

UMass Department of Psychiatry

*University of Massachusetts Medical School
and UMass Memorial Health Care*



INNOVATION IN PSYCHIATRY

FROM THE HEART OF MASSACHUSETTS AND ACROSS THE GLOBE

The UMass Department of Psychiatry blends the best of the outstanding academic environment of the University of Massachusetts Medical School and state-of-the-art, recovery-oriented integrity, helping individuals and families transform their lives and influencing the world through our system consultations. Our innovative, cutting-edge research is "bench to bedside" and "bedside to community" with a focus on treatment and prevention of mental illness and addiction. Our training programs and culture of mentoring promotes excellence in teaching the next generation and helping our faculty and staff become life-long learners and health care innovators. The impact of our innovative programs, products and services extends throughout the Commonwealth of Massachusetts and now the world.

Our more than 311 faculty members work in many settings within UMass Memorial Health Care, the University of Massachusetts Medical School, the public sector and the community with more than 2,000 staff. We have outstanding training programs that include 27 residents and fellows as well as 16 other trainees including research and clinical post doctoral clinicians, psychology interns and Graduate School of Biological Sciences students supported by the Department.

For more information about our Department, visit our website at www.umassmed.edu/psychiatry or contact us by email at psychiatry@umassmed.edu.

Much of the work we do would not be possible without the generous support of those who believe in our mission to transform lives and create a better world through the discovery of new treatments for individuals with mental illnesses. The UMass Medicine Development Office is dedicated to cultivating philanthropic partnerships that support the academic and research enterprises of UMass Medical School and the initiatives of its clinical partner, UMass Memorial Health Care. This vital support enables us to educate future physicians, nurses and pioneering researchers, conduct innovative research and provide patients access to the most comprehensive, cutting-edge care.

If you are interested in supporting the efforts of the UMass Department of Psychiatry, you may send your contribution and intentions online or by mail to:

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On the cover:

Douglas M. Ziedonis, MD, MPH
Chair, UMass Department of Psychiatry

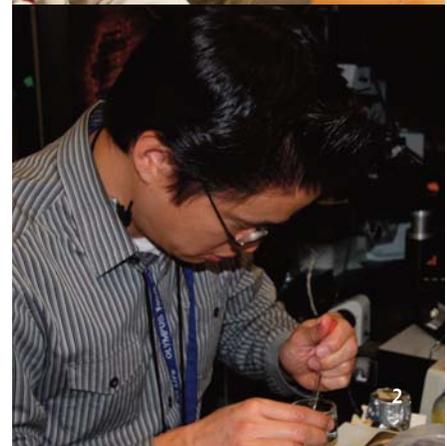


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Innovations in Research

Jean A. King, PhD is Vice Chair of Research for the UMass Department of Psychiatry, Professor and Director of the Center for Comparative Neuroimaging (CCNI), one of the Department's cutting edge endeavors. Established in 2001 as a Department of Psychiatry Center of Excellence, the CCNI sprung from the collaborative efforts of a team of scientists from the University of Massachusetts Medical School and Worcester Polytechnic Institute. Its research and novel approach using awake animals and MRI technologies has set the CCNI apart as a world leader in the arena of biomedical applications.

It is Dr. King's lifelong passion for helping people that drives the work of the CCNI, significantly impacting science and psychiatry, her peers and the community. Since arriving in 1994, she has mentored dozens of faculty and students and tirelessly volunteers in the community, qualities not lost on the scope of the research she leads, which one day will shed light on our vulnerability to mental illness.

The CCNI's research team, including Constance Moore, PhD, Associate Director of Translational Imaging; Nanyin Zhang, PhD; and Zhifeng Liang, have made the first map of the intrinsic functional organization of the rat brain. The team's findings have blazed the trail for animal studies to illuminate the role of functional networks in humans, in particular using magnetic resonance imaging in the resting state. In other words, detecting brain network activity when a person or animal is awake but not engaged in a task. As Dr. King explains, "There's a lot about brain disorders that you can pick up from looking at the brain when it is supposedly at rest." This breakthrough discovery on the resting state allows Dr. King and her team to apply the findings in real treatment interventions for real results.

And no one else in the world has accomplished this.

"We are thrilled to have solved a problem that people have been trying to solve for years," Dr. King says. It's a game-changer in how the animal model is used for both a better understanding of mental disorders as well as for the potential for treatment.

Hard work, dedication and creative thinking is also at work in Dr. King's laboratories. She is quick to praise her team, including faculty, post-doctoral and graduate students, lab technicians and the many others who make these leading edge scientific discoveries possible. "I have the best team on the planet," she said, noting that their commitment has no time clock, they are at work day and night. "There is not one time I walk into the Center and somebody is not here."

While Dr. King is fascinated with the workings of the brain, she is also passionate about mental health and is driven to help people be well. Many mental health disorders are diagnosed by self-reporting, but Dr. King hopes to uncover biological markers and brain changes that

distinguish, for example, between someone who is depressed and who is not. By uncovering the biological basis for mental illness, she hopes her work will lead to both better treatment and reduced stigma.

"The brain is an organ that needs more time and effort because it's so complex," she said, unlike uncovering high blood pressure with a cuff and stethoscope. Striving for better ways to diagnose mental illness with a goal of more effective treatments is the mission of the CCNI, Dr. King and her team. "We want to be able to provide psychiatrists with tools to help in diagnosis," she said. "We need to give them some biological indicators of what this looks like and why. As scientists, it is our role to do that. That's why I went into this field."

In 2011, Dr. King was named a fellow of the Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program for Women at Drexel University College of Medicine in Philadelphia. With a long list of professional achievements, including the Porter Development Fellowship from the American Physiological Society, Siebert Fellowship Award from the American Association of University Women, a National Institute of Health Post-Doctoral Fellowship, and two U.S. patents, she credits her mentors in her successes.

"I know I'm here because I had great mentors, the best anyone can hope for," she said. "And I feel that I have a duty to give back to others." And she is generous in that pursuit. "If somebody shows up at my door, that's it, that's all it takes," she said.

As Vice Chair of Research for the Department, she enjoys the vital cross-collaboration that regularly occurs, whether it be with other departments, such as Radiology and Neurology, or other universities and other countries, including collaborations in China. "We are networking researchers with other researchers throughout the world."





Child and Adolescent Psychiatry

The Division of Child and Adolescent Psychiatry is a proud part of the UMass Department of Psychiatry. With 43 teaching faculty and a vibrant child psychiatry fellowship program that trains two fellows each year, we are vigorously engaged in service, clinical care, research, education and collaborating with our communities to improve the lives of children, adolescents and their families.

“We’re a group of people committed to figuring out how to make life better for children with neurodevelopmental disorders,” said Jean Frazier, MD, Vice Chair of the UMass Department of Psychiatry Division of Child and Adolescent Psychiatry and Robert M. and Shirley S. Siff Endowed Chair in Autism.

“We’ve got a very active research group and everybody’s committed to these children and their families,” Dr. Frazier said. “Hopefully, we’ll find things that will make life a little easier for them. It’s just a delight to be a part of the team.” Dr. Frazier, an expert in child psychopharmacology and child and adolescent neuropsychiatry and a nationally rec-

ognized researcher and clinician on autism and related disorders, directs a broad research program in the Department, focused on neurodevelopmental disorders including autism, early onset bipolar disorder and schizophrenia.

She also co-directs the Child and Adolescent Neurodevelopment Initiative (CANDI), a research program of both UMass Medical School and the Department of Psychiatry’s Child and Adolescent Division. It is a unique approach that involves the study of all three diagnostic groups that overlap in clinical symptoms, genetics, the neuroimaging findings and in the clinical interventions used to treat them. The goal, says Dr. Frazier, is to find the biomarkers specific to each diagnosis or domains of dysfunction that cross diagnoses such

as inattention and social withdrawal to name a few. The gold standard in neuroimaging studies are technologies such as magnetic resonance imaging (MRI) to investigate the development of brain structure and function. Dr. Frazier and her team are focused on the neuroimaging of social cognition in adolescents with high-functioning autism.

"We're investigating how well they perform in identifying recognition of facial affect and we're looking at various areas in the brain to determine whether teenagers with autism spectrum disorders light up the same areas or different areas than healthy children while they are trying to identify facial affect," says Dr. Frazier. Finding these differences which may represent biomarkers of illness or dysfunction will provide crucial information that may be used to monitor improvement with novel treatment interventions. This is but one example of the leading edge research that is a hallmark of the UMass Department of Psychiatry.

"More recently, we've become much more involved in our autism work, which is very exciting," Dr. Frazier said. "We've become a New England site for the Fragile X Foundation." This puts the Department squarely in the center of investigating the effectiveness and the safety of novel compounds under development. Dr. Frazier and her team conduct treatment studies on these medications which are designed to improve children's ability to be socially engaged.

Dr. Frazier's work also includes a pilot program that provides internships for youths with Asperger syndrome who have completed high school. "We're very energized and eager about this," she said. "We offer a variety of different job placements in the medical school. We bring young folks in, learn about their unique skill sets and interests and try to find a good match for them." Dr. Frazier's team recently applied for larger grant funding to continue the program of research and study. "The individuals involved have had some terrific successes," she says, "and we hope it will help young adults with autism spectrum disorder get a viable job that they feel good about, because employment is so important."

Research related to the treatment of bipolar disorder including investigating a medication as part of a larger group to provide data to the Food and Drug Administration for approval for children to use is another example of the vital work ongoing in the Department's Child and Adolescent Division. The Division is also engaged in a National Institute of Health-funded multi-site project that is bringing back children who were born very prematurely and assessing them at age 9, studying their outcomes.

As part of the leadership team of the Department of Psychiatry, Dr. Frazier, who was named to *Best Doctors in America* for the past three years, is dedicated to expanding the clinical,



research and education activities of the Division of Child and Adolescent Psychiatry, one of the largest of its kind in the country.

"I have the opportunity to make sure that children and adolescents in our community are well served. That's the primary thing of importance," Dr. Frazier said. "But also very important to me is to get people to want to be a child mental health professional. We have such a grave need for child psychiatrists in our state and our country. I like the idea of getting people enthusiastic about helping children and their families."

The Shriver Center: Improving Lives Every Day

The University of Massachusetts Medical School Eunice Kennedy Shriver Center is making a difference in the lives of persons with intellectual and developmental disabilities and their families. William McIlvane, Ph.D., Director of the Shriver Center since 2003 and director of the Intellectual and Developmental Disabilities Research Center since 1994, said faculty and staff "bring together everything that we know that could be brought to bear on improving quality of life for the folks we are directed to help."

The Shriver Center's biobehavioral and behavioral research program has achieved international distinction for the breadth, depth and quality of its interdisciplinary research efforts. Faculty members have won a number of prestigious awards and recognition, among them in 2008, Dr. Richard Fleming and Dr. Charles D. Hamad received the national Sloan-C Award for Most Outstanding Online Teaching and Learning Program for their Online Graduate Behavioral Intervention in Autism Program. And in 2010, Dr. McIlvane earned the Society for Advancement of Behavior Analysis Translational Science Award for translating behavioral research into instructional technology for youth with intellectual and development disabilities.

To learn more about Dr. McIlvane and the Shriver Center, visit www.umassmed.edu/shriver on the Web.

The UMass Memorial Health Care system includes not only our academic medical center and community hospitals, but also community-based physician practices and diagnostic and treatment services located throughout the region. UMass Memorial Health Care is the clinical partner of the University of Massachusetts Medical School. The UMass Department of Psychiatry is committed to improving the health of our diverse communities through excellence in clinical care, service, teaching and research.



and maintaining high-level psychiatrists in the area," O'Brien said. "We have a very active residency training program in the UMass Department of Psychiatry and retain a number of our residents and fellows as junior faculty on completion of their training.

One of its most successful programs is for children, according to O'Brien. Called the Massachusetts Child Psychiatric Access Program, it works to support primary care pediatricians or family practice doctors who are caring for children who have a behavioral health diagnosis. "We have staff on board who are available on the phone and are able to return a phone call to a pediatrician who has a clinical question related to behavioral health and the patient they are treating," he said, noting that for complicated cases, they all offer short-term care management, psychiatric evaluation or recommendations for a social worker evaluation. "We entertain probably fifteen calls a day from primary care physicians who either want to refer clients to us, or ask a question," he said.

UMass Memorial Health Care: Focus on Community

As the largest health care system in the region and our clinical partner, UMass Memorial Health Care and the University of Massachusetts Medical School combine to form one of the leading academic medical centers in the Northeast. William O'Brien, MSW, Executive Director of UMass Memorial Behavioral Health Care for the past decade, said the strong partnership on many levels benefits the Department of Psychiatry, the health care system and especially the community.

"We've become even stronger in our ability to develop a continuum of care," O'Brien said.

As an academic department of psychiatry, particularly one that has a public sector focus in addition to research, the system attracts top physicians. "We are a magnet for recruitment

A variety of innovative and creative approaches are the key. "We believe children get care sooner, get the right care and don't necessarily have to wait before getting the right treatment," O'Brien said, "so we believe we are able to decrease the overall cost in providing care to a child and increase the quality of care, which is really at the heart of health care reform."

The development of a multi-specialty medical home in Worcester will serve individuals with intellectual disabilities, co-occurring psychiatric, medical and behavioral problems and is another project that puts UMass Memorial Health Care in the forefront of treatment. "We'll become the primary provider of services for those patients across all the domains of clinical work, so care will not be across disparate systems," he said. It's yet another way to increase quality of care and reach better outcomes efficiently by getting the right treatment to patients earlier.



Since 1977 Community Healthlink Inc., a member of UMass Memorial Health Care, has been helping adults, children and families to recover from mental illness, substance abuse and homelessness. It is the Department's hallmark of behavioral health and physical health integration in the community.

Primary Care and Behavioral Health Integration

ist to address primary care and wellness needs of adults with severe and persistent mental illness. It is designed "to address the fact that this population in particular has difficulty obtaining and maintaining primary care services," Dr. Hobart said. "A lot of folks suffer from obesity and the health consequences of obesity, as well as cigarette smoking, which is much higher among people with mental illness than in the general population." Together with Deborah Ekstrom, MA, MPP, President and CEO of Community Healthlink, Dr. Hobart and many of her colleagues work diligently to integrate physical health and mental health care to decrease the early mortality experienced by people with serious mental illness and addiction.

“To me, it's crucial that mental health care and physical health care are considered together because you really can't have meaningful recovery, one without the other," said Marie Hobart, MD, Chief Medical Officer at Community Healthlink and clinical associate professor of psychiatry at the University of Massachusetts Medical School. Dr. Hobart is spearheading the groundbreaking Primary and Behavioral Health Care Integration initiative, a four-year U.S. Substance Abuse and Mental Health Services Administration-funded project designed to integrate primary care into the community mental health center.

Dr. Hobart is primary investigator/project director of the initiative, a collaboration between Community Healthlink and the University of Massachusetts Medical School Department of Family and Community Medicine. The grant provides for a primary care provider at the outpatient clinic in Worcester in collaboration with nurse care managers and a peer special-

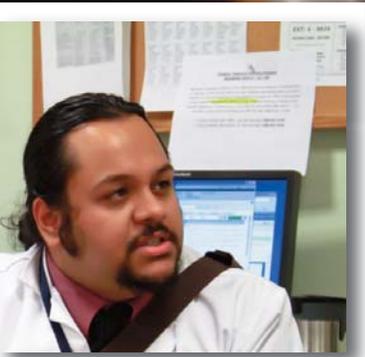
"If you don't address physical health needs, you really are not addressing people's ability to have any kind of meaningful recovery from mental illness and addiction," she said.

As co-chairperson of the UMass Department of Psychiatry's Wellness Academic Interest Group, Dr. Hobart focuses on these health disparities by addressing five areas of wellness for psychiatric patients and staff: nutrition, exercise, tobacco cessation, integration with general medical care and stress reduction.

Dr. Hobart, a recent past president of the Massachusetts Psychiatric Society, said many served through Community Healthlink are not only severely impacted by mental illness, but these illnesses have interrupted their employment, housing, finances and relationships. "We really strive to help people with recovery, to not only deal with the symptoms, but to help them to reintegrate back to having a meaningful life," she said.



Education and Training



The UMass Department of Psychiatry, with faculty spanning the psychiatric subspecialties, is an ideal place to train. We integrate clinical neuroscience throughout our training while maintaining the centrality of psychotherapy skills. Led by Sheldon Benjamin, MD, the Department's Vice Chair for Education in Psychiatry, we strive to create a community of committed learners. At UMass, training is a rich balance of psychotherapy, psychopharmacology, neuroscience and advocacy.

Sheldon Benjamin, MD, Vice Chair for Education in Psychiatry, has been at the forefront of the neuropsychiatry movement nationally and he has taken UMass Medical School psychiatry residents and students along for the thrilling ride.

Dr. Benjamin is president-elect of the American Neuropsychiatric Association, established in 1988. "I was present at its birth," Benjamin said of the association. His interest in neuropsychiatry began in medical school.

"I felt that patients with behavioral disorders related to brain disorders needed to have their own doctor," he said. "You could call it an internist of the mind, but the idea being that when people develop behavioral disorders due to brain damage, they are sufficiently different from people who develop behavioral disorders or psychiatric disorders in other ways. I realized really early in my career that they needed specialized treatment. I felt the field of psychiatry needed to become more sophisticated about how it understands

brain behavior relationships in order to move into the future of psychiatric treatment and diagnosis," he said.

Dr. Benjamin, who is also Director of Neuropsychiatry and Professor of Psychiatry and Neurology at UMass Medical School, has created visibility for the Department and the residency program beyond the Commonwealth's borders. "My focus has been on increasing the neuropsychiatric knowledge of psychiatrists," he said. "Nationally, my work is to raise the profile of and increase demand for neuropsychiatric knowledge" among general psychiatrists, training directors, allied professionals and others.

On a national level, Dr. Benjamin encourages psychiatry residency program directors to include neuropsychiatry in their curricula. He's the voice of neuropsychiatry among psychiatry training directors as well as the voice of training within the American Neuropsychiatric Association, encouraging the Association to maintain this priority.

In the past 15 years, some of the tremendous strides in neuropsychiatry in the education arena had its roots at the UMass Department of Psychiatry. "I really believe that we've been present here at UMass at the rebirth of neuropsychiatry and we've been able to nurture it through explosive growth nationally."

Since 1995, Dr. Benjamin has directed the Department's psychiatry residency program. He also leads the neuropsychiatry fellowship, co-directs the combined psychiatry/neurology residency, and with Mary Ahn, MD, co-directs the Integrated Adult/Child Psychiatry Residency.

As a recent past President of the American Association of Directors of Psychiatry Residency Training, he commissioned task forces to address the issues of psychiatry trainee safety, professionalism and the Internet as well as neuroscience education of general psychiatrists in residency training. The model was, and is, the UMass curriculum. He serves on the national Psychiatry Milestones Committee, a small group charged with rewriting the standards for Psychiatry training. Just as he has done at UMass, he wants to be sure that the new national training requirements preserve a balance of psychotherapy, psychopharmacology, neuroscience and advocacy.

As Vice Chair for Education, Dr. Benjamin oversees the Department's educational programs, including the residency and fellowship pro-

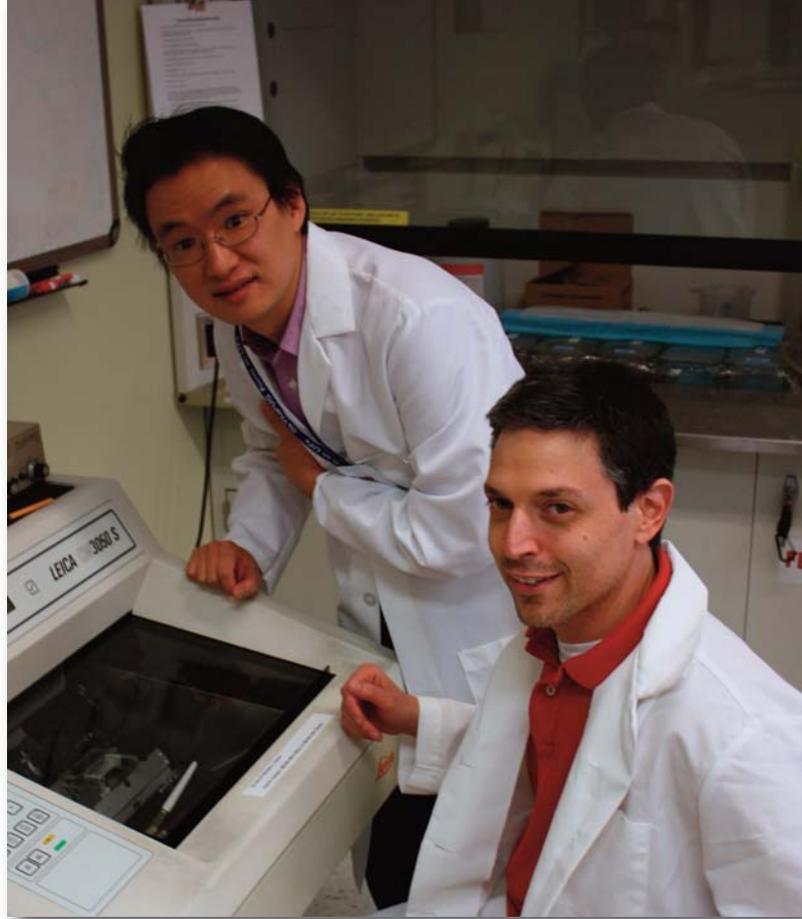
grams, medical student course, medical student clerkship, psychology training programs and grand rounds program, facilitating common ground among the disciplines.

Dr. Benjamin eloquently sums up the core mission of the Department when he says, "We're training the next generation of psychiatrists. We have to make sure that if we believe in something strongly, the education must reflect it, because future practitioners are going to be shaped by the strength of our beliefs now," he said.

He brings his message and his passion beyond the Commonwealth's borders to throughout the country in an effort to encourage physicians to learn more about frontal lobe function, which he believes is a major determining factor of success in a person's rehabilitation and recovery from serious illness.

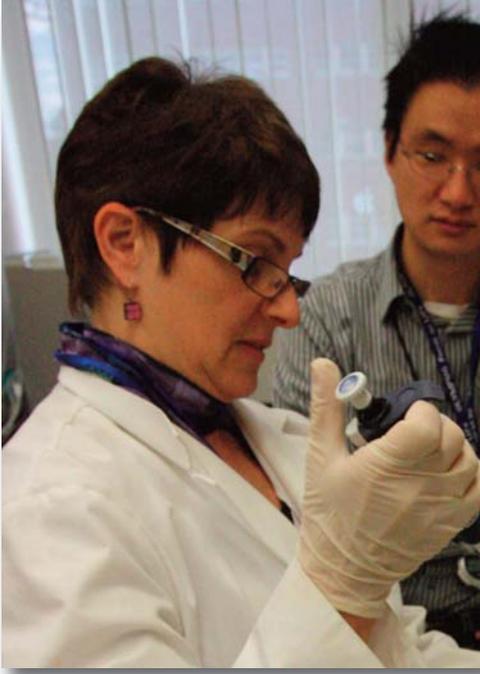
"At the end of the day, the diversity of the Department of Psychiatry is the foundation of its success," notes Dr. Benjamin. The faces have changed in his 26-year tenure with the Department, still it remains a place where people of very different outlooks within a competitive field coexist in an environment that is mutually respectful. "People who practice very different kinds of psychiatry and who do divergent types of research and who have divergent backgrounds, study and practice together in an atmosphere that promotes cooperation," he said.





Genetics and Psychiatry: Basic Science

The UMass Department of Psychiatry's Irving S. & Betty Brudnick Neuropsychiatric Research Institute (BNRI) is a world class research center and hub of our genetics and psychiatry basic science and translational research activities. The work of our dedicated researchers, faculty and staff is paving the way for new treatments and cures for mental illness and addiction through the comprehensive study of the brain and behavior. With the sponsorship of the Massachusetts Department of Mental Health in 2000, the BNRI opened its doors, providing scientists with a state-of-the-art laboratory for brain research that investigates the nature and causes of mental illnesses and addictions.



"There are no words to adequately describe the physical and mental processes and feelings experienced by someone in the throes of a severe depression. It's my internal mandate to use my own life's events to help ease the anguish of others." These are the words of the late Irving S. Brudnick, who with his wife Betty in 2000 planted the seed that grew into the UMass Department of Psychiatry's Brudnick Neuropsychiatric Research Institute (BNRI), a vital component of the Department's pursuit of the biological causes of mental illness and eventual discoveries for new treatments and cures.

The BNRI faculty are making exciting progress in specific areas of biological psychiatry and neuroscience. During the last few years and up to present day, Brudnick scientists, primarily supported by the National Institutes of Health and private foundations, have worked at the research frontiers for depression, psychosis, dementia and substance abuse disorders and have made important contributions and achievements. It is the major hub for translational brain re-

search and espouses "from bench to bedside" values that have a global impact. Schahram Akbarian, MD, PhD and Department of Psychiatry Associate Professor, has led the BNRI in its vision of fostering biological psychiatry research in Central Massachusetts.

The BNRI's role of focusing on biological psychiatry is also somewhat non-traditional but the stellar researchers and staff continue to carve out a place of importance for the Institute in the brain research arena. "In psychiatry in general, we have a little bit of catch-up to play compared to other fields of medicine," Dr. Akbarian said. "That's just because of the complexity of the issue. Psychiatry is more than just biological. But some of this is biological." He points to the fact that many medical school psychiatry departments are not on par with the research work and vision of the BNRI. In fact, the UMass Department of Psychiatry was ahead of its peers. "This department began this work more than ten years ago," Dr. Akbarian said.

The outstanding BNRI faculty are conducting extraordinary and cutting edge neuroscience research, each making their mark in a wide range of psychiatric diseases from addiction biology to depression, psychosis, autism and Alzheimer's disease. It is clear that the scope of ongoing research at the BNRI covers a broad range of human brain disorders. These Department of Psychiatry faculty are second to none: Evgeny Rogayev, PhD; Andrew Tapper, PhD; Gilles Martin, PhD; Kensuke Futai, PhD; Paul Gardner, PhD; and Haley Melikian, PhD; each of whom is a world-class researcher in their areas of expertise. Their unique contributions and global perspectives not only elevate the BNRI's profile and ability to attract important research funding, but also create the incubator for the many unique contributions they all make in their respective fields.

Among those contributions, the BNRI research team completed one of the first mappings of the epigenetic risk architecture in the brains of subjects diagnosed with autism. "That is important, because like many other disorders, autism isn't completely defined by genetics," Dr. Akbarian said. As a result, the BNRI team studied chromosomes and genes to uncover the chemical modification of the genome, the type of information that is not contained in the sequence of the DNA itself. This is an important discovery as it essentially opens the door for pursuing the non-genetic component of a disease, in this case, disease of the brain itself.

Collaboration is key. Each investigator has a personal local network of colleagues throughout other institutions including Harvard Medical School and many others, which spreads beyond the local to throughout the country and the world.





Addiction: Moving the Agenda

With Douglas M. Ziedonis, MD, MPH at the helm, the UMass Department of Psychiatry is an internationally recognized leader in developing, testing and implementing innovative and effective treatments for mental illness and addiction, including tobacco dependence. Dr. Ziedonis, Professor and Chair of the UMass Department of Psychiatry, is also Director of the UMass Center of Excellence in Addiction, which he began in 2007, forwarding the Department's vision of discovering and evaluating new and better approaches to preventing and treating addiction and related conditions and to ultimately improve the lives of people everywhere.

“Addiction continues to be a major public health problem for the nation and the world,” Dr. Ziedonis said. “Tobacco is still our nation's number one public health problem and obesity is a close second. We want our research and clinical services to make a difference in addressing these major public health issues as well as prescription drug addiction which is the third largest public health problem in the Worcester area.”

In addiction, the brain is hijacked which overrides a person's priorities in their life and eventually jeopardizes their livelihoods and well-being. The UMass Department of Psychiatry is working hard to turn the tables on addiction disorders

through cutting edge neuroscience research in basic science by studying genetics and using neuroimaging techniques as well as behavioral therapy and medication development. The faculty have developed new innovative therapy approaches to help clinicians with treating the complex problem of co-occurring addiction and mental illness. Dr. Ziedonis's Dual Recovery Therapy provides clinicians with a road map to help individuals transform their lives and deal with both their mental illness and addiction. Other faculty, including Drs. Sun Kim, Lisa Fortuna, David Smelson, Megan Kelly and Amy Wachholtz, are developing therapies to help a wide range of clinical problems, including specific addictions such as tobacco as well as co-occurring problems of trauma, depression and pain.

"It is very concerning to me and all our society, the persistent increase of opioid addiction among young adults continues with the lack of appropriate treatment for this age group," says Gerardo Gonzalez, MD, Associate Professor of Psychiatry and Director of the Division of Addiction Psychiatry. Dr. Gonzalez's research team is studying whether the combination of the medication buprenorphine with meprobamate and therapy can better help young adults, who have a relative short duration of addiction, to get stable sooner and then possibly stop these medications while they continue on their recovery pathway. The potential impact of Dr. Gonzalez's research is to save the lives of the young adults who have just started their downward spiral into addiction and before they hit bottom.

Dr. Gonzalez and other faculty in Addiction Psychiatry, Family Medicine and Emergency Medicine are also developing innovative educational and training programs to help the new generation of clinicians to better address addiction. Their approach includes collaborating with community providers, the recovery community and neuroscientists to provide students with a rich understanding of the causes and potential interventions for addiction to enhance prevention, treatment and rehabilitation. The ultimate goal for this team is the discovery and development of new and better treatments to support recovery and transformation.

Since the Center of Excellence in Addiction was established, the team also created a Central Massachusetts Addiction Consortium (CMAC) which includes many community hospitals and agencies and has served as a catalyst in gathering together local leaders to discuss ways of developing an addiction treatment provider/academic partner network.

The faculty have developed three new laboratories to better understand and treat addiction. One is focused on drug craving, a second in cognitive neuroscience and a third in mobile technology. These laboratories support the team in better understanding the underlying mechanisms of disease as well as how to use the latest technology to create mobile device approaches to staying connected to patients while they are away from treatment in the community. These studies focus on many drugs, including cocaine, alcohol, opiates and tobacco.

The UMass Tobacco Addiction Research Group is engaged in all phases of tobacco research including how the brain

changes with exposure to nicotine, new therapy approaches and even how to help agencies shift their culture to better address tobacco and help promote wellness and recovery.

Dr. Ziedonis has successfully reached a global scale in his efforts to fight tobacco addiction. The Center has a project addressing tobacco use in China where Dr. Ziedonis said "smoking in China is similar to how things were here in America in the 1950s. Most men smoked and even many doctors. There is great interest for tobacco control and helping health care providers make a difference." Addiction researchers realize that there are great opportunities in the future to better understand the fundamental aspects of addiction as well as new types of addiction problems that will unfold using the addiction lens on problems such as obesity and internet addiction. The UMass team believes that better understanding of and treating food addiction are a critical factors in addressing the obesity epidemic.

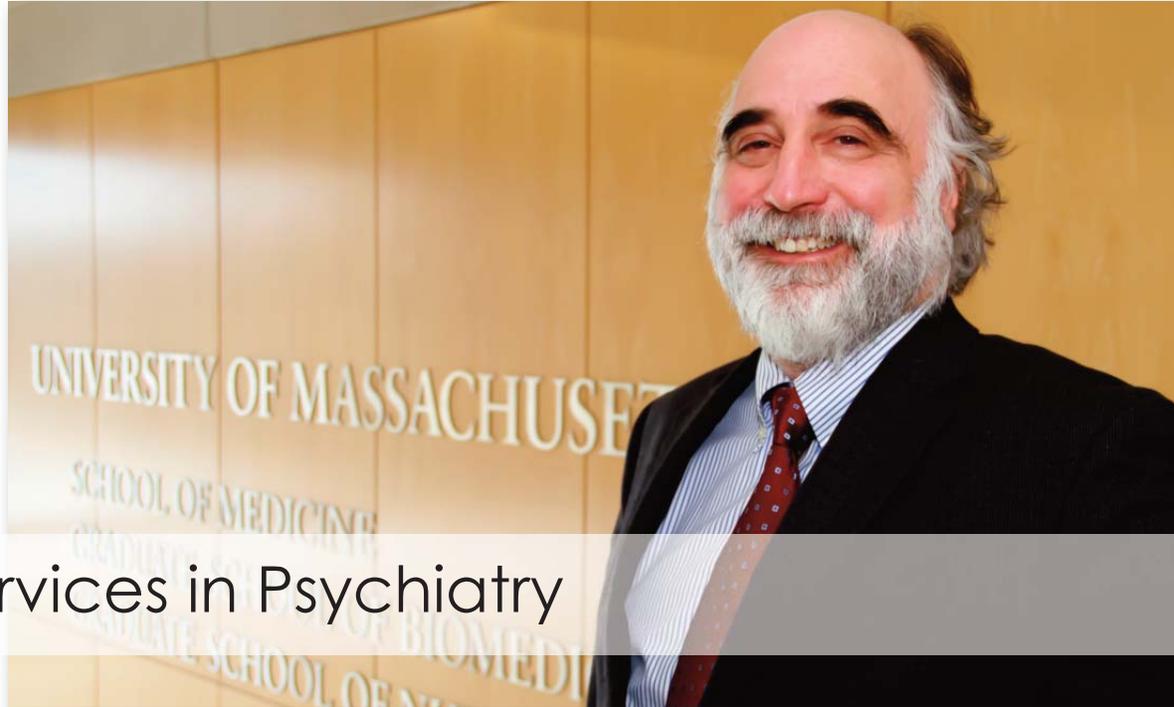
ATTOC Shaping the Future of Tobacco Addiction

The Addressing Tobacco Through Organizational Change (ATTOC) approach is guided by a 10-Step model designed to help an organization systematically improve its tobacco addiction treatment for patients and clients and change its culture to help staff recovery and training as well as eliminate tobacco use on campus. ATTOC has been an effective approach in helping hospitals, clinics, residential programs and other settings all over the nation and now globally.

ATTOC has been studied by Dr. Ziedonis and collaborators from the University of San Francisco and other agencies in the clinical trial network of the National Institute of Drug Abuse at sites in Oregon, Ohio, and Massachusetts. These addiction treatment programs were able to achieve their goals to help patients to quit tobacco, staff to become better skilled to treat tobacco addiction, and the agencies as a whole to change the culture of their care and commitment to wellness and recovery.

This ATTOC approach is now occurring on the other side of the globe in China and Korea. In China, the ATTOC tools and organizational change materials (written and web-based) were adapted into the Chinese language and culture. Dr. Ziedonis and the team worked with Sichuan University West China Hospital's Mental Health Center to help West China Hospital become one of the first psychiatric hospitals in China to become smoke free and better help many individuals in the process. The collaboration has been very successful and is leading to new studies at other hospitals and universities in China.





Clinical Services in Psychiatry

UMass Department of Psychiatry Clinical Services Division faculty provide psychiatric care throughout Massachusetts in a range of settings including UMass Memorial Health Care and its member hospitals, Community Healthlink and local nonprofit human services agencies.

But no matter where those services are provided, the commitment remains strong and true, says Alan P. Brown, MD, the Department's Vice Chair of Adult Clinical Services and Psychiatrist at UMass Memorial Medical Center. He is also Clinical Professor of Psychiatry at UMass Medical School. Since 1991, Dr. Brown has led adult clinical services with a team that spans across and aligns the Medical School and UMass Memorial Health Care. It's a meaningful synergy, he says. Dr. Brown particularly focuses on bringing added value while being sensitive to cost issues involved with providing behavioral health services. "The UMass Memorial Health Care system has been incredibly supportive of working with us to develop both clinically effective and cost-effective services," Dr. Brown said, "and I think we've really delivered."

A common goal among the entities is to continue and sustain the robust effort and work ethic at the system level and deliver the best care for patients in the region as well as ensure that research opportunities have the translational effect of reaching patients. "The commitment is really deep," he said. "We are doing a really good job of translating the work of the school to a real value for the clinical system."

The Department's thoughtful effort to integrate and weave in other aspects of its mission into its clinical services has seen solid results. For example, Dr. Brown points to the UMass Memorial Health Care Outpatient Psychiatry Department where specialty clinics and programs have emerged, such as the Depression Specialty Clinic, Women's Mental Health Clinic, Addiction Specialty Clinic and Mood Disorders Comprehensive Consultation Clinic. All of these specialized

clinics house research faculty who have opportunities to both pursue new discoveries and offer their clinical expertise to patients.

Regarding hospital-based services, "we take seriously our role as the psychiatry department for Central Massachusetts," Dr. Brown says. In addition to a hospital-based psychiatric emergency service, substantial mobile services for adults and children are in operation. "We've really worked very hard through our affiliated services to develop services in the community," he said, services that reach people where they are and when they need them.

A major government initiative through the U.S. Substance Abuse and Mental Health Administration is another focus for Dr. Brown and his team: bringing recovery-oriented principles to the acute care hospital setting. "We're incorporating the principles of maintaining hope and offering patients and families a trajectory toward recovery," he said. And an important aspect of recovery is partnering with patients to help them work on their physical health and wellness initiatives.

"There is a growing realization that good health outcomes and good effective care mean speaking to the whole patient, and that often means trying to address their psychological and personal situation as you address the medical," he said. Meeting patients where they are at, such as homeless outreach, is critical to this approach. "We really have worked very, very hard with UMass Memorial Health Care and all of its affiliates to make sure we are taking care of our most needy folks."

Dr. Brown loves working in Worcester because "it has all the big-city problems you could possibly be interested in, but it's not so large that you can't get your arms around it. You really do get a sense that there are people in this community who really care and I'm privileged to work with them."

Anthony J. Rothschild, MD stands at the leading edge of a new frontier in depression treatment. A renowned expert in his field, Dr. Rothschild has put the UMass Department of Psychiatry on the map with a groundbreaking clinical study on the safety and effectiveness of deep brain stimulation in patients with treatment-resistant depression through a certain point on the map of the human brain called Brodmann Area 25. The study promises exciting and far-reaching implications for treatment-resistant depression. And it puts the UMass Department of Psychiatry in an enviable position. "There are only 20 sites in North America," according to Dr. Rothschild. "We are one of them." The University of Massachusetts Medical School is also the only site in New England.

It's all in a day's work for the Center for Psychopharmacologic Research and Treatment and Dr. Rothschild, who wears many hats for the Department of Psychiatry, most prominently as director of the UMass Depression Center of Excellence and program director of the Center for Psychopharmacologic Research and Treatment. The Center for Psychopharmacologic Research and Treatment is unique in that it serves as both a training platform for faculty, staff and trainees, and as a clinic where patients have the opportunity to access treatments not yet available in general clinical practice. Dr. Rothschild is also the program director of the Department's Depression Specialty Clinic and is the Irving S. and Betty Brudnick Endowed Chair of Psychiatry.

Throughout his more than 25-year career, Dr. Rothschild has worked in both clinical and research settings to study, diagnose and treat patients with psychotic depression, one of the most severe forms of depression. He leads a number of studies ongoing through the Depression Specialty Clinic. He is currently studying how to sustain remission in psychotic depression, a study funded by the National Institute of Mental Health. Dr. Rothschild has spent his career searching and translating his work and that of his research teams into practice.

"What I like to do best is work with patients and help patients get better," he said. The late Irving Brudnick once gave an interview in which Dr. Rothschild learned that the endowment of the chair was not only because of his research. "It had a lot to do with the fact that 20 years earlier, I had helped him get better. And that's what I like to do," Dr. Rothschild said.

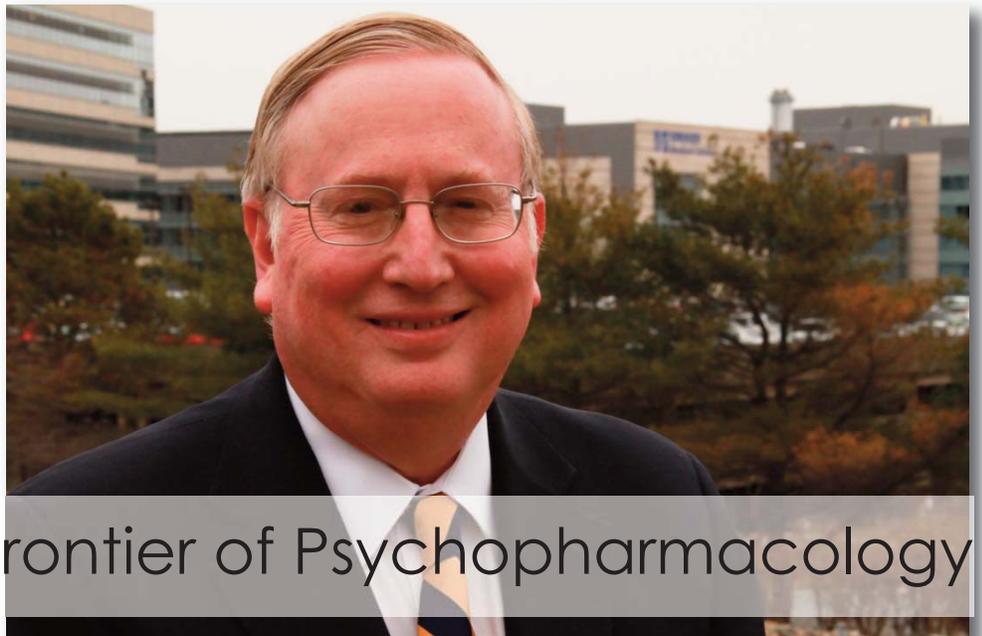
"I found out early in my career that there were people who didn't seem to get

better with the tools that I had learned about," he said. "That's how I became interested in research. Like any other field in medicine there are diseases for which we don't have treatments everyone responds to. The research is exciting and I do it because it translates into ways to help people."

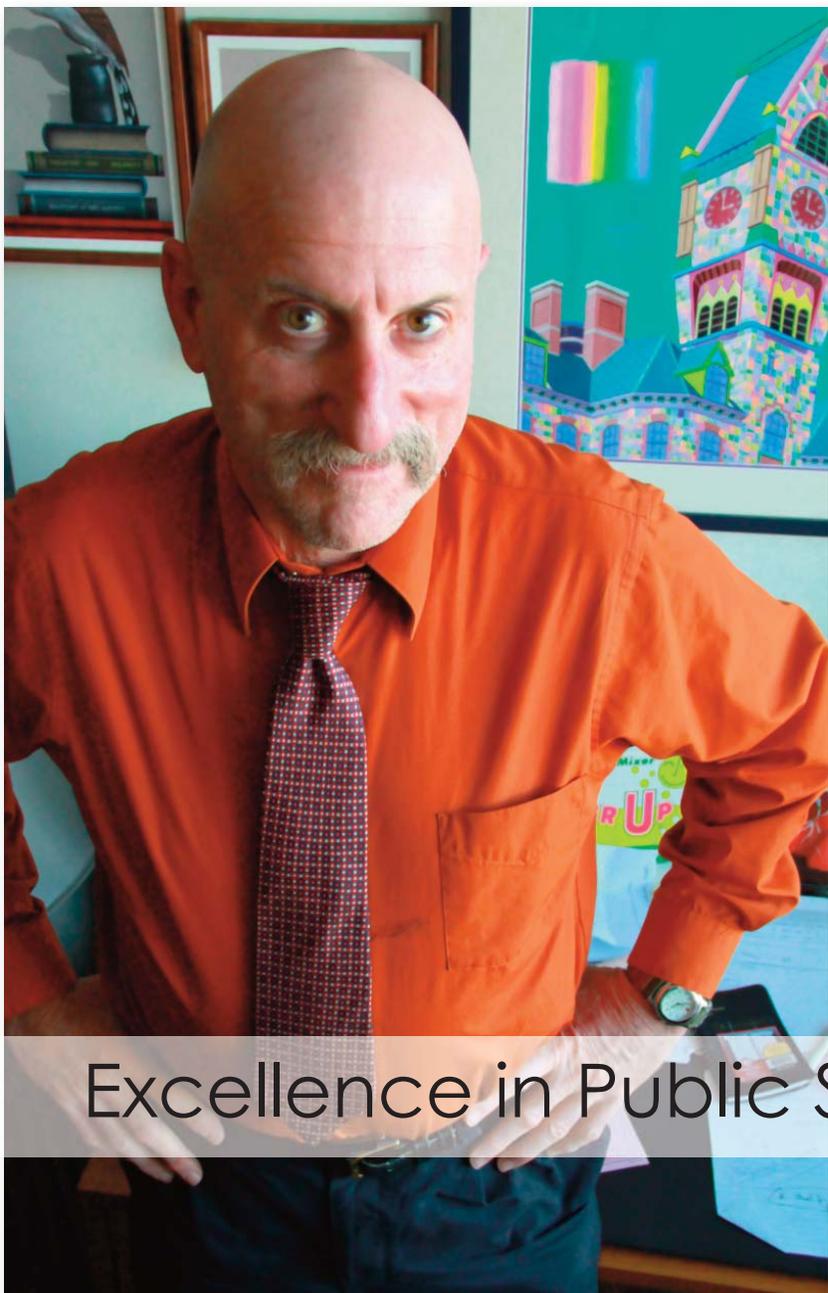
Psychotic depression can lead to fatal consequences like suicide. "But it's completely treatable," Dr. Rothschild said. That seeming dichotomy attracted Dr. Rothschild to the field. "The thing that was striking was, here you had an illness that was potentially fatal and very serious, and yet you could make the person completely better," he said. "That was attractive to me to be able to help people who had a really serious illness."

Dr. Rothschild has written and edited many books, most recently editing *The Evidence-Based Guide to Antidepressant Medications (2012)*. "These books are a way for me to synthesize a complex medical literature into a format for clinicians and doctors to have the information up-to-date, at their fingertips," he said. "I do that to help patients I may never see, in an indirect kind of way."

Dr. Rothschild has been recognized in all areas of his career. For his clinical work, he has been in *Best Doctors in America* since 2001. For his efforts in academics, the UMass Department of Psychiatry has honored him with the Steven Banks Award for Outstanding Research Mentoring in 2009 and four times as the recipient of the Paul F. Briscoli Award for Resident-Faculty Academic Collaboration. As a researcher, he's won the Massachusetts Psychiatric Society Outstanding Psychiatrist Award for Research. He is also a Fellow in the American College of Neuropsychopharmacology, a premiere research organization for the field, and a Distinguished Fellow of the American Psychiatric Association.



On the Frontier of Psychopharmacology



Public Sector Psychiatry is a critical component of the mission of the UMass Department of Psychiatry. Jeffrey Geller, MD, MPH is Director of our public sector efforts and his research and deep knowledge of the history of American psychiatry has informed and shaped the public sector system here in Massachusetts and throughout the United States.

Excellence in Public Sector Psychiatry

Under the direction of Jeffrey Geller, MD, MPH, the Public Sector Division of the UMass Department of Psychiatry is a national leader in public sector psychiatry with a rich history that reaches back to the 19th century. This wide recognition is the result of UMass Department of Psychiatry leadership in what is known as deinstitutionalization, the process of replacing long-stay psychiatric hospitals with less isolated community mental health services for persons with serious mental illness.

The Department played a significant role in the years following the historic 1978 Brewster Consent Decree which began the process of closing state psychiatric hospitals by stipulating that persons with mental illness had the right to live and be treated in the least restrictive environment possible and shifting the primary locus of care and treatment to the community.

These efforts resulted from our role as the major provider of services under the Brewster Consent Decree in the early 1980s and has led the Department of Psychiatry Public Sector Division to be the most innovative and best funded community system in the United States. Public Sector has partnered and collaborated with the Massachusetts Department of Mental Health (DMH) through every evolution in the structure and focus of care delivery to individuals with serious mental illnesses.

"Throughout our history we have never abandoned our inpatient focus," said Dr. Geller, "and that interest brings us to the changes that will occur within the walls of the new state-of-the-art 320-bed DMH Worcester Recovery Center and Hospital (WRCH) opening in the summer of 2012. At the same time, Public Sector Psychiatry has helped to grow and increase community services throughout the Common-

wealth of Massachusetts for individuals living with mental illness.”

The current UMass Department of Psychiatry Residency Training Program originated at Worcester State Hospital as did the Psychology Post-doctoral Training Program. The Public Sector Division inherited the rich research history of the Department of Mental Health’s Worcester State Hospital, a process formalized across Department of Psychiatry divisions, namely in the Center for Mental Health Services Research.

We are committed to helping individuals across the lifespan. Caroline McGrath, RN, BSN, Executive Director of UMass Adolescent Treatment Programs, has led efforts in developing innovative peer-based and family-driven resiliency and wellness programs for adolescents. Caroline and her team are integral to transforming services for young people with serious emotional disturbance.

A mainstay of Public Sector Psychiatry, which has a long and enduring track record in psychiatry and psychology throughout the country, is the education and training of residents in both inpatient and outpatient service. The UMass Public Sector Psychiatry training program dates its roots from activities that began at Worcester State Hospital as early as 1852. History tells us that other similar programs can trace their beginnings to earlier times, but none have matched the Department’s Public Sector Psychiatry program in success or sustainability.

The UMass Department of Psychiatry embraces its public sector mission to meet the needs of the citizens of the Commonwealth, and we are recognized as an exem-

plary resource in both its foundation and sustained commitment to individuals with mental illnesses. The Public Sector Division now oversees directly or indirectly through contracts with community providers the clinical care of most individuals served by DMH in all corners of the Commonwealth.

Dr. Geller says that over the next five years, Public Sector Psychiatry will create an even stronger integrated system that will reach across all provider settings and across disciplines including psychiatry, medicine and wellness. “While integrating settings and services,” he says, “we hope to conduct an outcomes research effort that will both inform our treatment process and provide information to other clinicians about what is effective and what is not. An important aspect of the integration effort will be the simultaneous training of clinicians to practice in underserved areas and training researchers in the pursuit of health policy.”

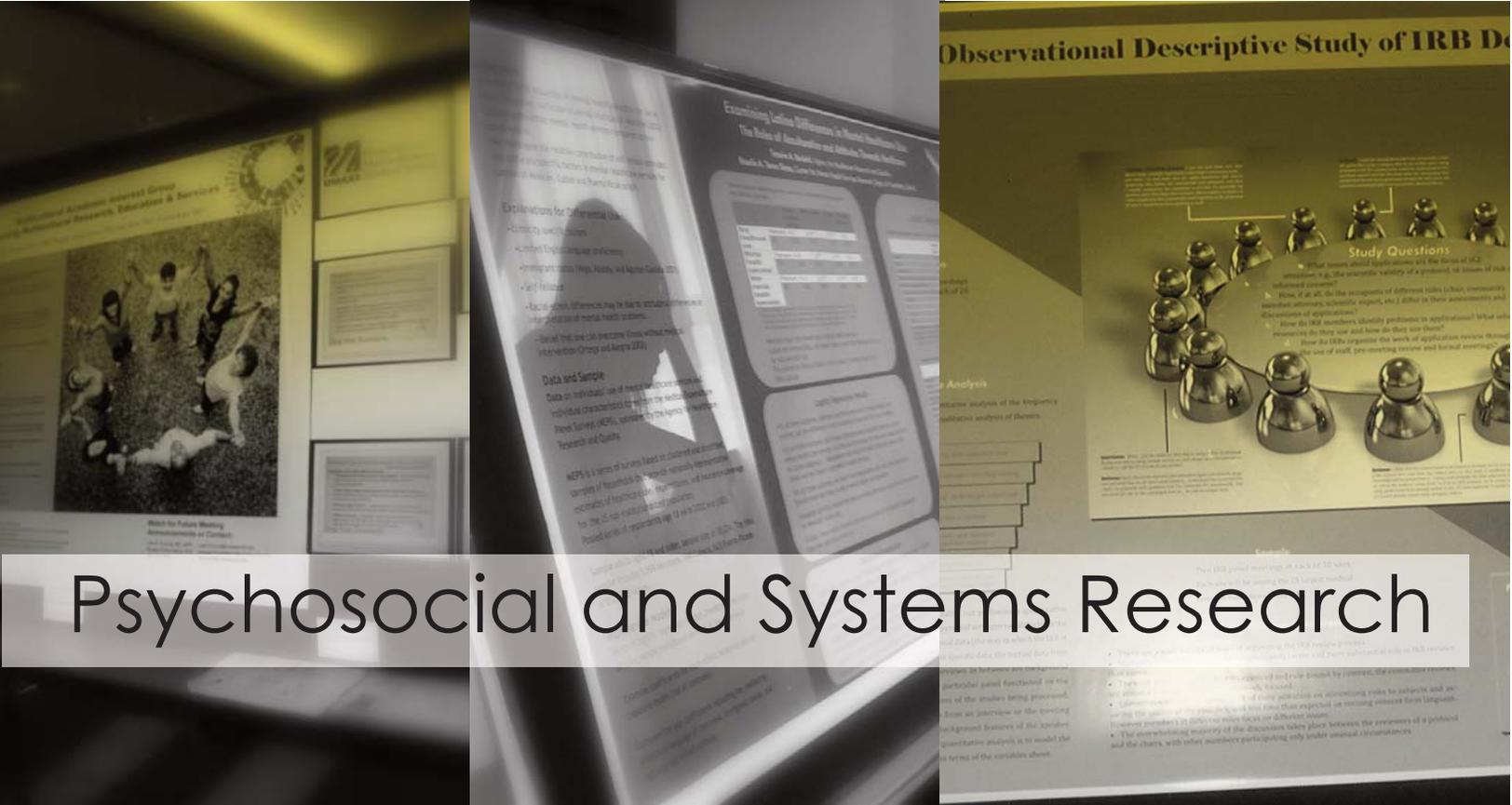
Another development in Public Sector Psychiatry involves the recovery-focused integrated care model and the start of a new Public Sector Fellowship program with emphasis on the integration of psychiatry and medicine for people with psychiatric disabilities. “We hope this fellowship will be the catalyst for changing health care practices to provide adequate medical and psychiatric care for individuals with serious mental illness who have suffered the most from a lack of integrated care,” Dr. Geller says. “We have a long history of educating residents in public sector psychiatry and this fellowship will be the next step. Our goal is to train leaders, building on our success in populating the ‘foot soldiers’ in public sector psychiatry.”



History Meets the Future

The iconic Clock Tower of the Department of Mental Health Worcester State Hospital is juxtaposed with the new Worcester Recovery Center and Hospital. The 320-bed facility is the evolution of public sector mental health treatment by promoting recovery in a person-centered milieu.





Psychosocial and Systems Research

Improving the quality of life and promoting recovery for people with mental health conditions is the mission of the Department's Center for Mental Health Services Research (CMHSR). Under the direction of Carl Fulwiler, MD, PhD, Associate Professor of Psychiatry, the CMHSR proves how research can lead to action and influence policies and practices that enrich the lives of citizens of Massachusetts living with mental illness and sharing this knowledge beyond our borders.

The UMass Department of Psychiatry Center for Mental Health Services Research (CMHSR) was founded in 1993 as a Massachusetts Department of Mental Health Research Center of Excellence. Its niche is using cutting-edge research and innovative dissemination strategies aimed at enhancing the major life areas of wellness, legal issues, children and families, human rights and co-occurring disorders.

With 19 faculty and 24 research staff, the CMHSR is committed to bringing its research into practice as its leader Dr. Fulwiler and his team work closely with consumers, providers, family members and state agency partners to share its findings with the real-world recipients of policies and services. The close relationship with its state partners, particularly the

support provided by Massachusetts Department of Mental Health (DMH), has catapulted the Center's visibility and ability to jointly land federal grants that forward its critical mission, says Dr. Fulwiler. "One award has allowed us to set up, at three different sites in the state, jail diversion services for veterans with history of trauma from the Iraq and Afghanistan wars," he said. Such grants "are especially helpful for looking at new models of care."

The CMHSR engages in both systems and psychosocial research. For example, Dr. Fulwiler's team has investigated the outcomes of people who are discharged from hospital settings and how they fare if they are supported with community-based services. The Center's team has also researched evidence-based practices for adolescents with co-occur-

ring mental health and substance abuse disorders. "We have a number of projects that are less traditional and more in the area of psychosocial intervention research," Dr. Fulwiler said, "and a state-of-the-art dissemination unit works to ensure that this and similar research is translated into practice in the real world." One example is his own work using imaging to study the mechanisms of mindfulness intervention for stress reduction and health promotion.

The Center's research in action involves the work of Maryann Davis, PhD, research Associate Professor of Psychiatry. "She investigated the services for children and adults in the public mental health system, which typically were thought of separately and neither set of services worked very well for the transitional population of later-stage adolescents and young adults," according to Dr. Fulwiler.

The data from that research led to a collaboration with DMH to develop innovative services and interventions for this particular group of young people, also known as Transition Age Youth. And now Dr. Davis directs the Learning and Working During the Transition to Adulthood Rehabilitation Research and Training Center (Transitions RTC) within the CMHSR. "That grew out of the work that Maryann did for the Center and led to her getting her own Center grant," he said.

The Transitions RTC focuses on youth ages 14 to 30 by conducting cutting-edge research on age-appropriate programs that support education, training and working during those often challenging years of growing into adulthood. A nationally-based group serves as an advisory board for the program, with the dual goal of sharing the knowledge gained from research with service providers and policy makers and ensuring that young adults with mental health conditions are included in all research, training and dissemination activities.

Transition age youth have garnered attention and focus across the country, Dr. Fulwiler said, and Dr. Davis and her team's breakthrough work has led the efforts around this on a national level.

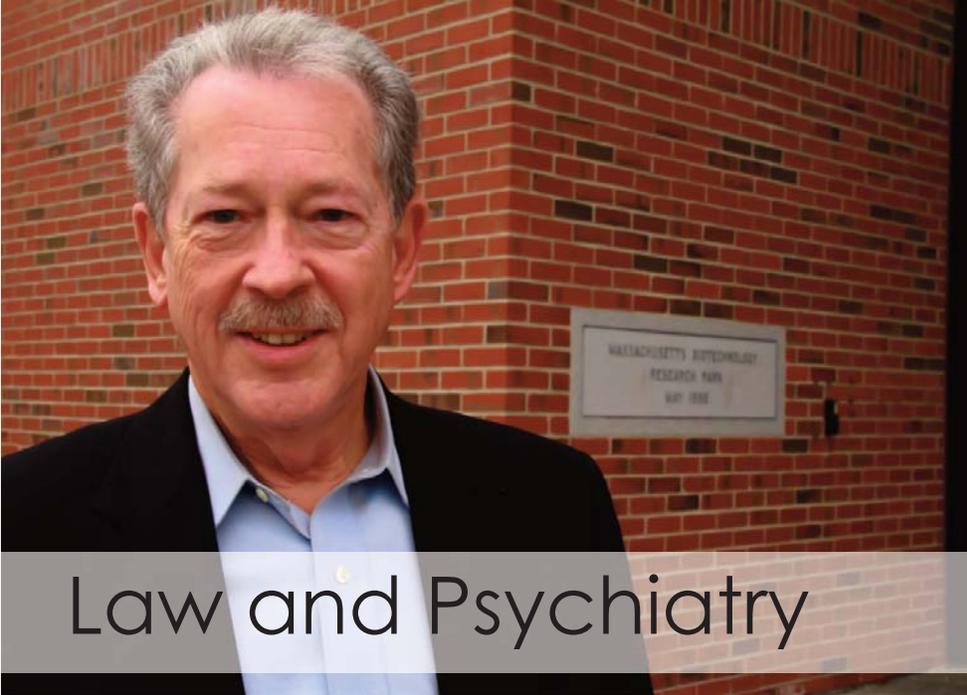
Not only for youth receiving mental health services, the CMHSR is consumer driven at every level. "We've had a long tradition of employing consumers," Dr. Fulwiler said. "We've had an intentional effort to hire and train and retain people who have self-identified as consumers." And they are very involved in the research that takes place at the Center, from data entry to project management.

"We have a grant writing team that reviews all of the grants that originate from the Center and on that team are some of the consumer members who comment on the consumer point of view, about individual research proposals," Dr. Fulwiler said, adding that the voice of persons with lived experience is critical to the Department of Psychiatry's mission and to research from a broader perspective.

The team, the CMHSR Consumer Workgroup, was formed in 2007 and advises research faculty and staff about making research both more consumer friendly and more relevant to the needs of individuals receiving DMH services. The CMHSR is also supported by a Consumer Advisory Council, whose members advise Dr. Fulwiler and the Center's Executive Committee on areas of interest to consumers and how best to explore those areas.

One of the most important collaborations between the CMHSR and its state agency partner DMH is the Consumer Satisfaction Survey which provides unparalleled access to the perspectives and opinions of people receiving mental health services, says Dr. Fulwiler. The effort gives both adults and the families of children receiving services the opportunity to voice their satisfaction with the types of services they receive, critical information that informs the design and development of mental health services statewide.





Law and Psychiatry

The Department's Forensic Psychiatry and Psychology Training programs are known nationwide for their excellence in preparing clinicians for specialization in law and the legal system.

Thomas Grisso, Ph.D., Professor of Psychiatry, clinical psychologist and Director of Psychology for UMass Medical School and UMass Memorial Healthcare, is recognized nationally and internationally for his research on forensic mental health evaluations for the courts, for competence to consent to treatment and for the needs of young people involved in the juvenile justice system.

Driven to translate clinical concepts in psychiatry into resources that are useful to the legal process, Dr. Grisso developed a mental health screening tool designed to help young people involved in the criminal justice system needing mental health treatment. Called the Massachusetts Youth Screening Instrument-Second Version (MAYSI-2) and created more than a decade ago, it is used in juvenile justice facilities in 44 states and is now being adopted in facilities in many European countries.

A member of the Department's faculty for 25 years, Dr. Grisso's work began in the mid-1990s as he and a colleague delved into the quality of community child services and discovered at the time that more and more children with behavioral disorders were involved in the juvenile justice system.

"Nobody was doing anything to identify them as they came into detention centers," Dr. Grisso said, "and the risk of suicide was very high. We decided we needed a tool that didn't require a mental health professional and that only required about ten or fifteen minutes to administer." Not diagnostic, the tool would indicate whether a youth's symptoms were severe enough for them to be referred to a mental health professional for assessment.

The MAYSI-2 took hold in this arena, in part because it was easy to use. The first states to use it included Massachusetts and Pennsylvania. "Then it began to snowball," he said.

Dr. Grisso has been working with researchers in Europe who are using the MAYSI-2 and because they are conducting research, he sees the importance for researchers in these countries to compare results and collaborate with his help and that of the UMass Department of Psychiatry.

In his role as Director of the Psychiatry Department's Law and Psychiatry Program, Dr. Grisso oversees the Department's Forensic Psychiatry and Forensic Psychology Training Programs, nationally renowned for training in forensic specialization. He also manages the Law and Psychiatry Program's close connections to the forensic activities of the Massachusetts Department of Mental Health, which provides funding for forensic training programs. "It's the most elaborate quality control system for forensic examiners in a state in the United States," Dr. Grisso said. "There's none other like it."

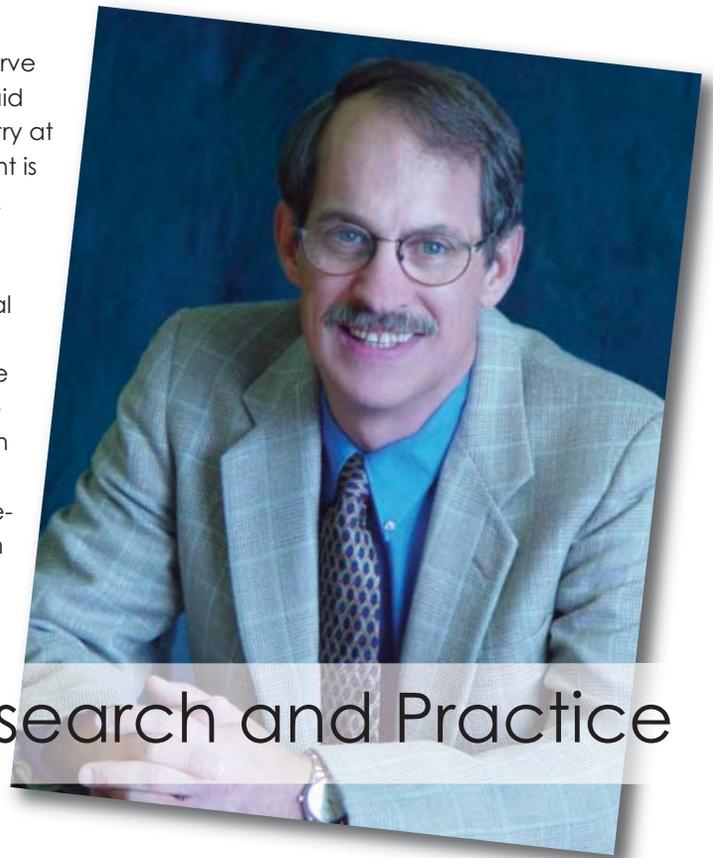
Dr. Grisso and his research team consult nationwide on an ongoing basis to state legislatures seeking to promote developmentally-appropriate laws for delinquent youth, to state juvenile justice agencies seeking best methods for meeting the mental health needs of youth and to clinicians who evaluate and treat youth in the juvenile justice system.

During the past decade, his work with professional organizations has made an impact up through the U.S. Supreme Court. His research and consultation have contributed to the Court's decisions to abolish the death penalty for crimes committed during one's adolescence as well as eliminated life without parole for lesser juvenile offenses.



“The broad issue in American bioethics is how to preserve the individuality of and autonomy of the patient,” said Charles W. Lidz, Ph.D., Research Professor of Psychiatry at the UMass Department of Psychiatry. “Being a patient is traditionally a passive thing—we do what the doctor tells us to do. That doesn’t play so well in our culture any longer.”

Dr. Lidz has a long history of studying and understanding bioethical research, dating to the 1980s with the first National Institutes of Health (NIH)-funded study on informed consent and publishing the initial paper on therapeutic misconception—the idea that people participating in clinical trials don’t always understand that being in a trial is different than being in individualized treatment. In the 1990s, he published a series of studies on coercion in treatment decision-making that established the MacArthur Perceived Coercion Scale to study coercion in research and treatment decisions.



Ethics in Training, Research and Practice

Challenges in the arena of medical and psychiatric treatment are frequent, especially given our American culture where individualism and autonomy are so highly valued. It’s a balance that Dr. Lidz watches over.

“The challenge is how one manages that relationship in such a way that it does deference to what I think of as an almost sacred value in our society, this notion on individualism and how we manage that interface is an ongoing issue,” he said. “Ethics is always a culture-bound issue,” he said. As Chair of the Ethics Committee and Ethics in Psychiatry Program for the UMass Department of Psychiatry, which works on the ethical components of policy and provides reviews and expertise on ethics, Dr. Lidz oversees education and training across the Department on ethics in research and treatment and is the go-to expert for faculty and staff seeking consultation.

The issue of ethics is a well defined and critical consideration in the work of research and treatment. Ethical issues routinely arise for faculty and staff and run the gamut—dual relationships, informed consent, confidentiality, working with vulnerable populations, the use of technology in client care, end of life care and in the arena of research integrity, to name a few. Charles W. Lidz, Ph.D., Research Professor of Psychiatry at UMass Department of Psychiatry and one of the modern pioneers of bioethical research, helps ensure that ethical considerations are a priority.

Dr. Lidz ensures that ethics has a high profile in the Department’s daily work. His committee manages a robust website where resources and relevant documents are a click away. He’s created two ethics grand rounds, dialing up how ethics are taught and incorporated.

The consumer movement is dramatically changing how ethics is approached and how the culture of care and treatment for individuals with mental illnesses is evolving from a paternalistic model to one of recovery and self-determination. Dr. Lidz’s work mirrors this evolution. One of his current research initiatives focuses on the examination of institutional review boards (IRBs) which play a role in monitoring research projects. “In an effort to describe how IRBs function and make decisions, we are conducting a mixture of qualitative and quantitative analysis on transcripts and participant interviews,” he said.

Dr. Lidz’s professional affiliations are a bellwether of medical ethics. He is president of the board of the Genesis Club in Worcester, one of several dozen Clubhouses across Massachusetts that assist individuals with mental illness in attaining employment, wellness, housing and social relationships. “I am very interested in the consumer movement in mental health,” he said, “and I consider this the greatest honor I’ve ever had.”

FORGOTTEN NO MORE

Inspired by Korean War veteran Ronald K. Johnson, the Korean War Veterans Association of Central Massachusetts was chartered in 1990 with Mr. Johnson selected as its first Commander. Under his strong leadership a small, dedicated committee was organized to explore the feasibility of building a memorial to honor the 195 conceptual vision of Korean War veteran Joseph J. Gerding and World War II veteran Harvey R. Ball in order to honor more than 190 service men and women from the Korean War who died in service.

as Chairman, bringing together Korean War veterans, City of Worcester elected officials, Massachusetts State Legislators, and local and international support, in an effort to raise awareness throughout the community to the remarkable heroism, achievements and sacrifices of our Korean War veterans.

followed by the dedication of Phase I of the memorial in November of 2003.

The Memorial Committee pressed on to complete the memorial with sculptures of an American G.I. and orphaned Korean child, educational signs preserving the history of the war, and recognition of the Puerto Rican 65th Infantry Regiment among other groups and organizations.

In October of 2006, the Memorial Committee sponsored the "Memorial Concert and Tribute to Today's War Heroes," at which grateful veterans of the Korean War and their families were invited to contribute to the fallen.

Veterans: Creating Healing and Hope

Under the creative and diligent efforts of David Smelson, PsyD, Vice Chair of Clinical Research for the UMass Department of Psychiatry, a robust alliance with the Department of Veterans Affairs and a significant increase in clinical research has burgeoned in the past five years. Within six months of the arrival of Department of Psychiatry Chair Douglas Ziedonis, MD, MPH in 2007, Dr. Smelson led the way for the whole of the University of Massachusetts Medical School to establish a stronger and broader relationship with Veterans Affairs.

It's a story that's hard to hear: On any given night, more than 65,000 military veterans are homeless. For David Smelson, PsyD, professor and Vice Chair of Clinical Research for the UMass Department of Psychiatry, it's a national tragedy that can be turned around.

With the Edith Nourse Rogers Memorial Veterans Administration Hospital in Bedford, Massachusetts, Dr. Smelson and his team are leading the research and clinical efforts that are on track to meet President Obama's goal of ending Veteran homelessness by 2015.

Since the signing of a formal academic agreement between the Edith Nourse Rogers Memorial Veterans Administration Medical Center (ENRM VAMC) in 2007 and with the VA Central Western Massachusetts Health Care System in 2008, the University of Massachusetts Medical School and the Veterans Integrated Service Network of New England (VISN 1) have developed an important and successful partnership. With VA funding support of more than \$2.5 million alone, this vital partnership has helped the ENRM VAMC research staff conduct more than 25 research studies and projects since 2007, providing powerful information and



data in a relatively short period that will ultimately make a difference in the lives of returning combat veterans and very often saving lives. Some of this work is expanding beyond the research and training arenas of psychiatry and now include emergency medicine and quantitative health sciences, which have a significant impact on the well-being of veterans and their families.

One of the notable successes of Dr. Smelson's work with veterans is a formal academic partnership between the UMass Department of Psychiatry and the VA's National Center on Homelessness Among Veterans with the 2010 establishment of a Bedford Node of the Center. The primary goal of the National Center on Homelessness Among Veterans is to support the VA and federal strategic plans to end veteran homelessness by improving the approach for creating permanent housing, good health care and an improved quality of life.



"The need is enormous," says Dr. Smelson. "Our research on co-occurring disorders and homelessness at the Bedford Node focuses on understanding more about the prevalence of homelessness and the treatment of mental illness and addiction among veterans." Specifically, Dr. Smelson and his team examine what services homeless veterans use, what programs are most effective, how to best identify veterans who are at risk of homelessness, the development of interventions to improve housing stability and most importantly, how to better engage homeless veterans with complex and multifaceted clinical needs. This work has national implications as the research projects are directly aligned with *Opening Doors: The Federal Strategic Plan to Prevent and End Homelessness*. "And our work here is directly aligned with the VA's goal of ending veteran homelessness by 2015," Dr. Smelson said.

Discovering the factors that predict homelessness among veterans is important to the development and implementation of evidence-based interventions as well as informing policy and disseminating findings so that the difference made here is mirrored across the country. Investigators within the National Center For Homelessness Among Veterans focus on how to better understand the relationship among mental health comorbidities, homelessness and addiction among veterans.

"Within this larger area, we have several areas of expertise including the development of manuals, co-occurring disorders treatment, the use of peer support, anti-stigma pro-

gramming, and mobile technologies to promote treatment engagement, supported education and criminal justice research."

Using mobile devices to help veterans with conditions such as post-traumatic stress disorder and substance use problems is one cutting-edge and futuristic approach that investigators at the National Center for Homelessness Among Veterans are focused on. Using a combination of wireless sensors and smartphone technology, clinicians can provide support and intervention with these conditions. The particular mobile device Dr. Smelson's team is piloting can measure the person's symptoms and detect patterns of an emerging drug craving or anxiety attack. Worn around the wrist, it measures heart rates and other body function and stress indicators, then sends signals to a smartphone where the incoming data is monitored. The device can go as far as asking the person how they are feeling when a high stress level is detected.

"The implication of using a smartphone to assist someone in distress is revolutionary," said Dr. Smelson. "It can supplement regular care, it can increase engagement, which is critical for someone at risk."

The collaborations between the UMass Department of Psychiatry and the ENRM VAMC are showing promising results and are particularly evident in research, where the UMass-VA team's shared commitment to addressing the unique needs of veterans results in advancements in both clinical practice and scholarship.

The World View

China. Russia. Brazil. The work and impact of the UMass Department of Psychiatry extends beyond home base in Central Massachusetts to the four corners of the globe. Faculty and staff travel around the world, connecting with colleagues and creating a network of international partnerships in research, training and knowledge sharing, with the goal of forwarding the mission of the Department and ensuring that psychiatry has a seat at the world's table.

Department of Psychiatry researchers, clinicians and faculty have many opportunities to create international linkages and interactions with counterparts from other countries. The Department also hosts distinguished visitors from other countries, exposing our work to the international stage while at the same time gaining insight to global perspectives on the issues we all care about. Here are just a few examples of our international collaborations and connections.

China. Department of Psychiatry Chair Douglas Ziedonis, MD, MPH made significant inroads to China on behalf of the UMass Department of Psychiatry in 2010 when he received one of the first two UMass Global Health Pilot Awards for his Addressing Tobacco Through Organizational Change in China grant, helping the West China Hospital become one of the first smoke-free hospitals in China. This groundbreaking outreach brought Dr. Ziedonis's research on tobacco addiction and smoking cessation research to the international scene. The Department of Psychiatry established an enduring collaborative partnership with our colleagues in China, translated our core materials into Mandarin, developed a website in both English and Mandarin and visited the West China Hospital to provide onsite intervention and training. We stay connected to our colleagues in China and continue to track the impact of our growing partnership.

Europe. In 2011, Thomas Grisso, PhD and Laura Guy, PhD catalyzed and helped establish a consortium of European investigators who perform child mental health research using tools and methods developed in the Department's Law and Psychiatry Program. The founding members of the consortium, known as the International Forensic Screening and Assessment Network for Adolescents (InForSANA), are all involved in clinical research on mental health problems among youth in juvenile justice

settings in the Netherlands, United Kingdom, Belgium, Germany, Spain, Switzerland, Italy and Turkey. The goal is the development of a uniform research database and methods to improve participating countries' ability to conduct comparative international research on the mental health needs of youth involved in criminal justice systems.

Russia. Joseph M. Tonkonogy, MD, Professor of Clinical Psychiatry, and Evgeny Rogaev, PhD, Professor of Psychiatry, have extensive connections and are highly regarded in their fields in Russia. Dr. Tonkonogy has long collaborated with his Russian colleagues and the chapters of his book on clinical neuropsychology were translated and published in Russian in 2007. Today, he continues the dialogue with Dr. Mikadze, Y.V., professor of Psycho-Social Division, Moscow Medical University, on topics such as organizing joint lectures and seminars involving professors from the UMass Department of Psychiatry, especially in the fields of addiction and outpatient psychiatry. Dr. Rogaev is world renowned for his collaborations and connections with Russian institutions in education and research in medical genetics, populations genetics and neuropsychiatric disorders. Most famous is his genetic research work in helping to identify the remains of the the family of the Russian Tsar Nicholas II. His molecular-genetic laboratory in the Brudnick Neuropsychiatric Research Institute at UMass Medical School and part of the UMass Department of Psychiatry attracts many students, post-doctoral candidates and researchers from Moscow.

Brazil. William McIlvane, PhD directs the University of Massachusetts Medical School's (UMMS) Eunice Kennedy Shriver Center, which has distinguished itself nationally and internationally in the areas of research, education and public service. Over the past several years, Shriver faculty members have partnered with Brazilian colleagues to establish a bi-national Institute for Studies on Behavior, Cognition and Teaching. According to Dr. McIlvane, "the Institute has the potential to become a model for building international collaboration between U.S. universities and those in the developing world. We have merged the different strengths of the U.S. and Brazilian systems in a way that allows both to be more productive together than either could be alone. As the Institute develops, we think that it will establish the foundation for new research and training projects that will contribute substantially to the growing UMMS focus on international health promotion."

A Final Word from the Chair

Douglas M. Ziedonis, MD, MPH

Chair of the UMass Department of Psychiatry

Every day, we are making important discoveries at the UMass Department of Psychiatry that will help us understand brain diseases and disorders and ultimately help people live life in health and joy here in Massachusetts and around the world.

Our achievements and successes are many and reach beyond our local boundaries. This is best expressed through the clinicians, researchers, teachers, mentors, trainees and staff who are the heart and soul of the Department of Psychiatry as you have learned in this brief overview of our work. They are tireless, dedicated and singularly committed to our mission. Through great teamwork, innovation, partnerships and ongoing strategic planning and self study, I believe that the UMass Psychiatry Department has made progress on our key goals and tremendous growth in clinical and translational research, academic mentoring of faculty, clinical quality improvement and clinical neuroscience education that has made a substantial impact locally, nationally and globally.

On behalf of the UMass Department of Psychiatry, I am very grateful for the strong support of the University of Massachusetts Medical School, UMass Memorial Health Care, the Massachusetts Department of Mental Health, state leaders, Veterans Affairs Health Care, and our community, especially the leadership of Terry Flotte, MD, Medical School Dean and Provost, and John O'Brien, CEO of UMass Memorial Health Care. They all provide the necessary encouragement, guidance and resources that has resulted in tremendous growth in our clinical and translational research, academic mentoring, neuroscience education, global initiatives, and quality improvements in integrated care, including recovery and wellness.

As we always strive for steady progress, we have become a more integrated, collaborative and inclusive Department that embraces the core values of innovation, mentorship, advocacy, diversity and partnership. Most importantly, the force behind this work is the commitment we all have to patients and families. This dedication drives all of us and is demonstrated in how we educate and inform the public and develop enlightened public health policies. Our unwavering commitment to public service and collaboration keeps us strong and relevant in the fast-changing world of behavioral health care.

While we have accomplished a great deal and grown tremendously in the past five years, there is much more to do and we are ready for the future. The outstanding clinicians, researchers, faculty, staff and trainees of the UMass Department of Psychiatry comprise this great engine, their spirit and academic acumen always keeping us on the search for new scientific discoveries that one day will lead to better mental health and addiction services for those who need them.



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