Doctors today often treat major depressive disorder (MDD) by trial-and-error, looking for one drug or combination of treatments that will combat its debilitating effects. But there is still no “magic bullet” for treating MDD. Now, in their intensive and pioneering quest to improve treatment options for depression, researchers at the Massachusetts General Hospital Depression Clinical and Research Program (DCRP) are identifying diagnostic tools and novel therapies that hold great promise to deliver better results in less time.

Despite the deepest federal funding cuts in years, DCRP researchers are determined to maintain that role, with an array of more than 40 projects under way supported by more than $3 million in funding and a full-time staff of 30. A few of these projects are highlighted below.

GIANT STEPS TOWARD MORE EFFECTIVE TREATMENTS

One study, dubbed EMBARC, is the largest-ever investigation of psychiatric biomarkers. Biomarkers are physical or chemical characteristics in the body that doctors can measure and analyze as indicators of normal or abnormal biologic processes or responses to a therapeutic intervention.

Co-led by Dr. Fava, EMBARC (Establishing Moderators and Biosignatures of Antidepressant Response for Clinical Care for Depression) is a collaboration with University of Texas Southwestern Medical Center, University of Michigan Depression Center and Columbia University Department of Psychiatry.

“This study represents a giant first step toward personalized medicine for depression,” says Dr. Fava. “The study lays the groundwork for new approaches that will enable a doctor to choose a course of treatment based on data from sources such as a blood test or brain image.”

Another collaborative study led by Dr. Fava (with Yale and Baylor Universities and the National Institute of Mental Health) involves testing the drug Riluzole as an add-on therapy to antidepressants commonly used for people with MDD who do not respond to standard treatments.

Initially approved for the treatment of ALS (Lou Gehrig’s disease), Riluzole has been shown in preliminary research to have a very rapid and long-lasting antidepressant effect. If the study demonstrates Riluzole’s efficacy, it could present a significant breakthrough for approximately 20 million people in the U.S. alone who suffer from treatment-resistant depression.

Ottavio Vitolo, MD, a neuropsychiatrist and clinical researcher in the DCRP, is directing a pilot study on late-life depression (LLD) that uses a sophisticated brain imaging technique, called (Continued on page 6)
Message from the Chief

When *US News & World Report* announced the results of its 2012 America’s Best Hospitals survey, we learned that Massachusetts General Hospital had earned the top spot in this prestigious national list. This accolade is a wonderful tribute to the talent, spirit and commitment of the hospital’s 23,000 doctors, nurses, researchers, educators, care teams and staff.

The Department of Psychiatry continued its leadership role among psychiatry programs in the country and among the top-ranked medical specialties at Mass General. This year, after 16 consecutive years of gold medals from *US News and World Report*, the department earned the bronze. We are proud and humbled to be in the company of number one and two ranked Psychiatry programs, Johns Hopkins and our affiliated institution McLean Hospital, along with 178 others.

While we celebrate Mass General’s success, we are mindful of the responsibility to press forward to restore health, understand the causes and progression of illness, preserve families and prevent disease. In the case of mental illness, our challenge is complicated by the unparalleled complexity of the brain, and we sense the special need and urgency to innovate and improve.

We are thankful to you, our donors and ambassadors, for your support and the initiatives that you have inspired. Together, we are making our hospital and our department a remarkable place of healing, caring and hope.

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

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Dr. David Henderson Named Schizophrenia Program Director

David C. Henderson, MD, recently was named director of the MGH Schizophrenia Clinical and Research Program. Dr. Henderson is an expert in psychopharmacological treatments for schizophrenia, treatment resistance, metabolic impacts of antipsychotic drugs, and the role of ethnic and cultural factors in patient care. An associate professor of Psychiatry at Harvard Medical School, Dr. Henderson received his medical degree from the University of Massachusetts Medical School and began at Mass General in 1989 as a resident in psychiatry.

**A TIME OF PROMISE**

Dr. Henderson leads the Schizophrenia Program at a time of extraordinary discovery in the areas of biological and psychological treatments, treatments for medical comorbidity, genetics and neuroimaging. “Our dream,” says Dr. Henderson, “is to use genetics and neuroimaging to identify individuals at risk of schizophrenia so that we can develop prevention and early intervention strategies that will return these individuals to a high level of functioning, reduce suffering, and improve their quality of life and ability to achieve their goals.” To that end, he collaborates with an exceptional leadership team including Oliver Freudenreich, MD, medical director; Daphne Holt, MD, PhD, director of research; and Corinne Cather, PhD, director of psychological services.

Dr. Henderson’s vision is to develop innovative models of patient care that can be applied locally, nationally and globally. “As director of the Schizophrenia Program and director of Mass General’s Chester M. Pierce, MD, Division of Global Psychiatry, Dave is uniquely positioned to bring leading edge knowledge of schizophrenia to the world stage,” notes MGH Chief of Psychiatry, Jerrold F. Rosenbaum, MD. (A cover story about the Division of Global Psychiatry can be found in the Spring 2010 issue of Mindscapes.)

**TRADITION OF EXCELLENCE**

In his new role, Dr. Henderson builds on the Schizophrenia Program’s long tradition of excellence in patient care, research, teaching and community service. He succeeds program founder Donald C. Goff, MD, who recently became vice chair of the Department of Psychiatry at New York University and director of the Nathan S. Kline Institute for Psychiatric Research of the New York State Office of Mental Health.
You are a neuropsychiatrist. Can you explain what neuropsychiatry means?

Neuropsychiatry combines neurology and psychiatry. If neurology is the study of brain “hardware,” structure and function, and psychiatry is the study of emotions, thoughts and behaviors, neuropsychiatry transcends them both by connecting the way we think, feel and act with functional structures in the brain.

In a neuropsychiatry clinical assessment, we combine information about the brain’s structure and function with our evaluation of the patient’s clinical condition for a comprehensive diagnosis and treatment plan.

What attracted you to Mass General when you joined two years ago?

I had a strong connection to my mentor, Gregory Fricchione, MD, MPH, associate chief of the Department of Psychiatry. I also knew that Mass General encourages innovative ideas and helps people make them fly. I was thrilled to help create a new program at the intersection of psychiatry and neurology and to have colleagues rally around the idea and collaborate in making it happen.

What kinds of patients are cared for in your clinics?

We see adult patients with a wide range of issues. Some have behavioral or cognitive problems due to an underlying neurological disorder such as epilepsy. Others have chronic medical problems, such as cardiovascular disease or cancer, that can lead to cognitive impairment, depression, anxiety, and even psychosis.

We see patients with rheumatological problems such as lupus, rheumatoid arthritis, and generalized scleroderma. We also see patients suffering from multiple sclerosis; patients with traumatic brain injury; and patients with developmental and neurogenetic disorders, such as Down syndrome and Williams Syndrome. In addition, we see adult patients with attention-deficit/hyperactivity disorder (ADHD) and executive dysfunction.

Finally, we treat and collaborate in the evaluation of patients with early-onset dementia, movement disorders such as Parkinson’s, neurodegenerative disorders such as Alzheimer’s and frontotemporal dementia, and patients who have suffered a stroke with concomitant cognitive and behavioral effects.

As a physician, what is the biggest challenge you face in treating your patients?

The biggest challenge is the lack of services to support patients’ recovery. Our patients face continuous cuts to the public programs on which they depend. With most of our patients in economic hardship already, the lack of resources impacts negatively on their disease outcomes.

You have worked tirelessly to build neuropsychiatry clinical and training programs in the developing and developed worlds. How did this come about?

I am a foreign medical school graduate and some of my most meaningful experiences involved training people in underserved areas of Ethiopia, South Africa and the Middle East to care for vulnerable populations, especially those who were stigmatized by mental and neurological diseases and placed on the margins of society as a result. I found that training and raising awareness helped remove the stigma of these illnesses.

You study the neurocircuitry of happiness. What happens in our brains when we’re happy?

Recent developments in the neurosciences are yielding new insights into the mechanisms behind positive emotions and happiness. Imaging studies show that a whole brain circuitry is active when people report feeling happy.

Other recent research has shown that happiness is “contagious.” That is, people are more likely to laugh when they are with other people, and happy people tend to make those around them happy.

Understanding the neurocircuitry of happiness helps us treat our patients better by focusing on their quality of life. Enhancing patients’ strengths and resilience is as important as treating their pathology, if not more so.

Dr. Chemali is an assistant professor of Psychiatry at Harvard Medical School. Along with just a handful of physicians across the country, Dr. Chemali is board certified in both psychiatry and neurology. She is director of Neuropsychiatry Clinics and director of the Behavioral Neurology-Neuropsychiatry Fellowship in the Departments of Psychiatry and Neurology at Massachusetts General Hospital.
On June 11, 2012, the first Visiting Day for the MGH Leadership Council for Psychiatry took place at Mass General. The day began with a welcome by President Peter L. Slavin, MD, in the historic Ether Dome, and included morning and afternoon “mini-seminars,” lunch at the new Paul S. Russell, MD Museum of Medical History and Innovation, a “CrossTalk” case conference, and dinner. Twenty-eight Leadership Council members and 21 Psychiatry faculty participated.
Celebration of Endowed Grand Rounds Lectureships

THE PETER MILLER MUSSER LECTURESHIP IN PSYCHIATRY

Nov. 17, 2011: George Papakostas, MD, inaugural lecturer; Susan Halby, sister of the late Peter Miller Musser; Maurizio Fava, MD, executive vice chair of Psychiatry.

THE ARMAND AND INGRID NICHOLI LECTURESHIP IN PSYCHIATRY

Jan. 19, 2012: Armand M. Nicholi Jr., MD, professor emeritus of Psychiatry; Maurizio Fava, MD, executive vice chair of Psychiatry; and Armand M. Nicholi, III.

THE ALEXANDER LeIGHTON, MD AND JANE MURPHY, PHD LECTURESHIP IN PSYCHIATRIC EPIDEMIOLOGY

April 19, 2012: Darrell Regier, MD, inaugural lecturer; Jane Murphy, PhD, chief of Psychiatric Epidemiology; Deborah Blacker, MD, associate vice chair of Research.

On the Move

RODMAN RIDE FOR CHILDREN

May 27, 2012: For the third year in a row, David Bernstein, MD, of Stamford, Conn., crossed the finish line in the Memorial Day Marathon in Lenox, Mass., to raise funds for the Pediatric Psychopharmacology and Adult ADHD Program.

MEMORIAL DAY MARATHON

Oct. 1, 2011: Stuart Ablon, PhD, director of MGH ThinkKids, leads the program’s 10-member team at the Rodman Ride for Children. The team returns on September 29 for the 2012 event. (Call 617-643-6030 for information.)

SAVE THE DATE

The MGH Psychiatry Academy Patient and Family Education Seminars

Sept. 15, 2012
Caring for Yourself While Caring for Others: Mind Body Self-care for Caregivers

Nov. 10, 2012
Tenth Annual Schizophrenia Education Day
Sponsored by the Sidney R. Baer, Jr. Foundation

For information, call: 866-644-7792

WAYS TO GIVE
For information about ways to support the clinical care, research, teaching and community health activities of the MGH Department of Psychiatry, please contact Carol Taylor at (617) 724-8799 or cvtaylor@partners.org or Karen Blumenfeld at (617) 724-6439 or kblumenfeld@partners.org.
resting-state functional magnetic resonance imaging, to identify changes in the brain that may show whether a significant subgroup of LLD sufferers with cognitive impairment are more susceptible to developing Alzheimer’s disease.

“If we can identify from these early symptoms whether somebody has persistent LLD or dementia associated with Alzheimer’s, we can start the appropriate treatment early on,” says Dr. Vitolo. “In the future, when more effective medications are available, we may slow down the progression of Alzheimer’s disease or even halt it.”

ADDRESSING BOTH HALVES OF THE CIRCLE

The evidence for mental health disparities between minorities and non-minorities is clear. In contrast, there are limited data on effective interventions to reduce these disparities. Research studies being conducted by Trina Chang, MD, MPH, and Albert Yeung, MD, PhD, are testing novel interventions to make treatments more effective for underserved minority patients diagnosed with depression.

Dr. Chang, staff psychiatrist in the DCRP, describes MDD as “a vicious circle that can be set off by life problems, and that then causes additional stress by compromising a person’s ability to cope with these problems.”

Working with adult patients who self-identify as ethnic or racial minorities, her research is testing the feasibility of a stress reduction intervention, added to usual care, for the treatment of depression. The intervention uses a novel combination of relaxation response (RR) training and problem-solving therapy (PST). RR training teaches patients to reduce the effects of stress through techniques such as mindfulness and visualization. PST helps patients understand the connection between their psychological symptoms and their psychosocial problems, and helps them learn to use their own skills and resources to function better.

“By addressing both halves of the circle,” notes Dr. Chang, “teaching patients PST for the things they can control, and RR to cope with the things they can’t, we provide them with the skills to break the cycle and prevent relapses when future stresses occur.”

BLENDING (MARTIAL) ARTS AND SCIENCE

A growing body of clinical research has begun to evaluate tai chi as a therapy for a variety of health issues. Tai chi is a mind-body exercise that originated in China. Preliminary research has shown its beneficial effects on a range of psychological well-being measures including mood, anxiety, general stress management, self-esteem and quality of life. However, little evidence exists on the effectiveness of tai chi specifically for patients with MDD.

Major depressive disorder is “a vicious circle that can be set off by life problems, and that then causes additional stress by compromising a person’s ability to cope with these problems."

Trina Chang, MD, MPH

After completing medical training in his native Taiwan, Albert Yeung, MD, ScD, director of Primary Care Research at the DCRP, brought his passion for tai chi to the U.S. When he surveyed the literature, Dr. Yeung found only one published study targeting tai chi for the treatment of depression. The paucity of data inspired Dr. Yeung and his colleagues to conduct a pilot study to evaluate tai chi for treating Asian-Americans with MDD. The initial results were promising.

“We’re pleased that the ancient tradition of tai chi may prove surprisingly effective in combating some of modern depression’s most debilitating effects,” states Dr. Yeung. The team now has a grant from the National Center for Complementary and Alternative Medicine to expand the study.

“We know how depression affects the lives of our patients and their families,” says Dr. Fava. “We also know how modestly effective our current treatments are. Our program is committed to leading the way in development of novel and personalized approaches for treating this highly debilitating illness.”

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**Depression Facts**

- Major depressive disorder affects approximately 8 percent of American adults every year.
- Depressive disorders are more common among persons with chronic conditions (e.g., obesity, cardiovascular disease, diabetes, asthma, arthritis, and cancer) and among those with unhealthy behaviors (e.g., smoking, physical inactivity, and binge drinking).
- Women experience depression about twice as often as men.
- More than 90 percent of people who die by suicide have a diagnosable mental illness, commonly a depressive disorder.
- Adults age 65 and older die by suicide at a rate higher than the rate in the general population.
- Major depression is the leading cause of disability in the US and developed countries worldwide.
- By the year 2020, depression will be the second most common health problem in the world.
Faculty Books

The Other Side of Normal: How Biology Is Providing the Clues to Unlock the Secrets of Normal and Abnormal Behavior
By Jordan Smoller, MD, ScD
William Morrow, 2012

In The Other Side of Normal, Dr. Smoller of Massachusetts General Hospital demystifies mental illness and builds a new foundation for understanding psychiatric disorders – from autism to depression. Dr. Smoller argues that psychiatric disorders are variations of the same brain systems that evolved to help us solve the challenges of everyday life.

Dr. Smoller explains where our personalities come from, how much early experiences influence our minds and to what degree genes affect our temperaments, personalities and emotional lives. He shows how our relationships are shaped by the biology that drives two imperatives: maternal-child bonding and child-parent attachment.

Along the way, Smoller tackles fundamental questions – what do we mean by “normal” and what can the scientific study of normal behavior tell us about what it means to be human? The Other Side of Normal changes the way we think about the human condition.

By Michael W. Otto, PhD, Noreen A. Reilly-Harrington, PhD, Robert O. Knauz, PhD, Aude Henin, PhD, Jane N. Kogan, PhD, and Gary S. Sachs, MD
Oxford University Press USA, 2011

Living with Bipolar Disorder aims to help patients and families develop the skills to be good consumers of treatment and to become expert partners in the management of this challenging disorder. Drawing on research documenting the strength of combining drug treatments with behavioral interventions, the authors take a skill-based, family-and-friends approach to managing the disorder.

In this new edition, the authors have included the newest research advances and added: the latest drug information; a discussion of the challenges of transitioning from adolescence to adulthood with bipolar disorder; and advice on selecting a therapist, managing stress, and improving relationship and communication skills both with the family and with one’s clinician.

Almost Alcoholic: Is My (or My Loved One’s) Drinking a Problem? (The Almost Effect)
By Robert Doyle, MD, and Joseph Nowinski, PhD
Hazelden, 2012

A growing number of individuals are what the authors call Almost Alcoholics – people who are not alcoholics but whose excessive drinking contributes to a variety of problems in their lives.

In Almost Alcoholic, Dr. Doyle of Massachusetts General Hospital and Dr. Nowinski, a psychologist and columnist for the Huffington Post, address this often unrecognized and potentially devastating condition. They provide tools to: identify patterns of alcohol use; evaluate its impact on relationships, work, and personal well-being; develop strategies for changing the amount and frequency of alcohol use; and measure the results of applying these strategies.

This book and the one described below are part of the Almost Effect™ Series. The series presents books written by Harvard Medical School faculty and other experts who offer guidance on common behavioral and physical problems falling in the spectrum between normal health and a full-blown medical condition.

Almost a Psychopath: Do I (or Does Someone I Know) Have a Problem with Manipulation and Lack of Empathy?
By Ronald Schouten, MD, JD, and James Silver, JD
Hazelden, 2012

This book aims to help readers recognize character traits such as grandiosity and exaggerated self-worth, pathological lying, manipulation, lack of remorse, shallowness, and exploitation for financial gain. According to the authors these are the qualities of “almost psychopaths,” who exhibit many of the same behaviors as diagnosed psychopaths, but with less intensity and consistency – and with a higher degree of awareness of the impact they have on others. They possess charm and a lack of empathy that allow them to live their lives somewhere between the boundaries of commonplace “not-so-bad” behavior and psychopathy.

In Almost a Psychopath, Ronald Schouten, MD, JD, of Massachusetts General Hospital and James Silver, JD, a former federal prosecutor and current criminal defense attorney, offer practical tools and guide readers to helpful interventions and resources.

These book reviews are adapted from summaries on amazon.com.
Faculty News

Joseph Biederman, MD, director of the Clinical and Research Program in Pediatric Psychopharmacology and Adult ADHD, was awarded a grant by the American Professional Society of ADHD and Related Disorders and the Pond Family Foundation to study the safety and efficacy of treatment for executive function deficits in individuals with attention deficit/hyperactivity disorder (ADHD).

Eric Bui, MD, PhD, research fellow in the Center for Anxiety and Traumatic Stress Disorders, won a 2012 Travel Award from the American College of Neuropsychopharmacology.

Joseph A. Greer, PhD, of the Center for Psychiatric Oncology and Behavioral Sciences in the MGH Cancer Center, was awarded the 2012 New Investigator Award from the American Psychosocial Oncology Society.

David C. Henderson, MD, director of the Schizophrenia Clinical and Research Program and the Chester M. Pierce, MD Division of Global Psychiatry, received funding from the Stanley Medical Research Institute to study the efficacy of folate plus vitamin B12 in reducing symptoms of schizophrenia in individuals from Ethiopia.

Karin M. Hodges, PsyD, research fellow in the Center for Group Psychotherapy, was appointed as the Society for Group Psychology and Group Psychotherapy Representative for the American Psychological Association Coalition for Psychology in Schools and Education.

John F. Kelly, PhD, associate director of the Center for Addiction Medicine and program director of the Addiction Recovery Management Service, has been voted president-elect of the American Psychological Association’s Society of Addiction Psychology. In addition, in May 2012, Dr. Kelly had the privilege of giving a presentation at the British Parliament in London on the topic of addiction recovery services and the science of mutual aid organizations such as Alcoholics Anonymous.

Luana Marques, PhD, director of Psychotherapy Research and Training in the Center for Anxiety and Traumatic Stress Disorders and director of the MGH Hispanic Clinical and Research Program, has been selected as Chair of the Anxiety and Depression Association of America’s upcoming annual conference.

David Pauls, PhD, former director of the MGH Psychiatric and Neurodevelopmental Genetics Unit and current faculty member, was awarded the Tourette Syndrome Association’s Lifetime Achievement Award “for a lifetime of commitment and research aimed at determining the genetic basis of Tourette Syndrome and related disorders.”

Tracey L. Petryshen, PhD, of the Psychiatric and Neurodevelopmental Genetics Unit in the Center for Human Genetic Research, received an Avis and Clifford Barrus Medical Foundation Award for Research on Depression in Women.

Amar Sahay, PhD, of the Department of Psychiatry and the MGH Center for Regenerative Medicine, has been selected as a recipient of the 2012 Ellison Medical Foundation New Scholar Award in Aging to study whether age-related deficits in memory formation can be reversed by enhancing plasticity in the medial temporal lobe using genetically modified mice.

Derri L. Shtasel, MD, MPH, director of the Division of Public and Community Psychiatry, has been named executive director of the new Kraft Family National Center for Leadership and Training in Community Health based at Partners HealthCare.