Emotional trauma has long been a part of the human experience, but it has only been in recent decades that we have begun to comprehend and study its effects. “We owe much of our current understanding about the impact of trauma to the difficulties faced by soldiers returning from the Vietnam War,” said Milissa Kaufman, MD, PhD, medical director of the trauma-focused Hill Center for Women at McLean. “At around the same time, the women’s movement made us confront the traumatizing effects of rape, domestic violence and childhood abuse.”

Today, McLean is a leader both in treating individuals whose emotional difficulties are linked to past traumatic events and in driving research to understand how trauma alters brain systems and increases the likelihood of developing a psychiatric illness.

Addressing a Common, But Under-recognized Condition

McLean’s Dissociative Disorders and Trauma Program has become one of the preeminent treatment centers

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Dear Friends,

By now, you have probably heard the news — McLean is number one!

In its 2013-2014 report of the nation’s best hospitals, U.S. News & World Report affirmed what patients and families have been telling us for years—that McLean Hospital is the best in psychiatry. To be rated number one in the field amongst all hospitals and medical centers in the United States is truly an honor.

Here at McLean, we are beaming with pride! We owe much of our success to you, McLean’s friends and supporters. Your belief in our mission encourages and inspires us to continually strive for excellence. Thank you.

The stories in this issue of Horizons illustrate just a few of the qualities that set McLean apart—our clinical expertise, our scientific prowess, and our commitment to patients, families and the community. Happy reading!

Warm regards,

Catharine Cook
Senior Vice President and Chief Development Officer

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in the country for adults who suffer the lasting effects of trauma, often rooted in severe childhood abuse. Its patients often suffer from post-traumatic stress disorder (PTSD). Many also struggle with co-occurring conditions like depression, substance abuse, borderline personality disorder and eating disorders.

“Despite how common trauma is, there aren’t many places that offer a dedicated inpatient unit to treat those with trauma-related issues as part of a whole continuum of care,” said Sherry Winternitz, MD, clinical director of the Dissociative Disorders and Trauma Program.

“It can be so helpful for patients to be treated in an environment where there are others who struggle with similar symptoms, and where the staff understands trauma and the unique impact it may have on an individual’s life.”

The 20-year-old program includes the Proctor House inpatient unit and the Hill Center, which offers residential and partial hospital levels of care for women. Both Proctor House and the Hill Center have a singular focus: helping patients feel safe so healing can begin.

The programs’ treatment approach reflects a change in thinking about how to help trauma victims who are in crisis. “In the old days, it was common to have people rehash their trauma as a way to work through it,” said Kaufman. “But people can get very destabilized if first they are not provided with the tools they need to stabilize. Here, from day one, we get them back to functioning. That includes helping them feel safe, educating them about their symptoms and giving them hands-on skills to move forward.”

A key component of that work involves creating a caring, homelike environment for residents. The Hill Center recently got a boost from donor Joan Collins, who funded new furnishings for the patient bedrooms. Through her gift, each bedroom received quality wood furniture including a bed, armoire and night stand, as well as new lighting and artwork. “It was important to me that the women at Hill Center felt at home, and not as if they were in an institution,” said Collins. “Investing in furniture was one simple, but meaningful way to support their recovery.”

Essential to patients’ recovery is having clinicians skilled at detecting

“Despite how common trauma is, there aren’t many places that offer a dedicated inpatient unit to treat those with trauma-related issues as part of a whole continuum of care.”

Sherry Winternitz, MD, clinical director of the Dissociative Disorders and Trauma Program

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One Mother’s Thanks

Danny Denner’s legacy of love and laughter lives on—and so will his mother’s act of generosity. By making provisions for McLean Hospital in her will, Fran Denner has honored her son and the institution that improved his life.

Danny suffered from a complex set of psychiatric issues, and like many families, his parents struggled to find help for him. When things got really bad, his psychiatrist in their home state of Florida advised Fran and her late husband, Elliott, to bring Danny to McLean as soon as possible. Two days later, the family was on a plane to Boston.

Dr. Joe Flores, Danny’s psychiatrist at McLean, took care to involve his parents in treatment, teaching them the skills to communicate with Danny. Even as an experienced social worker, Fran sometimes felt overwhelmed and confused by Danny’s behavior.

“Dr. Flores gave us the tools to understand Danny and his particular issues,” said Fran. “Whenever I’d get a phone call from Danny that would upset me, I’d call Dr. Flores and he would talk me through the issue and explain what Danny was going through.”

Family involvement was a critical component of Danny’s individualized treatment plan. “Danny’s parents were so involved in his life and so motivated that it only made sense to integrate the family into his individual therapy,” said Dr. Flores. “What they brought to the table allowed a level of therapeutic work which was profoundly transformational for the whole family.”

Eventually, Danny had to discontinue his care at McLean and return to Florida, where Fran said they failed to find any clinical expertise that could help her son, whose multiple disorders made his treatment extremely complex. Despite the geographic distance, Dr. Flores remained connected to the family over many years, and Fran would occasionally reach out to him for guidance and support.

Danny’s struggle continued for years, and he died tragically in 2007 at the age of 32.

Fran remains forever grateful to McLean for helping Danny and for supporting her and her husband in their own journey. “I am so grateful to McLean and Dr. Flores for the extra time with Danny that we wouldn’t have had otherwise. Those years were priceless,” she said.

To express her gratitude, Fran made a bequest to McLean through her will. With the role McLean played in Danny’s life, leaving a portion of her estate to the hospital felt right. Her gift will support McLean’s efforts to provide more families with the integrated therapy that is so crucial to helping them manage a loved one’s illness.

Today, McLean offers a variety of support services to families and loved ones, including parent support groups, psycho-education and family therapy. A growing number of McLean clinicians are being trained in family therapy, and new and better ways to support families are continuously evolving.

“I’m just a grateful mother following her heart, and it leads to McLean,” Fran said. “Dr. Flores and McLean were a beacon in the roughest moments of our lives. He and McLean offered us refuge from the storm, and hope.”

Danny and Fran Denner

“Dr. Flores and McLean were a beacon in the roughest moments of our lives. He and McLean offered us refuge from the storm, and hope.”

Fran Denner
and treating trauma-related issues. Because trauma is commonly a contributing factor in mental illness, many clinical units at McLean routinely screen for trauma histories. Programs such as the Klarman Eating Disorders Center, for example, find a very high prevalence of trauma among their patients and therefore screen every patient upon admission. Likewise, in the adolescent residential treatment program clinicians are evolving a specialized “trauma track” to address the unique concerns of their young patients for whom trauma is a major factor. A generous gift from the Joseph Leroy and Ann C. Warner Fund has helped to support this effort.

Rounding Out the Picture Through Research

Just as McLean has become an important hub of clinical services for trauma survivors, it also is leading efforts to understand how traumatic experiences affect the brain and an individual’s mental health. A number of researchers are using high tech imaging tools to help them see what happens on a structural and chemical level in the brains of people with trauma histories.

The Dissociative Disorders and Trauma Program recently received an anonymous, private donation to support research for a study that is looking at how women who report histories of childhood abuse and neglect and show severe dissociative symptoms may have underlying structural differences in the areas of the brain that are involved in emotional regulation, attention and memory.

McLean researcher Isabelle Rosso, PhD, is taking a complementary approach by examining certain neurochemicals involved in PTSD. One of her studies uses brain imaging to assess levels of an inhibitory neurotransmitter called GABA that has a dampening effect on firing neurons. The study is measuring GABA levels in a few areas of the brain, including the insula, which mediates emotional states and physical feelings. The theory is that lower concentrations of GABA may be contributing to an overactive insula in PTSD, and may be relevant to emotional and physiological hyperarousal symptoms.

“We hope this work will lead

“It was important to me that the women at Hill Center felt at home, and not as if they were in an institution.”

Joan Collins

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Members of the McLean community gathered in Nantucket on July 12, 2013, for a reception and program entitled “Reclaiming Lives: Helping Survivors of Traumatic Experience to Heal and Recover.” Pictured, from left, are David Barlow, chair of the McLean board of trustees; Michael Leslie, MD, associate medical director of the Dissociative Disorders and Trauma inpatient unit and the evening’s speaker; Prudy and Bill Crozier, the evening’s hosts; and Scott L. Rauch, MD, president and psychiatrist in chief of McLean.

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to the identification of biomarkers of illness mechanisms in PTSD, and ultimately assist with monitoring and prediction of treatment effectiveness in individual patients—for example, gauging one medication’s effectiveness over another’s,” said Rosso. “Over the long term, we hope to better understand whether certain neurochemicals might serve as imaging markers of risk and resilience in PTSD, both before and after exposure to trauma.”

Rosso’s colleague William D.S. Killgore, PhD, also seeks to better understand PTSD through science. His recent study suggested that people who suffer from PTSD and other anxiety disorders have a hyper-responsive amygdala—the brain area that processes memory and emotions. Furthermore, the amygdala also was larger among those with PTSD relative to healthy control participants. “We found that individuals with PTSD showed increased amygdala volume and reduced volume in the medial prefrontal cortex, a problem that may predispose these individuals toward many of the symptoms common to PTSD,” said Killgore.

The exciting research occurring in McLean laboratories will have important implications for trauma patients, said Winternitz. “The more we learn about the differences in brain structure and chemistry, the better we’ll understand why some people get PTSD and others don’t,” she said. “And that will translate into ways of intervening earlier to prevent the difficult, long-term effects on mental health.”

**Beyond McLean: Helping Those in Our Community Who are Affected by Trauma**

McLean staff members are taking their expertise in trauma care well beyond the traditional hospital setting.

Take the example of John Rodolico, PhD, a clinical psychologist and director of adolescent addictions training at McLean who also is a Lieutenant Colonel in the Army Reserves. During Operation Iraqi Freedom, Dr. Rodolico directed a unit that provided mental health care to soldiers and marines in the dangerous Sunni Triangle of Iraq. He was awarded two Bronze Stars for his work there and today, he serves as director of military and veteran consultation for McLean. In that role he leads the hospital’s ongoing outreach to military personnel veterans and their families. Dr. Rodolico presently is the Chief of Behavioral Health for the Massachusetts National Guard.

“Post Traumatic Stress is not new to war. It can be traced back to the Civil War where it was called ‘Soldier’s Heart,’” he said. “We’re working to create a more seamless continuum of care between the VA, military providers and the private sector so we can help as many veterans and service members as possible.”

Another McLean staffer who shares her expertise in the community is Christine Tebaldi, RN/NP, McLean’s director of community hospital programs, who oversees psychiatric emergency and consultative services at McLean. Off-hours, she is the lead for the American Red Cross of Massachusetts’ disaster mental health team. In that role, she heads up preparedness and planning activities, which include managing relationships with partner agencies and training new volunteers.

When a disaster strikes—whether it is a house fire or the marathon bombing—Tebaldi and her team are available to provide emotional support at the scene, connect people with disaster-related resources and refer them to mental health services, if needed. “In times of disaster, we help people manage ‘normal’ reactions to abnormal events,” Tebaldi said. “There is a natural synergy between my role at McLean and my volunteer work,” she added. “The trauma response—whether it is happening in an emergency room or at a disaster scene—follows a similar model. Recognizing it, intervening early and referring people to mental health services, when needed, are the first steps toward helping them move through a traumatic experience without the long-term consequences that so often occur when trauma goes unrecognized.”
One way to begin to understand the causes and effects of psychiatric illnesses is to examine the brain on the cellular level. More specifically, looking at how cells function on an individual level and how they interact with other cells in the brain.

The Integrative Neurobiology Laboratory at McLean is dedicated exclusively to this approach. Led by Chris Cowan, PhD, the lab is investigating the role that a function called “synaptic pruning” plays in disorders ranging from autism to substance use disorders. Synaptic pruning is an essential process in brain development by which certain neuron connections are eliminated so that others can strengthen.

Cowan’s team transferred to McLean from the University of Texas Southwestern Medical Center in 2012, and is the newest addition to the Division of Basic Neuroscience. The recruitment was made possible by a generous gift from National Council members Stephen and Cathy Graham, who appreciate the importance of basic neuroscience in transforming how we treat disorders of the brain.

“Tremendous potential in neuroscience today, and the best way to maximize discoveries is to engage the brightest researchers side-by-side where they can collaborate and work in the context of the problems they study,” Stephen Graham said. “McLean is an ideal place for that, and we are delighted to play a role in supporting Dr. Cowan.”

Synaptic Pruning – A Key to Brain Health

Neuroscience may be our best hope for understanding one of the most puzzling mental health issues of today—autism spectrum disorder (ASD), a developmental disability that causes varying degrees of social, communication and behavioral challenges. ASD has become increasingly common in recent years, affecting one in every 88 children. Cowan and his team are investigating its causes.

A major clue, says Cowan, might be genetics. “When certain mutated genes are introduced to mice, the mice demonstrate behaviors that fit the diagnostic criteria for autism, including repetitive motor patterns, reductions in social interactions and profound deficits in rodent language,” Cowan explained.

“Many of the genes implicated in ASD are involved in synaptic function,” says Cowan. His studies have confirmed that rodents with autistic behaviors have too many synapses in their brains. His working theory is that without proper synaptic pruning, the brain lacks the efficiency and specialization to master complex tasks like communication and social interaction.

The next question Cowan and his collaborators seek to answer is where exactly in the brain individual autistic behaviors arise. “If you can identify the cellular mechanism and its critical interacting partners, you can generate drug targets that could reverse symptoms,” said Cowan. He hopes that his work could someday lead to medication that effectively treats ASD.

Seeing the Big Picture

While the Integrative Neurobiology Lab focuses on microscopic elements that play a role in ASD, Cowan’s theories and approach are large scale. To understand ASD and many other illnesses, he said, we must consider both biological and environmental factors.

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Cowan explains brain development by likening it to the creation of a vessel on a potter’s wheel. If the potter’s fingers squeeze a little too tightly, there may be a subtle thinning on one section of the wall. “If the pot is shipped across the country in a crate that’s not well padded, the vulnerable spot is weakened by the stress of travel, and the pot breaks,” explained Cowan. “I am interested in that intersection between environmental influences and underlying genetic vulnerability.”

To explore that intersection, Cowan’s lab is collaborating with fellow McLean researcher Bill Carlezon, PhD, who is interested in those external factors. Carlezon investigates how something like a viral infection contracted by a pregnant woman may contribute to her child’s later development of ASD.

“The environment at McLean, which integrates clinical work, research and education, is conducive to scientific discovery, said Cowan. “McLean offers a unique opportunity. I can look out my window and see a treatment center for substance abuse disorders and a school for individuals with autism spectrum disorders. It’s impossible for neuroscientists here to lose touch with what mental illness really means for patients,” explained Cowan. “Clinicians, clinical researchers and basic neuroscientists here are working in synergy.”

The value that Cowan, in turn, brings to McLean is immeasurable. Joseph Coyle, MD, McLean’s chief scientific officer and chief of the Division of Basic Neuroscience, said the hospital was very fortunate to attract a researcher of Cowan’s caliber and one who is also interested in nurturing the next generation of scientists.

“In a neuroscience program, you want your tool box to be full,” said Dr. Coyle. “At McLean, we have outstanding scientists specializing in molecular biology, electrophysiology, developmental neurobiology and behavioral analysis. Dr. Cowan’s expertise in developmental molecular neurobiology enables him to see things that aren’t apparent—specifically, genes involved in autism and in addiction. He’s a very creative scientist, working at the leading edge of his field.”

The work of Cowan and the Division of Basic Neuroscience plays an important role in the advancement of patient care, enhancing McLean’s capacity to improve lives. ♥

If you are interested in supporting McLean, please contact Director of Development Lori Etringer at 617-855-3840 or letringer@partners.org.
On June 21, 2013, filmmaker David O. Russell was honored with the 2013 McLean Award. Russell accepted the award at the hospital’s Annual Dinner at the InterContinental Boston.

His film *Silver Linings Playbook* tells the story of a man with bipolar disorder who is struggling to rebuild his life with the support of his loved ones. As those who have been through similar experiences will attest, the film depicts the complexities of mental illness in an honest, authentic way. It is a refreshing departure from typical portrayals of the mentally ill in popular media. The McLean Award is given annually to people who have furthered the public’s understanding of psychiatric illness and mental health. Previous recipients include Patricia Cornwell, Mariel Hemingway, Glenn Close and family, Buzz Aldrin and Lee and Bob Woodruff. The award is one in a long list of accolades for Russell, who has also been honored with Academy Award nominations and many other film awards.

During his acceptance speech, Russell expressed his desire to continue a partnership with McLean, which he calls the “gold standard” of mental health care. “The privilege is mine to be here,” he said. “This is an extraordinary community, and it is one of the many gifts given to me by my bipolar son.” He reminded the audience of many other silver linings associated with mental illness.