would have continued this research,” Dr. Yule says.

This is what worries Dr. Wilens. Without the Gerstner Research Scholars Program, he says, “I’m concerned that even some of the most talented young people will not be afforded the time and experience they need to become researchers.”

Expressing the gratitude that all Gerstner Research Scholars feel, Dr. Nevarez says, “It provides critical money, but the Gerstner Award is so much more than money. It allows you to become something you’ve been working towards, and most importantly enhances our collective understanding of and ability to improve the lives of millions of children and adults who suffer from ADHD.”

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The trustees of the Gerstner Family Foundation created the Louis V. Gerstner III Research Scholars Program at Mass General in 2014. Named in memory of Louis III, this grant award program advances knowledge and treatment of attention deficit hyperactivity disorder (ADHD) by providing crucial support to the next generation of clinician-scientists.

The two-year award program reflects Louis’s interest in biomedical research, a core mission of his family’s foundation, where he served as president up until the time of his premature passing in 2013. Louis had worked previously in investment banking, private equity and venture capital, and was known for his sharp intellect, caring nature, and generous spirit.

The Gerstner Family Foundation was established in 1989 by his father Louis V. Gerstner, Jr., who had enjoyed extraordinary success in business and wanted to give back to society. In addition to biomedical research, the foundation focuses on access to excellence in K-12 education, and helping people who have suffered a setback. Since its inception, the foundation has supported more than 100 young researchers at five premiere institutions, awarded over $10 million in scholarships to 900 students, and provided emergency crisis grants to 4,000 families.

Among his many credentials, Louis V. Gerstner, Jr. was CEO and chairman of the board of IBM and is widely recognized for saving IBM in the 1990s. Currently he serves as the chairman of the Broad Institute at MIT and Harvard. As chairman of the Gerstner Family Foundation, he has followed the program closely through annual meetings with the Gerstner Scholars, as has his daughter Elizabeth Gerstner, MD, a foundation trustee, and a neuro-oncologist at the Mass General Cancer Center. “The program serves a very important and often unmet need to support young investigators at a critical time in their careers,” said Dr. Gerstner.
Did you know that …?

• Mass General has the largest hospital research program in the United States, driving breakthroughs in basic, translational and clinical research, and resulting in new treatments that transform medical practice and patient care globally.

• The hospital’s research community consists of 10,000 people working across more than 30 departments, institutes and centers and 1.2 million square feet of research space.

• Mass General investigators have earned some of the most coveted scientific awards, including eight Nobel Prize winners, and one winner each for the National Medal of Science, the Breakthrough Prize, the Wolf Foundation Prize and the Kyoto Prize.

• Last year, the Department of Psychiatry had research expenditures of $66 million for 111 clinical trials and 389 other studies that were reported in 819 articles in peer-reviewed medical and scientific journals. Over the last five years the department has filed 58 patents.

The Harvard Medical School Guide to Yoga
Marlynn Wei, MD, JD and James E. Groves, MD
Da Capo Press, June 2017

Are you looking for a new health practice to enhance your day-to-day routines? Have you been interested in trying out yoga, but are too intimidated by the seemingly fancy and challenging poses? The Harvard Medical School Guide to Yoga is your guide to the true healing heart of yoga, sharing the techniques that Drs. Marlynn Wei and James Groves have used to tremendous success with their clients.

In this simple, science-based eight-week program, you’ll learn about the countless benefits of this proven practice, including: increased flexibility and balance, greater muscle and bone strength, improved sleep, better stress management and resilience, strengthened immune system and enriched brain health and much more!

Complete with illustrations, dozens of yoga breathing and meditation techniques, adaptable sequences, and principles of yoga safety, The Harvard Medical School Guide to Yoga will guide you to health and wellness.

Book summary based on publisher description found at www.amazon.com

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