The information presented in this update represents data as of March 1, 2016.

psychiatry.stanford.edu
From the Chair

Academic medicine is entrusted with improving the health of individuals, communities, and populations. And in academic psychiatry and the behavioral sciences, we have a special responsibility to advance the understanding of the nature of the brain and behavior and to explore the role of personal meaning and the therapeutic relationship in human health -- not only to lessen the burden of disease in the world, but also to foster wellbeing, resilience and strengths for generations to come.

Together we have created a truly distinguished department.

Our department is inspired.

We are a community dedicated to transformational change and social good. We understand the impact of mental illnesses, which are the second leading cause of disability and premature mortality globally, and we are deeply affected by the immense suffering and social injustices associated with these conditions. We see that the path to health for people and populations is enabled by creating and applying new knowledge, by engaging in innovation, and by preparing future generations of scientists and clinicians. Each of us, whether faculty, learner, or staff, is passionate about our work because we recognize its vital importance to humanity -- to all of our health and futures.

Our department takes on the hardest problems.

We aim to cure mental illness. We advance understanding of the body’s most complex organ, the brain: its biological underpinnings, its functions, its development, its plasticity, its regulation, its dysfunction, its vulnerabilities, its aging, and its resilience. We study cognition, behavior, emotion, and relationships. We use this knowledge to develop evidence-based treatments, and with compassion and expertise we care for individuals living with prevalent, severe, and often highly treatment-resistant conditions. Our work informs clinical practices, systems of care, and health policy to reduce disability, loss of life, and stigma. We do not turn away from the hardest problems. Instead we move toward them. We understand that resolving the hardest problems will make the greatest difference.

Our department is a hothouse of creativity.

Our scientists develop highly innovative approaches to discovery at every level in the clinical and behavioral neurosciences, thereby exerting scientific leadership throughout the world. In our laboratories, the molecular, cellular, and circuit mechanisms of mental disorders are being decrypted with leading-edge technologies like optogenetics, patient-derived pluripotent stem cell techniques, neurocomputational-imaging models, e-health inventions, and more. Breakthroughs are translated to clinics, communities, and populations and accelerated by the latest approaches using big data analytics, design thinking, implementation science, and wisdom derived from collaboration across disciplines and spheres of life. Today, our faculty and trainees engage in ingenuity and innovation, transforming clinical methods and models of care across many nations. For tomorrow, we have built a pipeline of creative and critical thinkers whose work will advance knowledge and health beyond what we can now imagine.

Our department is a community in which we value all people.

We are a community defined by our commitment to respect and to inclusiveness. We embrace diversity for its intrinsic value, not merely accepting differences among us but cherishing them as the opportunity for greater mutualism, demonstrations of authentic regard, and growth of our community. We promote the wellbeing of others and take joy in one another’s success. We love our students, mentees, and trainees, and we are saddened by the hardships we see that are associated with stigma, unconscious bias, and disparities. We are present and compassionate in our work, helping others, whether in our neighborhood or around the world, to bear the suffering that comes with illness, loss, and trauma. We engage in work that fosters health and a sense of belonging, even for those who are most marginalized in society.
Our department makes connections and works shoulder to shoulder.

Our department is creating the path to a better future.

We are all touched by mental illness.

We are a network of scientists, clinicians, educators, trainees, and staff who share the intent to make a difference through our efforts in science, clinical care, education, community, and leadership. We form research collaborations across the Stanford campus, we participate in and lead professional organizations, we teach at every level in the university, and we lecture internationally. As educators, we endeavor to bring forward the best in our gifted students through mentorship and rich collaborative learning experiences. We provide care in all parts of Stanford Medicine, with its continuum of care, outreach activities, and civic responsibilities. We join public health efforts in Palo Alto and across the globe. We work together, shoulder to shoulder, making intentional connections across the five interdependent missions of the department, as the prime strategy for transformative change.

Our department is creating the path to a better future.

Our department is home to leaders, innovators, and learners creating the path to a better future. The attributes that distinguish the department are many, and I have highlighted just a few. Being inspired, creative, and collaborative. Being drawn to the hardest problems, intellectually and personally. Making connections. Valuing all people. Always seeking to make a difference in the present, and yet always understanding our role in academic medicine as stewards of tomorrow. Seeking to bring about transformative change.

Everyone of us, no matter our circumstance, is touched by the personal and societal impact of mental illness. The leaders, innovators, and learners of our department understand this. We envision a better world – a world of improved health and lessened burdens of mental illness. We imagine a future in which children, adults, and elders live each day well and encounter life’s inevitable challenges with strength. And we are creating the path to this better future.

Laura Roberts, M.D., M.A.
Chairman
The Katharine Dexter McCormick and Stanley McCormick Memorial Professor
Department of Psychiatry and Behavioral Sciences
Stanford University School of Medicine

Our department has a great tradition of fundamental science, translational and clinical research, subspecialty expertise, multidisciplinary education, and influential leadership. Our faculty members are highly accomplished scientists, master clinicians, teachers, and community-engaged leaders with transformative impact across many disciplines of science, medicine, and health policy. Our work spans and integrates five interdependent academic missions of advancing science, clinical innovation and service, educational excellence, community commitment and engagement, and professionalism and leadership.

Advancing truly transformative science of significance to human health, now and in the future, is clearly Stanford Medicine’s most important role throughout the world. The capacity of our department – one of the largest at Stanford University – to conduct great science and to connect this creative and influential work with our other academic missions is what distinguishes us and continues to inspire us.

The overarching aim of creating a better future is predicated on our shared pursuit of discovery across the basic, translational, clinical, and population sciences. This aim is also predicated on our collaborative efforts to translate and back-translate new knowledge in our training of scientists and expert clinicians, in supporting the careers of outstanding faculty and learners, and in addressing the needs of communities, local and global. Moreover, if we are to ensure that clinical care today at Stanford – and ten years from now throughout the world – leads to far better health outcomes, scientific discovery must be expressed in new approaches to prevention, new therapeutics, and new models of care.
### Department Snapshot

| #8 | ranked psychiatry department in the US for NIH funding in 2015 |
| 100% | increase in clinical activity since 2010 |
| 6,000+ | total learners FY15 |
| 66,668 | visits in departmental clinics projected for FY16 |
| Top 10 | ranked psychiatry residency training program by US News/Doximity |
| 159 | current competitively funded projects and agreements |
| 4 and 10 | members of the National Academy of Sciences and the Institute of Medicine |
| 400+ | publications by department faculty annually |
| 81% | of US graduating MDs entering psychiatry applied to our residency in FY16 |
| 11 | endowed professorships in the department |
| 100% | on-time performance for academic affairs |
| 14 | faculty with K-awards |
| 82k | square feet of department space |
| 26% | of tenure line faculty are women, up from 8% in FY2010 |
| 2700+ | patients seen in the child clinic in CY15 |
Professionalism and Leadership

Academic medical centers have a special opportunity to promote, model, and encourage professionalism and leadership in all aspects of our work with students, patients, peers, and superiors. Professionalism in our Department means not only acquiring specialized knowledge of psychiatric care and treatment, though this is absolutely critical, but also promoting competency, integrity, self-regulation, and accountability in all clinical, academic, and administrative endeavors. Professionalism aligns with our mission of building leadership competency.

Leaders should embody professionalism, but leadership encompasses more than professionalism alone. Leadership requires the ability to articulate a vision, while supporting and empowering others to engage in and critically reflect on that vision and the actions taken to accomplish it. In our Department, the attitudes, knowledge, and skills necessary for leadership are developed in collaboration with other important missions related to patient care, training, research, and community engagement.

- 519 department faculty
- 381 department staff
- 5 interdependent academic missions

25% of department faculty are minority
60% of department faculty are women
26% of tenure line faculty are women (up from 8% in FY10)
Department Leadership

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Chairman and
Division Co-Chief, Public Mental Health and Population Sciences

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Associate Chair - Psychology and Psychology Training and Division Co-Chief, General Psychiatry and Psychology

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Associate Chair - Clinician Educator Professional Development

Brian Donnellan
Associate Chair - Finance and Operations

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Associate Chair - Community Commitment and Engagement

Cheryl Gore-Felton, PhD
Associate Chair - Administration

Antonio Hardan, MD
Division Chief, Child and Adolescent Psychiatry and Child Development

Chris Hayward, MD, MPH
Associate Chair - Translation and Integration and Division Co-Chief, General Psychiatry and Psychology

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Associate Chair - Professionalism and Leadership

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Associate Chair - Education

Robert Malenka, MD, PhD
Associate Chair - Scientific Discovery

Emmauel Mignot, MD, PhD
Division Chief, Sleep Medicine

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Associate Chair - Scientific and Academic Development

Maurice Ohayon, MD, DSc, PhD
Division Co-Chief, Public Mental Health and Population Sciences

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Leanne Williams, PhD
Associate Chair - Research Strategy and Oversight

Jerome Yesavage, MD
Associate Chair - Veterans Affairs

Victor Carrion, MD
Vice Chair

Allan Reiss, MD
Vice Chair and Division Chief, Interdisciplinary Brain Sciences
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Jonathan Russ, MD (Emeritus)
Adjunct Clinical Associate Professor

Kenneth Seeman, MD (Emeritus)
Adjunct Clinical Associate Professor

Alan Siddle, MD, PhD (Emeritus)
Adjunct Clinical Associate Professor

Judith Simon, PhD
Adjunct Clinical Instructor

Carol Sotnick, MSW, PhD
Adjunct Clinical Assistant Professor

PROFESSIONALISM AND LEADERSHIP
Department Faculty
Michael Smith, PhD  
Adjunct Clinical Assistant Professor

John Smolowe, MD (Emeritus)  
Adjunct Clinical Associate Professor

Suzan Song, MD, PhD, MPH  
Adjunct Clinical Instructor

Dena Sorbo, MSW  
Adjunct Clinical Instructor

Mary Jo Spencer, LCSW (Emeritus)  
Adjunct Clinical Assistant Professor

Janet Spragins, MD  
Adjunct Clinical Assistant Professor

Nicholas St. John, PhD  
Adjunct Clinical Instructor

Sheldon Starr, PhD (Emeritus)  
Adjunct Clinical Associate Professor

Maria-Christina Stewart, PhD  
Adjunct Clinical Instructor

Cary Lee Stone, LCSW (Emeritus)  
Adjunct Clinical Associate Professor

Sooyeon (Aly) Suh, PhD  
Adjunct Clinical Instructor

Thomas Tarshis, MD  
Adjunct Clinical Assistant Professor

Jody Thomas, PhD  
Adjunct Clinical Assistant Professor

Jacob Towery, MD  
Adjunct Clinical Instructor

Dona Tversky, MD  
Adjunct Clinical Instructor

William Van Stone, MD (Emeritus)  
Adjunct Clinical Associate Professor

Leon Wanerman, MD  
Adjunct Clinical Associate Professor

Saul Wasserman, MD (Emeritus)  
Adjunct Clinical Associate Professor

William Waterfield Jr., MD (Emeritus)  
Adjunct Clinical Associate Professor

Randall Weingarten, MD  
Adjunct Clinical Professor

Joelien Werme, MD (Emeritus)  
Adjunct Clinical Associate Professor

Barbara White-Huber, PhD (Emeritus)  
Adjunct Clinical Assistant Professor

Dana Wideman, PhD  
Adjunct Clinical Assistant Professor

George Wilkinson, MD  
Adjunct Clinical Associate Professor

Kenneth Woodrow, MD  
Adjunct Clinical Associate Professor

Frances Wren, MD  
Adjunct Clinical Associate Professor

Gary Wynbrandt, MD  
Adjunct Clinical Assistant Professor

Helen Yeni-Komshian, MD  
Adjunct Clinical Instructor

Robert Yoerg, MD (Emeritus)  
Adjunct Clinical Associate Professor

Lenora Yuen, PhD  
Adjunct Clinical Assistant Professor

Kin Yuen, MD  
Adjunct Clinical Instructor

Adrianna Zimring, PhD  
Adjunct Clinical Instructor

Eugene Zukowski, PhD (Emeritus)  
Adjunct Clinical Associate Professor

Consulting Faculty

Thomas Anders, MD  
Consulting Professor

Jed Black, MD  
Consulting Associate Professor

Bruce Bongar, PhD  
Consulting Professor

Mark Buchfuhrer, MD  
Consulting Assistant Professor

Dean Carson, MD  
Consulting Assistant Professor

Sophia Colamarino, PhD  
Consulting Professor

Sanjay Dube, MBBS  
Consulting Associate Professor

John Finney, PhD  
Consulting Professor

Wendy Freethich-Santino, MD  
Consulting Assistant Professor

Steve Harris, MD  
Consulting Associate Professor

William Hewlett, MD, PhD  
Consulting Associate Professor

Paul Insel, PhD  
Consulting Associate Professor

Jessica Megan Jones, PhD  
Consulting Assistant Professor

Ahmed Khan, MD  
Consulting Assistant Professor

Leena Khanzode, MD  
Consulting Assistant Professor

Brian Kies, MD  
Consulting Associate Professor

Kordy Nikolich, PhD  
Consulting Professor

Bradley Novak, MD  
Consulting Assistant Professor

Mary Jane Otte, PhD  
Consulting Assistant Professor

Brandon Peters, MD  
Consulting Assistant Professor

Kilian Pohl, PhD  
Consulting Associate Professor

Joy Pollard, PhD, BCBA-D  
Consulting Assistant Professor

James Reich, MD, MPH  
Consulting Professor

Andrea Samson, PhD  
Consulting Assistant Professor

Michael Bret Schneider, MD  
Consulting Associate Professor

Allison Siebern, PhD  
Consulting Assistant Professor

Christine Timko, PhD  
Consulting Professor

Lynn Waide, PhD  
Consulting Professor

Faculty Lecturers

Kathryn Dewitt, PhD  
Senior Lecturer

David Schrom, JD  
Lecturer
Recognition of Service

Professoriate Retirements since September 1, 2010

William Dement, MD, PhD, DSc
Carl Feinstein, MD
Terence Ketter, MD
Roy King, MD, PhD
Cheryl Koopman, PhD
Greer Murphy, MD, PhD
Seiji Nishino, MD, PhD
Barbara Sommer, MD
Craig Barr Taylor, MD

Faculty Honors

National Academy of Sciences

Karl Deisseroth, MD, PhD
Stanford University
Primary: Systems Neuroscience
Secondary: Cellular and Molecular Neuroscience

Robert Malenka, MD, PhD
Stanford University
Primary: Cellular and Molecular Neuroscience
Secondary: Systems Neuroscience

Emmanuel Mignot, MD, PhD
Stanford University
Primary: Medical Physiology and Metabolism

Thomas Sudhof, MD
Stanford University
Primary: Cellular and Molecular Neuroscience
Secondary: Biochemistry

Institute of Medicine

Michele Barry, MD, FACP
Stanford University School of Medicine
Elected 2002
California

Karl Deisseroth, MD, PhD
Stanford University
Elected 2010
California

William Dement, MD, PhD, DSc
Stanford University
Elected 1963
California

Helena Chmura Kraemer, PhD
Stanford University
Elected 2003
California

Robert Malenka, MD, PhD
Stanford University School of Medicine
Elected 2004
California

Alan Reiss, MD
Stanford University School of Medicine
Elected 2009
California

Allan Schatzberg, MD
Stanford University School of Medicine
Elected 2003
California

David Spiegel, MD
Stanford University School of Medicine
Elected 2012
California

Thomas Sudhof, MD
Stanford University School of Medicine
Elected 2007
California

Listed Alphabetically: Barry, Deisseroth, Dement, Kraemer, Malenka, Mignot, Reiss, Schatzberg, Spiegel, Sudhof
The Annual Chairman’s Awards were initiated in 2012 to recognize faculty in our Department for their exceptional work in one or more of the Department’s interdependent mission areas: advancing science, clinical innovation and service, educational excellence, community commitment and engagement, and leadership and professionalism. We also created the “Unsung Hero” award to recognize individuals who give tirelessly and selflessly to the members and/or missions of the Department. Candidates for the Annual Chairman’s Awards are nominated each year by the faculty and are vetted by the Advisory Committee on Annual Awards and Nominations before being selected by the chair.

**2012**
- Rachel Manber, PhD
  - Clinical Innovation and Advancing Science
- Shashank Joshi, MD
  - Community Commitment and Engagement
- Boool Jo, PhD
  - Leadership and Unsung Hero

**2013**
- Alexander Urban, PhD
  - Clinical Innovation and Advancing Science
- Victor Carrion, MD
  - Community Commitment and Engagement
- Linda Lotspaich, MD, MEd
  - Leadership and Unsung Hero

**2014**
- Amit Etkin, MD, PhD and Sheili Kesler, PhD
  - Clinical Innovation and Advancing Science
- Sallie De Golia, MD, MPH
  - Educational Excellence
- Steven Adelsheim, MD
  - Community Commitment and Engagement
- Kimberly Hill, PhD and Tina Lee, MD
  - Leadership and Unsung Hero
- Professor John Etchemendy
  - Unsung Hero

**2015**
- Anna Lembke, MD
  - Clinical Innovation
- Antonio Hardan, MD
  - Advancing Science
- Sherry Beaudreau, PhD
  - Educational Excellence
- Daryn Reicherter, MD
  - Community Commitment and Engagement
- Ruth O’Hara, PhD
  - Leadership and Professionalism
- Joachim Hallmayer, MD, Dr med
  - Unsung Hero

**2016**
- Jacob Ballon, MD, MPH and Yelizaveta Sher, MD
  - Clinical Innovation
- Leanne Williams, PhD
  - Advancing Science
- Belinda Bandstra, MD, MA
  - Educational Excellence
- Daryn Reicherter, MD
  - Community Commitment and Engagement
- Cheryl Gore-Felton, PhD and Sanno Zack, PhD
  - Leadership and Professionalism
- Jennifer Philips, PhD
  - Unsung Hero
Intentional Model of Academic Excellence

Our Department has sought to demonstrate an intentional model of excellence in modern academic department leadership and organization. We have recently restructured our Department in order to bring greater academic coherence, organizational alignment and accountability, and transparency to our governance. The new configuration brings new opportunities for greater cross collaboration within the Department and also with other programs in the School of Medicine and the University and with our hospital and community partners.

In developing strategy and reaching key decisions, the Chair works in close partnership with the Vice Chairs, Associate Chairs, Division Chiefs, and the Senior Staff Leadership Team of the Department and with key leaders across the School of Medicine and our affiliated hospitals, Stanford Health Care, Stanford Children’s Health, and Palo Alto Veterans Affairs Health Care System. Advisory Committees have been established to facilitate or assist in oversight of key departmental functions and responsibilities, such as faculty appointments and promotions, clinical executive and operations, and space use and allocation. Most recently, the Council of Major Laboratories has been created to enhance strategic development and representation of scientific perspectives in department leadership dialogue. The Senior Staff Leadership Team, established over the past three years, is robust, is aligned with the five-mission model, continues to evolve, and prioritizes best practices and the highest standards of professionalism.

The fundamental work of the Department occurs in our Major Laboratories, our Divisions, and our Special Initiatives. The Major Laboratories include the Early Life Stress and Pediatric Anxiety Program, the Personalized and Translational Neuroscience Lab (PanLab), the Program on Genetics of Brain Function, the Nancy Friend Pritzker Laboratory, the Stanford Cognitive and Systems Neuroscience Lab, the Center on Stress and Health, the SRI Alcohol Research Program, and the Neurobiology of Brain States Lab. The major laboratories engage in scientific discovery, mentorship, and training and often work densely with the clinical, education, and community programs of the Department.

The Department has five divisions that have a full academic portfolio with scientific, clinical, educational, community, and leadership commitments: the five Divisions are Child and Adolescent Psychiatry and Child Development, General Psychiatry and Psychology, Interdisciplinary Brain Sciences, Public Mental Health and Population Sciences, and Sleep Medicine. Within these Divisions reside many of our highly recognized centers and research programs, such as the Mood Disorders Clinic and the Stanford Center for Sleep Sciences and Medicine. The Special Initiatives of the Chair represent novel and diverse academic activities of special priority to the Department, such as Community Outreach Activities, Precision Mental Health, and The Stanford Center for Youth Mental Health and Wellbeing.

Intentional Model of Academic Excellence
Department Structure

Council of Advisory Committees
- Clinical Executive Committee
- Clinical Operations Committees
- Appointments and Promotions Advisory Committees
- Adjunct Clinical Faculty Advisory Committee
- Strategic Space Use and Allocation Advisory Committee
- Departmental Community Engagement Advisory Committee
- Grand Rounds/CME Committee
- Advisory Committee on Awards and Nominations
- Education Leadership and Integration Advisory Committee

Council of Leaders
- Vice Chairs
- Associate Chairs
- Senior Staff Leadership Team

Council of Major Laboratories
- Early Life Stress and Pediatric Anxiety Program
- Williams PanLab
- Program on the Genetics of Brain Function
- Nancy Friend Pritzker Laboratory
- Stanford Cognitive & Systems Neuroscience Lab
- Center on Stress and Health
- Sullivan Lab
- de Lecea Lab

Special Initiatives of the Chair
- The Belonging Project
- The Bike Beyond Project
- Clinical Neuroscience Internship Experience (CNI-X) Community Outreach Activities
- Editor in Chief, Books: American Psychiatric Association
- Editorial Office: Academic Psychiatry
- Forensic Psychiatry
- Humanities and Medicine
- Lyme Disease Working Group
- Pegasus Physician Writers at Stanford
- Precision Mental Health
- Project Catalyst for Mental Health
- Reimagining Mental Healthcare
- Small Grants Project
- Stanford Center for Youth Mental Health and Wellbeing
- WellConnect

Divisions
- Child and Adolescent Psychiatry and Child Development
- Autism
- Eating Disorders
- General
- Mood & Anxiety
- Psychosomatic
- Special Programs & Nested Laboratories
- General Psychiatry & Psychology
- Addiction
- Clinical Trials
- General
- Geriatric
- Inpatient & Acute
- Interventional
- Psychosomatic
- Psychosocial
- Special Programs & Nested Laboratories
- Interdisciplinary Brain Sciences
- Clinical Neuroscience
- Behavioral Neuroscience
- Research
- Public Mental Health & Population Sciences
- Epidemiology
- Evaluation & Measurement Tools
- Health Policy
- Student Health & Wellbeing
- Veteran & Military
- Vulnerable & Special Populations
- Special Programs & Nested Laboratories
- Sleep Medicine
- General Sleep & Insomnia
- Narcolepsy
- Parasomnias
- Sleep Dental
- Sleep Surgery
- Special Programs & Nested Laboratories
Divisions of the Department

Division of Child and Adolescent Psychiatry and Child Development

Our Clinics and Hospital-Based Services are an integral part of one of the preeminent child and adolescent mental health treatment consortiums in the country, which includes the Stanford Children’s Health and Lucile Packard Children’s Hospital, Stanford Hospital & Clinics, and Stanford University School of Medicine.

Our faculty provide comprehensive clinical services using evidence-based intervention to achieve excellence in patient care while implementing innovative approaches to optimize functioning and long-term outcome. These services are provided through several outpatient specialty clinics, inpatient programs, and community-based programs. The outpatient clinics provide psychiatric care to children and adolescents with a variety of diagnoses from 2 to 18 years of age. Clinic staff, consisting of child psychiatrists and psychologists, child psychiatry and post-doctoral psychology fellows, and general psychiatry residents, provides initial evaluations, second opinions, and ongoing treatment, in the areas of Early Life Stress and Pediatric Anxiety, Early Psychosis, Eating Disorders, Disruptive Behavior Disorders such as Attention Deficit Hyperactivity Disorder, Mood Disorders, Psychological Assessment, Autism and Developmental Disorders, and School-Based Mental Health. The Comprehensive Pediatric Care Unit is a 15-bed unit that serves children and adolescents with eating disorder related medical problems severe enough to require hospitalization. The Pediatric Psychiatry Consultation Service provides inpatient and outpatient psychiatric consultation and treatment to the general pediatric and pediatric and surgical subspecialty services at Lucile Packard Children’s Hospital and covers the emergency room at Stanford University Medical Center.

In addition to the clinical activities, faculty in the child division are involved in a wide range of research activities including stem cell investigations, cutting edge biological and neuroimaging studies, longitudinal observational programs, and innovative clinical trials. These activities are generating promising findings that are helping to advance the science of neuropsychiatric disorders.

Finally, the Child and Adolescent Psychiatry Faculty are very active academically with, on average, more than 45 manuscripts published yearly in peer-reviewed journals and more than 100 scientific lectures presented at regional, national, and international meetings.

Division of General Psychiatry and Psychology

The Division of General Psychiatry and Psychology is focused on adult mental health and carries out its work across all five of the Department’s missions, namely advancing science, clinical innovation and service, educational excellence, community commitment engagement, and leadership and professionalism. The scientific interests of our faculty cover a broad range of mental health problems and include programs in basic and translational science, treatment development and evaluation, and dissemination/implementation.

Our division is also the home of several key departmental educational programs including our Adult Psychiatry Residency, our Adult Clinical Post-Doctoral Fellowships, our T32 Fellowships in Adult Mental Health Disorders, and our graduate clinical psychology program, the PGSP-Stanford PsyD Consortium (operated jointly with Palo Alto University).

The division provides comprehensive psychiatric and psychological services across a continuum of care. Outpatient clinics include a range of specialties encompassing Mood Disorders, Bipolar Disorder, Interventional Psychiatry (including transcranial magnetic stimulation), Geropsychiatry, Women’s Wellness, Obsessive-Compulsive Disorder, Psychosis, Integrative Medicine, Medical Psychotherapy, Addiction Medicine/Dual Diagnosis, Sleep Health and Insomnia, and Neuropsychiatry.

The Evaluation and Brief Intervention team provides a Consultation Clinic for patients who require urgent assessment, as well as an Evaluation Clinic for short-term treatment. The division supports an active Consultation and Liaison service for hospitalized patients in other departments and patients seen in the Cancer Center. The Integrated Behavioral Health Service is under development to support Stanford Primary Care Medicine. The Psychosocial and Subspecialty Care Clinic provides psychotherapy including Cognitive Behavioral Therapy, Dialectical Behavior Therapy (DBT), Time-limited Psychodynamic Therapy, and Couples/Family Therapy for patients with a wide range of presenting problems. Subspecialties include Eating Disorders, Sports Medicine, Adult DBT, Couples and Family Therapy, and the Wellness Program for Stanford faculty and trainees. The Individual Psychotherapy Clinic provides the opportunity for patients to receive long-term psychodynamic psychotherapy.

As part of a world-renowned university hospital, Stanford’s psychiatry service is prepared to treat individuals with complex and challenging illnesses. The Inpatient Psychiatry Service at Stanford is recognized for its commitment to coordinating all patient care through a multidisciplinary team including psychiatrists, psychologists, nurses, occupational and physical therapists, social workers and case managers. The 29-bed Inpatient Psychiatry Service features both open and secured unit programs. Our treatment program is structured to maintain the safety, dignity, and confidentiality of every patient on the unit.
Division of Interdisciplinary Brain Sciences

The Division of Interdisciplinary Brain Sciences (DIBS) provides specialized clinical services that combine evidence-based practices with innovation in research. These services focus on the intersection between cognitive development and behavior, as commonly seen in individuals with neurodevelopmental disorders, such as Attention Deficit Hyperactivity Disorder and Learning Disorders, but also include syndromic conditions such as Fragile X Syndrome, Turner Syndrome, Klinefelter Syndrome, Williams Syndrome, 22q Deletion (VCFS) Syndrome, Prader-Willi Syndrome, and behavioral and neuropsychiatric symptoms associated with Intellectual Disability. Developmental disorders associated with medical risk factors, such as fetal alcohol exposure, preterm birth, diabetes, and disorders of sex development are treated as well. Treatments encompass a broad range of modalities, including behavioral therapy, family therapy and parent training, cognitive-behavioral therapy, and psychopharmacology.

In recent years, the Division has established the Stanford Executive Function Clinic, which provides consultation services and comprehensive evaluation for individuals with executive function deficits and symptoms associated with Attention Deficit Hyperactivity Disorder. The clinic also offers guidance on pharmacological intervention and provides Organizational Skills Therapy, an individual therapy focused on enhancement of executive functioning skills for school-aged children whose symptoms affect adaptive functioning.

The Division of Interdisciplinary Brain Sciences also provides clinical services for individuals with syndrome-based neurodevelopmental disorders, particularly those that have a significant impact on cognitive functioning or result in disruptive behaviors, including Fragile X syndrome, intellectual disability and sex chromosome aneuploidies. Complementing an extensive research program in these conditions, clinical services in the Division adopt a developmental approach that accounts for dynamic differences across life stages in order to provide comprehensive evaluation and treatment services for these patient populations.

Division of Public Mental Health and Population Sciences

The Division of Public Mental Health and Population Sciences focuses on understanding and enhancing the wellbeing of populations throughout the world and of distinct and special populations by bridging the fields of psychiatry, epidemiology, psychology, ethics, and public policy. The Division is a newly evolving academic program engaged in the Department’s five missions of advancing science, clinical innovation and service, educational excellence, community commitment and engagement, and professionalism and leadership. It was created three years ago to respond to the need for documentation and promotion of public mental health by public health authorities and professionals, with the goal of enhancing understanding about mental wellbeing and psychiatric disorders around the world.

This Division strives to reach the following objectives in parallel with the departmental missions: developing science in the field of public mental health; developing innovative screening and intervention tools to address gaps in clinical care and treatment, particularly for vulnerable populations; organizing educational opportunities for learners of all levels at the university and globally; serving the community through program development and outreach to address the unique needs of vulnerable populations; and establishing leadership in the field of public mental health. We meet these objectives through the creation and development of several sections, including Public Mental Health and Epidemiology, Public Mental Health and Addiction Policy, Student Well Being and Young Adult Public Health, Veteran and Military Populations, and Ethics and Vulnerable/At Risk Populations.

The faculty in the Division of Public Mental Health and Population Sciences have an extremely broad spectrum of expertise. The division harnesses the academic resources of Stanford University, encompassing the renowned areas of scholarship in medicine, business, law, education, biomedical data and computer science, social sciences, policy, ethics and design. Research endeavors across our division broadly focus on improving public mental health, reducing health disparities, removing barriers to care and reducing stigma, reaching vulnerable populations, and advancing precision health in psychiatry. For example, the Veteran and Military Populations section has focused on the dissemination of novel treatments for depression and post-traumatic stress disorder, efforts that mirror the major challenge of widespread affective and stress disorders in this vulnerable population.

The Division encourages the development of professionals as well as trainees, students, and psychiatry residents. The faculty engage in the development of new science in the area of population psychiatry, as well as dissemination of that knowledge and application to communities locally and globally.
Seventy million people suffer from chronic, severe sleep disorders in the United States. That means nearly one of every four Americans has a sleep problem. No other chronic disease affects more people than obstructive sleep apnea, a potentially fatal condition that causes some individuals to stop breathing several hundred times every night.

As the birthplace of sleep medicine, Stanford has been instrumental in developing the field.

Under the division leadership of Dr. Emmanuel Mignot and the medical direction of Dr. Cléte Kushida, the Stanford Sleep Medicine Center encompasses the diverse specialties required to effectively treat patients with sleep issues. The Center has more than 100 physicians, psychologists, researchers, staff, and trainees who are devoted to the study and treatment of sleep and sleep disorders. Our clinical faculty comprises psychologists, psychiatrists, neurologists, pulmonologists, and pediatricians, and our clinic attracts patients worldwide for its specialized consultations in Sleep Surgery, Insomnia, Narcolepsy, Restless Legs Syndrome, Parasomnias, and Dental Sleep Medicine. In 2009, the Stanford Sleep Medicine Center moved to a state-of-the-art facility in the Stanford Medicine Outpatient Center in Redwood City. The facility has 18 bedrooms, 14 designated for clinic patients and 4 for research studies; we also perform home-based sleep studies. We conduct approximately 10,000 clinic visits and 3,000 in-laboratory sleep studies per year.
The pathophysiology of virtually all mental illnesses ranging from autism to depression to schizophrenia remains enigmatic in part because of the complexity of the underlying genetic and environmental causes. In this regard, and more importantly in light of our poor knowledge of how the brain normally functions to generate thoughts, feelings, and behavior, despite these obstacles, because of major methodological advances in how scientists can study and manipulate the brain, it is clear that by combining the best basic neuroscience with thoughtful clinical research, we will make major progress in understanding the pathophysiology of mental illness and this in turn will lead to novel, more efficacious treatments.

Robert Malenka, MD, PhD, serves as the Associate Chair - Scientific Discovery. He works with scientists across the Department and the University and he also serves as the Deputy Director of the Stanford Neurosciences Institute. In these roles, he advances fundamental neuroscience from the platform of the Nancy Friend Pritzker Laboratory and the Department more broadly. His scientific leadership is based on the premise that the most important progress will derive from elucidating the neural circuits that mediate adaptive, useful behaviors and how dysfunctions in these circuits generate the major symptoms of mental illness. Neural circuits are composed of complex populations of individual neurons that are connected by synapses with specific properties. Large scale human genetic studies have demonstrated that many of the genes associated with mental illness encode for proteins that influence synapse function and neuronal connectivity. Because the molecular basis of circuit function has been robustly conserved over evolution from animals to humans as has the connectivity of many critical behavioral circuits, basic science researchers can study how the abnormal genes that contribute to mental illness malfunction in specific synapses and specific circuits in model animal species to cause pathological behaviors. Basic neuroscientists can also use sophisticated molecular genetic approaches and complex imaging methods to define in unprecedented detail new brain circuits that may be involved in causing mental illness symptoms. The information garnered from this type of basic neuroscience research provides a critical guide for human researchers so that they know where and when to look for human brain malfunctions that cause mental illness. Indeed it is now possible for basic and clinical/human neuroscience researchers to work together so that in an iterative fashion, the information collected by basic science researchers will influence and guide clinical researchers while the findings from human research will help basic scientists focus on the questions and topics that have the most direct relevance to understanding and curing mental illnesses. By advancing the best basic and clinical neuroscience, we will revolutionize the practice of psychiatry and eventually help alleviate the suffering of the millions of individuals who suffer from brain disorders.

A new initiative of the Department of Psychiatry and Behavioral Sciences is the Major Laboratories and Clinical Translational Neurosciences Incubator. Dr. Leanne Williams is the inaugural Chair of the steering committee for this new initiative. The Clinical Translational Neurosciences incubator pursues the Department’s mission to develop outstanding leaders in discovery science and in the translation of scientific insights for clinical excellence. In order to serve its leadership functions, the incubator engages faculty experts with extensive track records in mentorship and in directing clinical and translational neuroscience programs. The Incubator, with its faculty experts, serves as a source of guidance for early career investigators and scholars. Together, expert members of the Incubator also develop scientific themes that continue to distinguish our Department as a national and international leader. These themes integrate paradigm shifts in precision mental health and translational psychiatry. They focus on special and vulnerable populations and harness the interdisciplinary strengths of our campus and our labs.

Treatment of Mood Disorders
Bruce Arnow, PhD
Professor

Dr. Arnow’s research interests include 1) treatment outcome in depression; 2) predictors and moderators of outcome in the treatment of depression; 3) epidemiology of chronic pain and depression; and 4) relationships among child maltreatment and adult outcomes including health and psychiatric illness, use of health care services, and response to both psychological and pharmacologic treatment. His current research is focused on how the abnormal genes that contribute to mental illness malfunction in specific synapses and specific circuits in model animal species to cause pathological behaviors. Basic neuroscientists can also use sophisticated molecular genetic approaches and complex imaging methods to define in unprecedented detail new brain circuits that may be involved in causing mental illness symptoms. The information garnered from this type of basic neuroscience research provides a critical guide for human researchers so that they know where and when to look for human brain malfunctions that cause mental illness. Indeed it is now possible for basic and clinical/human neuroscience researchers to work together so that in an iterative fashion, the information collected by basic science researchers will influence and guide clinical researchers while the findings from human research will help basic scientists focus on the questions and topics that have the most direct relevance to understanding and curing mental illnesses. By advancing the best basic and clinical neuroscience, we will revolutionize the practice of psychiatry and eventually help alleviate the suffering of the millions of individuals who suffer from brain disorders.

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Recent Years Working:


The Suicide Prevention Research Laboratory is focused on the elucidation of evidence-based risk factors and warning signs for suicide and the identification of novel therapeutic targets for suicide prevention across the lifespan. Our program utilizes cognitive, biologic (e.g., fMRI), and behavioral testing paradigms, with an emphasis on translational therapeutics. Delineating non-stigmatizing risk factors that may enhance risk detection, access to care, and intervention opportunity is central to our ongoing work. This includes several suicide prevention clinical trials which are underway, funded by NIH and DOD, testing the preliminary efficacy of a non-pharmacologic insomnia treatment on depression and suicidal behaviors among civilians and military veterans. A special focus of our work includes investigation of transdiagnostic risk factors and biomarkers that promise to inform the pathogenesis of risk and treatment innovation. This has led to research bridging the field of sleep medicine with suicidology, and the investigation of underlying behavioral and neurobiological treatment targets that fit the interaction of sleep and emotion. An additional subspecialty and interest of our program includes standardized suicide risk assessment frameworks, best practice management, and gold standards in the use of evidence-based clinical practice parameters, emergency referrals, and lethal means restriction, and the way in which these guide public health policy, dissemination, and national strategies for suicide prevention.
Dr. Bohon’s research is focused on the brain basis of disordered eating, with a specific focus on binge eating, obesity, and food restriction. She is particularly interested in the impacts of emotion and reward on eating, as well as underlying neurocognitive processes that lead to symptom expression in eating disorders. Her current research projects include a study investigating implicit emotion regulation and response to reward in women engaging in binge eating using both functional magnetic resonance imaging (fMRI) and positron emission tomography (PET), and a study comparing neurocognitive and reward function in adolescent females with anorexia nervosa to those with the incentive delay task to assess reward processing, in order to provide clearer interpretations of findings and allow for improved comparison across psychiatric diagnoses. Dr. Bohon is also interested in the development of obesity and recently completed a pilot fMRI study on the neural response to states in young children who are overweight and thus potentially at-risk for developing childhood obesity.

Early Life Stress and Pediatric Anxiety Program (ELSPAP) 
Victor Carrion, MD 
Professor

Dr. Victor Carrion’s research focuses on 1) improving understanding of the biological, psychological, and behavioral correlates of early life stress and trauma, and 2) developing and evaluating interventions that promote well-being and resilience for those facing adversity. Under Dr. Carrion’s leadership, Stanford’s Early Life Stress and Pediatric Anxiety Program (ELSPAP) utilizes comprehensive, multi-method developmental neuroscience research designs to evaluate interventions and to inform policy. ELSPAP researchers and collaborators supplement evidence-based assessment of psychosocial functioning with advanced, cutting-edge measurement of neurocognitive markers including magnetic resonance imaging (MRI and fMRI), functional near infrared spectroscopy (fNIRS), ambulatory polysomnography, and endocrine assays. These neurocognitive tools evaluate outcomes related to stress and trauma exposure in childhood, as well as responses to individual- and systems-level interventions. Current research projects aim to develop and evaluate interventions including Cue-Centered Treatment, a manualized therapy protocol for youth exposed to chronic adversity and trauma; school-wide yoga and mindfulness-based health education; and mental health consultation and wellness programming in community settings, virtual reality for the treatment of anxiety disorders, and therapy services delivered in outpatient care at a large children’s hospital. Through this empirically-supported, neurocognitive-based evaluation of these interventions, Dr. Carrion and his team seek to disseminate results regarding promising, efficacious practices in order to inform and impact individual, state, and national policies that address the needs of children and families exposed to trauma and adversity.

Neural Bases of Eating Disorders and Obesity 
Cara Bohon, PhD 
Assistant Professor

Pediatric Bipolar Disorders Program 
Kiki Chang, MD 
Professor

As Director of the Pediatric Bipolar Disorders Program, Dr. Chang conducts research into various facets of bipolar disorder. He is currently conducting phenomenologic, biologic, pharmacologic, and genetic studies of bipolar disorder in adults and children. These studies include brain imaging (MRI, fMRI, MFM) and medication and therapy trials. He is particularly interested in identifying prodromal bipolar disorder in children who might then be treated in order to prevent the development of full bipolar disorder. To do this, he has been studying children of patients with bipolar disorder who are at high risk for developing the disorder themselves.

As Director of Pediatric Acute-onset Neuropsychiatric Syndrome (PANS) Psychiatry Research, Dr. Chang is investigating underlying causes for the acute neuropsychiatric symptoms in these children. In conjunction with the PANS Clinic at Lucile Packard Children’s Hospital, he is collecting phenomenologic, immunologic, and brain imaging data, in the first step ever to investigate this illness in this way.

Neurobiology of Brain States 
Luis de Lecea, PhD 
Professor

Imbalances in arousal are at the core of most neuropsychiatric disorders. A goal in our laboratory is to define the arousal construct from the neurobiological perspective. In particular, we are designing the neuronal circuits underlying arousal state transitions. Stemming from our discovery of the hypocretins (also known as orexins), two neurotransmitters essential for arousal stability, we have uncovered multiple neuronal pathways that integrate multiple metabolic, circadian, and limbic variables into a coherent output that responds appropriately to salient stimuli. Several compounds originating from our discoveries have been approved by the FDA to treat insomnia and increased vigilance. We are also studying neuronal circuits associated with hyperarousal such as anxiety, alcohol, and drug abuse.

ADVANCING SCIENCE 
Professoriate Faculty
Dr. DeBattista's current research interests focus on treatment resistant depression, developing novel biological interventions in the treatment of mental illness, studying anti-gluocorticoid drugs in the treatment of mood disorders, and augmentation strategies in the treatment of depression.

He serves as an Investigator on several studies. The International Study to Predict Optimized Treatment - in Depression is aimed to identify genetic, physical and psychological markers (or combinations of them) that predict specific responses to a range of antidepressants treatment in patients diagnosed with major depressive disorder. Investigate Efficacy & Safety of RD409681 vs. Placebo as Adjunct Tx in Patients with Major Depressive Disorder explores the efficacy of a 6-week treatment with an investigational medication, RD4096819, versus placebo as an adjunctive therapy in patients with major depression. Functional MRI Before and After Treatment for Depression aims to understand how depression changes brain activity and how this relates to mood, anxiety, and cognitive functions like memory, and to develop a brain-imaging test that will predict either before or within two weeks of starting a medicine whether the treatment will work. Radiougal Neuronomodulation for Refractory Depression aims to evaluate the safety and effectiveness of an investigational procedure for treating people with resistant bipolar depression. Ropinirole Controlled Release (CR) as an Adjunctive Agent in the Treatment of Major Depression studies patients who are currently taking antidepressant medication but not fully responding. Treatment Trial for Psychogenic Nonepileptic Seizures aims to investigate report rates of nonepileptic seizures in patients who receive targeted pharmacotherapy (sertraline) or focused psychotherapy (cognitive behavioral therapy-informed psychotherapy or combined treatment (CBT-FP+sertraline)) compared to patients who receive community care or treatment as usual.

Recent Works:

- A noninvasive in vivo method to evaluate the effects of pharmacotherapy (sertraline) or focused psychotherapy (cognitive behavioral therapy-informed psychotherapy or combined treatment (CBT-FP+sertraline)) compared to patients who receive community care or treatment as usual.
- Identification of genetic, physical, and psychological markers (or combinations of them) that predict specific responses to a range of antidepressants treatment in patients diagnosed with major depressive disorder. Investigate Efficacy & Safety of RD409681 vs. Placebo as Adjunct Tx in Patients with Major Depressive Disorder explores the efficacy of a 6-week treatment with an investigational medication, RD4096819, versus placebo as an adjunctive therapy in patients with major depression. Functional MRI Before and After Treatment for Depression aims to understand how depression changes brain activity and how this relates to mood, anxiety, and cognitive functions like memory, and to develop a brain-imaging test that will predict either before or within two weeks of starting a medicine whether the treatment will work. Radiougal Neuronomodulation for Refractory Depression aims to evaluate the safety and effectiveness of an investigational procedure for treating people with resistant bipolar depression. Ropinirole Controlled Release (CR) as an Adjunctive Agent in the Treatment of Major Depression studies patients who are currently taking antidepressant medication but not fully responding. Treatment Trial for Psychogenic Nonepileptic Seizures aims to investigate report rates of nonepileptic seizures in patients who receive targeted pharmacotherapy (sertraline) or focused psychotherapy (cognitive behavioral therapy-informed psychotherapy or combined treatment (CBT-FP+sertraline)) compared to patients who receive community care or treatment as usual.

Recent Works:


Impairment and distress patterns distinguishing the melancholic depression subtype: An fGAP-Trap report. J. Affect. Disord. 212; 2016.

- Deisseroth Lab

Karl Deisseroth is the D.H. Chen Professor of Bioengineering and of Psychiatry and Behavioral Sciences at Stanford University. He received his undergraduate degree from Harvard, his Ph.D. from Stanford, and his M.D. from Stanford. He has also completed postdoctoral training, medical internship, and adult psychiatry residency at Stanford, and he is board-certified by the American Board of Psychiatry and Neurology. He continues as a practicing psychiatrist at Stanford with specialization in affective disorders and autism-spectrum disease, employing medications along with neural stimulation. In the engineering school he developed and launched the undergraduate degree in Bioengineering at Stanford, and continues to serve as Director of Undergraduate Education in Bioengineering, while also teaching yearly medical physiology and optics courses. National-scale services has included the NIH BRAIN Initiative Working Group and nonprofit disease foundations including the Brain and Behavior Research Foundation (NARSAD) and the Michael J. Fox Foundation for Parkinson’s Research.

His laboratory created and developed both optogenetics (a technology for precisely controlling millisecond-scale activity patterns in specific cell types using microbial opsins and fiberoptic-based neural interfaces) and CLARITY (a technology for creating composites of biological molecules in tissue covalently linked to polymer hydrogels, allowing removal of unlinked tissue elements to create transparency and accessibility to macromolecular labels; the resulting new structure allows high-resolution optical access to structural and molecular detail within intact tissues without disassembly). He also has employed his technologies to discover the neural cell types and connections that cause adaptive and maladaptive behaviors, and has disseminated this technology to thousands of laboratories around the world.

Recent Works:


- Etkin Lab

The overarching aim of the Etkin lab is to understand the neural basis of emotional disorders and their treatment, and to leverage this knowledge to develop novel treatment interventions. The lab's work is organized around the neuroscientific study of emotion and its regulation in healthy subjects and in individuals with psychiatric disorders. Ongoing work includes basic neuroscience of emotional and cognitive neurocircuitry, cross-sectional neuroimaging of a range of psychiatric disorders (anxiety, depression and post-traumatic stress disorder), investigation of the neural mechanisms of psychotherapeutic, pharmacological, and brain stimulation treatments for these disorders, and trials of neuroscience-based brain training interventions developed in the lab. Additional work using concurrent transcranial magnetic stimulation (TMS) with fMRI is used to understand how activity in one brain region causally translates into activation in interconnected regions and networks, and how communication within defined neural circuits can be more specifically manipulated by repetitive TMS protocols, both in healthy subjects and in patients.

- Depression Research Clinic

Charles DeBattista, MD, DMH
Professor

- Deisseroth Lab

Karl Deisseroth, MD, PhD
Professor

- Stress - Protective Versus Harmful Effects

Firdaus Dhabhar, PhD
Associate Professor

- Etkin Lab

Ami Etkin, MD, PhD
Assistant Professor
depression and stress in Latino dementia family caregivers. Alzheimer’s Disease and
Gallagher-Thompson, D., Tzuang, M., Hinton, L., Alvarez, P., Rengifo, J.R., Valverde, I.,
Turner, R.M., Tran, C., Hinton, L., Gallagher-Thompson, D., Tzuang, M., Tran, C.H., & Valle,
FMRI activation during executive function predicts response to cognitive behavioral therapy in
mild cognitive impairment and Parkinson’s disease with and without
recruitment and retention of Latino families, as well as individuals with
vary widely from one group to another. In addition to this work, we
take, and the acceptable coping strategies that can be employed,
neurocognitive impairment and Parkinson’s disease with and without
cognitive impairment.

The Stanford Geriatric Education Center focuses primarily on the processes
and outcomes of providing day-to-day unpaid assistance (emotional,
practical, financial, and social) to a family member or close friend
with Alzheimer’s disease or another form of dementia. For the past
20 years, we have developed and tested new models of improving
quality of life for dementia caregivers. Several of these programs are
now considered “evidence-based” and are used by researchers and
clinicians both elsewhere in the US and internationally. In this
past decade, we have focused more specifically on unique issues
facing families from diverse ethnic, cultural, and linguistic groups,
such as Latinos, Chinese, Vietnamese, Porsian, and Asian Indian.

In this work we’ve found that many of the same issues surface – stress
management, dealing with difficult behaviors, communicating more
effectively with family and health care providers – but the form they
take, and the acceptable coping strategies that can be employed,
will vary widely from one group to another. In addition to this work, we
are actively engaged with the Stanford Alzheimer’s Disease Research
Center (ADRC). Dr. Gallagher-Thompson is director of the outreach,
recruitment, and education “core” of that center which focuses on
recruitment and retention of Latino families, as well as individuals with
mild cognitive impairment and Parkinson’s disease with and without
cognitive impairment.

The Stanford Psychology and Biobehavioral Sciences Lab is dedicated to understanding the psychological, behavioral, social, and
physiological challenges as well as sources of resilience associated with
chronic illnesses. Scientists in the lab conduct research that
focuses on model development to understand factors that decrease
mortality and morbidity associated with chronic diseases, as well as
test novel interventions to reduce psychiatric symptoms and enhance
adaptive behaviors associated with diseases that are debilitating and
often life threatening.

Translational Applied Behavior Analysis Lab
Scott Hall, PhD
Associate Professor

The Translational Applied Behavior Analysis Laboratory is dedicated to understanding the behavioral and neurodevelopmental underpinnings of severe problem behaviors, such as aggression, self-injury, and social
skills deficits, commonly shown by children and adults diagnosed
with intellectual and developmental disabilities (IDD).Led by Dr. Scott
Hall, PhD, the lab utilizes state-of-the-art neuroimaging and behavioral
assessments based on the principles of applied behavior analysis.
The primary goals of the lab are to determine how environmental and
biological factors affect the development of aberrant behaviors and to
develop targeted treatments. Our research portfolio includes studies
on the use of telemedicine to allow treatments to be conducted in
areas where trained behavior analysts or other appropriate treatment
providers are not available or financially feasible. Other studies include the integration of social skills training, state-of-the-art eye
tracking, and multimodal brain imaging. Genetic conditions that cause
IDD, such as fragile X syndrome, Prader-Willi syndrome, and Cornelia
de Lange syndrome, among others, are utilized as valuable study
models for broadly understanding problem behaviors in individuals
with IDD. Our lab has received research grant funding from NIMH, NINCDS, the National Fragile X Foundation, the Foundation for Prader-
Willi Research, the Simmons Foundation, the John Mercer Fund, and the Stanford Child Health Research Institute.

The focus of the research in the Hallmayer lab is to find genetic variations that impact the development of Autism Spectrum Disorders (ASD) and other neuropsychiatric disorders. Through the work from this
lab and others we now know that a substantial proportion of genetic risk for ASDs resides in rare variants associated with high odds ratios
for risk. Further, by paralleling molecular studies, the Hallmayer lab
employed a twin study design approach that demonstrated that the
susceptibility to develop autism has moderate genetic heritability and
a substantial shared twin environmental component.

During the past several years the Hallmayer lab, in collaboration with a team of investigators (Dr. O’Hara, Pacsa, Urban, Bernstei), has become one of the first groups to study neurons derived from induced pluripotent stem cells (iPSCs) with the goal of understanding the mechanisms by which common and rare variants increase the risk for
developing ASD. Using this approach, they have identified cell and
genome variants that are associated with ASD. Using this approach, they
have also extended their work to idiopathic forms of autism by establishing
iPSC lines from 200 children with an ASD and 100 age and gender-
matched control subjects.

Recent Works:


Stanford Geriatric Education Center
Dolores Gallagher Thompson, PhD, ABPP
Professor

Psychology and Biobehavioral Sciences Laboratory
Cheryl Gore-Felton, PhD
Professor

Translational Applied Behavior Analysis Lab
Scott Hall, PhD
Associate Professor

The Translational Applied Behavior Analysis Laboratory is dedicated to understanding the behavioral and neurodevelopmental underpinnings of severe problem behaviors, such as aggression, self-injury, and social
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with IDD. Our lab has received research grant funding from NIMH, NINCDS, the National Fragile X Foundation, the Foundation for Prader-
Willi Research, the Simmons Foundation, the John Mercer Fund, and the Stanford Child Health Research Institute.
**Autism and Developmental Disorders Research Program**

Antonio Hardan, MD  
**Professor**

The Autism and Developmental Disorders Research Program (ADDRP) focuses on the examination of the neurobiology of autism spectrum disorder (ASD) and on the development of innovative treatment for individuals with developmental disorders. Investigators involved in the ADDRP include several faculty members from the division of child psychiatry including Drs. Grace Gangoux, Jennifer Phillips, Karl Berquist, Lawrence Fung, and Antonio Hardan. Over the years, this team developed collaborations with several investigators at Stanford and across the country. The tools used by ADDRP to examine the neurobiology of ASD have involved multiple modalities including state-of-the-art imaging methodologies (e.g., anatomical MRI, magnetic resonance spectroscopy, and positron emission tomography) and novel approaches to develop blood-based biomarkers. ASD is a heterogeneous group of disorders, and the main goals of these investigations are to identify subgroups that will share common pathologic pathways. Additionally, the ADDRP team has been working on the development of several innovative interventions. They include the assessment of the safety and efficacy of novel molecules, such as N-acetylcysteine, pregabalin, oxytocin, and vasopressin, in targeting the core deficits as well as associated features. Furthermore, the group has focused on the investigation of behavior- and developmentally-based interventions for very young children with ASD, with particular interest in targeting those with limited language abilities. Finally, and more recently, the ADDRP investigators have been working on the development and use of objective measures (e.g., eye tracking, structured laboratory observation) that are sensitive and valid to be used in clinical trials since existing measures are overly subjective.

Humphreys' research team has focused in recent years on three areas: 1) Health services research on interventions for people with substance use disorders, 2) The exclusion of individuals from clinical research and its clinical, ethical, and scientific implications, and 3) Public policies regarding addiction and mental illness. Area 1 has included studies of treatment quality and access measures, integration of substance use disorder care into other health care settings (e.g., liver clinics), and studies of self-help organizations (e.g., Humphreys, Blodgett & Wagner, 2014). Area 2 has been pursued by a team of VA and Stanford colleagues who completed review of the degree of exclusion in many disease areas including schizophrenia, major depression, anxiety disorders, bipolar disorder, and neurological disorders. This also included a study of the exclusion of people with psychiatric disorders from medical research that documented its prevalence and assessed its ethical implications (Humphreys, Blodgett & Roberts, 2015). Area 3 has been a mixture of scholarly reviews (e.g., Strang et al., 2012) and direct work with policy makers at the local, state, national, and international level. Humphreys has also worked extensively with members and colleagues to expand their capacity to participate in the public policy process by helping them prepare legislative testimony, write newspaper editorials, and interact with elected officials.

**Recent Works**


This past year, we have implemented and evaluated peer-led (and adult-mediated) mental health interventions for two communities traumatized by a suicide cluster (two high schools in Palo Alto and St. Ignatius College Preparatory HS in San Francisco) and two schools that have not experienced a cluster but that are eager to implement universal suicide prevention (Sacred Heart Preparatory School in Menlo Park and Saratoga High School). Research from the project has helped validate the peer-led suicide prevention program model in school districts affected by clusters. Since we started this work in 2011, we have experienced a dramatic increase in referrals made by peers to get help for their friends in distress. This year, over 4,400 students were involved in this specific intervention. Statistically significant findings across both sites indicate that peers are more able to name trusted adults they would go to when seeking help for themselves or for peers. The result has been a much earlier sense of urgency to seek help for a friend, and a number of teen lives have been saved because a peer acted on their behalf.

At the East Palo Alto Academy High School, we have run a full service school mental health clinical team, utilizing a combination of Psychiatry Faculty, Psychology Doctoral Student, Psychiatric Resident, and Child & Adolescent Psychiatry trainees. In this venue we have learned a great deal about what specific mental health factors may impact a student’s learning, such as trauma, loss, depression, anxiety, and emotional distress in general.

**Addictions and Health Policy**

Keith Humphreys, PhD  
**Professor**

**School Mental Health and Community-based Participatory Research**

Shashank Joshi, MD  
**Associate Professor**

**Center for Human Sleep Research**

Clete Kusida, MD, PhD  
**Professor**

The Center for Human Sleep Research focuses on conducting large-scale clinical trials in sleep medicine and developing the electronic network infrastructure to support these trials. They are currently conducting a PCORI-supported study: Sustainable Methods, Algorithms, and Research Tools for Delivering Optimal Care Study (SMART DOCS). This study is designed to: 1) develop a new patient-centered outcomes and coordinated-care management (PCCM) approach for sleep medicine, enabling providers and patients access to specific and relevant information and resources, thereby allowing patients to make informed health care decisions and providers to assist patients in achieving their preferred outcomes; and 2) conduct a randomized trial that will test the PCOM approach for sleep medicine against a conventional diagnostictreatment outpatient medical care approach with assessment of patient satisfaction and perception of care in 1,800 enrolled patients. The analyses are completed on NHLBI-supported Comparative Outcomes Management with Electronic Data Technology (COMET) Project, in which they have expanded and expanded the electronic infrastructure and tools we developed during our NHLBI-supported Apnea Positive Pressure Long-term Efficacy Study, to conduct a comparative effectiveness trial with cardiovascular endpoints on two treatments for obstructive sleep apnea (OSA) patients. They are also conducting industry-sponsored trials on a novel nasal start for treating OSA, a new medication for adolescent patients with restless legs syndrome, and innovative wearable devices for detecting sleep-wake patterns.

**Recent Works**


A major theme in Dr. Lazzeroni’s research is the search for better understanding of the impact on biomedical research of fundamental properties of statistics, such as power, bias, and p-values. The results from Dr. Lazzeroni’s group provide surprising new insights into the large, high-throughput studies that are common in genomics and into the problem of replication. The research demonstrates that high-throughput studies that examine very large numbers of genetic predictors can maintain very good power to reject the null hypothesis, with relatively moderate increases in sample sizes. However, such studies provide almost no resolution for comparing or ranking the relative strength of competing genetic predictors. To add to the interpretation of research findings, the group has provided new solutions for quantifying the uncertainty embedded in observed p-values. One method, in particular, provides explicit confidence intervals for the power of a replication study, based on a p-value from prior or pilot data. Very large sample sizes are needed to ensure good power for replication unless the p-value of the initial study is extremely small. Other work has demonstrated a flaw in a commonly used application of the sign test in genomics and led to a new algorithm for screening for outliers in high-dimensional data. The new algorithm removes those from smaller studies, are biased upward, contributing to the estimating heritability in twins. Many heritability estimates, especially from smaller studies, have been biased upward, contributing to the well-known “missing heritability” problem. The new algorithm removes the bias, yielding smaller, more realistic assessments of the genetic contributions underlying a trait.

Program on the Genetics Of Brain Function
Anna Lembeke, MD
Assistant Professor

The Program on the Genetics of Brain Function (GBF) includes the labs of Dr. Lazzeroni and Alex Urban. We investigate genetic sequences and mechanisms with relevance to the etiology of psychiatric disorders. The GBF lab is currently involved in the following projects:

- Large-scale meta-analysis of genome-wide association study data for psychiatric disorders (major depressive disorder, schizophrenia, anorexia nervosa, post-traumatic stress disorder, cross-syndrome analyses) carried out by the Psychiatric Genomics Consortium and other consortia (Lazzeroni, Duncan).
- Synaptic, genetic and morphological effects of genetic mutations associated with high risk of schizophrenia, as part of an NIH/NIMH Cooperative National Reprogrammed Cell Research Group (NQCRG).
- Large-scale study of association of schizophrenia with DNA sequence variation in the HLA region of chromosome 6 (Lazzeroni, Mignot, Mundlos, Fernandez-Vina).
- Detection of somatic mutations of mobile elements (retrotransposon sequence) in the brain, using whole-genome sequencing (Lazzeroni, Urban, Snyder).

Psychopathology and genetics of early-onset schizophrenia (Lazzeroni, Urban).
- Genetics of learning disabilities (Lazzeroni-Lovett).

The Eating Disorder Research Group is a translational laboratory examining genetic, neuroanatomical, neuro-functional, neuro-cognitive, behavioral, and cognitive interventions, as well as dissemination and implementation of evidence based treatments related to eating disorders across the age spectrum. Recent major completed studies document neuroanatomical differences and neurocognitive inefficiencies in this clinical group. Cognitive processing related to central coherence and set-shifting differ in youth with anorexia nervosa and may contribute to risk for the disorder and decrease treatment response. In addition, our treatment studies have made major contributions to the evidence base for effective treatments for anorexia nervosa, bulimia nervosa, and binge eating disorder. We have found that a specific form of family therapy is superior to individual therapy for adolescents with anorexia nervosa and more cost effective than other family therapies for this disorder. We also found that this same specific family therapy is superior to cognitive behavioral therapy for adolescents with bulimia nervosa. Finally, for adults with binge eating disorder, we have developed and tested a novel treatment, integrative response therapy, that shows clinical promise.
A major focus of our work follows from the discovery that mild, but not minimal or severe stress exposure promotes subsequent coping and emotion regulation as described by U-shaped functions. Temporal aspects of stress exposure also contribute to the development of vulnerability versus resilience. Chronic stress leads to vulnerability whereas intermittent stress exposure provides repeated opportunities to learn, practice, and improve coping with subsequent gains in emotion regulation and resilience. Recently, we extended the generality of our findings from monkeys to mice in order to exploit molecular genetic tools for dissecting causal mechanisms that mediate experience-dependent links between behavior and brain.

RECENT WORKS:

Dr. Maldonado’s current research and scholarly interests include Neurobiology and Management of Delirium; Neuropsychiatric Sequels of Medical Illness and its Treatment; Psychosocial Assessment & Neuropsychiatric Complications of Organ Transplantation; Functional Neurological Disorder; Application of Hypnosis in Psychiatry and Medicine; Neuropsychiatric Sequelae of Traumatic Brain Injury; Pathophysiology and Management of Alcohol Withdrawal; Factitial Disorder & Munchausen’s Syndrome; Cultural Diversity in Medical Care, Diagnosis and Treatment of Dissociative Disorders, and Forensic Psychiatry.

Neuropsychiatry
Jose Maldonado, MD, FAPM, FACFE
Professor

Dr. Maldonado’s current research and scholarly interests include Neurobiology and Management of Delirium; Neuropsychiatric Sequels of Medical Illness and its Treatment; Psychosocial Assessment & Neuropsychiatric Complications of Organ Transplantation; Functional Neurological Disorder; Application of Hypnosis in Psychiatry and Medicine; Neuropsychiatric Sequelae of Traumatic Brain Injury; Pathophysiology and Management of Alcohol Withdrawal; Factitial Disorder & Munchausen’s Syndrome; Cultural Diversity in Medical Care, Diagnosis and Treatment of Dissociative Disorders, and Forensic Psychiatry.

Recent Work:


Behavioral Neuroscience
David Lyons, PhD
Professor

Behavioral Neuroscience
David Lyons, PhD
Professor

Neuropsychiatry
Jose Maldonado, MD, FAPM, FACFE
Professor

Long-lasting activity-dependent changes in the efficacy of synaptic transmission, commonly known as synaptic plasticity, play an important role in the development of neural circuits and all forms of adaptive and pathological experience-dependent plasticity. One major goal of the Malena laboratory is to elucidate the detailed molecular mechanisms underlying the various forms of synaptic plasticity found in the mammalian brain. To accomplish this we use cellular electrophysiological recording techniques and cell biological imaging assays combined with genetic manipulations of critical synaptic proteins. These efforts include studying synaptic function and plasticity in a broad range of mutant mouse lines in which it is possible to genetically delete and replace specific synaptic proteins in a temporally and spatially controlled fashion. A related area of research is to explore synaptic function and plasticity in key nodes of brain circuitry underlying motivated behaviors with the goal of defining synaptic changes that contribute to the pathological circuit adaptations that underlie neuropsychiatric disorders including addiction, depression, autism, and Parkinson’s disease. In these research efforts we use a wide range of state-of-the-art molecular genetic techniques in rodents to define novel circuit elements that contribute to a variety of motivated behaviors and how these circuits contribute to the pathological behaviors observed in experience-induced and genetically based models of neuropsychiatric disorders. These research programs will help advance our understanding of the neuropathology of major mental illnesses and eventually lead to new and more efficacious treatments.

Recent Work:

Neuropsychiatry
Jose Maldonado, MD, FAPM, FACFE
Professor

Recent Work:

Neuropsychiatry
Jose Maldonado, MD, FAPM, FACFE
Professor

Research in the Sleep Health & Insomnia Program (PI: Rachael Marber) aims to improve sleep of individuals suffering from insomnia using non-pharmacological approaches. Our lab conducts clinical research to answer questions with immediate clinical implications for diverse populations. Much of our research is focused on testing short and long term efficacy, including outcomes beyond sleep (e.g., depressive symptom severity, hypnotic medication use), as well as predictors and mediators of treatment response. Our current research initiatives include: 1) a randomized controlled study (RCT) aiming to improve perinatal insomnia, infant sleep, and the quality of maternal-infant interactions; 2) an RCT of the effectiveness of cognitive behavioral therapy for insomnia (CBT-I) for patients with dual diagnosis of depression and insomnia; 3) an RCT of the effectiveness of CBT-I for those with dual diagnosis of sleep apnea and insomnia; and 4) exploring issues related to the delivery and dissemination of CBT-I to patients, including veterans, and to mental health providers.

Depression and Insomnia
Research Program
Rachel Marber, PhD
Professor

Recent Work:


Behavioral Neuroscience
David Lyons, PhD
Professor

Recent Work:

Neuropsychiatry
Jose Maldonado, MD, FAPM, FACFE
Professor

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Depression and Insomnia
Research Program
Rachel Marber, PhD
Professor

Recent Work:
The major focus of the Mignot laboratory is the study of sleep disorders, most notably narcolepsy. The laboratory uses three different approaches: genetics, immunology, and signal processing/ machine learning. A major project is aiming at identifying the target of sleep disorders that are responsible for the autoimmune destruction of hypocretin/orexin cells in narcolepsy, and to understand why the disorder is triggered by specific inflammation sources. We are also looking at the genetics of narcolepsy, Kleine-Levin syndrome and Periodic Leg movements during sleep using GWAS, and exome sequencing, and functionally characterizing these genetic effects. Finally, we are using analyses on large clinical datasets of online sleep questionnaire response patterns, activity monitoring, and polysomnography (PSG) recordings. This range from simple statistics to algorithmic learning of the EEG and polysomnography signals.

Because the human brain harbors trillions of synapses, the impact of psychiatric and sleep disorders on such an immense synapse landscape has been out of reach. To model the complex human brain and its diseases, our laboratory uses “simple” fish and rodent species. We investigate the mechanisms underlying common vertebrate behaviors and associated defects at the genetic, synaptic, and network, and whole brain levels with the latest techniques such as CRISPR-Cas9, GCaMPs’ light sheet microscopy and array tomography imaging. Recently, using a novel approach combining super-resolution microscopy and protein markers to profile ~30 proteins within each individual synapse, we analyzed over 1 million normal and fragile X (FXS) synapses and found that the intellectual impairment of FXS silencing is mediated by heterogenous molecular changes in the synapse populations of the FXS brain. Importantly, we found that mGluR5 antagonism (a molecular mechanism recently targeted in two clinical trials) rescued only a subset of the molecular defects experienced in the total synapse population. This observation provided a quantitative explanation to the observation of clinical trials of mGluR5 antagonists for FXS, and strongly suggests that a complete treatment for FXS must include a combination of synthetic drugs that rescue the diverse FXS synaptic deficits. This approach now validated on a cortical model of mental retardation, is mature to uncover the complex synaptic landscape of other pathological contexts or normal behavioral states such as sleep.

Recent Works


The Center for Interdisciplinary Brain Sciences Research (CIBSR) is the research arm of the Division of Interdisciplinary Brain Sciences in the Department of Psychiatry and Behavioral Sciences. Research groups in CIBSR uses advanced methods to determine how biological and environmental factors affect brain structure, connectivity and function, and how this ultimately impacts cognitive-behavioral outcome in individuals with typical and atypical development. A particularly important focus of this work is to derive new methods and explanatory computational models that can inform the development of more specific and effective interventions for persons with brain disorders. Another focus is on the neuroscience of cognition and behavior in typically developing persons including studies of humor, creativity, social interaction, executive function, resilience, driving, and territorial behavior. CIBSR serves as a model for interdisciplinary brain sciences collaboration as research in this laboratory is carried out in collaboration by faculty and staff from numerous fields including psychiatry, neurology, psychology, neuroscience, mathematics, genetics, radiology, computer science, education, engineering, and biostatistics. Individual PIs comprising CIBSR include Dr. Allan Reiss (Director), Dr. Amy Garrett, Dr. Tamar Sheen, Dr. Dr. Hall, Dr. David Hong, Dr. Haide Hossain, Dr. BooJi Jo, Dr. Manish Saggar, and Dr. Gisela Sandoval.

The Center for Neuroscience in Women’s Health Natalie Rasgon, MD, PhD Professor


In the group overall and did not differ between intervention arms. Leukocyte telomere length predicted improvement in insulin sensitivity connectivity in default mode network in IR women in comparison to pilot data on compensatory regional hypermetabolism and disrupted connectivity in default mode network in IR women in comparison to insulin sensitive women. Previously published work from the Center supports a negative association between hippocampal volume and IR in women at risk for Alzheimer’s disease, as well as produced pilot data on compensatory regional hypermetabolism and disrupted connectivity in default mode network in IR women in comparison to insulin sensitive women. Recently published work from a double-blind placebo-controlled study indicates an association between longer leukocyte telomere length and greater declines in pressure sensitivity in subjects receiving placebo, but not placebo. In addition, leukocyte telomere length predicted improvement in insulin sensitivity in the group overall and did not differ between intervention arms.

The Center for Interdisciplinary Brain Sciences Research (CIBSR) is the research arm of the Division of Interdisciplinary Brain Sciences in the Department of Psychiatry and Behavioral Sciences. Research groups in CIBSR uses advanced methods to determine how biological and environmental factors affect brain structure, connectivity and function, and how this ultimately impacts cognitive-behavioral outcome in individuals with typical and atypical development. A particularly important focus of this work is to derive new methods and explanatory computational models that can inform the development of more specific and effective interventions for persons with brain disorders. Another focus is on the neuroscience of cognition and behavior in typically developing persons including studies of humor, creativity, social interaction, executive function, resilience, driving, and territorial behavior. CIBSR serves as a model for interdisciplinary brain sciences collaboration as research in this laboratory is carried out in collaboration by faculty and staff from numerous fields including psychiatry, neurology, psychology, neuroscience, mathematics, genetics, radiology, computer science, education, engineering, and biostatistics. Individual PIs comprising CIBSR include Dr. Allan Reiss (Director), Dr. Amy Garrett, Dr. Tamar Sheen, Dr. Dr. Hall, Dr. David Hong, Dr. Haide Hossain, Dr. BooJi Jo, Dr. Manish Saggar, and Dr. Gisela Sandoval.

The laboratory was originally established as the Empirical Ethics Group at the University of New Mexico in 1997 where Dr. Roberts was appointed the inaugural Jack and Donna Rust Professor of Biomedical Ethics and founded the University of New Mexico’s Institute for Ethics. The Center for Interdisciplinary Brain Sciences Research (CIBSR) is the research arm of the Division of Interdisciplinary Brain Sciences in the Department of Psychiatry and Behavioral Sciences. Research groups in CIBSR uses advanced methods to determine how biological and environmental factors affect brain structure, connectivity and function, and how this ultimately impacts cognitive-behavioral outcome in individuals with typical and atypical development. A particularly important focus of this work is to derive new methods and explanatory computational models that can inform the development of more specific and effective interventions for persons with brain disorders. Another focus is on the neuroscience of cognition and behavior in typically developing persons including studies of humor, creativity, social interaction, executive function, resilience, driving, and territorial behavior. CIBSR serves as a model for interdisciplinary brain sciences collaboration as research in this laboratory is carried out in collaboration by faculty and staff from numerous fields including psychiatry, neurology, psychology, neuroscience, mathematics, genetics, radiology, computer science, education, engineering, and biostatistics. Individual PIs comprising CIBSR include Dr. Allan Reiss (Director), Dr. Amy Garrett, Dr. Tamar Sheen, Dr. Dr. Hall, Dr. David Hong, Dr. Haide Hossain, Dr. BooJi Jo, Dr. Manish Saggar, and Dr. Gisela Sandoval.

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Led by Dr. Natalie Rasgon, the Center for Neuroscience in Women’s Health research is focused on neuroendocrine correlates in various models of affective and cognitive neuroscience. Specifically, the Center’s research builds upon Dr. Rasgon’s earlier investigative experience related to the role of Insulin Resistance (IR) in brain function. Dr. Rasgon’s team have demonstrated: 1) high risk of IR independent of medication status; 2) increase in IR with duration of treatment; 3) high rates of depression in women with primary IR syndrome; 4) significant association between IR and depression severity; 5) mood enhancing effects of FFAR-gamma agonist in treatment resistant patients with major depression, and see differences in lipid profiles in patients with bipolar disorder. Dr. Rasgon’s team, since 1999, have also utilized structural (MRI) and functional imaging (FDG-PET), and cognitive testing to study the effects of reproductive steroids on biomarkers of brain function in persons at genetic risk for Alzheimer’s disease. Previously published work from the Center supports a negative association between hippocampal volume and IR in women at risk for Alzheimer’s disease, as well as produced pilot data on compensatory regional hypermetabolism and disrupted connectivity in default mode network in IR women in comparison to insulin sensitive women. Recently published work from a double-blind placebo-controlled study indicates an association between longer leukocyte telomere length and greater declines in pressure sensitivity in subjects receiving placebo, but not placebo. In addition, leukocyte telomere length predicted improvement in insulin sensitivity in the group overall and did not differ between intervention arms.

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The Pediatric Mood Disorders Program at the Stanford University School of Medicine is dedicated to improving the lives and well-being of children, adolescents, and families with or at risk for developing major mood disorders. This program strives to improve healthy brain and behavioral development through a deeper understanding of how children adapt to stress associated with a mood disorder. Our program is dedicated to identifying biological and environmental risk factors, understanding disease pathophysiology and developmental outcomes, and developing new treatments for mood disorders of childhood onset. Our research is multi-disciplinary, bringing together experts from the fields of psychiatry, psychology, computer science, biostatistics, and genetics to explore and seek answers for complex questions about brain-emotion-behavior relations in developing youth. Our research studies are currently supported by biannual and extramural funding sources, including Stanford’s Child Health Research Institute (CHRI), the National Institutes of Mental Health, and the Office of Research in Women’s Health. Ongoing work includes investigation of: 1) factors that involve risk for and resilience from developing mood problems in youth with family histories of depression and bipolar disorder; 2) neurobiological and genetic mechanisms for sex differences in the development of psychopathology, 3) neurobehavioral trajectories of pediatric depression and insulin sensitivity; and 4) mechanisms of antidepressant-related dysfunctional arousal in high risk youth. Our vision is a program that strives to improve the mental health of children and adolescents with mood disorders and to transform delivery of care through unified, integrated research, education, and innovation.

RECENT WORKS:


Bipolar and Depression Research Program
Patricia Suppes, MD, PhD, Professor
Michael Ostacher, MD, MPH, MMSc, Associate Professor

The Stanford/VA Bipolar and Depression Research Program has a mission of studying clinical and translational neuroscience critical to people with bipolar disorder and major depressive disorder. We focus on three critical areas:

1) Clinical trials of psychopharmacologic, psychotherapeutic, neurotherapeutic, and web-based interventions in both veterans and civilians with mood disorders, including those with substance use and other comorbidities, along with a focus on suicide prevention.

2) Promulgation and dissemination of evidence-based guidelines for the treatment of multiple populations.

3) Understanding the pathophysiology and neurophysiology of bipolar disorder and major depressive disorder.

We are currently participating in a nationwide, 29-site CSP study of lithium for suicide prevention in veterans, two web-based studies of interventions for bipolar disorder (one, a NIDA-funded study of Acceptance and Commitment Therapy for smoking cessation in bipolar disorder; the other an NIMH-funded study of adjunctive, online, cross-sectional e-mailed education), an international study of inflammation (a TNF-a inhibitor) for bipolar depression, and a trial of the impact of pharmacogenomic information on prescribing in major depressive episodes. We recently received a three-year renewal by the VA Central Office of our site as one of nine national Network of Dedicatad Recruitment Sites (NODDES) for the VA Cooperative Studies Program (CSP).

Alzheimer’s Research Center
Jared Tinklenberg, MD
Professor

Dr. Tinklenberg, MD, serves as Director of the Stanford VA Alzheimer’s Research Center (ARC) alongside Dr. Yesavage (Co-Director). Current research is focused on advancing knowledge and understanding of memory disorders. Since 1981, the ARC has been conducting leading research into the causes and treatment of Alzheimer’s disease (AD). AD is a progressive disorder of the brain that affects approximately thirty-five million people worldwide. The center’s multidisciplinary staff includes clinicians and researchers from the Stanford Department of Medicine and from the VA Palo Alto Health Care System. Funded by the U.S. Department of Veterans Affairs, California Department of Health Services, and other sources, the Stanford VA Alzheimer’s Research Center offers information, referral services, and comprehensive diagnostic assessments of individuals with memory problems. In addition to providing advanced caregiver support, respite, community education, and professional training, the center plays an important role in developing a central pool of information on Alzheimer’s disease in California.

Recent Works:


Alzheimer’s Research Center
Jared Tinklenberg, MD
Professor

The Program on the Genetics of Brain Function (GBF) includes the labs of Douglas Lavioine and Alex Urban. We investigate genetic sequences and mechanisms with relevance to the etiology of psychiatric disorders.

The Urban lab is investigating the effects of DNA sequence variation in human genomes on normal and abnormal brain development and function.

We develop and use next-generation sequencing based methods to carry out functional genomic and epigenomic studies along several interrelated trajectories of investigation:

• Detection and characterization of genomic sequence variation associated with neuropsychiatric disorders such as schizophrenia, autism spectrum disorders, depression, bipolar disorder, and Tourette syndrome.

• Copy number and structural variants (CNVs/SCVs) in the human genome DNA sequence: their detection, exact mapping and their effects on multiple levels of molecular control and regulation (DNA methylation, chromatin conformation, gene expression patterns), using iPSC stem cell models.

• Somatic genome and transcriptome variation, i.e. genomic mosaicism: its detection, characterization and the elucidation of its functional consequences, in stem cell model systems and primary tissue samples.

The Urban lab is also affiliated with the Department of Genetics and is part of the Program on Genetics of Brain Function as well as a member of (and located in) the Stanford Center for Genomics and Personalized Medicine.

Recent Works:

PanLab: Personalized and Translational Neuroscience Lab
Leanne Williams, PhD
Professor

The William’s Panlab for personalized and translational neuroscience is aimed at changing how we characterize people experiencing mental disorder. Our research projects deconstruct diagnostic groups using brain imaging, physiological, behavioral, and genetic data. Our goal is to characterize dysfunction at the individual person level and to identify biomarkers that will guide prognostic and treatment decisions in practice in real world clinical settings. We have several major projects underway. These include an R01 funded under the RDSC initiative, using brain imaging and behavior to identify neural-circuit based types of depression and anxiety, and an U2 unded under NIH’s Science of Behavior Change, using multiple sessions of brain imaging, virtual reality “probes” and passive sampling to assess which aspects of brain function-mediated self regulation predict behavioral change in depression coupled with obesity. These projects build on the multi-site biomarker study for predicting antidepressant outcomes (SPOST-D) for which data collection has been completed. In the past two years, six new post-doc fellows and a ModScholar have joined the lab. The post-doc fellows include two T32 fellows, two fellows on the R01, and two VA MIRECC fellows. Two of these postdocs have already received independent funding. A PSIR research fellowship funded the multi-site biomarker study. To pursue a project on machine-learning approaches to developing a brain-based classification for depression and anxiety and a VA CDA focused on developing personalized neuroscience applied clinically to substance use and comorbid disorders of addiction.

Recent Works:
The Aging Clinical Research Center (ACRC) is a joint project of Stanford University and the VA Palo Alto Health Care System. Through the ACRC, experienced investigators lead a variety of clinical, research, and educational programs, with the aim of improving the lives of those affected by Alzheimer’s Disease. The ACRC was formed to study memory loss associated with aging. Our main purpose is to investigate the complex nature of Alzheimer’s Disease, its progression over time, its response to treatments, and problems patients and caregivers experience in dealing with the changes that occur. We are also conducting studies that look at changes that occur over the course of normal aging. The clinical researchers at ACRC come from many disciplines of medicine and neuroscience. Thus, we are able to study Alzheimer’s Disease as well as normal aging from several important aging.

This work is funded by the National Institute of Aging, the National Institute of Mental Health, and the Department of Veterans Affairs. The Center is located at the Palo Alto Veterans Health Care System in Palo Alto, California. Several MIRECC investigators have been actively researching important factors associated with preserving cognitive function in older Veterans. Most recently, several studies have been examining the effects of Transcranial Magnetic Stimulation on treating depression and dementia in veterans.

The Yoon Lab seeks to discover the brain mechanisms responsible for schizophrenia and psychosis and to translate this knowledge into improvements in how we diagnose and treat these conditions. Towards these ends, our lab has been applying cutting-edge neuroimaging tools to identify neurobiological abnormalities and to test novel systems-level disease models of psychosis and schizophrenia directly in individuals with these conditions. Of particular interest to the lab is the role of neocortical-basal ganglia circuit dysfunction in these conditions. Our working hypothesis of the disease pathophysiology of schizophrenia is that neocortical abnormalities lead to disconnectivity with and dysregulated activity of the basal ganglia. The Yoon Lab has developed new high-resolution functional magnetic resonance imaging methods to more precisely measure the function of important components of the basal ganglia, which give their small size and location deep within the brain has been challenging to image. These include ways to measure the activity of midbrain nuclei, including the substantia nigra, which controls dopamine signaling and the subthalamic nucleus, which is a critical regulator of the flow of information throughout the brain.

The Zeitzer lab is focused on two areas of sleep and circadian physiology. The first is to understand and manipulate the effects of light on non-image forming functions in the brain, especially as they relate to adaptation of circadian timing (e.g., jet lag, shift work, delayed sleep phase in teens), improvement of balance and alertness in older adults, and alteration of hormone profiles and cardiovascular function. We use principles derived from studies of animal neurobiology to find creative ways to biologically hack retinal functions as a countermeasure for our modern lifestyle. These studies are done within the laboratory and in the community, from randomized control trials to examine physiologic monitoring of hormones, electroencephalography, pupillometry, cognitive performance, cardiovascular function, and mobile balance. A second focus of the laboratory is to delineate and phenotype the precise nature of sleep disruption in a variety of pathological conditions (e.g., breast cancer, PTSD, chronic pain, bipolar disorder, schizophrenia, dementia, traumatic brain injury spinal cord injury) in order to more appropriately treat the underlying pathological disruption, rather than the symptoms of sleep disruption. As part of this work, we have pioneered the use of advanced statistical techniques to uncover daily patterns of activity and their association with a variety of medical and psychiatric outcomes.

RECENT WORKS:


Our primary research goals are to understand the brain bases of social communication and language impairments in children with autism spectrum disorders (ASD), and to describe neural changes associated with remediation of these behavioral deficits. Our approach is to study the perception and neural coding of speech. Speech is a critical communication signal for social skill acquisition, and impaired speech perception is a hallmark of autism. Importantly, speech provides multiple pieces of social information during human interactions, including “who” is speaking, “what” they are saying, and “how” they feel when saying it. Our current research is focused on the brain systems underlying the perception of these three key aspects of speech. Of particular interest is describing brain signatures underlying a highly salient and important sound source in a child’s life: the mother’s voice. Our recent preliminary results are the first to describe the brain network underlying perception of mother’s voice in typically developing children, brain network differences in processing this salient vocal sound in children with ASD, and changes that occur to this network during development. We have also initiated an exciting project examining perception and brain processing of the vocal cues (vocal cues) that signal emotional content in speech, known as affective prosody. Our work is motivated by the observation that vocal cues provide multiple pieces of social information during human interaction. Our approach is to study the perception and neural coding of speech: advanced functional neuroimaging techniques, and experimental work to understand how cognitive control network is organized, how cognitive control network is developed through childhood, and how these functional circuits are disturbed in neurodevelopmental disorders characterized by cognitive control deficits, such as attention deficit hyperactivity disorder. A major research direction is to investigate functional organization of cognitive control network and its underlying dynamic interactions during cognitive control. In a recent study, we investigated functional organization of right fronto-parietal cortex, a key area in cognitive control network. We found that right anterior insula (rAI) and right inferior frontal cortex, two subdivisions in right fronto-opercular cortex, have dissociable roles in cognitive control based on their distinct patterns of activation, intrinsic and task-related connectivity, and relation to behavior. In another study, we found dominant causal interaction from rAI to dorsal anterior cingular cortex (SACC) during different cognitive control contexts, suggesting that causal signaling between rAI and SACC serves a fundamental role in implementing cognitive control. In the future studies, we will use neurocomputational models of cognitive control to develop functional neuroimaging-based biomarkers for psychiatric disorders characterized by cognitive control deficits, as well as prediction models for clinical symptoms.

**RECENT WORKS:**

**Recent Works:**
Specializing in molecular neurobiology, Dr. Lawrence Fung conducts research in neuropsychopharmacology and molecular neuroimaging. His research focuses on understanding excitation/inhibition (E/I) balance in neurodevelopmental disorders using multimodal imaging techniques. In particular, he has started using a hybrid positron emission tomography/magnetic resonance (PET/MRI) scanner to simultaneously measure GABA receptor binding densities (by PET) and GABA levels (by magnetic resonance spectroscopy (MRS)) in the brains of individuals with autism spectrum disorder (ASD) and fragile X syndrome (FXS). This approach is ideal for capturing the complexity of neurobiological systems, simultaneously providing information both at the level of the neurotransmitter and at the level of the receptor in specific regions of the brain.

Dr. Fung is a co-investigator of the "Cross-Species Multi-Modal Neuroimaging to Investigate GABA Physiology in Fragile X Syndrome" (PI: Char), funded by the National Institute of Child Health & Human Development. Working with Dr. Antonio Hardan, Dr. Fung also serves as a co-investigator and co-protocol director of a randomized, placebo-controlled pilot trial of pregnenolone in adolescents with autism spectrum disorder, recently funded by the Simons Foundation (PI: Hardan). Pregnenolone is a naturally occurring neurosteroid and the precursor of virtually all neurosteroids. In an open-label study, Drs. Fung and Hardan had demonstrated that pregnenolone reduced the level of irritability in adults with ASD.

The goal of the Garshon Lab is to understand the mechanisms by which life stress and sleep/circadian disruptions increase vulnerability to mood disorders. Life stress and sleep/circadian disturbances are two of the most consistently identified risk factors for mood disorders. Despite their importance, relatively little is known about the ways by which these risk factors trigger or sustain mood dysregulation. Understanding the role of these risk factors in mood-disordered populations could help to identify novel intervention targets to improve quality of life in affected people, as well as new markers for early detection, improved prediction, and ultimately, protection against the development of mood disorders in high-risk individuals. Our current work focuses on characterizing sleep/circadian rhythm disruptions and the social contexts that may trigger these disruptions in youth who are diagnosed with bipolar disorder. To this end, we use a systematic, ecologically sensitive assessment that combines at-home polysomnography, coupled with ecological momentary assessment methods for measuring circadian rhythms, social interactions, stress, and mood. Our aim is to help clarify the interplay between biological and social factors in the risk for mood disorders, laying the framework for necessary refinements of existing detection and intervention strategies.

In her current research, she is studying the brain structure and function of girls who suffer from Turner syndrome. Her main research focuses on attention and executive function (a cognitive domain underlying the ability to plan, organize and maintain attention) deficits in Turner Syndrome and other neurodevelopmental syndromes.

Dr. Green is a child psychiatrist, trained at the Nes-Zyyron - BeRa Yaakov Mental Health Center, affiliated to Tel Aviv University in Israel. As a clinician, she has had extensive opportunities to work with children with a range of mental disorders. In parallel to her clinical work, she joined the Behavioral Neurogenetics Clinic at Sheba Medical Center, Israel and began conducting neurogenetics research with specific focus on velo-cardio-facial syndrome and Williams syndrome. Dr. Green's clinical background has fostered her interest in research questions that have immediate relevance to improving the quality of life of children who suffer from psychiatric and neurodevelopmental disorders. In September 2012, she joined the Center for Interdisciplinary Brain Sciences Research at the Department of Psychiatry and Behavioral Sciences working under the mentorship of Dr. Allan Reiss. In her current research, she is studying the brain structure and function of girls who suffer from Turner syndrome. Her main research focuses on attention and executive function (a cognitive domain underlying the ability to plan, organize and maintain attention) deficits in Turner Syndrome and other neurodevelopmental syndromes.

Effectors of Psychotherapy on Brain Function
Amy Garrett, PhD
Instructor
We are investigating the neural mechanisms underlying symptom improvement following psychotherapy. Our current study examines whether brain function normalizes when adolescent patients receive Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) for symptoms of stress following a trauma. This study is an evidence based trial that we provide in weekly sessions to individual patients for 20 weeks. Functional magnetic resonance imaging (fMRI) scans are collected before and after the treatment. At the same time, we are investigating longitudinal changes in fMRI of healthy control participants over the same time period, so that we will be able to control for nuances in fMRI measures that are attributable to variability in the test-retest measurement of brain function. This study also investigates the correlations between pre/post measures of brain function and improvements in symptoms of reexperiencing, hyperarousal, depression, and dissociation. To better understand the distinctions as well as the overlap between brain circuitry subserving these co-occurring symptoms. The ultimate goal of this research program is to identify objective markers that may be used to guide treatments for individual patients who have not responded sufficiently to therapy.

Life Stress and Sleep/Circadian Disturbances
Anda Garshon, PhD
Instructor
The Effects of Psychotherapy on Brain Function: Amy Garrett, PhD

Life Stress and Sleep/Circadian Disturbances

Neurogenetic Symptoms and Cognitive Function
Tamra Green, MD
Instructor

Molecular Neuropsychiatry
Lawrence Fung, MD, PhD
Instructor

ADVANCING SCIENCE
Instructors

ADVANCING SCIENCE
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Dr. Hosseini’s research portfolio crosses multiple disciplines including cognitive and computational neuroscience, multimodal neuroimaging, and neurocognitive rehabilitation. In the past five years, he has been investigating the organization of human connections in health and disease using state-of-the-art neuroimaging techniques (fMRI, rs-fMRI, sMRI, DWI, fNIRS) combined with novel computational methods (graph theoretical and multivariate pattern analyses). Specifically, he has been investigating the small-world properties of functional and structural brain networks, changes in modular architecture of brain networks, the coupling between structural and functional brain networks, and changes in network resilience in patients with various neurocognitive disorders. Some of his contributions to the neuroscience community was the development of an open-source graph analysis toolbox (GAT) that facilitates topological analyses of functional and structural brain networks in humans. The ultimate goal of Dr. Hosseini’s research is to translate the above knowledge for developing personalized interventions. He recently received a NARSAD Young Investigator Award to test a novel intervention tailored toward targeted rehabilitation of the affected brain networks in ADHD. The proposed neurocognitive intervention combines real-time near-infrared spectroscopy (NIRS) neurofeedback and computerized cognitive training for targeted enhancement of executive function networks. Validation of the proposed approach will provide a foundation for developing efficient, polytherapy-focused interventions and could significantly enhance patient outcomes and public health.

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Dr. Hosseini, PhD
Instructor

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Learning and Memory in Children with Autism
Miriam Rosenberg-Lee, PhD
Instructor

The overall goal of this research is to understand the neural basis of learning in children with autism spectrum disorders (ASD) using both functional and structural brain imaging. ASD is a neurodevelopmental disorder characterized by social and behavioral deficits, but it is often accompanied by remarkable visuo-spatial and mnemonic abilities. A fundamental question addressed here is how individuals with ASD learn, and whether they rely on the same brain systems for learning as typically developing (TD) individuals. Dr. Rosenberg-Lee’s research aims to deepen our understanding of the neurobiological basis of learning in children with ASD. Better understanding of the brain systems supporting these abilities will improve long-term outcomes for these children and foster academic and professional success in individuals with ASD.

RECENT WORKS:


Machine Learning and Signal Processing
Methods for Neuroimaging
Srikanth Ryali, PhD
Instructor

Srikanth Ryali’s research interests are in developing advanced machine learning algorithms for analyzing functional magnetic resonance imaging (fMRI) to understand human brain function. Dr. Ryali develops methods to estimate dynamic causal interactions between brain regions in fMRI data using a state-space approach, to develop robust data clustering algorithms to parcellate the brain into functionally homogeneous regions using resting-state fMRI (rs-fMRI) data, and for classification of neuroimaging data using multi-scale pattern recognition approaches. Presently, he is working on estimating time-varying functional interactions between brain regions using Bayesian Hidden Markov models. Further, Dr. Ryali is collaborating with colleagues to characterize the differences in time-varying functional interactions in healthy children, adults, and clinical populations.

RECENT WORKS:

Quantifying Fluctuations in Intrinsic Brain Activity
Manish Saggar, PhD
Instructor

The overarching goal for my research is to invent computational machine learning algorithms for analyzing functional magnetic resonance imaging (fMRI) to understand human brain function. Dr. Ryali develops methods to estimate dynamic causal interactions between brain regions in fMRI data using a state-space approach, to develop robust data clustering algorithms to parcellate the brain into functionally homogeneous regions using resting-state fMRI (rs-fMRI) data, and for classification of neuroimaging data using multi-scale pattern recognition approaches. Presently, he is working on estimating time-varying functional interactions between brain regions using Bayesian Hidden Markov models. Further, Dr. Ryali is collaborating with colleagues to characterize the differences in time-varying functional interactions in healthy children, adults, and clinical populations.

RECENT WORKS:

Quantifying Fluctuations in Intrinsic Brain Activity
Manish Saggar, PhD
Instructor


Brain Stimulation Lab
Nolan Williams, PhD
Instructor

The Brain Stimulation Lab (BSL) is a human neuroscience laboratory that was started by Dr. Nolan Williams in 2015. It focuses on utilizing a personalized neuromodulation approach to probe the neural elements involved in regulation of cognitive control within the human brain. The BSL has an extensive collection of brain stimulation technologies including TMS, DCS, TNS, VNS, and DBS systems as well as cutting-edge equipment for personalized neuronavigation. The BSL uses these novel brain stimulation techniques to probe and modulate the neural networks underlying neuropsychiatric diseases/disorders in an effort to develop new models and novel treatments.

RECENT WORKS:
Dr. Adelsheim is a child/adolescent psychiatrist and Director of the Center for Youth Mental Health and Wellbeing, as well as Community Partnerships. His research focuses on developing models of early identification and intervention across the continuum of care for young people and their families when faced with mental health issues. Recently, in partnership with students and faculty at the Stanford Computer Science Department, he has been working to develop effective models of screening young people for mental health conditions across a variety of conditions.

In addition, Dr. Adelsheim is focused on the creation of early public mental health service models in the US to link young people to care, such as the headspace program out of Australia, an early mental health intervention program for young people 12-25.

Dr. Adelsheim has recently become involved in working with a number of programs developing mental health technology solutions to help young people access early support and linkages to direct care as necessary.

In addition, Dr. Adelsheim is leading the development of PEPPNET, the national network for early psychosis clinical programs, in an effort to support the implementation of evidence-based services in the rapidly expanding world of early psychosis programs.

Dr. Adelsheim has been recognized by NAMI, the American Psychiatric Association, and the American Academy of Child and Adolescent Psychiatry for his community mental health partnership efforts.

Dr. Albucher serves as the lead Investigator for Stanford University on a project entitled, “eBridge to Wellness.” It is a 5-year multisite study awarded to the University of Michigan that looks at mental health and general well-being among college students. The project’s goals are to understand the service needs of students and to examine the usefulness of e-Bridge, an online program that may help link students to supportive services. Students at high risk for depression and self-harm (who are not currently in treatment) are identified for participation.

Dr. Albucher’s work focuses on the relationship between schizophrenia and adverse metabolic states including insulin resistance and obesity. The team is currently conducting a pilot study looking at the use of bromocriptine to mitigate antipsychotic-associated insulin resistance. Bromocriptine is a dopamine D2/D3 receptor agonist and serotonin 5-HT2C receptor agonist with FDA approval for treatment of type 2 diabetes (T2D). In people with T2D, bromocriptine significantly lowers postprandial plasma glucose, improving glycemic control, without increasing insulin or C-peptide levels. Despite agonism at dopaminergic receptors and concerns for exacerbating psychoses, bromocriptine has been found to be safe in patients taking antipsychotic drugs, even when used at high doses. The optimal dose of bromocriptine to treat antipsychotic drug-associated insulin resistance is not yet known. The main purpose of this study is to provide proof of concept, dose finding, and an obese label assessment of metabolic and clinical psychiatry effects of bromocriptine in patients treated with antipsychotic drugs. In addition to this study, the research group is also involved in studies focusing on evidence-based interventions for people in with recent-onset of psychosis, and the use of aerobic exercise to target cognitive deficits in schizophrenia.

Dr. Ballon’s work focuses on the relationship between schizophrenia and adverse metabolic states including insulin resistance and obesity. The team is currently conducting a pilot study looking at the use of bromocriptine to mitigate antipsychotic-associated insulin resistance. Bromocriptine is a dopamine D2/D3 receptor agonist and serotonin 5-HT2C receptor agonist with FDA approval for treatment of type 2 diabetes (T2D). In people with T2D, bromocriptine significantly lowers postprandial plasma glucose, improving glycemic control, without increasing insulin or C-peptide levels. Despite agonism at dopaminergic receptors and concerns for exacerbating psychoses, bromocriptine has been found to be safe in patients taking antipsychotic drugs, even when used at high doses. The optimal dose of bromocriptine to treat antipsychotic drug-associated insulin resistance is not yet known. The main purpose of this study is to provide proof of concept, dose finding, and an obese label assessment of metabolic and clinical psychiatry effects of bromocriptine in patients treated with antipsychotic drugs. In addition to this study, the research group is also involved in studies focusing on evidence-based interventions for people in with recent-onset of psychosis, and the use of aerobic exercise to target cognitive deficits in schizophrenia.
The Prevention and Intervention (PI) Laboratory, housed in the Department of Child and Adolescent Psychiatry and under the direction of Dr. Victoria Cosgrove, investigates the etiology and treatment of affective psychopathology across the life span. Our mission is focused on two overarching aims: 1) to examine, using multi-level analysis (i.e., behavioral, genetic, immunological, etc.), stress-related etiological phenomena involved in the emergence of affective psychopathology in youth and adults in a diathesis-stress framework, and 2) to develop and test the efficacy of evidence-based psychosocial and pharmacological interventions that promote annual regulation and decreased inflammation. Our lab is comprised of ten doctoral candidates at the PSYP-Stanford D. Consortium, post-baccalaureate scholars, and Stanford undergraduates. Lab members routinely conduct sub-studies exploring important questions about roles for biological markers of inflammation, expressed emotion, personality factors, and neurocognitive functioning. The PI Lab has recently presented data at the Association for Behavioral and Cognitive Therapies (ABCT), Society for Personality Assessment (SPA), and Society for Applied Science Annual Meetings. We collaborate with Drs. Trisha Suppes and Michael Berk on a joint international project (R04 MH101384) with the University of Melbourne involving development and refinement of an internet-based intervention (MoodSwings) for adults with bipolar disorder (www.moodswings.net.au). The PI Lab also collaborates with Dr. Roger McIntyre at the University of Toronto on a joint international project, funded by the Wellcome Trust, to develop an assessment and treatment program for bipolar disorder (PILOT). 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The goal of the Khan Laboratory is to build and sustain academic-community partnerships and outreach in the areas of global mental health, integrated behavioral health, and trauma. The laboratory conducts community-based research and outreach aimed at the prevention and early identification of mental health problems in vulnerable populations. The lab’s work is primarily focused on populations at high risk for trauma, including communities in East Pailo Alto, Guatemala, and Zimbabwe, but also on populations at risk for secondary trauma, such as physicians and health workers. The clinical arm of the laboratory aims to promote the integration of behavioral health within existing primary medical and community health systems of care. Current sites include Reveswod Family Health Centre in East Pailo Alto and communities in rural Guatemala and in Zimbabwe. This is being done through a multi-pronged approach, including trainings for primary care clinicians and community health workers, development of culturally-tailored diagnostic tools and brief interventions, and the integration of digital tools such as mobile-based educational interventions and population-based tracking. The research arm of the laboratory has two parts: 1) implementation research related to the above clinical activities, and 2) examination of the impact of trauma and preventive interventions on trans-diagnostic markers of disease, including emotion regulation, self-esteem, and sleep. For example, a recent mindfulness and dance pilot intervention delivered in the Ravenswood City School District After-School Program showed promising results for sleep quality post-intervention. Other efforts include multidisciplinary work in the areas of physician wellness and vulnerable populations. For example, efforts are underway to bring together faculty from across the medical school to offer gender-affirming services, with an initial focus on launching a multidisciplinary gender clinic at Stanford in Summer 2016. Dr. Miller’s current research focuses on understanding the effectiveness of novel treatment and monitoring strategies for bipolar disorder. She is the principal investigator of two clinical research studies, including a randomized, double-blind, placebo-controlled trial of adjunctive suvorexant for insomnia related to bipolar disorder, and a prospective naturalistic study of the clinical effectiveness of lurasidone in bipolar disorder patients. She is also involved in a randomized, double-blind, placebo-controlled study of intranasal for bipolar depression. The results of these studies hold promise to advance our understanding not only of the effectiveness of novel treatments for bipolar disorder, but also of potential underlying etiologic factors contributing to the illness (e.g., sleep) and other neurobiological abnormalities (inflammatory processes). Dr. Miller and her colleagues are also investigating the use of actigraphy to monitor daytime and nighttime activity in bipolar disorder patients, and how these objective measures of activity may correlate with (and potentially predict the onset of) subjectively reported bipolar mood symptoms. In addition to the above research activities, Dr. Miller is dedicated to the use and dissemination of measurement-based care strategies to optimize treatment outcomes and advance clinical research efforts. As such, she is involved in a quality improvement initiative with her colleagues to implement measurement-based care across the Department of Psychiatry, and she has been analyzing measurement-based clinical data collected by the Stanford Bipolar Disorders Clinic and the Stanford Bipolar Network to improve our understanding of bipolar disorder phenomenology, with particular interests in depressive and mixed states and factors influencing longitudinal illness course. Dr. Miller’s current research focuses on understanding the effectiveness of novel treatment and monitoring strategies for bipolar disorder. She is the principal investigator of two clinical research studies, including a randomized, double-blind, placebo-controlled trial of adjunctive suvorexant for insomnia related to bipolar disorder, and a prospective naturalistic study of the clinical effectiveness of lurasidone in bipolar disorder patients. 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Dr. Robakis’ research focuses on perinatal mood disorders and their relationship to early life stress. Her previous work has shown that insecure attachment style in pregnant women is strongly related to the development of postpartum depression. Attachment insecurity is often a result of adverse childhood experiences, and early life stress has been shown to affect epigenetic modification of key genes over the long term. She is currently conducting a study whose purpose is to isolate an epigenetic signature of insecure attachment in pregnant women and determine how this may be related to the development of depression postpartum.

This work will advance our understanding of how epigenetic modifications contribute to the shaping of personality and risk for psychiatric disorders. This deeper understanding will improve our ability to explain, prevent, and develop timely interventions for postpartum depression, and perhaps also for the many other psychiatric syndromes that have been linked to suboptimal experiences in early life.

**RECENT WORKS:**


**Dr. Robinson’s core areas of programmatic research include emotion regulation in binge eating disorder, and disordered eating in specific subpopulations including athletes and baritians. In regards to emotion regulation in binge eating disorder, she received a K-23 Mentored Patient Oriented Career Development Award to evaluate the comparative efficacy of Integrative Response Therapy and Cognitive Behavioral Therapy Guided Self-Help in treating BED. Integrative Response Therapy is an emotion-regulation based intervention for BED which she developed as Ruth L. Kirschstein- National Service Research Award (T33) post-doctoral research fellow. Results demonstrate IRT’s efficacy as a viable treatment alternative; it was not significantly different from Cognitive Behavioral Therapy Guided Self-Help on primary and secondary outcomes. She has also served as Principal Investigator on a National Collegiate Athletics Association Innovation in Research and Practice Program grant, which funded the development and evaluation of the preliminary efficacy and acceptability of the Whole Image Athletes. Results indicated that WIA, developed by Dr. Robinson, was the first online body image enhancement program specifically tailored for male and female college athletes and achieved high acceptability and modest improvements in body image and disordered eating concerns among a small sample of Stanford athletes. She also plays an integral role in a series of studies on understanding and intervening upon early operational risk factors for suboptimal weight loss among baritians populations.**

**RECENT WORKS:**
Robinson AH, Adler S, Deavers H, Darcy AM, Morton AJ, Saffer DL. #OwnWords: a randomized clinical trial comparing two guided self-help treatments for binge eating disorder. Eating Disorders, in press.


Robinson AH, Deavers H, Morton AJ, Saffer DL. #OwnWords: a randomized clinical trial comparing two guided self-help treatments for binge eating disorder. Eating Disorders, in press.


**RECENT WORKS:**
Robinson AH, Guaya L. Primary outcomes from a randomized clinical trial comparing two guided self-help treatments for binge eating disorder. Eating Disorders, in press.


**Dr. Robinson is principal investigator on a pharmaceutical study investigating the use of Sodium Oxybate in pediatric narcolepsy. The Stanford Center for Sleep Sciences and Medicine is the highest recruiting site in this pediatric narcolepsy trial. He is also involved in two other pharmaceutical trials investigating other compounds in the treatment of narcolepsy and idiopathic hypersomnia in adults. He is also collaborating with Dr. John Day investigating sleep-related issues. In particular, CNS hypersomnia in individuals diagnosed with myotonic dystrophy. He has several poster and oral presentations at the upcoming annual sleep meeting presenting on the repeatability of the MSLT in CNS hypersomnias as well as data on JDP-115, a promising wake-promoting compound, for the treatment of narcolepsy.**

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Robinson AH, Deavers H, Morton AJ, Saffer DL. #OwnWords: a randomized clinical trial comparing two guided self-help treatments for binge eating disorder. Eating Disorders, in press.

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**Evaluation and Management of CNS Hypersomnias and other Sleep Disorders**
Chad Ruoff, MD
Clinical Assistant Professor

Chad Ruoff, MD is principal investigator on a pharmaceutical study investigating the use of Sodium Oxybate in pediatric narcolepsy. The Stanford Center for Sleep Sciences and Medicine is the highest recruiting site in this pediatric narcolepsy trial. He is also involved in two other pharmaceutical trials investigating other compounds in the treatment of narcolepsy and idiopathic hypersomnia in adults. He is also collaborating with Dr. John Day investigating sleep-related issues. In particular, CNS hypersomnia in individuals diagnosed with myotonic dystrophy. He has several poster and oral presentations at the upcoming annual sleep meeting presenting on the repeatability of the MSLT in CNS hypersomnias as well as data on JDP-115, a promising wake-promoting compound, for the treatment of narcolepsy.


Impact physician wellbeing and professional fulfillment at an academic center, Peer J (in press).

Schrijver, I., Brady, K., Trockel, M. An exploration of key issues and potential solutions that affect physician wellbeing and professional fulfillment at an academic center. Peer J (in press).


A problem across many areas of medical practice is that evidence-based treatments or practices are not used correctly or not used at all. This problem pertains to psychiatry and psychology because research has shown that many practitioners do not use evidence-based psychotherapeutic treatments. Dr. Agras is currently investigating this problem by studying 30 college counseling centers across the United States, randomizing colleges to two different methods of training therapists in treatments for eating disorders and depression, and examining the persistence of such training. A smaller project is examining implementation of family-based treatment in anorexia nervosa.

RECENT WORKS:


The Stanford University Bipolar Disorder Clinic was established in 1995, and has been involved in bipolar disorder etiology, phenomenology, and treatment research since that time. Etiologic research has involved using neuroimaging methods to better understand neurobiology, and explore the possibility of such techniques helping to more effectively target treatments. Phenomenologic research has focused on development and course of bipolar disorder in late adolescence/ young adulthood, and ties between creativity, temperament, and mood disorders. Treatment research has involved clinical trials of novel medications for bipolar disorder, with emphasis on antagonists, second-generation antipsychotics, and comparative effectiveness of pharmacotherapies. Treatment research has included not only in-industry-funded pivotal phase III efficacy and phase IV effectiveness studies, but also large federally-funded comparative effectiveness studies, such as the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BIP), the Lithium Treatment Moderate dose Use Study (LITMUS), and the Bipolar Clinical Health Outcomes Initiative in Comparative Effectiveness (Bipolar CHOICE) study. The clinic has practiced evidence-based (using model practice procedures) and measurement-based (using validated STEP-BIP assessment and longitudinal monitoring instruments) care since the year 2000. Based on such data, it has published multiple manuscripts in peer-reviewed journals, commonly with Stanford trainees and international visiting scholars as first authors. Topics include pharmacotherapy trends and clinical correlates of relapse, current irritability, current anexiety, episode accumulation, mixed features during depression, illness subtype (e.g., bipolar I disorder versus bipolar II disorder), prior suicide attempts, eating disorders, and use of pharmacocuticals (e.g., lamotrigine and quetiapine alone and in combination with one another, alprazolam, ziprasidone, and second-generation antipsychotics in bipolar II disorder versus bipolar I disorder). Current research initiatives include efforts to develop mood correlates of antidepressant in bipolar disorder and integrative antipsychoty into bipolar disorder clinical care, an investigator-initiated, double-blind, placebo-controlled trial of adjunctive suvorexant for insomnia in bipolar disorder, and an assessment of clinical correlates of latamoxef use in bipolar disorder patients.

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Sleep & Circadian Neurobiology Laboratory
Cheryl Koopman, PhD
Emeritus (Active) Professor

The Stanford Sleep and Circadian Neurobiology Laboratory (SCN lab, Nishino lab) is an integrated, multidisciplinary research facility dedicated to understanding the neural, biochemical, and molecular mechanisms underlying biologic rhythms and sleep/wake behavior. The lab possesses various animal models of sleep disorders medicine and circadian rhythm disorders.

Recent WORKS:

Laboratory for the Study of Behavioral Medicine
Craig Barr Taylor, MD
Emeritus (Active) Professor

Dr. Taylor’s laboratory focuses on developing and evaluating accessible, affordable, technology and evidence-based prevention and treatment programs for anxiety, depression, and sleep disorders. In partnership with Washington University and Palo Alto University, they conducted a large NIMH-funded controlled trial to determine if an online/app based intervention can improve treatment for eating disorders on college campuses. In parallel, they are participating in helping to develop an integrated eating disorder prevention and treatment programs for all public colleges and universities in Missouri. The laboratory has active collaborations with investigators in India (anxiety prevention and treatment in four Universities), China (middle school based healthy weight regulation programs), and Australia (automated programs to reduce psychosocial risk and risk factors in patients with heart disease), and many investigators in the U.S. Dr. Taylor serves as a chief scientific advisory to the eCare program, a multinational European research project designed to evaluate the benefit of technology to provide prevention and intervention for a variety of problems and settings throughout Europe.

Recent WORKS:
Active Sponsored Research*

Federal and State Funding

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<td>Paleah, Oxana</td>
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<td>Paleah, Oxana</td>
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* Data as of March 1, 2016
### Federal and State Funding (continued)

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<td>Pasca, Sergiu</td>
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<td>NIH R01 Gaining insight into psychiatric disease by engineering piece by piece the human brain in vitro</td>
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<td>Qin, Shaohong</td>
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<td>NIH K99 Brain Systems Underlying Episodic Memory for Social Stimuli in Childhood Autism</td>
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<td>NIH R01 20/34 Mechanism of Antidepressant-Related Dysfunctional Arousal in High-Risk Youth</td>
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<td>NIH U01 International Research Collaboration on Neuroimaging Studies of Alcoholism</td>
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### Industry-Sponsored Clinical Trials and Research

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<td>Vanguard Research Group</td>
<td>A Cluster Randomized, Multi-center, Parallel-group, Rater-blind Study Comparing Treatment with Aripiprazole Once Monthly and Treatment as Usual on Effectiveness in First Episode and Early Phase Illness in Schizophrenia</td>
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<td>Dallatista, Charles</td>
<td>AssureRX Health, Inc.</td>
<td>A 12-Week, Randomized, Double-Blind, Controlled Evaluation Followed by an Open-Label 12-Week Follow-up Period of the Impact of GeneSight Psychotropic on Response to Psychotropic Treatment in Outpatients Suffering from a Major Depressive Disorder (MDD) and Having Had (Within the Current Episode) an Inadequate Response to at Least One Psychotropic Medication Included in GeneSight Psychotropic</td>
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<td>Johnson and Johnson</td>
<td>Functional Connectivity of GPR-119-Expressing Neurons</td>
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<td>Merck Sharp &amp; Dohme Corp.</td>
<td>Horzinekin circuit dynamics and memory consolidation</td>
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<td>Kushida, Clota</td>
<td>Jawbone Corporation</td>
<td>Comparison of Jawbone Devices to In-Lab Polysomnography</td>
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<td>Nasal Airway Stent (NAS) study</td>
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<td>A Multicenter, Open-Label, Single-Dose Pharmacokinetic and Safety Evaluation of HORIZANT (Gabapentin Enacarbil Extended-Release Tablets) in Adolescents Aged 13 to 17 Years Old with Moderate-to-Severe Primary Restless Legs Syndrome</td>
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Industry-Sponsored Clinical Trials and Research (continued)

Mignot, Emmanuel  
Clinilabs, Inc.  
A Randomized, Placebo-Controlled, Double-blind, Fixed Dose, Multiple Cohort, Multiple Crossover, Dose-Finding Study of Oral BTD-001 in Adults with Idiopathic Hypersomnia or Narcolepsy Type 2

Mignot, Emmanuel  
Jazz Pharmaceuticals  
A Long-Term, Open-Label Safety and Maintenance of Efficacy Study of JZP-110 [[(R)-2-amino-3-phenylpropylcarbamate hydrochloride]] in the Treatment of Excessive Sleepiness in Subjects with Narcolepsy or Obstructive Sleep Apnea

Mignot, Emmanuel  
Jazz Pharmaceuticals  
A Twelve-Week, Double-Blind, Placebo-Controlled, Randomized, Parallel-Group, Multicenter Study of the Safety and Efficacy of JZP-110 [((R)-2-amino-3-phenylpropylcarbamate hydrochloride)] in the Treatment of Excessive Sleepiness in Subjects with Obstructive Sleep Apnea (OSA)

Mignot, Emmanuel  
Jazz Pharmaceuticals  
A Twelve-week, Double-blind, Placebo-controlled, Randomized, Parallel-group, Multicenter Study of the Safety and Efficacy of JZP-110 [(R)-2-amino-3-phenylpropylcarbamate hydrochloride] in the Treatment of Excessive Sleepiness in Subjects with Narcolepsy

Mignot, Emmanuel  
Jazz Pharmaceuticals  
PSG polygraphic markers of narcolepsy/hypocretin

Mignot, Emmanuel  
Merck Sharp & Dohme Corp.  
Are Insomnia Symptoms Associated With Increased CSF Hypocretin-1 Levels? - A Retrospective Pilot Study

Miller, Shattali  
Merck Sharp & Dohme Corp.  
Adjunctive suvorexant for treatment-resistant insomnia in patients with bipolar disorder

Nishino, Seiji  
Airweave  
Effect of high rebound mattress toppers on sleep and sleep related symptoms

Nishino, Seiji  
Airweave  
Evaluation of Effects of a High Rebound Mattress Pad on Sleep and Athletic Performance

Rudof, Chad  
Jazz Pharmaceuticals  
A Double-Blind, Placebo-Controlled, Randomized-Withdrawal, Multicenter Study of the Efficacy and Safety of Xyrem with an Open-Label Pharmacokinetic Evaluation and Safety Extension in Pediatric Subjects with Narcolepsy

Schatzberg, Alan  
Janssen Research & Development, LLC  
A Prospective, Longitudinal, Observational Study to Evaluate Potential Predictors of Relapse in Subjects With Major Depressive Disorder Who Have Responded to Antidepressant Treatment

Foundation and Non-Profit Funding

Adelsheim, Steve  
The Robert Wood Johnson Foundation  
Headspace in the US: Creating a National Culture of Adolescent Health

Adelsheim, Steve  
The Robert Wood Johnson Foundation  
National PEPPNET Coordination and Implementation Program

Carlon, Victor  
The Tipping Point Foundation  
Early Life Stress Research Program

Cosgrove, Victoria  
Elkin  
American Psychological Association  
Understanding the Climate of a Cognitive Behavioral Therapy Group for Adolescents with Mood Disorders

De Luca, Luis  
United States-Israel Binational Science Foundation (BSF)  
Functional connectivity in hypothalamic circuits

Fung, Lawrence  
American Academy of Child and Adolescent Psychiatry  
Developmental Pathodynamics of Structural and Connectional Neuroanatomy in a Mouse Model of Fragile X Syndrome

Hall, Scott  
The John Merck Fund  
Treatment of Disruptive Behaviors in Fragile X Syndrome

Haridan, Antonio  
The Simons Foundation Autism Research Initiative  
Randomized Controlled Pilot Trial of Pregnenolone in Autism

Hosseini, Had  
Brain & Behavior Research Foundation  
Integrating fMRI-based Neurofeedback and Cognitive Rehabilitation for Improving Executive Function Network in Patients with Attention Deficit Hyperactivity Disorder (ADHD)

Humphreys, Keith  
The Society for the Study of Addiction  
Americas Editorial Office for Addiction

Kushida, Clete  
Patient-Centered Outcomes Research Institute  
Sustainable Methods, Algorithms & Research Tools for Delivering Optimal Care

Lembke, Anna  
The American Board of Addiction Medicine Foundation  
Next Generation Award for Adolescent Substance Use Prevention

Malenka, Robert  
The Simons Foundation Autism Research Initiative  
Neural mechanisms of social reward in mouse models of autism

Manon, Vinod  
The Simons Foundation Autism Research Initiative  
Decoding Affective Prosody and Communication Circuits in Autism

Mignot, Emmanuel  
National Space Biomedical Research Institute  
Markers of Susceptibility to Neuropsychomotor Decrement in Space Flight

Mignot, Emmanuel  
Technische Universität München  
Genotyping of Individuals with Movement and Sleep Disorders

O’Hara, Ruth  
Bay Area Autism Consortium  
Reduced Rapid Eye Movement Sleep in ASD Reflects Misalignment of the Circadian Clock

Ondarz, Sarah  
Brain & Behavior Research Foundation  
Neural Functional Connectivity as a Mediator of the Effects of Parenting on Clinical Course in Adolescent Depression
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Subcontracts (continued)

Thompson, Dolores Gallagher  World Health Organization  Development of iSupport for Dementia Family Caregivers
Trockel, Mickey  Washington University in St. Louis  Technology to Improve Eating Disorders Treatment
Urban, Alexander  Yale University  Genomic mosaicism in developing human brain
Urban, Alexander  Yale University  Somatic Mosaicism in the Brain of Tourette Syndrome

The new Department of Psychiatry and Behavioral Sciences Small Grant Program, launched in 2015, was designed to promote research and collaborative scholarly projects advancing the academic interests of our faculty and the strategic themes of our department.

Projects across the full spectrum of science and scholarship were encouraged and we are excited to announce that 21 applications to the Small Grant Program were selected for funding in January, 2016. Awards included Pilot Studies in novel scientific areas that have high potential to lead to competitive grant applications and Small Scholarly Projects related to education, clinical care, community outreach, and health systems issues, such as health care quality.

The selected projects represent those most highly rated by reviewers and with special salience to department missions, and include 6 pilot studies and 15 small scholarly projects.

Funded Pilot Studies

Jacob Ballon, MD  Open Label, Flexible-Dose, Adjunctive Bromocriptine for Patients with Schizophrenia and Metabolic Dysfunction
Michele Berk, PhD & Moira Kessler, MD  Pilot Test of a DBT Parenting Intervention for Youth Who Have Recently Attempted Suicide
Kim Bullock, MD  Virtual Reality for Functional Neurological Symptom Disorder
Tamar Green, MD  The Brain in Noonan Syndrome: a Pilot Study
Manish Saggar, PhD  Deciphering “Ongoing” Cognition Using Concurrent Multimodal Neuroimaging and Continuous Multitask Paradigm
Nolan Williams, MD  Comparison of the Clinical Efficacy and Change in Resting State Functional Connectivity of Transcranial Magnetic Stimulation versus Theta-Burst Stimulation over Left DLPFC in Resistant Depression

Program Overview

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Educational Excellence

Educational excellence is an essential mission of the Department of Psychiatry and Behavioral Sciences. We are committed to nurturing the development of each of our learners through personalized education - an approach that fosters independent thinking and the pursuit of specialized interests. We are also committed to nurturing leaders - individuals whose work will bring about transformative change in our society through their influence and impact.

Our department engages with over 6,000 learners each year, ranging from students in high school to clinicians in practice. We offer learners individual mentoring across a range of disciplines, including the clinical neurosciences, psychiatry, psychology, and other behavioral sciences, and strive to be an inclusive, supportive, and open-minded learning community. Interprofessional and transdisciplinary collaborations between the Department and all of the Schools of Stanford University (e.g., Business, Earth Sciences, Education, Engineering, Humanities & Sciences, Law) are promoted by being located on the same campus.

Ours is a personalized and inclusive model of education. In keeping with the culture of Stanford University, we seek to foster individualism and innovation in supporting our learners to advance as leaders, engaged in critical thinking and creativity and bringing about transformative change in society.

Funded Small Scholarly Projects

Sarah Adler, PsyD
Addressing Perceived Barriers to Implementation of Measurement Based Care: A Pilot Feasibility and Acceptability Study

Erin Cassidy Eagle, PhD & Laura Dunn, MD
Older Adults Access to Quality Mental Health Services

Angie Chwen-Yuen Chen, MD
Safe Reduction of Chronic High Dose Opioid and Benzodiazepine Prescribing in the Primary Care Setting: Physician Support and Needs Assessment

Joseph Cheung, MD
Applying Wearable Technology and Genetics to Study Extreme Long Sleepers

Kate Hardy, ClinPsychD
Pilot Study Investigating the Impact of a Group-Based Worry Intervention Trial on Attenuated Psychotic Symptoms, Worry, and Distress in Adolescents At-Risk of Developing Psychosis

Christina Khan, MD, PhD
Improving Pediatric Behavioral Health Integration at a Federally Qualified Community Health Center in East Palo Alto, CA

Jane Kim, PhD
Development of Tailoring Guidelines for Personalizing Behavioral Intervention Technologies

Daniel Mason, MD & Katherine Eisen, PhD
Reading and Recovery Expectations: Developing a Bibliotherapy Group for an Acute Inpatient Psychiatric Unit

Diana Narango, PhD
Training Mental Health Care Providers in Diabetes Distress to Address Psychosocial Need in Youth and Young Adults with Type 1 Diabetes

Amy Poon, MD
An Educational Intervention Program for Decreasing Mental Health Stigma and Barriers to Treatment for Veterinarians and Veterinary Students

Daryn Reicherter, MD & Ellie Williams, MD
Bringing Care to New Moms: Collaboration between the Gardner Packard Children’s Health Center and the Stanford Department of Psychiatry for the Evaluation and Treatment of Postpartum Depression

Carolyn Rodriguez, MD, PhD
Building Community-Academic Partnerships for Evidence-Based Treatment of Hoarding Disorder

Yelizaveta Sher, MD
Quality Improvement Project on Screening, Monitoring and Timely Treatment of Delirium Immediately Post Lung Transplantation

Shannon Sullivan, MD & Michelle Cao, DO
Survey of Sleep Education Offered by US Medical Residency Training Program

Ellie Williams, MD & Julie Weitlauf, PhD
Women’s Health and Wellness Advanced Clinical Didactic Workshop: Assessment and Treatment of Genito-Pelvic Pain/Penetration Disorder in Women with Interpersonal Trauma Exposure

Alan Louie, MD
Professor
Associate Chair - Education

100%
of ACGME and APA training programs with maximum years of accreditation

2016
best national residency matching program results in our history

7 and 3
subspecialty physician fellowships and NIH T32 training programs
Department Education Programs

Stanford Undergraduate Education in Psychiatry and Behavioral Sciences
Alan Louie, MD, Director

Many faculty members of the Department of Psychiatry and Behavioral Sciences also teach Stanford undergraduate students in a variety of courses and educational activities, ranging from small Freshman and Sophomore Seminars to large, lecture-based courses. Numerous research opportunities are available by enrolling in psychiatry research courses. Faculty also serve as mentors in the Pre-Major Advising Program.

We recently enrolled approximately 800 undergraduates in educational activities in the Department. Forty-seven members of the Department’s faculty taught undergraduate courses.

High School Education in Psychiatry and Behavioral Sciences: CNI-X
Laura Roberts, MD, MA, Co-Director
Alan Louie, MD, Co-Director

The Clinical Neuroscience Internship Experiences (CNI-X) is an intensive, weeklong summer program following the sophomore, junior, or senior years in high school that introduces students to the amazing breadth of research found in our Department of Psychiatry and Behavioral Sciences.

The week is packed with small group sessions on topics ranging from miniature human brains in petri dishes, to cognition studies in flight simulators, to treating addiction in adolescents, to human rights of torture victims with PTSD. Experiential learning, self-directed study, and self-reflection are emphasized.

CNI-X launched in 2015 with 18 students and 20 faculty members. In its second year it has grown over 6 times and there are over 120 students enrolled.

Medical School Education in Psychiatry
Charles DeBattista, MD, DMH, Director of Medical Student Education
Yasmin Owusu, MD, Pre-Clinical Director
Dhy Ravindranath, MD, MS, Site Director VA PAD

Psychiatry and Behavioral Sciences are taught during both the pre-clerkship and clerkship parts of medical school. Pre-clerkship instruction is offered to first and second year students and explores the psychological effects of physical diseases, the doctor-patient relationship, ethical issues in medicine, and human development; offers patient interviewing apprenticeships; and examines the major psychiatric disorders including psychotic, mood and anxiety, eating, somatoform and dissociative, and substance use disorders. Effective elective courses are also offered in topics like medical hypnosis and child and adolescent psychiatry. Clerkships in the third and fourth years of medical school offer clinical instruction in inpatient and outpatient interdisciplinary settings, designed to teach students how to conduct a diagnostic assessment and to use standardized diagnostic criteria and psychiatric treatments. Advanced psychiatric clerkships offer specialized experiences in child and adolescent, geriatric, sleep, psychosomatic, addiction, trauma, or research psychiatry.

Psychiatry Residency Training Program
Chris Hayward, MD, MPH, Director of Residency Training
Sallie DeGolia, MD, MPH, Associate Director of Residency Training
Belinda Bandstra, MD, MA, Assistant Director of Residency Training
Malathy Kuppuswamy, MD, Site Director, VA PAD
Cecylia Nowakowska, MD, PhD, Site Director, VA MPD

The ACGME-accredited Psychiatry Residency offers a unique blend of clinical and research opportunities, coupled with a sense of collegiality, cohesiveness, and deep care about residents’ individual development in the context of a wealth of resources at Stanford University.

Clinical training competencies are systematically defined across services with emphasis in combining the application of biological therapeutics, psychotherapies, social interventions, and a transdisciplinary attitude. Clinical care is approached with critical thinking and innovation. The curriculum features a scholarly concentration program that allows residents to pursue their interests with individualized training and research. Residents are supported in cultivating careers that involve leadership, specialization, and academic growth. We strongly promote resident involvement in program improvement and prioritize resident wellbeing during training.

Subspecialty Clinical Fellowships

Addiction Medicine Fellowship
Anna Lembke, MD, Training Director

The ABAM-accredited Addiction Medicine Fellowship is a one-year fellowship open to physicians who have completed an ACGME-accredited residency in any specialty. The fellowship provides state-of-the-art training in the treatment of patients with addiction. The program is tailored to the individual background and interests of the applicant, and our goal is to train physicians in all aspects of treatment of substance use disorders, behavioral addictions, and co-occurring psychiatric and medical disorders. We also hope to promote future leaders, policy-makers, and researchers in the field of Addiction Medicine.

The Addiction Medicine Fellowship has become a model of cross-specialty training, represented at the White House Symposium on “Medicine Responds to the Need for Addiction Expertise” (2015). The fellowship also published the online, enduring CME course “Prescription Drug Abuse – Compassionate Care for a Complex Problem,” funded by the Stanford Center for Continuing Medical Education, and received the Next Generation Award (2014-2016) for American Board of Addiction Medicine/Conrad N. Hilton Foundation.

Neuropsychiatry Fellowship
John Barry, MD, Training Director
Sepideh Bajestan, MD, PhD, Associate Training Director

The UCNS-accredited Neuropsychiatry Fellowship is a one-year fellowship designed to provide requisite skills and resources that will allow the fellow to practice independently as a neuropsychiatrist. The fellowship is open to both psychiatry and neurology residents who have fulfilled their ACGME requirements in their respective fields.

Training occurs in both inpatient and outpatient settings and on psychiatric and neurological services. This fellowship allows for research and specialization, including a traditional neuropsychiatry track and an interventional psychiatry track that emphasizes transcranial magnetic stimulation, electroconvulsive therapy, vagus nerve stimulations, and deep brain stimulation.

We recently increased from one to two fellows and to seven faculty who are UCNS-certified in Neuropsychiatry and Behavioral Neurology.
Fellowship

Psychosomatic Medicine Fellowship

Jose Malodonado, MD, FAPM, FACFE, Training Director
Lisa Sher, MD, Associate Training Director

The ACGME-accredited Psychosomatic Medicine Fellowship is a one-year fellowship that includes the evaluation and management of the psychiatric complications of medical illness and/or its treatment, in both the inpatient and ambulatory care settings. This fellowship offers abundant didactic, clinical, and cutting-edge research opportunities. The program is designed to allow each fellow to develop his or her unique strengths and interests. Every year fellows are mentored in various aspects of academic medicine, from research design to grant writing, to manuscript writing and publishing, to presentations at local, national and international scientific meetings. Our fellows’ participation in clinical research has contributed to the development of various clinical tools currently used worldwide for the psychosocial assessment of solid organ transplant candidates, to the prediction of patients at risk for complicated alcohol withdrawal, to the assessment of delirium in medically ill individuals. They have also been instrumental in the development of treatment protocols and algorithms.

We have increased our program to two fellows and to five faculty who are ABPN-certified in “Psychosomatic Medicine.”

Student Mental Health Fellowship

Amy Poon, MD, Training Director

The Student Mental Health Fellowship is one of only a few in the US that focuses on training in college and university mental health delivery, the mental health of transitional and young adults, and systems-based practice with stakeholders in a major university. Fellows work with undergraduate and graduate students, in both outpatient psychotherapy/pharmacotherapy and inpatient consults.

The fellowship includes administrative and systems aspects of student mental health, outreach efforts to undergraduates on campus, didactics, and a scholarly project. Flexibility exists to customize the curriculum to include the fellow’s particular areas of interest (e.g., eating disorders, mood disorders, first episode psychosis, adult ADHD, addiction) and to work with special populations (e.g., first generation college students, athletes, people of color, survivors of sexual assault).

We recently received approval and funding for this fellowship from the GME office.

Sleep Medicine Fellowship

Amelia Robinson, MD, Training Director
Chad Rudolf, MD, Assistant Training Director

The ACGME-accredited Sleep Medicine Fellowship is viewed internationally as the world’s leading training program for sleep disorders medicine and recently drew trainees from across the United States as well as from around the globe. It is also the first fellowship program accredited by the American Sleep Disorders Association.

This one-year clinical fellowship at the Stanford Sleep Medicine Center at Stanford Hospital and Clinics covers multiple aspects of sleep medicine including the pharmacology of sleep, sleep disorders, breathing, insomnia, narcolepsy, pediatric sleep, parasomnias, restless legs syndrome, neurodegenerative disorders, and orthotronics involving both children and adults. Fellows have opportunities to pursue research and to be educators.

The Sleep Medicine Fellowship has given great contribution to public education and the health of our community. Eight fellows produced 2 scientific publications, 2 were awarded grants, 7 gave national/regional presentations, 9 participated in quality improvement projects, and 33 presentations were given to the local community.

Clinical Psychology Fellowship

Liza Sher, MD, Associate Training Director

The Predoctoral Psychology Internship in child clinical/pediatric psychology, accredited by the American Psychological Association, is one-year long at the Lucile Packard Children’s Hospital at Stanford and the Children’s Health Council. The program seeks to train highly skilled and sensitive clinicians capable of functioning in a variety of multidisciplinary clinical settings and using a variety of treatment methods and conceptual perspectives, with a range of child and family problems.

The internship year is the capstone experience in the overall professional development and ultimate professional identities of PhD clinical psychologists-in-training and is tailored to the individual needs of interns. The program trains high-quality clinicians with a realistic sense of their professional capabilities.

Child and Adolescent Pre-doctoral Psychology Internship

Michelle Brown, PhD, Director

The Predoctoral Psychology Internship in child clinical/pediatric psychology, accredited by the American Psychological Association, is one-year long at the Lucile Packard Children’s Hospital at Stanford and the Children’s Health Council. The program seeks to train highly skilled and sensitive clinicians capable of functioning in a variety of multidisciplinary clinical settings and using a variety of treatment methods and conceptual perspectives, with a range of child and family problems.

The internship year is the capstone experience in the overall professional development and ultimate professional identities of PhD clinical psychologists-in-training and is tailored to the individual needs of interns. The program trains high-quality clinicians with a realistic sense of their professional capabilities.

Clinical Psychology Post-doctoral Fellowships

Kate Corcoran, PhD, Training Director, Clinical Psychology (Adult)
Sharon Williams, PhD, Training Director, Clinical Psychology (Child)

The Clinical Psychology Fellowship at Stanford, accredited by the American Psychological Association, is a one-year post-doctoral fellowship serving as the culmination of training in psychology and is guided by the scientist-practitioner model. Fellows are offered diverse clinical experiences in assessment and treatment utilizing evidence-based treatments, rich didactics based on current empirical literature, opportunities for scholarly inquiry, and supervision by Stanford faculty.

Fellows are trained in one of two programs:
1. Clinical Child and Adolescent Psychology
2. Clinical Psychology

In 2015, the Clinical Psychology Post-doctoral Fellowship Program achieved accreditation from the American Psychological Association. This initial accreditation for the program was for seven years, the longest term possible, which is rarely confirmed for a new program. The Adult Program now offers 6 positions in the Psychosocial Treatment Clinic, up from 4 when we first applied for accreditation. The Child and Adolescent Program continues to be 1 of 8 programs in the country with this accreditation.

PGSP-Stanford PsyD Consortium

Kimberly Hill, PhD, Co-Director of Clinical Training
Robert Holaway, PhD, Co-Associate Director of Clinical Training
Allison Thompson, PhD, Co-Associate Director of Clinical Training

The PGSP-Stanford PsyD Consortium is a full-time, five-year, practitioner-scholar program intended for those seeking careers devoted to the direct delivery of clinical psychological services. Students in the program, which has been continuously accredited by the American Psychological Association since 2006, are taught by an outstanding faculty drawn from the Stanford University School of Medicine, Department of Psychiatry and Behavioral Sciences, and Palo Alto University. The program provides a generalist education in clinical psychology, emphasizing evidenced-based practice and incorporating supervised clinical training. Students complete three full years of practicum training in settings that include the Department before completing a full-time, year-long, pre-doctoral internship.

We matched 100% of graduates into American Psychological Association-accredited internships. This exceeds the national match rates for PsyD programs (40%) and for PhD programs (70%). Our PsyD program has the highest match rate among all PsyD programs, including the Rutgers program, which is the only one rated higher than Stanford by US News.

EDUCATIONAL EXCELLENCE
Subspecialty Clinical Fellowships

Academic psychiatry is a vibrant and ever-evolving field requiring expertise in a variety of subspecialties. Stanford Psychiatry is committed to providing the highest-quality training in these areas to prepare residents for leadership positions in academic psychiatry.

Subspecialty Clinical Fellowships

Clinical Psychology Training

Advanced Research Training Programs

T32 Biobehavioral Research Training Program
PI: Alan Schatzberg, MD
Co-PIs: Rachel Manber, PhD and W. Stewart Agras, MD
Funded by the National Institute of Mental Health, T32MH019938: A Biobehavioral Research Training Program is designed for those who plan to pursue careers in clinical research with a specialization in adult disorders including mood, anxiety, and eating disorders and related areas such as insomnia.
This program aims to help clinically trained MD and PhD fellows develop skills and experience in research to enable their investigative careers. Research in the program is conducted under the direction of faculty mentors. The core aspect of the program is the mentoring relationship that will eventually enable an independent program of research. The training program offers didactic courses to promote research and professional development. In the past 5 years the grant supported 18 T-32 post-doctoral research fellows. The post-doc fellows were scholarly productive, producing over 40 publications, many in top journals. The majority of the fellows who were supported by the grant in the past 5 years were awarded research or career development grants by the NIH.

T32 Multi-Institutional Training in Genetic/Genomic Approaches to Sleep Disorders
PI: Emmanuel Mignot, MD, PhD
Co-PI Ruth O’Hara, PhD
This multi-institutional T32 training grant is the first multi-site training program to be funded by NHLBI. It involves the University of Pennsylvania, Stanford, Johns Hopkins, and the University of Michigan and provides three years of post-doctoral fellowship training. A full compliment of fellows are now recruited to this T32. Trainees have co-mentors at their home institution: one expert in sleep research and one in genetics/genomics.
Each fellow also has a mentorship committee with experts in sleep research and genetics from the various institutions in this program, as well as others, when appropriate, having currently funded training programs in sleep research (e.g., Harvard, Penn, Pittsburgh). Trainees who pursue genetic/genomic research at these other institutions will also be considered part of this national effort. Trainees take a core curriculum using video-based IT technology including lectures on genetics/genomics of sleep and its disorders by faculty at all participating institutions, and attend career development training, and grants workshop, journal club, and research-in-progress talks by trainees. Dr. Mignot is a regular contributor to the monthly didactics on genetics/genomics.

War Related Illness and Injury Study Center (WRIISC) Post-doctoral Fellowship
Ansgar Furst, PhD, Fellowship Director
The War Related Illness and Injury Study Center at the Palo Alto Veterans Affairs Health Care System provides a two-year post-doctoral fellowship affiliated with Stanford for MD and PhD fellows. The War Related Illness and Injury Study Center is an integrated system of clinical, research, and educational efforts designed to improve the clinical care for aging veterans with dementia and with PTSD. Dementia and PTSD share common clinical symptoms including cognitive difficulties, sleep disorders, and agitation and the Sierra Pacific MIRECC aims to evaluate current approaches and develop new treatments for these clinical problems. The training program offers didactic courses to promote research and professional development.

Mental Illness Research, Education, and Clinical Center (MIRECC) Advanced Fellowship
Ruth O’Hara, PhD National Director
Kari Fairchild, PhD, Director (Psychology), VISN 21
Michael Oldacher, MD, MPH, MSc, Director (Psychiatry), VISN 21
The Sierra Pacific Mental Illness Research, Education, and Clinical Center (MIRECC) at Palo Alto Veterans Affairs Health Care System provides a two-year post-doctoral fellowship affiliated with Stanford for MD and PhD fellows.
The Sierra Pacific MIRECC fellowship is an integrated system of clinical, research, and educational efforts designed to improve the clinical care for aging veterans with dementia and with PTSD. Dementia and PTSD share common clinical symptoms including cognitive difficulties, sleep disorders, and agitation and the Sierra Pacific MIRECC aims to evaluate current approaches and develop new treatments for those clinical problems. The training program offers didactic courses to promote research and professional development.

The National Center for Posttraumatic Stress Disorder (NCPTSD) Advanced Fellowship
Marylene Cloitre, PhD, Fellowship Director
The National Center for Posttraumatic Stress Disorder (NCPTSD), Division of Dissemination and Training at the Palo Alto Veterans Affairs Health Care System provides a two-year post-doctoral fellowship affiliated with Stanford University for MD and PhD fellows in PTSD. The fellowship is sponsored by the Office of Academic Affiliations, Department of Veterans Affairs.
The training program is mentorship-based with a focus on guiding and supporting the fellow to an independent research career. The fellowship focuses on research regarding engagement, assessment, and treatment of traumatized populations and extending reach of care both within VA and to national and global communities. The fellowship is in its fifth year. Thus far all graduates have obtained academic or VA research positions in line with our training mission.

T32 Research Training for Child Psychiatry and Development
PI: Allan Reiss, MD
Positions are available for two to three years of training in clinical or basic research for MD and PhD fellows. This program is particularly intended for beginning researchers who seek to improve or expand their ability to conduct interdisciplinary investigation in brain and behavioral sciences. Candidates have the opportunity to participate in research projects of their mentors and/or develop their own research projects. Weekly seminars and formal training in research methods and ethics are an integral part of the program.

The Sierra Pacific MIRECC fellowship is an integrated system of clinical, research, and educational efforts designed to improve the clinical care for aging veterans with dementia and with PTSD. Dementia and PTSD share common clinical symptoms including cognitive difficulties, sleep disorders, and agitation and the Sierra Pacific MIRECC aims to evaluate current approaches and develop new treatments for those clinical problems. The training program offers didactic courses to promote research and professional development.

National Center for Posttraumatic Stress Disorder (NCPTSD) Advanced Fellowship
Marylene Cloitre, PhD, Fellowship Director
The National Center for Posttraumatic Stress Disorder (NCPTSD), Division of Dissemination and Training at the Palo Alto Veterans Affairs Health Care System provides a two-year post-doctoral fellowship affiliated with Stanford University for MD and PhD fellows in PTSD. The fellowship is sponsored by the Office of Academic Affiliations, Department of Veterans Affairs.
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Multiple educational activities are sponsored by the Department of Psychiatry and Behavioral Sciences. The target audiences are usually psychiatrists, clinical psychologists, behavioral and neuroscientists, non-psychiatric physicians, allied health professionals, and trainees, but several are also open to the general public. Many offer CME credit through the Stanford Center for Continuing Medical Education. Examples of these activities are as follows:

- CME Conferences: Innovations in Psychiatry and Behavioral Health, Managing Sleep Health in the Primary Care Setting
- Grand Rounds: Psychiatry and Behavioral Sciences Grand Rounds, Geriatric Psychiatry and Neuroscience Grand Rounds
- Joint Sessions of the Psychiatry and Behavioral Sciences Grand Rounds and the Stanford Neuroscience Institute
- Regularly Scheduled Series (other than Grand Rounds): VA Interdisciplinary Mental Health CME Series, Closing the Gap: Moving towards Best Practices in Psychiatry
- Online CME courses: “Prescription Drug Misuse and Addiction: Compassionate Care for a Complex Problem,” “Screening and Assessing Depression in Primary Care Settings: Clinical and Ethical Considerations,” “Dementia and Diversity in Primary Care: A Primer – Guidelines, Ethnec Differences, and Assessments”
Recent Books

**The Academic Medicine Handbook: A Guide to Achievement and Fulfillment for Academic Faculty**
Editor: Laura Roberts, MD, MA

**Advances in Treatment of Bipolar Disorders**
Editor: Terence Ketter, MD

**The Associate Professor Guidebook: Continuing the Journey to Professor**
Editor: Laura Roberts, MD, MA

**Autism Spectrum Conditions: FAQs on Autism, Asperger Syndrome, and Atypical Autism Answered by International Experts**
Co-Editor: Joachim Hallmayer, MD, Dr med

**Cambodia’s Hidden Scars: Trauma Psychology in the Wake of the Khmer Rouge**
Co-Editor: Daryn Reicherter, MD

**The Cambodian Dancer: Sophany’s Gift of Hope**
Author: Daryn Reicherter, MD

**A Clinical Guide to Psychiatric Ethics**
Author: Laura Roberts, MD, MA

**The Clinician Educator Guidebook: Steps and Strategies for Advancing Your Career**
Editor: Laura Roberts, MD, MA

**Cognitive-Behavioral Therapy for Late-Life Depression**
Presenter: Dolores Gallagher-Thompson, PhD, ABPP

**Couples and Family Therapy in Clinical Practice**
Co-Authors: Ira Glick, MD, Douglas Rait, PhD

**Creatures of a Day: And Other Tales of Psychotherapy**
Author: Irvin Yalom, MD

**Cue-Centered Therapy for Youth Experiencing Posttraumatic Symptoms: A Structured Multi-Modal Intervention, Therapist Guide**
Author: Victor Carrion, MD

**Cultural Issues in Pediatric Mental Health, An Issue of Child and Adolescent Psychiatry Clinics of North America**
Co-Editor: Sharmeen Johri, MD

**Dement’s Sleep and Dreams**
Co-Authors: William Dement, MD, Rafael Pelayo, MD

**Dietary Supplement Use in Children and Adolescents: A Clinical Handbook**
Co-Editor: James Lock, MD, PhD

**Eating Disorders in Children and Adolescents: A Clinical Handbook**
Editor: Clara Kuehida, MD, PhD

**Evaluation of Sleep Complaints, An Issue of Sleep Medicine Clinics**
Editor: Clara Kuehida, MD, PhD

**Ethnicity and the Dementias**
Co-Editor: Dolores Gallagher-Thompson, PhD, ABPP

**Evaluation of Sleep Complaints, An Issue of Sleep Medicine Clinics**
Editor: Clara Kuehida, MD, PhD

**Fast Facts: Eating Disorders**
Co-Author: Hans Steiner, MD

**Focus Patient Management Exercises in Psychiatry**
Co-Author: Ronald Albucher, MD

**Goodnight Mind: Turn Off Your Noisy Thoughts and Get a Good Night’s Sleep**
Co-Author: Rachel Marlow, PhD

**Help Your Teenager Beat an Eating Disorder**
Co-Author: James Lock, MD, PhD

**How Many Subjects?: Statistical Power Analysis in Research**
Co-Author: Helena Chmura Kraemer, PhD

**Impulse Control Disorders**
Co-Editors: Elias Aboujaoude, MD, Lorrim Koran, MD

**International Handbook of Psychiatry - A Concise Guide for Medical Students, Residents, and Medical Practitioners**
Co-Author and Co-Editor: Laura Roberts, MD, MA

**Manual of Clinical Psychopharmacology**
Co-Author: Alan Schatzberg, MD, Charles DeBattista, DMH, MD

**Mental Health in the Digital Age: Grave Dangers, Great Promise**
Co-Editor: Elias Aboujaoude, MD
Recent Books (continued)

- The Oxford Handbook of Child and Adolescent Eating Disorders: Developmental Perspectives
  Editor: James Lock, MD, PhD

- Partnerships for Mental Health: Narratives of Community and Academic Collaboration
  Co-Editors: Laura Roberts, MD, MA, Daryn Reicherter, MD, Steven Adelsheim, MD, Shashank Joshi, MD

- Psychopharmacology: An Issue of Child and Adolescent Psychiatric Clinics of North America
  Co-Editor: Kiki Chang, MD

- Psychotherapy for Immigrant Youth
  Co-Editor: Daryn Reicherter, MD

- The Spinoza Problem: A Novel
  Author: Irvin Yalom, MD

- The Treatment of Drinking Problems: A Guide to the Helping Professions
  Co-Author: Keith Humphreys, PhD

- Treatments for Adolescents
  Co-Author: Hans Steiner, MD

- Treatment Plans and Interventions for Insomnia: A Case Formulation Approach
  Co-Author: Rachel Manber, PhD

- Virtually You: The Dangerous Powers of the E-Personality
  Author: Elias Aboujaoude, MD

Journals

- Editor-in-Chief
  Laura Roberts, MD, MA
  Katharine Dexter McCormick and Stanley McCormick Memorial Professor and Chairman Psychiatry and Behavioral Sciences Stanford University School of Medicine

- Co-Editors-in-Chief:
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  Director, Stanford Geriatric Education Center and Professor of Research Psychiatry and Behavioral Sciences Stanford University School of Medicine
  Larry W. Thompson, PhD
  Goldman Family Professor of Psychology, Pacific Graduate School of Psychology and Professor Emeritus, Psychiatry and Behavioral Sciences Stanford University School of Medicine

- Regional Editor-in-Chief, Americas
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  Professor and Section Director for Mental Health Policy Psychiatry and Behavioral Sciences Stanford University School of Medicine

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  Kenneth T. Norris, Jr. Professor Psychiatry and Behavioral Sciences Stanford University School of Medicine

- Editor-in-Chief
  Alan F. Schatzberg, MD
  Stanford University School of Medicine
Community Commitment and Engagement

Community commitment and engagement is a fundamental academic mission of the Department. Our community mission is defined broadly and flexibly to include our dedication to building academic collaboration and support among our faculty, learners, and staff as well as our intensive local, state, and national community partnerships, ultimately extending to international colleagues, creating novel behavioral health systems to provide care for mental health needs around the world. Our view is that community commitment and engagement will have the greatest impact when informed by and combined with the other missions of science, clinical care, education, and leadership.

The Department has had a long tradition of great efforts in our community – sharing expertise and working on site at our local schools, serving on multidisciplinary care teams in Santa Clara County, supporting shared clinical training programs in San Mateo County, providing care for homeless individuals with mental illness throughout our area, and working shoulder to shoulder with clinicians in federally qualified health centers to the north and the south of our campus. Our faculty have partnered with local agencies and advocacy groups to bring greater focus to the public health impact and specific needs of people living with mental disorders, ranging from autism to schizophrenia. We have worked tirelessly to address the issue of suicide that has threatened the lives of our young people and the heart of our neighborhood.

In all of these efforts, we bring the unique strengths of an academic partner. Collaborations between community and academic partners can have far greater impact than the work of either entity alone. Several of our faculty collaborated on a 2015 book titled Partnerships for Mental Health: Narratives of Community and Academic Collaboration, co-edited by Drs. Laura Roberts, Daryn Reicherter, Steven Adelsheim, and Shashank Joshi. This text highlights the remarkable and sometimes very difficult narrative experiences of community and academic partners engaged in transformative work in many countries in the world and many counties in the US. This book follows an earlier book by Dr. Laura Roberts with colleagues on best practices in community-based participatory research (Community Based Participatory Research for Improved Mental Healthcare), published in 2013.

Because of the importance of the issues we face here and elsewhere, the community mission is important to every member of our Department, whether laboratory scientist or front-line community-based clinician. At our 2013 departmental retreat, the faculty identified this mission as an area for increased focus as a key objective and aspiration for the 2023 Department of Psychiatry and Behavioral Sciences of Stanford Medicine. A thematic group of faculty, the Community Engagement Advisory Committee, initially led by Dr. Victor Cantor and now by Dr. Steven Adelsheim, has worked together in support of these efforts. Numerous community-based activities have arisen from this dialogue, including our sponsorship of National Alliance on Mental Illness and Out of the Darkness events, led by Drs. Rebecca Bernert, Kim Bullock, and Amy Poon. Community partnerships in support of the Bay Area Asian community have led to multiple family educational events focused on improving parent-child communication, including innovative learning through skills and cultural events, led by Dr. Roma Hu and many departmental trainees. New faculty recruits and new special initiatives based in the office of the chair, including the Center for Youth Mental Health and Wellbeing, have derived from this important departmental priority.

Our department continues to expand its community experiences for our trainees in county and local agency settings. We have also welcomed experts in community psychiatry administration to Stanford to build greater understanding and collaboration. Many of our department’s faculty have served as leaders in response to local community crises and have provided guidance on developing new behavioral health systems of care for county, state, and regional partners. Most recently, we have developed new programs and laboratories to support communities of people with early psychosis, children and adults who have experienced trauma, the US Muslim community, people with Alzheimer Disease, veterans living with co-occurring disorders, and international victims of torture – to name just a few. In partnership with others, we seek to expand our community engagement efforts to increase broad access to culturally appropriate, cutting-edge mental health care.

Looking forward, we will continue to expand clinical support, research, education, and health policy activities focused on early intervention programs for adolescents and young adults, the use of technology in providing broad mental health support, and new partnerships with schools, community colleges, and our own Stanford campus to link young people to mental health care earlier and more effectively. We are working to diminish stigma associated with having mental health concerns or seeking mental health support. Further, by creating a cadre of trainees equipped to serve as community mental health leaders and team members, providing education and consultative support for community partners across a range of settings and disciplines, and reaching out to offer clinical expertise in community-based clinics, we hope to strengthen our relationships and the platform that will give rise to better health outcomes of the communities – the people and populations – we serve.
The preeminence of Stanford Medicine’s Department of Psychiatry and Behavioral Sciences is predicated on exceptional clinical care for individuals and families across the age spectrum who live with mental disorders and related conditions. The need for exceptional care – care that is richly informed by expertise, evidence, compassion, and attunement – is urgent. One-in-five adults and one-in-eight children in the US experience an episode of mental illness each year, and one life is lost every 15 minutes to suicide in this country. Our community is especially hard hit, with a suicide rate far greater than national averages. Addressing the mental health needs of children, transitional age youth, adults, and elders is a priority for Stanford Medicine in serving the Bay Area and in serving as a model academic program across the country.

Over the past five years, the Department has recruited many new faculty who have brought novel areas of expertise, deepened our existing areas of strength, and advanced innovative clinical approaches and models of care. In partnership with our affiliated hospitals, Stanford Health Care, Stanford Children’s Health, and Palo Alto Veterans Affairs Health Care System, we have greatly expanded our portfolio to include new and more intensive clinical services and programs. In FY2016, our Quarry Road clinics will have nearly 67,000 outpatient visits and our faculty as a whole has doubled the clinical productivity as measured by wRVU’s since 2010. Many more patients are seen at other sites, such as El Camino Hospital, Santa Clara Valley Medical Center, and the Palo Alto and Menlo Park VA. We work side by side with physicians in every clinic and service line of our affiliated hospitals, providing state-of-the-art care for cancer, cardiovascular disease, neurological and neurosurgical conditions, and general medical, surgical, and emergency care.

Through enriched community-based partnerships, including engagement with local schools and federally qualified health centers, we are able to provide needed expertise and greater presence to our neighbors seeking mental health services. Through technological innovation, we are able to provide needed expertise and greater presence in the care of special populations, (e.g., veterans with trauma-related syndromes, and individuals at risk for eating disorders). Working intensively with Stanford University, we have expanded our services to students, staff, faculty, and their loved ones, on our campus. We are excited to have improved capacity and access, better serving the patients of the Stanford community, Stanford Medicine, the Bay Area, and beyond. Through integration with our translational, clinical, and implementation science activities, as well as our clinical training programs, we are able to have maximum impact in real-time and in the future.
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<th>Location</th>
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<tbody>
<tr>
<td>401 Quarry - Psychiatry and Behavioral Sciences Building</td>
<td>Stanford, CA</td>
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<td>VAPAHCs</td>
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<td>Boswell Building</td>
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<td>3165 Porter</td>
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<td>Hoover Pavilion</td>
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<td>Positive Care Clinic</td>
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<td>Sequoia Unified School District</td>
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A sense of belonging is deeply important to emotional health and personal wellbeing. Individuals develop a sense of belonging when they feel that they are part of a larger community that they believe in—a community that welcomes them, a community that respects and represents their values, and a community that helps them to fulfill their aspirations. Individuals develop a sense of belonging when they feel connected to other people, especially those who share their distinct life experiences, interests, or goals. University activities that foster a sense of belonging promote mental and physical health and help individuals to flourish in all aspects of their lives.

The importance of the feeling of belonging has been demonstrated through empirical work on human resilience and identity formation and on factors that protect emotional health and personal wellbeing, even in the context of adversity and trauma.

Studies focused on risk factors giving rise to poor health outcomes have also shown how crucial the experience of belonging can be. Individuals who feel marginalized are more likely to experience significant health problems over the course of their lives. Moreover, clear evidence has shown that individuals in distress who feel that they are disconnected and are not part of a larger community (“thwarted belongingness”) are especially vulnerable to poor outcomes, including impulsive or self-harmful behavior.

For all of these reasons, we are launching “The Belonging Project at Stanford” - a broadly-engaged, multidimensional effort to promote emotional health and personal wellbeing through connection with the communities of our campus. The Belonging Project was conceived by Dr. Laura Roberts who serves as the project director.

The Bike Beyond Project is aimed to advance a community-academic partnership to foster resilience and improved physical and mental health among at-risk transitional age youth (ages 12-22) of the Central Valley through a novel pilot program in which intermediate, high school, and community college students are taught mechanics of bicycle repair, bicycle safety, and positive self-care skills while engaging in service that supports leadership and community-building skills.

The pilot program will apply the community-based model for children, adolescents, and young adults pioneered by Green Ways To School in Santa Cruz County, in which student participants help identify needs for safer, ecologically sustainable routes to school while also developing longitudinal engagement with local organizations and small businesses. The pilot program will build upon the experience and remarkable success of a nationally-recognized intervention project originating in the Department of Psychiatry and Behavioral Sciences at Stanford University that was created to strengthen emotional wellbeing, academic performance, mental health, and family outcomes among impoverished youth by teaching mindfulness, yoga, and positive health practices. For this novel pilot project, an initial retreat will bring together Stanford researchers with cycling advocates and educators from California’s central valley and beyond. Together the convened group will lay the plans and identify best-practices for the Bike Beyond anchor project. Annual half-day retreats will be held to ensure cohesion of the project going forward. The partnership will engage: 1) local non-profit bicycle coalitions in the Central Valley; 2) classroom-based bike skills classes in Central Valley public intermediate and high schools and community colleges, and 3) academic faculty of Stanford University’s Department of Psychiatry and Behavioral Sciences.

The project will be led by Laura Roberts, MD, Victor Carrion, MD, and Kyle McKinley, MFA, of Stanford University in collaboration with diverse community partners, Tawn Kennedy, who serves as the director of Green Ways to School, Jackie Musick, who serves as an instructor for Geared Up! Bicycle Technology Program, and teachers and students of Central Valley public schools.
Clinical Neuroscience Internship Experience (CNI-X)

Co-directed by Dr. Laura Roberts and Dr. Alan Louie, the Clinical Neuroscience Internship Experience (CNI-X) at Stanford University is an intensive two-week summer program following the sophomore, junior, or senior years in high school. Interns are introduced to the amazing breadth of research found in the Stanford Department of Psychiatry and Behavioral Sciences.

Packaged back-to-back are sessions and lab trips which demonstrate how creativity is visualized with brain waves, miniature human brains are grown in dishes, apps and virtual reality are treating eating disorders, cognition is studied in flight simulators, psychiatric testimony supports human rights at the World Court, and more.

Interactive seminars introduce the students to the principles of neuroscience, neuropsychiatric diagnosis, neuropsychological testing, and psychiatric epidemiology. An adaptive and agile mind is encouraged as one session plumbs the intricacies of neuroscience, while the next involves diagnosis of a neuropsychiatric syndrome from a video, and then the following inspires one to find “flow” in one’s life.

Much of the material is clearly at a collegiate or higher level. These hours of experiential and interactive learning with highly acclaimed faculty and researchers are complemented by homework assignments including written reflections on 13 relevant TED talks, the reading of scholarly articles, and attendance at a Stanford scientific poster session.

Self-reflection and self-directed learning are emphasized with independent inquiry assignments asking for students to write about their learning objectives and career goals and to draft a curriculum of scholarly articles, and attendance at a Stanford scientific poster session.

Community engagement and commitment is a core pillar of the Department’s mission. For us, community is defined broadly, ranging from our shared commitment to building academic collaboration and support among our own faculty and staff, to partnerships with international colleagues, to building behavioral health care systems for those with mental health needs across the globe.

Our department has recently expanded community experiences for our own trainees in county and local agency settings, while also welcoming experts in community psychiatry administration to Stanford to build understanding and collaboration. Our Department’s faculty have served as leaders in response to local community crises and provided guidance on developing new behavioral health systems of care for county, state, and regional partners. This past year our departmental faculty have developed new programs and lab sessions to support communities of people with early psychosis, children and adults who have faced trauma, the United States Muslim community, people with Alzheimer’s Disease, and international victims of torture, just to name a few areas of expansion. In partnership with others, we continue to expand our community engagement efforts to increase broad access to culturally appropriate, cutting-edge mental health care.

By integrating community engagement strategies throughout the Department’s efforts, we create opportunities for co-learning and collaboration within the Department, across Stanford University, and beyond. Our partners have years of experience developing a wide variety of treatment, education, and ingenious services for those they serve. Faculty and trainees in the department feel privileged to have the opportunity to contribute to their ongoing efforts. Community engagement effectively aligns the mission of the department with the surrounding area, our nation, and the world, thereby reinforcing opportunities for partnership for decades to come.

Community Outreach Activities

Editor in Chief, Books: American Psychiatric Association

Beginning in June 2016, Dr. Laura Roberts will assume the role of Editor in Chief, Books for the American Psychiatric Association. In this capacity she will work with the Publisher, Associate Publisher, Editorial Board, and other APA staff in overseeing the editorial development of print books and electronic products, preparing and implementing book program strategy and policy, driving content direction, soliciting and reviewing book proposals and manuscripts, reviewing backlist publications, and preparing new frontlist titles.

Other responsibilities include networking with key researchers, clinicians, and academics in mental healthcare to acquire new books proposals and manuscripts, as well as screening book proposals and judging their appropriateness for publication, and identifying topics and authors for new books.

As Editor in Chief, Books she is also responsible for overseeing and ensuring the rigorous and equitable peer review of book manuscripts – selecting reviewers, monitoring modifications of revised and resubmitted manuscripts, and making disposition recommendations.

Editorial Office: Academic Psychiatry

Academic Psychiatry is a bi-monthly, international academic medical journal that publishes original papers on innovations in psychiatric education and professional development. Dr. Laura Roberts has served as Editor in Chief of the Journal since 2002, and has since been joined by Dr. Alan Louie as a Deputy Editor. Other members of the Department of Psychiatry and Behavioral Sciences of Stanford serve as editorial team members and as frequent contributors of research and of content to the Journal.

Academic Psychiatry features original, scholarly work focused on academic leadership and innovative education in psychiatry, behavioral sciences, and the health professions at large. The Journal’s mission supports work that furthers knowledge and stimulates evidence-based advances in academic medicine in six key domains: education, leadership, finance and administration, career and professional development, ethics and professionalism, and health and wellbeing.

The Journal, which publishes full and brief empirical reports alongside educational columns, commentaries, and original artwork and poetry, has grown as an international resource, with contributors, reviewers, and readers hailing from over 50 countries across the globe.
Forensic Psychiatry

Forensic Psychiatry is a subspecialty of psychiatry that encompasses the interface between the law and psychiatry. A forensic psychiatrist can provide evaluations for numerous legal purposes, including competency to stand trial and mental state opinions among others.

The Program in Psychiatry and the Law at Stanford comprises a multidisciplinary team of world-class faculty who combine clinical experience and specialized knowledge and experience in medicine, mental health, and ethics. They are able to work on inquiries related to mental health issues that arise in criminal or civil law, on an individual, corporate, or government level.

Our mission is to provide the highest level of ethical, comprehensive, unbiased, and evidence-based forensic assessments possible. We embrace the core values of integrity, excellence, and professionalism in all of our cases. We review all pertinent information and apply clinical expertise to each case to ensure that we are providing the most objective psychiatric assessments and expert opinions.

We work to ensure that all evaluations and/or assessments address clinical and forensic considerations. Our program’s faculty members are nationally recognized in their respective fields for high quality clinical and forensic considerations. Our program’s faculty members are nationally recognized in their respective fields for high quality clinical and forensic considerations.

Medicine is the most human of the sciences. The physician-patient relationship is at the heart of medical practice. Developments in science, technology, and the economics of health care, while essential to medicine and the delivery of care, also pose significant challenges to the nature, quality, and maintenance of this relationship and to medicine as a discipline. Evidence suggests that clinical outcomes, satisfaction (for both patients and physicians), and costs are negatively affected when the human side of medicine is neglected, marginalized, or otherwise disregarded. In addition, medicine is a cultural force that wields powerful effects on knowledge and values and promotes actions in broader society that are often underappreciated and poorly understood. Stanford Medicine sets itself apart from most medical schools by being located in an active university campus with scholars in humanities and social sciences at the doorstep, giving rise to an opportunities to promote interdisciplinary work at the interface of medicine and the humanities at an exceptionally high level. Many historians, anthropologists, philosophers, and literary scholars at Stanford have intellectual and academic commitments to enlightening these aspects of medicine. Their insights and wisdom seldom find their way to the medical campus, however.

The Humanities and Medicine initiative is based in the Chair’s Office and entails identifying key stakeholders and collaborating with them to learn about their interests and priorities related to humanities and medicine campus wide, developing a working group of thought leaders committed to the importance of growing humanities/medicine to provide stimulus and leadership for these types of academic and clinical efforts; identifying key opportunities for enhancing the relationship between medicine and the humanities; and developing a 3-5 year plan for enhancing/growing the academic and clinical interface between the medicine and humanities at Stanford.

Mental wellbeing is fundamental to human health. The biomedical revolution, led by Stanford Medicine, will change the trajectory and impact of the biomedical sciences through precision health for individuals and for populations. Precision psychiatry is part of this revolution.

Depression, anxiety disorders, cognitive disorders, addiction, and other conditions are common. Though treatment is remarkably effective in improving quality of life and reducing the burden of symptoms and impairment, stigma and insufficient resources are a dramatic barrier to appropriate care. Moreover, mental disorders may complicate and worsen the risks associated with other health conditions. For example, depression increases the risk of cardiovascular-related deaths threefold.

Mitigating such mental health statistics will require the best cutting-edge prediction, prevention, and premputation that population science can possibly provide. Stanford University is uniquely positioned to spearhead this effort. The Department of Psychiatry and Behavioral Sciences in the School of Medicine has launched two major initiatives to advance precision health.

In addition, in 2014 we initiated a new unit, the Division of Public Mental Health and Population Sciences, to harness the tremendous academic resources of Stanford University, encompassing computer science and biomedical data, biomedical sciences, and engineering, coupled with renowned schools of medicine, business and economics, law, education, statistics, social sciences and ethics, and design.

Advances in these fields hold the promise of revolutionizing the diagnosis and treatment of mental illness with greater precision – personalized for special populations and eventually individuals.
Lyme Disease is a serious and prevalent condition with physical, cognitive, and affective consequences. This condition and other tick-borne conditions are poorly understood and have received insufficient scientific attention. With the encouragement of a number of Lyme Disease organizations, we have initiated philanthropically focused efforts to support current research and clinical projects and catalyze new work.

Our Lyme Disease Working Group is interested in developing more accurate diagnostic tests, improving medical understanding of the course of illness, evaluating the effectiveness of innovative therapies, expanding clinical services, and building greater knowledge and awareness of how to prevent illness. Participating colleagues represent expertise in basic sciences, translational sciences, and clinical care. Basing this effort at Stanford University will build upon the advantages of working within an institution that strongly supports academic freedom while also encouraging interdisciplinary collaboration. This exceptional interdisciplinary group also values collaboration with other academic institutions, and a number of collaborations are underway.

Such a model is optimal in this context for its potential to produce solutions, and accelerate their translation into improved mental healthcare. Participants bring to bear on this task theories, tools, and expertise from fields outside mental healthcare – in particular, from information technology, design thinking, and implementation science. A multidisciplinary team including Drs. Andrew Chacko, Alison Darcy, Steven Lindsley, Alan Louis, Laura Roberts, Josef Ruzek, Marish Sagar, Erica Simon, Michael Valdivinos, and Lindsey Zimmerman are engaged in this special initiative.

Information technology encompasses the broad spectrum of possible applications including telehealth, electronic medical records, and measurement-based care, big data and machine learning, m-health applications and biometrics, virtual extenders, technological adjuncts to treatment, virtual reality, web-based interventions, and more. We are setting out to discover and create information technologies targeted at improving human mental health.

Design thinking is inspired by Stanford’s Hasso Plattner Institute of Design, or “d.school,” and our reimagining will be catalyzed by many of the d.school tenets, like need-focused approach, user-centered design, and techniques to harness a creative mindset, including brainstorming and rapid prototyping. By infusing design thinking throughout, we may truly understand the mental health needs of our patients and the myriad array of providers and craft solutions required to meet those needs.

Implementation science is the study of the dissemination and actualization of research findings for the benefit of patients in the real world. This science will be core to introducing and integrating discoveries into clinical practices and the care of populations, here and globally.

In essence, Reimagining Mental Healthcare is an incubator and accelerator of ideas and projects. We incubate ideas, iterate and refine their solutions, and accelerate their translation into improved mental healthcare. Participants bring different expertise to collaborations, and meetings with members of other Stanford Schools (e.g., School of Engineering) and Silicon Valley industries are additional resources for consultation and joint ventures.
Our People

Stanford Center for Youth Mental Health and Wellbeing

The Stanford Center for Youth Mental Health and Wellbeing recognizes that we are in the midst of a national public health crisis among US youth and is committed to spearheading a new national vision for adolescent and young adult wellness and mental health support.

The clinical and research experts within the Department of Psychiatry and Behavioral Sciences have laid the groundwork of a national initiative for youth through their expertise in early mental health support, development of self-regulation tools, school mental health, and suicide prevention.

By creating an innovative health system and a new culture of health for the adolescent and young adult population, Stanford hopes to create a model for the country in how to better support our young people to navigate the transition to adulthood and realize their full potential as adults.

WellConnect

Stanford WellConnect is a confidential mental health referral and consultation program for residents and fellows that was created by Dr. Laura Roberts in 2011 in response to significant needs identified among clinical trainees on our campus.

This program was established to address three main objectives: 1) mental health and wellbeing of residents and fellows, 2) educational needs that align with the Accreditation Council for Graduate Medical Education requirements, and 3) administrative support and guidance associated with health issues.

At times stressors experienced by resident and fellow physicians can get in the way of balancing the demands of professional and personal life, and without help, problems can intensify, affecting emotional and physical wellbeing and professional success.

Although emotional distress often manifests in obvious ways, the symptoms of many psychological problems can be subtle.

Services for residents and fellows include the following:
- Individual counseling
- Couples counseling
- Substance abuse assessment and counseling
- Medication evaluation
- Medication management

Services for program directors, faculty, and staff include consultation to assist in recognizing mental health concerns of residents and fellows and serving as a resource for decision making that balances the needs of trainees and programs.

Stanford WellConnect also offers wellness curriculum consultations and provides lectures and workshops on the following topics:
- Work-life balance
- Sleep hygiene
- Stress and anger management
- Team building and Interpersonal effectiveness
- Accepting and giving feedback
- Identifying the signs of burnout, anxiety, and depression
The vision of leaders is often touted as their greatest value to organizations, and perhaps that is true. The ability to imagine a better future, to articulate it clearly, and then to bring others forward in building and attaining that vision is certainly an essential quality of effective leaders. Leaders with extraordinary vision are thus creative, well-spoken, and influential, and generate a sense of cohesiveness among individuals who, together, exert purposeful effort toward a foreseen objective.

In academic psychiatry, leaders are people who can help our field generally, and departments of psychiatry specifically, to fulfill their commitments in multiple mission areas. Most traditional academic organizations define three core missions, but I believe we actually assume responsibility for five overlapping areas. The first two areas encompass education, preparing the next generation of physicians-in-training and developing innovative specialty and subspecialty initiatives, as well as research and scholarship, the generation, translation, and application of new knowledge for the benefit of society. A third mission area is clinical advancement and practice, which involves creating new diagnostic and therapeutic approaches and providing state-of-the-art clinical care for patients from all backgrounds and walks of life. We are also responsible for community engagement—working to partner with, serve, and improve the health of our communities, locally and globally. We are charged with fostering professionalism and the companion endeavors of supporting professional development and ensuring the ethical expression of our profession in everyday life. Taken together, these commitments support the growth of expertise and skill among faculty and trainees. What is more, they strengthen the ability of today’s early career leaders to carry the duties to our profession and its stakeholders moving forward. A leader with vision in academic psychiatry, in my view, is one who is able to recognize the interdependent nature of these mission areas and to yoke them together to bring about a better future.