

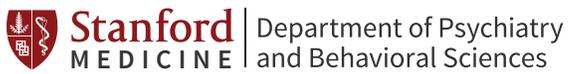
# ACADEMIC UPDATE 2018

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Department of Psychiatry and Behavioral Sciences



**Stanford**  
MEDICINE



## 2018 Academic Update Team

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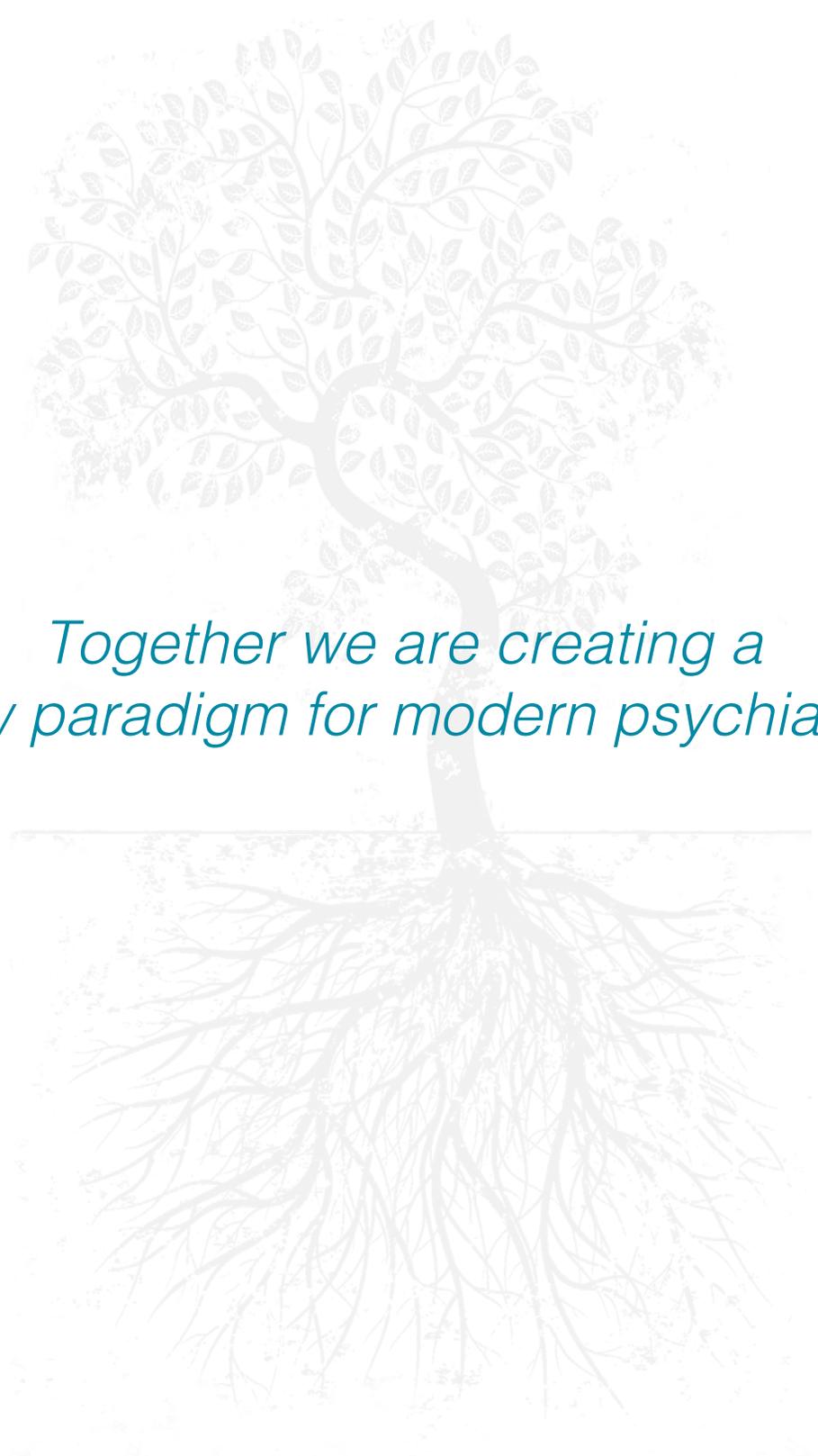
Original artwork by Samantha Kim.

*The information presented in this update represents data as of June 1, 2018, unless otherwise noted.*

[psychiatry.stanford.edu](http://psychiatry.stanford.edu)

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*Together we are creating a  
new paradigm for modern psychiatry.*



# A Message from the Chair

Together, we are creating a new paradigm for modern psychiatry. In this new paradigm, we move beyond the treatment of disease to the imperative of fostering overall health, resilience, and wellbeing. We work to understand the brain, with its extraordinary capacities and complexity, and to gain knowledge of its nature, development, adaptations, and dysfunction. We invent and combine evidence-based therapeutics, and we collaborate with our patients and their families so that each day may be lived well and in better health. We are developing new strategies to prevent and lessen the burdens of illness experienced by individuals, communities, and populations.

This new approach to psychiatry differs in that it is richly informed by extraordinary scientific discoveries and, at the same time, by an appreciation of the long-understood positive role of the therapeutic relationship in human healing. In this new paradigm we embrace the responsibility to transform human health -- and to cure as well as to care for mental illness.

The approach of the Department of Psychiatry and Behavioral Sciences of Stanford Medicine is driven by innovation -- bringing novel approaches and technologies to tackle the hardest challenges in the laboratory, clinic, community, and nation. Our approach exists because of the acceleration of wonderful work by our scientists, scholars, educators, and learners in many academic disciplines.

And this approach is so important: mental disorders are the second-leading cause of disease burden throughout the world. Stigma, at this time, makes living with mental disorders so much harder and the opportunities for a healthier life so much fewer.

By rapidly translating great science and dismantling social barriers, our work thus redefines state-of-the-art standards of care for millions of people affected by mental disorders. This work is an expression of Precision Health and Wellness, the strategic vision of Stanford Medicine, and it is ambitious. We are transforming human health.

We have arrived at this moment because of the creativity, tenacity, and clarity of purpose of our academic community. We all have a role in advancing science, clinical innovation and service, educational excellence, community commitment and engagement, and professionalism and leadership. These missions, taken together, become a transformative methodology and have become the basis of this transformational new paradigm for psychiatry at Stanford.

A handwritten signature in blue ink, appearing to read 'Laura Roberts'.

**Laura Roberts, MD, MA**  
*Chairman, Department of Psychiatry and Behavioral Sciences*  
*The Katherine Dexter McCormick and Stanley McCormick Memorial Professor*

# Department of Psychiatry and Behavioral Sciences of Stanford University School of Medicine



*Our aim is to enable great science, prepare exceptional people, and inspire an engaged society to create a better future for all whose lives are affected by mental illness.*

The Department of Psychiatry and Behavioral Sciences of Stanford Medicine 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.

**Academic medicine is entrusted with human health.**

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 understanding of the nature of the brain and of 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.**

Building on the remarkable accomplishments of the past, together we have established a great modern academic department, integrating and accelerating our five missions of advancing science, clinical innovation and service, educational excellence, community engagement and commitment, and professionalism and leadership. And together we are making a difference in the lives of our patients, our students, our neighborhood, and our world. It is my privilege to serve with you in leading this department. With deep respect and my heartfelt thanks to my colleagues throughout our department, I offer these reflections on what is distinct about our academic home.

**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 cells, 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.**

We are a network of scientists, clinicians, educators, trainees, and staff with the shared intent to make a difference through our efforts in science, clinical care, education, the 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 dedicated to a culture of wellness.

Our mission to improve the health of individuals, communities, and populations begins with attention to our own health and our habits. With every choice we make to contribute to our own wellbeing, we invest in our capacity for sustainable contribution to each of our five missions. With every endeavor we engage in collectively to support the wellbeing of our colleagues and team members, we invest in our collective capacity that multiplies our contributions to our patients, our community, and the world. Wellbeing adds inspiration and creativity to the advancement of science, meaning and purpose to clinical innovation and service, and enduring integrity to educational excellence. With unwavering commitment to our own wellbeing and the wellbeing of those we love and those we work with, we create a compelling pattern for others to emulate in our community engagement efforts. Sustained commitment to our own wellbeing enables us to play our full part in preventing and relieving suffering and solving societal problems that deeply affect humanity.

## 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.

## We are all touched by mental illness.

Every one 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.

# Department Snapshot

#7

ranked psychiatry department among Best Medical Schools in the US for 2019

#9

ranked psychiatry department in the US for NIH funding in 2017

107

postdoctoral scholars

7,000+

learners engaged by our department this past year

\$91M

in overall department revenues in FY17

80,953

adult, child, and sleep clinic visits in FY17

135%

increase in clinical productivity since FY10

33%

of residents and fellows identify as an underrepresented minority

\$77.6M

in new research grants/contracts secured in FY17

210

current competitively funded projects and agreements

4 and 10

National Academy of Sciences and National Academy of Medicine members

\$206M

in proposals sought  
by department  
faculty in FY17

15%

of postdoctoral  
scholars identify as an  
underrepresented  
minority

13

endowed  
professorships in  
the department

100%

on-time performance  
for academic affairs  
since 2010

18

NIH K-awards  
in FY18

\$90M+

philanthropic gifts  
received from  
FY10-FY18

100%

PGSP-Stanford PsyD  
graduates matched  
into APA accredited  
internships in 2017

30%

of department  
faculty members  
identify as minority

760+

publications by  
department faculty  
in CY17

200+

professoriate & CE  
faculty in AY17



# Professionalism and Leadership

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.

# Professionalism and Leadership

583

department  
faculty

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.

343

staff  
members

To strengthen our sense of purpose, our effectiveness, and our cohesiveness as one academic community, we have an established leadership team, including the Department Chairman, the Vice Chair, Associate Chairs, Division Chiefs, and Administrative Staff. Beyond these roles, we have several standing committees that are important in fulfilling critical functions of the Department.

Together, this executive and administrative infrastructure supports department-wide efforts to strengthen the leadership skills and aspirations of our early career faculty and staff, and to cultivate a culture that is supportive of professional growth and opportunities.

5

interdependent  
academic  
missions



# Department Leadership



**Laura Roberts, MD, MA**  
Chair



**Victor Carrion, MD**  
Vice Chair



**Steven Adelsheim, MD**  
Associate Chair, Community  
Commitment and Engagement



**Bruce Arnow, PhD**  
Associate Chair, Psychology  
and Psychology Training  
  
Division Co-Chief, General  
Psychiatry and Psychology



**Sallie De Golia, MD, MPH**  
Associate Chair, Clinician  
Educator Professional  
Development



**Karl Deisseroth, MD, PhD**  
Associate Chair, Scientific  
Innovation and Collaboration



**Brian Donnellan, MBA**  
Associate Chair, Finance  
and Operations



**Cheryl Gore-Felton, PhD**  
Associate Chair, Administration  
  
Division Co-Chief, Public Mental  
Health and Population Sciences



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



**Chris Hayward, MD, MPH**  
Associate Chair, Translational  
and Clinical Service  
  
Division Co-Chief, General  
Psychiatry and Psychology



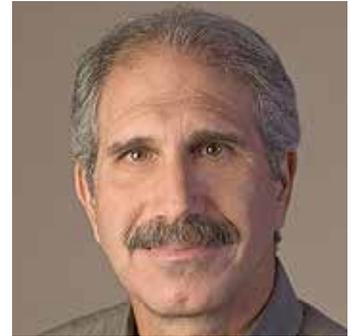
**Clete Kushida, MD, PhD**  
Division Chief, Sleep Medicine



**James Lock, MD, PhD**  
Associate Chair,  
Professionalism and  
Leadership



**Alan Louie, MD**  
Associate Chair, Education



**Robert Malenka, MD, PhD**  
Associate Chair,  
Scientific Discovery



**Mark McGovern, PhD**  
Division Co-Chief, Public Mental  
Health and Population Sciences



**Douglas Noordsy, MD**  
Associate Chair, Clinical  
Integration and Coordination



**Ruth O'Hara, PhD**  
Associate Chair, Scientific  
and Academic Development



**Allan Reiss, MD**  
Division Chief, Interdisciplinary  
Brain Sciences



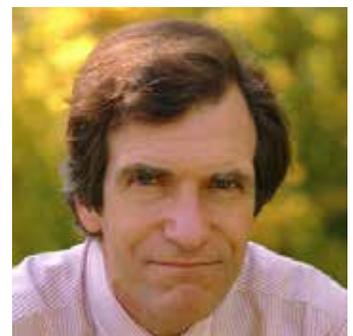
**Carolyn Rodriguez, MD, PhD**  
Associate Chair,  
Inclusion and Diversity



**David Spiegel, MD**  
Associate Chair,  
University Relations



**Leanne Williams, PhD**  
Associate Chair, Research  
Strategy and Oversight



**Jerome Yesavage, MD**  
Associate Chair,  
Veterans Affairs

# Council of Advisory Committees

## Clinical Executive Committee

Laura Roberts, MD, MA, Chair  
Steven Adelsheim, MD  
Bruce Arnow, PhD  
Victor Carrion, MD  
Brian Donnellan, MBA  
Cheryl Gore-Felton, PhD  
Antonio Hardan, MD  
Chris Hayward, MD, MPH  
David Hong, MD  
Jim Jacobs, MD, PhD  
Brett Kelly, MBA  
Heather Kenna, MA, MS  
Clete Kushida, MD, PhD  
Tina Lee, MD  
Stephanie Lettieri, MBA  
James Lock, MD, PhD  
Alan Louie, MD  
Douglas Noordsy, MD  
Leanne Williams, PhD

## Clinical Strategic Planning Committee

Chris Hayward, MD, MPH, Chair  
Steven Adelsheim, MD  
Bruce Arnow, PhD  
Ed Buelna  
Brian Donnellan, MBA  
Lindsay Flaherty, MBA, MPH  
Brett Kelly, MBA  
Alison Kerr, MSN  
Alan Louie, MD  
Douglas Noordsy, MD  
Kathy Sanborn, MD  
Mytilee Vemuri, MD, MBA  
Lynda Wolfe

## Clinical Operations Committee: Adult

Chris Hayward, MD, MPH, Chair  
Bruce Arnow, PhD  
Nick Bassano  
Ed Buelna  
Sonya Carten  
Brian Donnellan, MBA  
Brett Kelly, MBA  
Albert Lam  
Mytilee Vemuri, MD, MBA  
Lynda Wolfe

## Clinical Operations Committee: Child

Antonio Hardan, MD, Chair  
Steven Adelsheim, MD  
Victor Carrion, MD  
Brian Donnellan, MBA  
Shashank Joshi, MD  
Brett Kelly, MBA  
James Lock, MD, PhD  
Douglas Noordsy, MD  
Laura Roberts, MD, MA  
Richard Shaw, MD  
Sharon Williams, PhD  
Sanno Zack, PhD

## Appointments and Promotions Advisory Committee: Professoriate

Keith Humphreys, PhD, Co-Chair  
David Spiegel, MD, Co-Chair  
Bruce Arnow, PhD  
Charles DeBattista, MD, DMH  
Laura Dunn, MD  
Joachim Hallmayer, MD, Dr Med  
Chris Hayward, MD, MPH  
Booil Jo, PhD  
Clete Kushida, MD, PhD  
Alan Louie, MD  
Robert Malenka, MD, PhD  
Edith Sullivan, PhD  
Patricia Suppes, MD, PhD  
Jerome Yesavage, MD

## Appointments and Promotions Advisory Committee: Clinician Educators

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Kimberly Hill, PhD, Co-Chair  
Michelle Brown, PhD  
Daniel Kim, MD  
Tina Lee, MD, MS  
Rafael Pelayo, MD  
Divy Ravindranath, MD, MS  
Daryn Reicherter, MD  
Yelizaveta Sher, MD  
Shannon Sullivan, MD  
Katherine Williams, MD

### **Appointments and Promotions Advisory Committee: Subcommittee on VA Affiliated Clinician Educators**

Tina Lee, MD, Chair  
Emily Gere, Administrative Lead  
Peter Bayley, PhD  
Eric Kuhn, PhD  
Alan Louie, MD  
Joy Taylor, PhD

### **Strategic Space Use and Allocation Advisory Committee**

Bruce Arnow, PhD, Chair  
Victor Carrion, MD  
Brian Donnellan, MBA  
Cheryl Gore-Felton, PhD  
Booil Jo, PhD  
Alan Louie, MD  
Aimee-Noelle Swanson, PhD  
Sharon Williams, PhD

### **Grand Rounds / CME Committee**

Alan Louie, MD, Chair  
Lawrence Fung, MD, PhD, Assoc. Chair  
Bruce Arnow, PhD  
Sepideh Bajestan, MD, PhD  
Belinda Bandstra, MD, MA  
Sallie De Golia, MD, MPH  
William Faustman, PhD  
Anita Kishore, MD  
Malathy Kuppuswamy, MD  
Steve Lindley, MD, PhD  
Douglas Noordsy, MD  
Gerry Piaget, PhD  
Kristin Raj, MD  
Gisela Sandoval, MD, PhD  
Peter van Roessel, MD  
Lynn Yudofsky, MD

### **Advisory Committee on Annual Awards and Nominations**

Alan Louie, MD, Co-Chair  
Sharon Williams, PhD, Co-Chair  
Sherry Beaudreau, PhD  
Mahendra Bhati, MD  
Amit Etkin, MD, PhD  
David Hong, MD  
Booil Jo, PhD  
Mark McGovern, PhD  
Philippe Mourrain, PhD  
Karen Parker, PhD  
Richard Shaw, MD  
Edith Sullivan, PhD  
Jamie Zeitzer, PhD

### **Adjunct Clinical Faculty Review Committee**

Cheryl Gore-Felton, PhD, Chair  
Mali Mann, MD  
Donald Mordecai, MD  
Thomas Plante, PhD

### **Veterans Affairs Psychiatry Education Committee**

Alan Louie, MD, Chair  
Smita Das, MD, PhD, MPH  
George Freeman, MD, PhD  
Aazaz Haq, MD  
Malathy Kuppuswamy, MD  
Tina Lee, MD  
Steve Lindley, MD, PhD  
Margaret May, MD  
Michael Ostacher, MD  
Divy Ravindranath, MD  
Tasha Souter, MD  
Marina Urman-Yotam, MD  
Sarah Yasmin, MD

### **Education Leadership and Integration Advisory Committee**

Alan Louie, MD, Chair  
Sallie De Golia, MD, MPH, Assoc. Chair  
Amy Alexander, MD  
Bruce Arnow, PhD  
Sepideh Bajestan, MD, PhD  
Belinda Bandstra, MD, MA  
John Barry, MD  
Michelle Brown, PhD  
Kate Corcoran, MD  
Smita Das, MD, PhD, MPH  
Chuck DeBattista, MD, DMH  
Laura Dunn, MD  
Glen Elliot, MD, PhD  
Kaci Fairchild, PhD  
William Faustman, PhD  
Mark Freeman, MD, PhD  
Michelle Goldsmith, MD  
Cheryl Gore-Felton, PhD  
Chris Hayward, MD, MPH  
Kimberly Hill, PhD  
Robert M. Holaway, PhD  
Jeanette Hsu, PhD  
Shashank Joshi, MD  
Malathy Kuppuswamy, MD  
Anna Lembke, MD  
Jose Maldonado, MD  
Margaret May, MD  
Michael Ostacher, MD, MPH  
Yasmin Owusu, MD  
Divy Ravindranath, MD, MS  
Laura Roberts, MD, MA  
Anstella Robinson, MD  
Katherine Sanborn, MD  
Yelizaveta Sher, MD  
Shannon Sullivan, MD  
Allison Thompson, PhD  
Sharon Williams, PhD

# Administration

## EXECUTIVE OFFICE

Director of Finance and Administration  
Brian Donnellan, MBA

Executive Assistant and Special Projects Coordinator  
Megan Cid

Executive Assistant  
Lingfei Ni

Administrative Associate  
Denise Knab

Web and Communications Administrator  
Mindy Hantke

Senior Editor and Publishing Projects Manager  
Ann Tennier, ELS

Special Initiatives Team  
Alecia Byers  
Kyle Lane-McKinley, MFA  
Katie Ryan, MA  
Tenzin Tsungmey, MPH

## HUMAN RESOURCES

Human Resources Manager  
Linda Vargas

Human Resources Associates  
Xanthie Cook  
Sandra Day  
Sherry Vega

Postdoc Coordinator  
Chris Medina

## RESEARCH ADMINISTRATION

Director of Research Development, Integrity, and Strategy  
Aimee-Noelle Swanson, PhD

Director of Research Finance  
Sarah Saya Hernandez

Senior Finance Managers  
Jenny Chen  
Diven Sharma  
Linda Thomas  
Sharon Wormley  
Jenny Zhang

Accountant  
Jessica Liu

Accounting Associates  
Kat Wong  
Sherrie Zheng

## FINANCE ADMINISTRATION

Director of Finance and Clinical Operations  
Brett Kelly, MBA

Senior Clinical Financial Analyst  
Lie Hong Tan

Finance and Contracts Analyst  
Ozeir Nassery

Clinical Financial Analyst  
Albert Lam

## FACILITIES AND OPERATIONS

Facilities Director  
Chia-Yu Cardell, MBA

## ACADEMIC AFFAIRS AND EDUCATION PROGRAMS

Director of Faculty Affairs and Strategic Planning  
Heather Kenna, MA, MS

Faculty Affairs Manager  
Sabrina Ahmad

Faculty Affairs Administrator  
Jacqueline Ching

Adult Residency Coordinator  
Mario Mercurio

Child Residency Coordinator  
Ola Golovinsky

Medical Clerkship Coordinator  
Quynh Dang

Fellowship Coordinator  
Romola Breckenridge

Administrative Associates  
Maryam Mossadeghian  
Stephanie Roberts

## SLEEP MEDICINE ADMINISTRATION

Associate Director of Finance & Administration, Sleep Medicine  
Stephanie Lettieri, MBA

Finance Manager  
Carlos Perez

Research Administrator  
Ashley Gomez

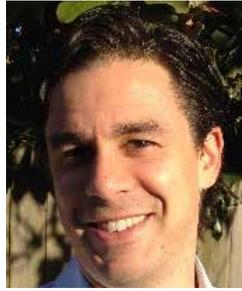
Senior Manager, Clinical Research  
Eileen Leary



# Department Faculty as of April 1, 2018



Elias Aboujaoude, MD, MA  
Clinical Professor



Daniel Abrams, PhD  
Instructor



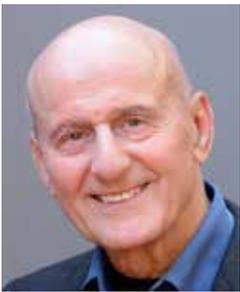
Emily Ach, PhD  
Clinical Assistant  
Professor



Steven Adelsheim, MD  
Clinical Professor



Sarah Adler, PsyD  
Clinical Assistant  
Professor



William Stewart Agras, MD  
Emeritus (Active)  
Professor



Ronald Albucher, MD  
Clinical Associate  
Professor



Amy Alexander, MD  
Clinical Assistant  
Professor



Andrea Ament, MD  
Clinical Assistant  
Professor



Bruce Arnow, PhD  
Professor



Rania Awaad, MD  
Clinical Assistant  
Professor



James Jonghun Bae, MD  
Clinical Assistant  
Professor



Sepideh Bajestan, MD, PhD  
Clinical Assistant  
Professor



Jacob Ballon, MD, MPH  
Clinical Assistant  
Professor



Belinda Bandstra, MD, MA  
Clinical Assistant  
Professor



John Barry, MD  
Professor



Fiona Barwick, PhD  
Clinical Assistant  
Professor



Kevin Beier, PhD  
Instructor



Anne Benham, MD  
Clinical Professor



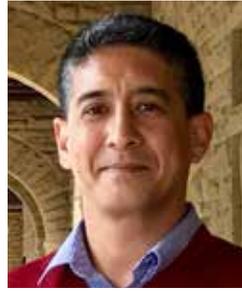
F. Christian Bennett, MD  
Instructor



Michele Berk, PhD  
Assistant Professor



Rebecca Bernert, PhD  
Assistant Professor



Mahendra Bhati, MD  
Clinical Associate  
Professor



Justin Birnbaum, MD  
Clinical Professor



Thaddeus Block, MD  
Clinical Instructor



Cara Bohon, PhD  
Assistant Professor



Michelle Brown, PhD  
Clinical Associate  
Professor



Jennifer Bruno, PhD  
Instructor



Kim Bullock, MD  
Clinical Associate  
Professor



Weidong Cai, PhD  
Instructor



Michelle Cao, DO  
Clinical Associate  
Professor



Victor Carrion, MD  
Professor



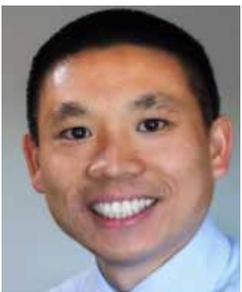
Regina Casper, MD  
Emeritus (Active)  
Professor



Erin Cassidy Eagle, PhD  
Clinical Associate  
Professor



Sundari Chetty, PhD  
Instructor



Joseph Cheung, MD, MS  
Instructor



Stephanie Clarke, PhD  
Clinical Instructor



Danielle Colborn, PhD  
Clinical Assistant  
Professor



Latoya Conner, PhD  
Clinical Associate  
Professor



Kate Corcoran, PhD  
Clinical Associate  
Professor



Victoria Cosgrove, PhD  
Clinical Assistant  
Professor



Jessica Crawford, MD  
Clinical Instructor



Katharine Dahl, PhD  
Clinical Assistant  
Professor



Whitney Daniels, MD  
Clinical Assistant  
Professor



Sallie De Golia, MD, MPH  
Clinical Professor



Luis de Lecea, PhD  
Professor



Charles DeBattista, MD, DMH  
Professor



Jennifer Derenne, MD  
Clinical Associate  
Professor



Ana DiRago, PhD  
Clinical Instructor



Jennifer Douglas, PhD  
Clinical Instructor



Laramie Duncan, PhD  
Instructor



Laura Dunn, MD  
Professor



Timothy Durazzo, PhD  
Associate Professor



Emmanuel During, MD  
Clinical Assistant  
Professor



Flint Espil, PhD  
Instructor



Amit Etkin, MD, PhD  
Associate Professor



Carl Feinstein, MD  
Emeritus (Active)  
Professor



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Clinical Assistant  
Professor



Katie Fracalanza, PhD  
Clinical Instructor



Lawrence Fung, MD, PhD  
Instructor



Dolores Gallagher-Thompson, PhD, ABPP  
Emeritus (Active) Professor



Renee Garcia, MD  
Clinical Instructor



Sonia Gaur, MD  
Clinical Assistant Professor



Grace Gengoux, PhD  
Clinical Associate Professor



Anda Gershon, PhD  
Instructor



Soudabeh Givrad, MD  
Clinical Instructor



Michelle Goldsmith, MD  
Clinical Associate Professor



Andrea Goldstein-Piekarski, PhD  
Instructor



Cheryl Gore-Felton, PhD  
Professor



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Clinical Associate Professor



Tamar Green, MD  
Instructor



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MD, DBiol  
Professor



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MD, Dr med  
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Hadi Hosseini, PhD  
Assistant Professor



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Rona Hu, MD  
Clinical Associate  
Professor



Keith Humphreys, PhD  
Professor



Filza Hussain, MD  
Clinical Assistant  
Professor



Randall Inouye, DDS, MSD  
Clinical Instructor



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MD, PhD, FAACP  
Associate Professor



Booil Jo, PhD  
Associate Professor



Shashank Joshi, MD  
Associate Professor



Agnieszka Kalinowski, MD, PhD  
Clinical Instructor



Kate Kaplan, PhD  
Clinical Instructor



Makoto Kawai, MD, DSc  
Instructor



Jennifer Keller, PhD  
Clinical Associate  
Professor



Megan Kelly, Psy.D.  
Clinical Instructor



Matthew Kendra, PhD  
Clinical Assistant  
Professor



Moira Kessler, MD  
Clinical Assistant  
Professor



Ahmed Khan, MD, MPH  
Clinical Assistant  
Professor



Christina Khan, MD, PhD  
Clinical Assistant  
Professor



Daniel Kim, MD  
Clinical Assistant  
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Jane Kim, PhD  
Instructor



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Clinical Assistant  
Professor



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Professor



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Professor



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Clinical Assistant  
Professor



Hilit Kletter, PhD  
Clinical Assistant  
Professor



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Clinical Professor



Manuela Kogon, MD  
Clinical Associate  
Professor



Cheryl Koopman, PhD  
Emeritus (Active)  
Professor



Lorrin Koran, MD  
Emeritus (Active)  
Professor



Mari Kurahashi, MD, MPH  
Clinical Assistant  
Professor



Cleto Kushida, MD, PhD  
Professor



Scott Kutscher, MD  
Clinical Assistant  
Professor



Sheila Lahijani, MD  
Clinical Assistant  
Professor



Rie Lebus, PhD  
Clinical Instructor



Kevin Lee, MD  
Clinical Instructor



Anna Lembke, MD  
Associate Professor



Douglas Levinson, MD  
Professor



Andrea Lewallen, PhD  
Clinical Instructor



Steven Lindley, MD, PhD  
Associate Professor



James Lock, MD, PhD  
Professor



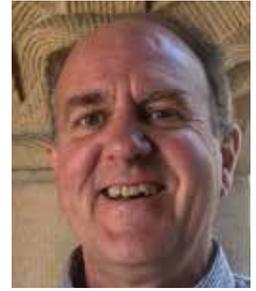
Linda Lotspeich, MD, MEd  
Clinical Professor



Alan Louie, MD  
Professor



Kristine Luce, PhD  
Clinical Associate  
Professor



David Lyons, PhD  
Professor



Jose Maldonado, MD,  
FAPM, FAFCE  
Professor



Robert Malenka, MD, PhD  
Professor



Rachel Manber, PhD  
Professor



Daniel Mason, MD  
Clinical Assistant  
Professor



Ryan Matlow, PhD  
Clinical Assistant  
Professor



Lawrence McGlynn, MD  
Clinical Professor



Mark McGovern, PhD  
Professor



Vinod Menon, PhD  
Professor



Emmanuel Mignot,  
MD, PhD  
Professor



Lauren Mikula Schneider, PsyD  
Clinical Assistant  
Professor



Adam Miner, PsyD  
Instructor



Adriana Sum Miu, PhD  
Clinical Instructor



Kelli Moran-Miller, PhD  
Clinical Assistant  
Professor



Philippe Murrain, PhD  
Associate Professor



Greer Murphy, MD, PhD  
Emeritus (Active)  
Professor



Seiji Nishino, MD, PhD  
Emeritus (Active)  
Professor



Douglas Noordsy, MD  
Clinical Professor



Ruth O'Hara, PhD  
Associate Professor



Maurice Ohayon, MD, DSc, PhD  
Professor



Nichole Olson, PhD  
Clinical Instructor



Lilya Osipov, PhD  
Clinical Instructor



Michael Ostacher,  
MD, MPH, MMSc  
Associate Professor



Yasmin Owusu, MD  
Clinical Assistant  
Professor



Oxana Palesh, PhD  
Assistant Professor



Stefano Pallanti, MD, PhD  
Professor



Karen Parker, PhD  
Associate Professor



Sergiu Pasca, MD  
Assistant Professor



Bina Patel, MD  
Clinical Assistant  
Professor



Sujata Patel, MD  
Clinical Assistant  
Professor



Rafael Pelayo, MD  
Clinical Professor



Cassandra Perret, PsyD  
Clinical Instructor



Jennifer Phillips, PhD  
Clinical Associate  
Professor



Lisa Post, PhD  
Clinical Associate  
Professor



Erica Ragan, PhD  
Clinical Assistant  
Professor



Douglas Rait, PhD  
Clinical Professor



Kristin Raj, MD  
Clinical Instructor



Natalie Rasgon, MD, PhD  
Professor



Elizabeth Reichert, PhD  
Clinical Assistant  
Professor



Daryn Reicherter, MD  
Clinical Professor



Allan Reiss, MD  
Professor



Alan Ringold, MD  
Clinical Professor



Thalia Robakis, MD, PhD  
Clinical Assistant  
Professor



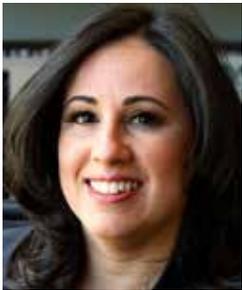
Laura Roberts, MD, MA  
Professor



Anstella Robinson, MD  
Clinical Associate  
Professor



Athena Robinson, PhD  
Clinical Associate  
Professor



Carolyn Rodriguez, MD, PhD  
Assistant Professor



Elsa Rojas-Ashe, PhD  
Clinical Instructor



Craig Rosen, PhD  
Associate Professor



Cristin Runfola, PhD  
Clinical Assistant  
Professor



Josef Ruzek, PhD  
Professor



Srikanth Ryali, PhD  
Instructor



Debra Safer, MD  
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Manish Saggar, PhD  
Assistant Professor



Katherine Sanborn, MD  
Clinical Assistant  
Professor



Mary Sanders, PhD  
Clinical Associate  
Professor



Gisela Sandoval, MD, PhD  
Clinical Assistant  
Professor



Vidushi Savant, MD  
Clinical Instructor



Alan Schatzberg, MD  
Professor



Logan Schneider, MD  
Clinical Instructor



Shebani Sethi-Delai, MD  
Clinical Instructor



Nirao Shah, MD, PhD  
Professor



Richard Shaw, MD  
Professor



Yelizaveta Sher, MD  
Clinical Assistant  
Professor



Melissa Silverman, MD  
Clinical Instructor



Norah Simpson, PhD  
Clinical Assistant  
Professor



Manpreet Singh, MD, MS  
Assistant Professor



Hugh Solvason, MD, PhD  
Clinical Associate  
Professor



Barbara Sommer, MD  
Emeritus (Active)  
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David Spiegel, MD  
Professor



Nicole Starace, PhD  
Clinical Assistant  
Professor



Hans Steiner, MD  
Emeritus (Active)  
Professor



Keith Sudheimer, PhD  
Instructor



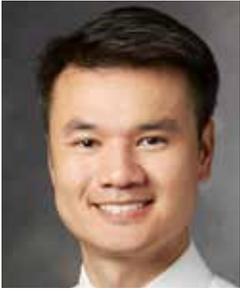
Edith Sullivan, PhD  
Professor



Shannon Sullivan, MD  
Clinical Associate  
Professor



Patricia Suppes, MD, PhD  
Professor



Steven Sust, MD  
Clinical Instructor



Margo Thienemann, MD  
Clinical Professor



Jared Tinklenberg, MD  
Emeritus (Active)  
Professor



Julie Tinklenberg, MD  
Clinical Assistant  
Professor



Ranak Trivedi, PhD  
Assistant Professor



Mickey Trockel, MD, PhD  
Clinical Associate  
Professor



Alexander Urban, PhD  
Assistant Professor



Linsey Utzinger, PsyD  
Clinical Assistant  
Professor



Peter van Roessel, MD  
Clinical Assistant  
Professor



Mytilee Vemuri, MD, MBA  
Clinical Associate  
Professor



Janani Venugopalakrishnan, MD  
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Professor



Po Wang, MD  
Clinical Professor



Katherine Williams, MD  
Clinical Professor



Leanne Williams, PhD  
Professor



Nolan Williams, MD  
Clinical Assistant  
Professor



Sharon Williams, PhD  
Clinical Professor



Helen Wilson, PhD  
Clinical Associate  
Professor



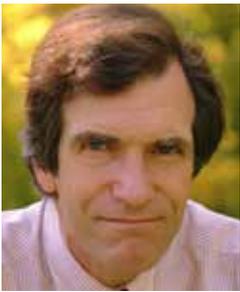
Shannon Wiltsey-  
Stirman, PhD  
Assistant Professor



Matthew Wright, MD, PhD  
Instructor



Tonita Woolie, PhD  
Clinical Associate  
Professor



Jerome Yesavage, MD  
Professor



Jong Yoon, MD  
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Sanno Zack, PhD  
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Laraine Zappert, PhD  
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Jamie Zeitzer, PhD  
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## Secondary Appointments



Chwen-Yuen Angie Chen, MD  
Clinical Assistant  
Professor



Lu Chen, PhD  
Professor



Karl Deisseroth, MD, PhD  
Professor



Shaul Druckmann, PhD  
Assistant Professor



Korey Hood, PhD  
Professor



Mitchell Miglis, MD  
Clinical Assistant  
Professor



Diana Naranjo, PhD  
Clinical Associate  
Professor



Pablo Paredes Castro, PhD  
Instructor



Gaurav Singh, MD, MPH  
Clinical Assistant  
Professor

## Faculty Not Pictured

Suzanne Bruch, MD  
Clinical Assistant Professor

Sara Gandy, MD  
Clinical Associate Professor

Farnaz Hooshmand, MD  
Clinical Instructor

Laura Lazzeroni, PhD  
Professor

Jennifer Alexis Ortiz, PhD  
Clinical Instructor

Mariana Schmajuk, MD  
Clinical Assistant Professor

M. Dhyanne Warner, MD, PhD  
Clinical Professor

Kristen Willar, PhD  
Clinical Instructor

Lynn Yudofsky, MD  
Clinical Instructor

Isheeta Zalpuri, MD  
Clinical Assistant Professor

## Inactive Emeritus Faculty

Elizabeth Bing, PhD  
Emeritus Faculty (Academic Council)

Raymond Clayton, PhD  
Emeritus Faculty (Academic Council)

William Dement, MD, PhD, DSc  
Emeritus Faculty (Academic Council)

Judith Ford, PhD  
Emeritus Faculty (Academic Council)

Ira Glick, MD  
Emeritus Faculty

Roy King, MD  
Emeritus Faculty (Academic Council)

Helena Kraemer, PhD  
Emeritus Faculty (Academic Council)

P Herbert Leiderman, MD  
Emeritus Faculty (Academic Council)

Robert Matano, PhD  
Emeritus Faculty (Academic Council)

Rudolf Moos, PhD  
Emeritus Faculty (Academic Council)

Adolf Pfefferbaum, MD  
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Walton Roth, MD  
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Javaid Sheikh, MD, MBA  
Emeritus Faculty (Academic Council)

Craig Barr Taylor, MD  
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Larry Thompson, PhD  
Emeritus Faculty (Academic Council)

Brant Wenegrat, MD  
Emeritus Faculty (Academic Council)

Irvin Yalom, MD  
Emeritus Faculty (Academic Council)

Vincent Zarcone, MD  
Emeritus Faculty (Academic Council)

## By Courtesy Faculty

Tandy Aye, MD  
Associate Professor

Michele Barry, MD, FACP  
Professor

Katharine Edwards, PhD  
Clinical Assistant Professor

Joseph Garner, PhD  
Associate Professor

Michael Greicius, MD  
Associate Professor

Casey Halpern, MD  
Assistant Professor

Thomas Harrison  
Clinical Associate Professor

Valerie Hoover, PhD  
Clinical Instructor

Lynne Huffman, MD  
Associate Professor

Safwan Jaradeh, MD  
Professor

Michelle Monje-Deisseroth, MD, PhD  
Assistant Professor

Barbara Sourkes, MD  
Professor

Thomas Sudhof, MD  
Professor

Dennis Wall, PhD  
Associate Professor

Max Wintermark, MD, MAS, MBA  
Professor

## Affiliated Faculty

John Ashford, MD, PhD  
Clinical Professor

Peter Bayley, PhD  
Associate Professor

Daniel Beal, MD  
Clinical Associate Professor

Sherry Beaudreau, PhD  
Clinical Professor

Stephen Black, PhD, PhD  
Clinical Assistant Professor

Daniel Blonigen, PhD  
Clinical Assistant Professor

Jessica Breland, PhD  
Clinical Assistant Professor

Kimberly Brodsky, PhD  
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Sarah Carey, MD  
Clinical Assistant Professor

Eve Carlson, PhD  
Clinical Professor

Jauhtai Cheng, MD, PhD  
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Marylene Cloitre, PhD  
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Michael Danovsky, PhD  
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Smita Das, MD, PhD, MPH  
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Katherine Eisen, PhD  
Clinical Assistant Professor

Glen Elliott, MD, PhD  
Clinical Professor

Jennifer Kaci Fairchild, PhD  
Clinical Associate Professor

William Faustman, PhD  
Clinical Professor

Howard Fenn, MD  
Clinical Associate Professor

George Freeman, MD, PhD  
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Ansgar Furst, PhD  
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Christine Gould, PhD  
Instructor

Aazaz Haq, MD  
Clinical Assistant Professor

John Herbert, MD  
Clinical Assistant Professor

Val Herman, MD  
Clinical Instructor

Olga Hewett, MD  
Clinical Instructor

Carrie Holmberg, MD, PhD  
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Jeanette Hsu, PhD  
Clinical Associate Professor

Lynette Lukuang Hsu, MD  
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Rex Huang, MD, FAPA  
Clinical Assistant Professor

Emily Hugo, PsyD  
Clinical Associate Professor

Shaili Jain, MD  
Clinical Associate Professor

Neda Kharrazi, PsyD  
Clinical Instructor

Eric Kuhn, PhD  
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Malathy Kuppuswamy, MD  
Clinical Associate Professor

Whitney Landa, MD  
Clinical Assistant Professor

Tina Lee, MD, MS  
Clinical Professor

Bruce Linenberg, PhD  
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Alka Mathur, MD  
Clinical Instructor

Margaret May, MD  
Clinical Instructor

Shannon McCaslin-Rodrigo, PhD  
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Carmen McLean, PhD  
Clinical Associate Professor

Margaret Windy McNerny, PhD  
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Christopher O'Connell, MD  
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Claudia Padula, PhD  
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Manasi Rana, MD, MBBS  
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Tasha Souter, MD  
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Joy Taylor, PhD  
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Christine Timko, PhD  
Clinical Professor

Jodie Trafton, PhD  
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Marina Urman-Yotam, MD  
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Raziya Wang, MD  
Clinical Assistant Professor

Julie Weitlauf, PhD  
Clinical Professor

William Wilkes, MD  
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Steven Woodward, PhD  
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Sarah Yasmin, MD, MPH  
Clinical Associate Professor

Joshua Zeier, PhD  
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Anna Nedelisky Zeman, PhD  
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Vivien Abad, MD  
Adjunct Clinical Assistant Professor

Diana Adams, EdD  
Adjunct Clinical Assistant Professor

Richard Almond, MD  
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Jennifer Alvarez, PhD  
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Vandana Aspen, PhD  
Adjunct Clinical Instructor

Anthony Atwell, MD  
Adjunct Clinical Professor

Richard Bale, PhD (Emeritus)  
Adjunct Clinical Associate Professor

Barbara Ballinger, MD  
Adjunct Clinical Assistant Professor

Daniel Becker, MD  
Adjunct Clinical Professor

Jacqueline Becker, PhD (Emeritus)  
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Joseph Belanoff, MD  
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Kimberly Bell, MD  
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Peter Berman, PhD (Emeritus)  
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Adjunct Clinical Assistant Professor

Britney Blair, PsyD  
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Daniel Blum, PhD  
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Barbara Brandt, PhD  
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Michael Brant-Zawadzki, MD  
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Neil Brast, MD (Emeritus)  
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Alan Brauer, MD (Emeritus)  
Adjunct Clinical Associate Professor

John Brentar, PhD  
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Charles Browning, MD (Emeritus)  
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Charles Bryant, MD (Emeritus)  
Adjunct Clinical Associate Professor

David Burns, MD (Emeritus)  
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Macario Camacho, MD  
Adjunct Clinical Assistant Professor

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Adjunct Clinical Professor

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Carolyn Compton, PhD (Emeritus)  
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James Corby, MD (Emeritus)  
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Vanessa de la Cruz, MD  
Adjunct Clinical Assistant Professor

Katherine DeVaul, MD  
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Norman Dishotsky, MD (Emeritus)  
Adjunct Clinical Professor Emeritus

Harvey Dondershine, MD (Emeritus)  
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Kathleen Dong, MD  
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Magdolna Dunai, MD  
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Shela Fisk, PhD  
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Emery Fu, MD  
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Cheryl Goodrich, PhD  
Adjunct Clinical Assistant Professor

Christine Gray, PhD  
Adjunct Clinical Assistant Professor

John Greene, MD  
Adjunct Clinical Assistant Professor

Robert Harris, MD (Emeritus)  
Adjunct Clinical Associate Professor

## Adjunct Clinical Faculty (continued)

William Hart, MD  
Adjunct Clinical Assistant Professor

Nancy Haug, PhD  
Adjunct Clinical Associate Professor

James Hawkins, MD (Emeritus)  
Adjunct Clinical Associate Professor

Elizabeth Herb, MD (Emeritus)  
Adjunct Clinical Associate Professor

John Herbert, MD  
Adjunct Clinical Assistant Professor

Robert Holaway, PhD  
Adjunct Clinical Assistant Professor

Suzanne Horowitz, PhD (Emeritus)  
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Shehlanoor Huseni, MD  
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Paula Jacobsen, LCSW  
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Michael Jaffe, MD  
Adjunct Clinical Instructor

Vikas Jain, MD  
Adjunct Clinical Instructor

Rania Johnson, MD  
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Megan Jones, PsyD  
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Jonathan Kaplan, MD  
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Gloria Kardong, MD  
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Maor Katz, MD  
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Robert Landeen, MD (Emeritus)  
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Gary Lapid, MD (Emeritus)  
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Gloria Leiderman, PhD (Emeritus)  
Adjunct Clinical Associate Professor

JoAnn LeMaistre, PhD (Emeritus)  
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Laurie Leventhal-Belfer, MD  
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Jill Levitt, PhD  
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Elizabeth Mahler, MD  
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Alan Maloney, MD  
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Mali Mann, MD  
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Alka Mathur, MD  
Adjunct Clinical Instructor

Matthew May, MD  
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Johanna Mayer, PhD (Emeritus)  
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Adjunct Clinical Professor

Terry Miller, MD  
Adjunct Clinical Associate Professor

Kerry Mitchell, MD  
Adjunct Clinical Assistant Professor

Donald James Mordecai, MD  
Adjunct Clinical Associate Professor

Elliot Morrison, MD (Emeritus)  
Adjunct Clinical Associate Professor

James Moses, PhD (Emeritus)  
Adjunct Clinical Professor

Anna Muelling, MD (Emeritus)  
Adjunct Clinical Associate Professor

Ricardo Muñoz, PhD  
Adjunct Clinical Professor

Thomas Nagy, PhD  
Adjunct Clinical Associate Professor

Sharon Nash, PhD  
Adjunct Clinical Assistant Professor

John Neal, PhD  
Adjunct Clinical Assistant Professor

Jordan Newmark, MD  
Adjunct Clinical Assistant Professor

Nicholas Ney, PhD  
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Cynthia Nguyen, MD  
Adjunct Clinical Associate Professor

George Norbeck, MD (Emeritus)  
Adjunct Clinical Assistant Professor

Mary Ann Norfleet, PhD (Emeritus)  
Adjunct Clinical Professor

Harold Novotny, MD (Emeritus)  
Adjunct Clinical Associate Professor

Michael O'Connor, PhD (Emeritus)  
Adjunct Clinical Assistant Professor

Chinyere Ogbonna, MD  
Adjunct Clinical Instructor

Mari Shimizu Ormiston, MD  
Adjunct Clinical Instructor

Nancy Pachana, PhD  
Adjunct Clinical Associate Professor

Isabel Paret, PhD (Emeritus)  
Adjunct Clinical Associate Professor

Gerald Piaget, PhD (Emeritus)  
Adjunct Clinical Associate Professor

Thomas Plante, PhD  
Adjunct Clinical Professor

Donn Posner, PhD  
Adjunct Clinical Associate Professor

Nelson Powell, MD, DDS  
Adjunct Clinical Professor

Fawn Powers, PhD (Emeritus)  
Adjunct Clinical Assistant Professor

Rebecca Powers, MD  
Adjunct Clinical Associate Professor

Michael Quach, MD  
Adjunct Clinical Instructor

Stacey Quo, DDS  
Adjunct Clinical Assistant Professor

## Adjunct Clinical Faculty (continued)

Anil Rama, MD  
Adjunct Clinical Instructor

Ildiko Ran, MFT, CGP  
Adjunct Clinical Instructor

George Reimer (Emeritus)  
Adjunct Clinical Professor

Angela Riccelli, LCSW (Emeritus)  
Adjunct Clinical Assistant Professor

Elizabeth Richards, MD (Emeritus)  
Adjunct Clinical Associate Professor

Stephen Richmond, MD  
Adjunct Clinical Assistant Professor

David Ringo, MD, PhD (Emeritus)  
Adjunct Clinical Assistant Professor

Jules Riskin, MD (Emeritus)  
Adjunct Clinical Associate Professor

Beverly Rodriguez, MD, PhD  
Adjunct Clinical Assistant Professor

Jerome Rose, MD (Emeritus)  
Adjunct Clinical Associate Professor

Deborah Rose, MD (Emeritus)  
Adjunct Clinical Assistant Professor

Alan Rosenthal, MD  
Adjunct Clinical Professor

Elise Rossiter, PhD, MS  
Adjunct Clinical Associate Professor

Jacob Roth, MD  
Adjunct Clinical Instructor

Chad Ruoff, MD  
Adjunct Clinical Assistant Professor

Jonathan Russ, MD (Emeritus)  
Adjunct Clinical Associate Professor

Kenneth Seeman, MD (Emeritus)  
Adjunct Clinical Associate Professor

Nicole Shiloff, PhD  
Adjunct Clinical Assistant Professor

Allison Siebern, PhD  
Adjunct Clinical Assistant Professor

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

Judith Simon, PhD  
Adjunct Clinical Instructor

Carol Slotnick, MSW, PhD  
Adjunct Clinical Assistant Professor

Michael Smith, PhD  
Adjunct Clinical Assistant Professor

John Smolowe, MD (Emeritus)  
Adjunct Clinical Associate Professor

Dena Sorbo, LCSW  
Adjunct Clinical Instructor

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

Janet Spraggins, 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

Lisa Talbot, PhD  
Adjunct Clinical Assistant Professor

Thomas Tarshis, MD  
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

Shivani Verma Chmura, MD  
Adjunct Clinical Assistant Professor

Lynn Waelde, PhD  
Adjunct Clinical 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

Joellen Werne, 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

Jeremy Wilkinson, MD  
Adjunct Clinical Assistant Professor

William Wittner, MD (Emeritus)  
Adjunct Clinical Associate Professor

Kenneth Woodrow, MD  
Adjunct Clinical Associate Professor

Frances Wren, MB, BCh  
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, PhD  
Adjunct Clinical Instructor

Eugene Zukowsky, PhD (Emeritus)  
Adjunct Clinical Associate Professor

## Adjunct Faculty

Mark Abramson, DDS  
Adjunct Professor

Thomas Anders, MD  
Adjunct Professor

Jed Black, MD  
Adjunct Professor

Mark Buchfuhrer, MD  
Adjunct Lecturer

Sophia Colamarino, PhD  
Consulting Associate Professor

Alison Darcy, PhD  
Adjunct Lecturer

Sanjay Dube, MBBS  
Adjunct Professor

David Eagleman, PhD  
Adjunct Professor

Wendy Froelich-Santino, PhD  
Adjunct Lecturer

Steven Harris, MD  
Adjunct Professor

William Hewlett, MD, PhD  
Adjunct Professor

Paul Insel, PhD  
Adjunct Professor

Thomas R Insel, MD  
Adjunct Professor

Michael Jaffe, MD  
Adjunct Lecturer

Sharon Keenan, PhD  
Adjunct Lecturer

Leena Khanzode, MD  
Adjunct Lecturer

Brian Kleis, MD  
Adjunct Lecturer

Tonja Krautter, PsyD, LCSW  
Adjunct Lecturer

Julie Lee-Ancayas, PHD  
Adjunct Lecturer

Martin Mumenthaler, PharmD  
Consulting Assistant Professor

Karoly Nikolich, PhD  
Adjunct Professor

Bradley Novak, MD  
Adjunct Lecturer

## Faculty Lecturers

Kathryn Dewitt, PhD  
Senior Lecturer

David Schrom, JD  
Lecturer

Mary Jane Otte, PhD  
Adjunct Lecturer

Jennifer Park, PhD  
Adjunct Lecturer

Joy Pollard, PhD  
Adjunct Lecturer

James Reich, MD, MPH  
Adjunct Professor

Jenna Rinsky, PhD  
Adjunct Lecturer

Ahmad Selehi, MD, PhD  
Adjunct Professor

Michael Bret Schneider, MD  
Consulting Associate Professor

Pascale Stemmler, PsyD  
Adjunct Lecturer

Jody Thomas, PhD  
Adjunct Lecturer

# Recognition of Service

Professoriate Retirements Since September 1, 2013



William Dement, MD, PhD



Carl Feinstein, MD



Dolores Gallagher  
Thompson, PhD



Terence Ketter, MD



Cheryl Koopman, PhD



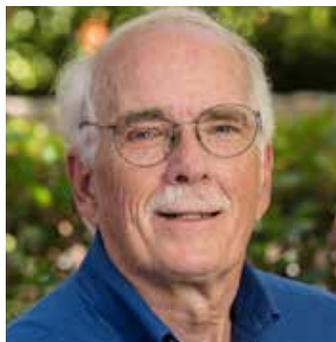
Greer Murphy, MD, PhD



Seiji Nishino, MD, PhD



Hans Steiner, MD



C. Barr Taylor, MD



Jared Tinklenberg, MD

# Faculty Honors

## National Academy of Sciences Members



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

## National Academy of Medicine Members



Michele Barry, MD, FACP  
Elected 2002  
California

Karl Deisseroth, MD, PhD  
Elected 2010  
California

William Dement, MD, PhD  
Elected 1983  
California

Helena Chmura Kraemer, PhD  
Elected 2003  
California

Robert Malenka, MD, PhD  
Elected 2004  
California

Emmanuel Mignot, MD, PhD  
Elected 2005  
California

Allan Reiss, MD  
Elected 2009  
California

Alan Schatzberg, MD  
Elected 2003  
California

David Spiegel, MD  
Elected 2012  
California

Thomas Sudhof, MD  
Elected 2007  
California

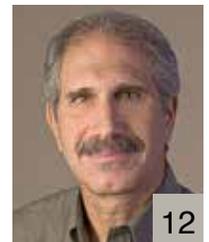


Pictured Alphabetically: Barry, Deisseroth, Dement, Kraemer, Malenka, Mignot, Reiss, Schatzberg, Spiegel, Sudhof

# Stanford University and National Awards

## Recent Exemplars

Members of our department are frequently recognized for their extraordinary contributions across our five mission areas. Listed below are some recent examples of Stanford University and national awards. Among these are awards won by our trainees and faculty.



- Rania Awaad, MD**  
Stanford Outstanding Community Partner Award  
Office of Community Engagement,  
Stanford University School of Medicine
- John Barry, MD**  
Irma Bland Award for Resident Teaching  
American Psychiatric Association
- Karl Deisseroth, MD, PhD**
  - Massry Prize, Meira and Shaul G. Massry Foundation
  - 2016 Harvey Prize in Human Health  
Technion-Israel Institute of Technology
- Neir Eshel, MD, PhD**  
2016 Science & SciLifeLab Prize for Young Scientists  
Science/AAAS and SciLifeLab
- Amit Etkin, MD, PhD**  
2017 Pioneer Award  
National Institutes of Health
- Ira Glick, MD**  
Dean Award for Research in Schizophrenia  
The American College of Psychiatrists
- Jessi Gold, MD, MS**
  - Arnold P Gold Foundation Award for Humanism and  
Excellence in Teaching, Stanford University SoM
  - George Ginsberg Fellowship, American Association  
of Directors of Psychiatric Residency Training
- Rona Hu, MD**  
2017 Stanford Asian American Faculty Award  
Stanford University Asian American Activities Center  
Student Affairs Advisory Board
- Shashank Joshi, MD**
  - Nancy C.A. Roeske, MD, Certificate of Recognition  
for Excellence in Medical Student Education  
American Psychiatric Association
  - Tall Tree Award, Outstanding Professional  
Palo Alto Chamber of Commerce & Palo Alto Weekly
- Corey Keller, MD, PhD**  
Postgraduate Award, Alpha Omega Alpha
- James Lock, MD, PhD**
  - 2018 Agnes Purcell McGavin Award for Distinguished  
Career Achievement in Child and Adolescent Psychiatry  
American Psychiatric Association
  - Distinguished Fellow  
American Academy of Child & Adolescent Psychiatry
- Robert Malenka, MD, PhD**  
Julius Axelrod Prize from the Society for Neuroscience



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- 13. **Lawrence McGlynn, MD**  
Red Ribbon Award for outstanding service to individuals with HIV/AIDS, HEALTHTrust
- 14. **Ricardo Muñoz, PhD**  
Elected as a Fellow American Association for the Advancement of Science
- 15. **Ruth O'Hara, PhD**  
2016 Allan V Cox Medal for Faculty Excellence in Fostering Undergraduate Research, Stanford University
- 16. **Yasmin Owusu, MD**  
MD Program Teaching Award for excellence in promotion of humanism, Stanford University School of Medicine
- 17. **Sergiu Pasca, MD**  
- 2018 A.E. Bennett Award, Society of Biological Psychiatry  
- Jordi Folch-Pi Award, American Society for Neurochemistry  
- Vilcek Prize for Creative Promise in Biomedical Science
- 18. **Laura Roberts, MD, MA**  
- Carol Davis Ethics Award, American Psychiatric Association  
- MacLean Center Prize in Clinical Ethics, MacLean Center for Clinical Medical Ethics, University of Chicago  
- Joan and Stanford Alexander Award in Psychiatry The Menninger Department of Psychiatry  
- Bowis Award, American College of Psychiatrists
- 19. **Carolyn Rodriguez, MD, PhD**  
- A.E. Bennett Research Award, The Society of Biological Psychiatry  
- Killam Award, American College of Neuropsychopharmacology
- 20. **Alan Schatzberg, MD**  
- 2018 Judd Marmor Award American Psychiatric Association  
- Axelrod Award, American College of Neuropsychopharmacology
- 21. **Ranak Trivedi, PhD**  
2017 McCormick Faculty Award Stanford University School of Medicine, Office of Faculty Development and Diversity
- 22. **Randall Weingarten, MD**  
Irma Bland Award for Resident Teaching American Psychiatric Association
- 23. **Leanne Williams, PhD**  
Fellow, American College of Neuropsychopharmacology
- 24. **Shannon Wiltsey-Stirman, PhD**  
Mid-Career Innovator Award, Association for Behavioral and Cognitive Therapies

# Annual Chairman's Awards

## 2018 Chairman's Award Winners

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 Departmental Advisory Committee on Annual Awards and Nominations before final selections are made by the Chairman.

### Excellence in Science



**Philippe Murrain, PhD**

*"Dr. Murrain is tirelessly working to advance the science of sleep, and the science of brain development and brain function in general. He is combining cutting edge model systems and methodology to produce landmark research."*



**Manpreet Singh, MD, MS**

*"Dr. Singh has shown individual innovation and collaborative spirit in the development of meaningful research to improve knowledge of pediatric mood disorders."*

### Excellence in Clinical Innovation



**Michele Berk, PhD**

*"Dr. Berk is passionate about serving youth who are suicidal or self-injuring, which is a particularly challenging population for many providers. She tirelessly commits to providing optimal, evidence informed care for the population and to training other providers to enhance their practices."*



**Kate Hardy, ClinPsychD**

*"Dr. Hardy leads our nationally known CBT for psychosis program. She is a leader in approaching the experience of psychosis with dignity and respect, and helping clients to change their relationship to their psychotic experiences in a nonjudgmental fashion to improve their functioning."*

### Excellence in Education



**Anita Kishore, MD**

*"Dr. Kishore has devoted her career to teaching and mentoring child psychiatry trainees. As these activities do not always translate to standard "productivity" measures, it is easy for them to go unnoticed. She deserves recognition for her important work of training future professionals in our field and her service toward the education mission of the department."*



**Rafael Pelayo, MD**

*"Dr. Pelayo has a longstanding commitment to teaching about the importance of sleep and sleep medicine to learners of all levels, from high school students through medical sub-specialists. He is a natural teacher, one who truly knows how to reach his audience. He has promoted the importance of sleep and reached so many through his tireless efforts."*

## Excellence in Leadership



**David Hong, MD**

*"Dr. Hong is an excellent model of professionalism and leadership. He has become a person in the department that I want to emulate when it comes to professional conduct and behavior. He is approachable, yet effective at advocating for his team."*



**Douglas Noordsy, MD**

*"Dr. Noordsy is a respected colleague who consistently gives time to mentor and guide others. He possesses a vision for the Department and takes active leadership roles in numerous areas to bring his vision to life. He treats others with respect and is a model for exemplary professionalism."*



**Sepideh Bajestan, MD, PhD**

*"Dr. Bajestan has shown superb leadership skills helping to shape the Neuropsychiatry clinic experience. I consider her the consummate professional in everything that she does. I highly recommend that she receive this award and can think of no one that deserves it more."*

## Excellence Across Multiple Missions (The "Polymath" Award)



**Carolyn Rodriguez, MD, PhD**

*"Dr. Rodriguez demonstrates incredible leadership and clinical innovation on a daily basis. Working within her lab over the past few years, I've been amazed by her dedication. It has been so inspirational to work with someone so dedicated to empowering communities."*



**Shannon Wiltsey-Stirman, PhD**

*"Dr. Wiltsey-Stirman is a dedicated educator and mentor. She is a fantastic example of the integration of educational excellence and scholarly pursuit to support the dissemination of EBPs."*

## Excellence in Community



**Elizabeth Reichert, PhD**

*"Dr. Reichert has demonstrated exemplary work developing educational criteria, conducting clinical research, and providing lectures in anxiety, trauma and maltreatment, and externalizing behavior disorders."*

## Unsung Hero



**Kyle Hinman, MD**

*"Dr. Hinman is the epitome of a kind and compassionate colleague - always willing to help anyone, with any need. I cannot think of a more deserving person for the Unsung Hero award."*

# Annual Chairman's Awards

## 2012-2017 Award Winners



1. [Steven Adelsheim, MD \(2014\)](#)  
Community Commitment and Engagement
2. [Bruce Arnow, PhD \(2017\)](#)  
Professionalism & Leadership
3. [Jacob Ballon, MD, MPH \(2016\)](#)  
Clinical Innovation
4. [Belinda Bandstra, MD, MA \(2016\)](#)  
Educational Excellence
5. [Sherry Beaudreau, PhD \(2015\)](#)  
Advancing Science
6. [Victor Carrion, MD \(2013\)](#)  
Community Commitment and Engagement
7. [Sallie De Golia, MD, MPH \(2014\)](#)  
Educational Excellence
8. [Karl Deisseroth, MD, PhD \(2017\)](#)  
Advancing Science
9. [John Etchemendy, PhD \(2014\)](#)  
Unsung Hero

10. [Amit Etkin, MD, PhD \(2014\)](#)  
Clinical Innovation and Advancing Science
11. [Dolores Gallagher-Thompson, PhD, ABPP \(2017\)](#)  
Clinical Innovation & Service
12. [Cheryl Gore-Felton, PhD \(2016\)](#)  
Professionalism & Leadership
13. [Christian Guilleminault, MD, DBiol \(2017\)](#)  
Unsung Hero
14. [Joachim Hallmayer, MD, Dr med \(2015\)](#)  
Unsung Hero
15. [Antonio Hardan, MD \(2015\)](#)  
Advancing Science
16. [Kimberly Hill, PhD \(2014\)](#)  
Leadership and Unsung Hero
17. [Jeanette Hsu, PhD \(2017\)](#)  
Professionalism & Leadership
18. [Rona Hu, MD \(2017\)](#)  
Community Commitment and Engagement



19. **Booil Jo, PhD (2012)**  
Leadership and Unsung Hero

20. **Shashank Joshi, MD (2012)**  
Community Commitment and Engagement

21. **Heather Kenna, MA, MS (2017)**  
Unsung Hero

22. **Shelli Kesler, PhD (2014)**  
Clinical Innovation and Advancing Science

23. **Tina Lee, MD (2014)**  
Leadership and Unsung Hero

24. **Anna Lembke, MD (2015)**  
Clinical Innovation

25. **Linda Lotspeich, MD, MEd (2013)**  
Leadership and Unsung Hero

26. **Alan Louie, MD (2017)**  
Educational Excellence

27. **Kristine Luce, PhD (2017)**  
Educational Excellence

28. **Rachel Manber, PhD (2012)**  
Clinical Innovation and Advancing Science

29. **Ruth O'Hara, PhD (2015)**  
Professionalism & Leadership

30. **Jennifer Phillips, PhD (2016)**  
Unsung Hero

31. **Daryn Reicherter, MD (2015 and 2016)**  
Community Commitment and Engagement

32. **Yelizaveta Sher, MD (2016)**  
Clinical Innovation

33. **Alexander Urban, PhD (2013)**  
Clinical Innovation and Advancing Science

34. **Leanne Williams, PhD (2016)**  
Advancing Science

35. **Helen Wilson, PhD (2017)**  
Community Commitment and Engagement

36. **Sanno Zack, PhD (2016)**  
Professionalism & Leadership

# 2017 Department Faculty Retreat

## *Lessening the Burden of Mental Illness in Our World: Science, Innovation, and Social Justice*

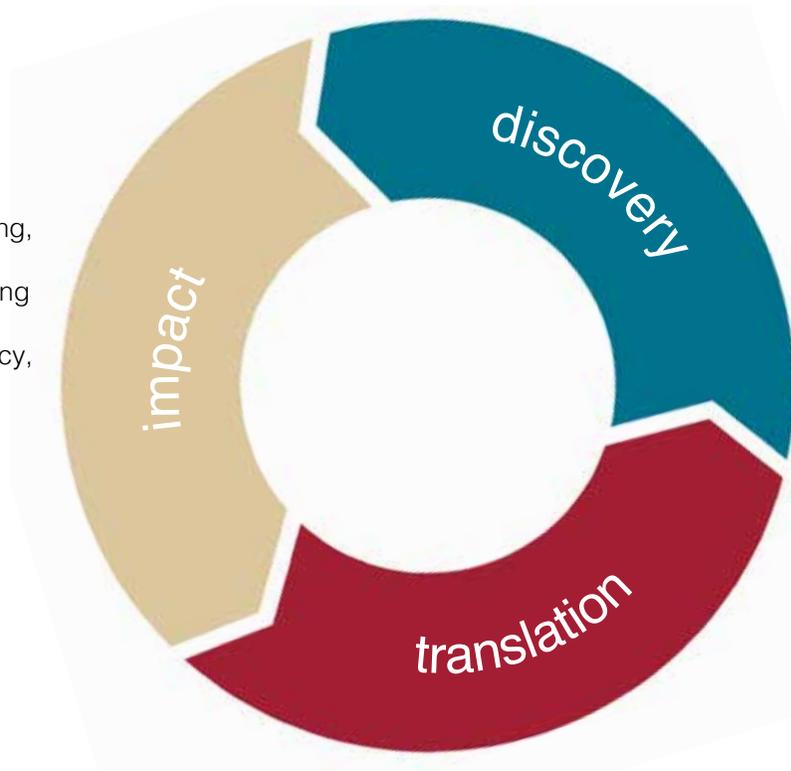
At the 2017 Department Faculty Retreat faculty, instructors, postdoctoral fellows, and senior staff gathered as a community and focused on fostering collaboration across the diversity of roles within our faculty and improving gap areas or underdeveloped areas of translational science in the department that should be targeted to promote innovation in mental health and neuroscience across the full continuum of discovery, translation, and impact. We also discussed promoting social justice and how to use our 5 missions to elevate and address social justice issues such as mental health disparities in our world and how to have greater impact in addressing these disparities and related issues in our community and the world at large. The retreat also stressed the importance of ensuring faculty wellbeing and how we as a department should move forward in promoting innovation in faculty wellbeing.

### Discovery - Translation - Impact

We are taking the Stanford model for precision mental health and wellbeing to the next level of impact.

#### **amplify impact**

Impact through applying, sharing, and refining new knowledge, building expertise, preparing leaders, informing policy, and bridging with key partners worldwide

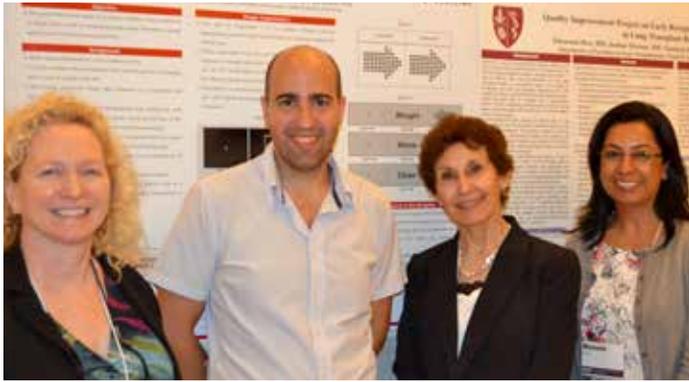


#### **generate discovery**

Discovery through intensive development of great science and collaboration of great clinician scientists

#### **accelerate translation**

Rapid translation to transform clinical care and wellbeing approaches in practice



# Intentional Model of Academic Excellence

Our Department embraces an intentional model of excellence in modern academic department leadership and organization. Our Department is structured to bring greater academic coherence, organizational alignment and accountability, and transparency to our governance. This configuration also brings new opportunities for increased cross collaboration within the Department and also with other programs in the School of Medicine and the University and with our hospitals and community partners. Our Department has tremendous depth and breadth in its leadership team, and intentional effort to bring representation, inclusion, and diversity in the governance of our academic missions.

## Advisory Committees

In developing strategy and reaching key decisions, the Chair works in close partnership with the Vice Chair, 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 facilitate and assist in oversight of key departmental functions and responsibilities, such as faculty appointments and promotions, clinical executive and operations, and space use and allocation. We established a Council of Major Laboratories to enhance strategic development and increase representation of scientific perspectives in Department leadership. The Senior Staff Leadership Team continues to evolve and prioritizes best practices and the highest standards of professionalism.

## Divisions

The fundamental work of the Department occurs in our Divisions, Major Laboratories, and the Chair's Special Initiatives. The Department has five divisions that have full academic portfolios 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, Eating Disorder Clinic, and the Stanford Center for Sleep Sciences and Medicine.

## Major Laboratories and Clinical Translational Neurosciences Incubator

The Major Laboratories include the Center on Stress and Health, the Chetty Lab, the Cognitive & Systems Neuroscience Lab, the de Lecea Lab, the Early Life Stress and Pediatric Anxiety Program, the Etkin Lab, the Nancy Friend Pritzker Laboratory, the Personalized and Translational Neuroscience Lab (PanLab), the Parker Lab, the Program on the Genetics of Brain Function, the Shah Lab, the Sullivan Lab, and the Urban Lab, 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 closely with the clinical, education, and community programs of the Department.

## Special Initiatives

The Special Initiatives of the Chair are novel and diverse academic activities of special priority to the Department, such as Community Outreach Activities, Precision Mental Health, Humanities and Medicine, and The Stanford Center for Youth Mental Health and Wellbeing.

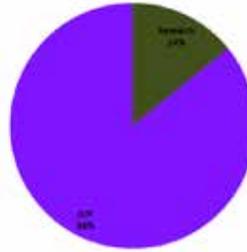


We are ranked the #7 Psychiatry Department among Best Graduate Schools in the US for 2019.

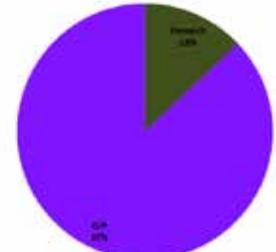
### Adult Clinical Faculty Productivity Dashboard (FY18 Jan YTD)

Last Name, First Name

YTD Effort Allocation



Current Month Effort Allocation



| CPT                | Procedure Code Description  | Jan-18      |                 | YTD         |                 |                    |
|--------------------|-----------------------------|-------------|-----------------|-------------|-----------------|--------------------|
|                    |                             | Unit Volume | Unadjusted wRVU | Unit Volume | Unadjusted wRVU | wRVU ratio per CPT |
| 90884              | PSYX 45 MINUTES             | 0           | -               | 3           | 6.00            | 2                  |
| 90785              | PSYX COMPLEX INTERACTIVE    | 8           | 2.64            | 28          | 9.28            | 0.33               |
| 90791              | PSYCH DIAGNOSTIC EVALUATION | 0           | -               | 7           | 21.00           | 1                  |
| 90853              | GP PSYCH                    | 8           | 4.72            | 39          | 23.01           | 0.59               |
| 90887              | PSYX 60 MINUTES             | 62          | 186.00          | 334         | 928.00          | 1                  |
| 90832              | PSYX 30 MINUTES             | 0           | -               | 1           | 1.50            | 1.5                |
| <b>Grand Total</b> |                             | <b>78</b>   | <b>193.36</b>   | <b>403</b>  | <b>1,038.75</b> |                    |

Note: wRVU threshold beyond the current reporting period are projected based on YTD effort allocation. Future thresholds will be adjusted in accordance with changes in effort allocation.

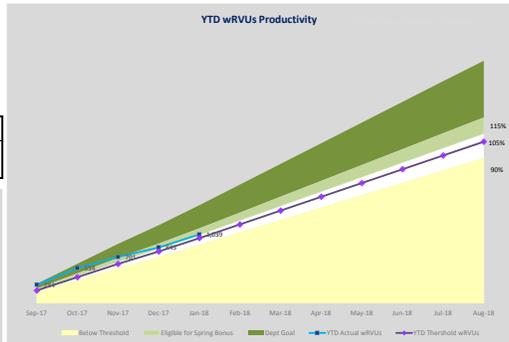
### Adult Clinical Faculty Productivity Dashboard (FY18 Jan YTD)

Last Name, First Name

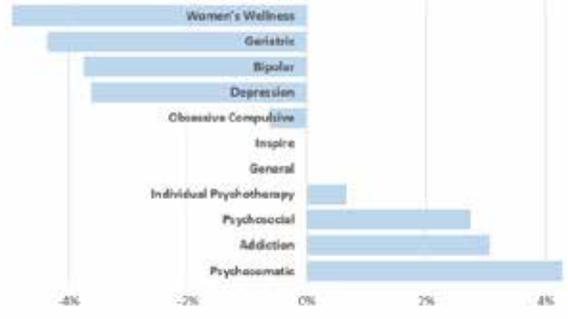
|                                      |            |
|--------------------------------------|------------|
| Departmental Compliance Audit:       |            |
| Trainee Evaluations Completed as of: | MM/DD/YYYY |

|                 |                 |
|-----------------|-----------------|
| Open Encounters | As of 2/14/2018 |
| 15 to 28 Days   | -               |
| > 28 Days       | -               |
| Total > 14 days | -               |

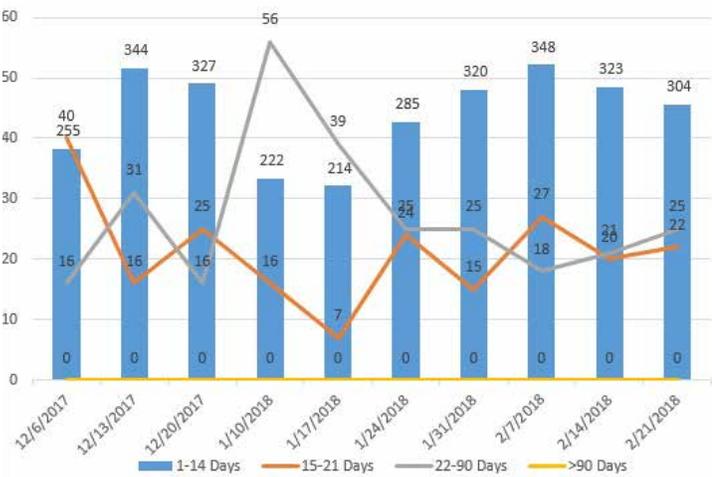
|                      | Year-to-date | Jan-18 |
|----------------------|--------------|--------|
| CFTE:                | 0.86         | 0.87   |
| Threshold WRVU       | 983.90       | 199.38 |
| Actuals WRVU         | 1,038.75     | 193.36 |
| Percent to Threshold | 106%         | 97%    |



### Average CY2017 YTD Dec No Shows Above/Below Total Baseline



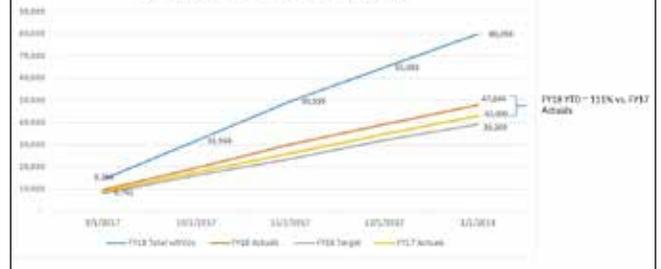
### Total Open Encounters by Days



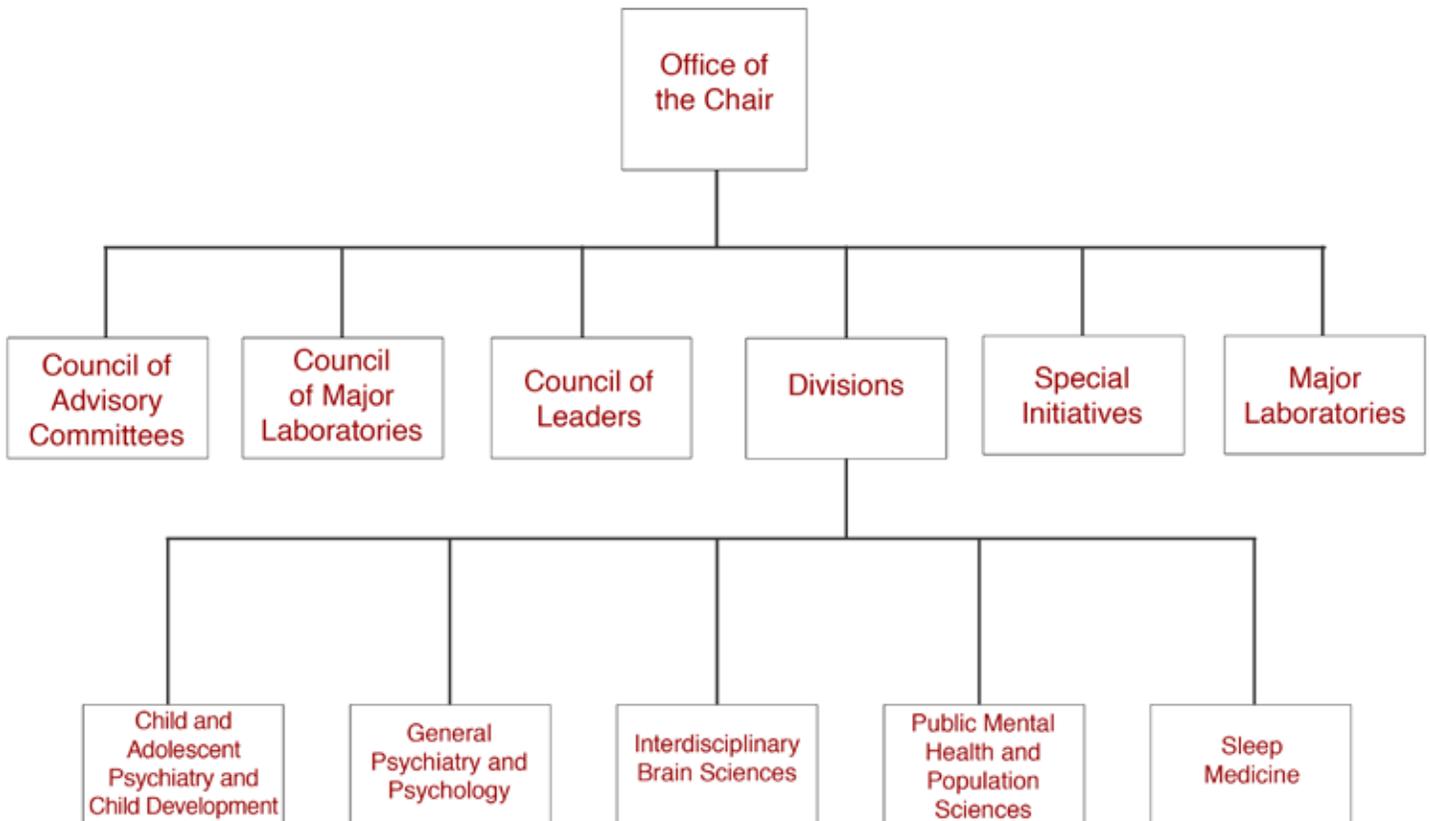
### Open Encounters Snapshot Threshold



### Adult Division YTD January Cumulative wRVUs



# Department Structure



## Council of Advisory Committees

Clinical Executive Committee  
 Clinical Strategic Planning Committee  
 Clinical Operations Committees  
 Appointments and Promotions Advisory Committees  
 Strategic Space Use and Allocation Advisory Committee  
 Grand Rounds/CME Committee  
 Advisory Committee on Annual Awards and Nominations  
 Adjunct Clinical Faculty Review Committee  
 Veterans Affairs Psychiatry Education Committee  
 Education Leadership and Integration Advisory Committee

## Council of Major Laboratories

Victor Carrion, MD  
 Sundari Chetty, PhD  
 Luis de Lecea, PhD  
 Amit Etkin, MD, PhD  
 Douglas Levinson, MD  
 Robert Malenka, MD, PhD  
 Vinod Menon, PhD  
 Karen Parker, PhD  
 Nirao Shah, MD, PhD  
 David Spiegel, MD  
 Edith Sullivan, PhD  
 Alexander Urban, PhD  
 Leanne Williams, PhD

## Council of Leaders

Vice Chair  
Associate Chairs  
Division Chiefs  
Chair of Major Laboratories Steering Committee  
Senior Staff Leadership Team

## Special Initiatives of the Chair

The Belonging Project  
Brain-Mind Initiative  
Brainstorm  
Clinical Neuroscience Immersion Experience (CNI-X)  
Clinical Neuroscience Research Experience (CNR-X)  
Community Outreach Activities  
Editor-in-Chief, Books: American Psychiatric Association  
Editorial Office: Academic Psychiatry  
Forensic Psychiatry  
Headspace  
Humanities and Medicine  
Innovation Awards Program  
LGBTQ Mental Health  
Lyme Disease Working Group  
Pegasus Physician Writers at Stanford  
Precision Mental Health  
Project Catalyst for Mental Health  
Reimagining Mental Healthcare  
Small Scope High Impact Partnerships (S2HIP)  
Stanford Center for Youth Mental Health and Wellbeing  
Stanford Mental Health Technology and Mental Health  
Stanford Neurodiversity Project  
Suicide Prevention through Outreach  
Virtual Reality and Immersive Technology  
Wellbeing and Self Care  
WellConnect

## Major Laboratories (including incubator)

Center on Stress and Health (Spiegel)  
Chetty Lab (Chetty)  
Cognitive & Systems Neuroscience Lab (Menon)  
de Lecea Lab (de Lecea)  
Early Life Stress and Pediatric Anxiety Program (Carrion)  
Etkin Lab (Etkin)  
Nancy Friend Pritzker Laboratory (Malenka)  
PanLab (Williams)  
Parker Lab (Parker)  
Program on the Genetics of Brain Function (Levinson)  
Shah Lab (Shah)  
Sullivan Lab (Sullivan)  
Urban Lab (Urban)

## Divisions

### Child and Adolescent Psychiatry and Child Development

Autism  
Community Programs  
Eating Disorders  
Externalizing Disorders  
General  
Mood & Anxiety  
Psychosomatic Medicine Services  
Special Programs & Nested Laboratories

### General Psychiatry & Psychology

Addiction  
Anxiety Disorders  
Assessment and Training Clinics  
Community Mental Health  
Geriatric Psychiatry  
Inpatient/Hospital  
Integrative Medicine  
Interventional Psychiatry  
Neuropsychiatry  
Psychosomatic Medicine  
Psychosocial Clinics  
Special Programs & Nested Laboratories  
Specialty Clinics  
Women's Wellness

### Interdisciplinary Brain Sciences

Clinical Neuroscience  
Behavioral Neuroscience  
Research

### Public Mental Health & Population Sciences

Epidemiology  
Ethics  
Health Policy  
Student Health & Wellbeing  
Veteran & Military  
Vulnerable & Special Populations  
Special Programs & Nested Laboratories

### Sleep Medicine

Behavioral Sleep Medicine  
Community Programs  
General Sleep & Insomnia  
Pediatric Sleep Medicine  
Special Programs & Nested Laboratories

# Divisions of the Department

## Division of Child and Adolescent Psychiatry and Child Development

The Division of Child & Adolescent Psychiatry and Child Development in the Department of Psychiatry and Behavioral Sciences is an integral part of one of the preeminent child and adolescent mental health treatment consortiums in the country, which includes Lucile Packard Children's Hospital at Stanford, Stanford Children's Health, Stanford Hospital & Clinics, and Stanford University School of Medicine.



The mission of the Division of Child & Adolescent Psychiatry and Child Development is advancing science through exploration of psychopathology in children and adolescents; psychotherapy process and outcomes; early childhood stress/trauma; and psychological adjustment. The Division's goal is to increase understanding of the pathophysiology of youth mental health concerns including mood, eating, childhood medical, anxiety, and autism related disorders using innovative translational approaches ranging from stem cell research to imaging and clinical trials. Services are provided through several outpatient specialty clinics, inpatient, and community-based programs.

The clinical mission is founded on a commitment to family-focused evaluation and treatment using the best available evidence-based methods. The Division's treatment philosophy embodies an emphasis on improving parent empowerment and providing parent training, when indicated, to make meaningful improvements in family quality of life and optimize outcome. The assessment services also use gold standard diagnostic measures to provide parents with detailed individualized recommendations for improving day-to-day and long-term functioning.

Child and Adolescent Psychiatry 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 postdoctoral psychology fellows, and general psychiatry residents, provide 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.

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 youth mental health leading to improved prognosis and long-term outcome of children and adolescents suffering from neuropsychiatric disorders.

## 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 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, Psychosomatic Medicine, 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), and Couples/Family Therapy for patients with a wide range of presenting problems. Subspecialties include Eating Disorders, Sports Psychology, Adult DBT, Couples and Family Therapy, Neuropsychological Assessment, Sleep Health/ Insomnia and the Wellness Program for Stanford faculty and trainees. The Individual Psychotherapy Clinic, staffed by Department of Psychiatry residents, 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.

20,000+

visits in our  
departmental / LPCH  
clinics in FY17

60,000+

visits in our  
departmental / SHC  
clinics in FY17

90,000+

visits (projected) in our  
departmental clinics  
in FY18

## Division of Interdisciplinary Brain Sciences



The Division of Interdisciplinary Brain Sciences brings together faculty in psychiatry, psychology, statistics and computational neuroscience, whose collective efforts are committed to the following:

- Leveraging interdisciplinary knowledge to provide explanatory models for human behavior that captures the inherent complexity of genetic, biological and environmental factors
- Developing innovative methods for studying the brain and behavior and applying these tools to better understand brain – behavior associations underlying cognitive, developmental and neuropsychiatric impairments
- Addressing an individual as a whole person undergoing unique trajectories of development, across all stages of the lifespan

Psychiatry is currently undergoing a dramatic transformation, as earlier models of defining psychiatric disorders are evolving to incorporate a rapidly expanding knowledge base of mechanisms underlying human cognition and behavior. Faculty within the Division of Interdisciplinary Brain Sciences believe this dynamic environment represents an incredible opportunity – an opening to re-think mental healthcare through the combination of clinical

expertise with cutting-edge scientific research. The ultimate goal of clinical activities within the Division aims to leverage advances in both these domains, with a constant focus on improving the lives of patients suffering from psychiatric illnesses.

It is an unfortunate truth that many interventions in psychiatric practice continue to have relatively low rates of treatment response, meaning a disproportionate number of individuals continue to be affected by psychiatric symptoms causing a substantial burden on their daily functioning and wellbeing. To address these health disparities, clinical and research initiatives within the Division are focused on several key domains: (1) Comprehensive treatment and evaluation of neurogenetic disorders, such as Fragile X syndrome and sex chromosome aneuploidies, as better understanding of these conditions with well-defined causal mechanisms allows broader application to disease processes in more generalized psychiatric disorders with similar symptomatology; (2) Development of transdiagnostic and lifespan approaches to classification of psychiatric disorders using innovative clinical and computational methods, thereby bypassing current reliance on phenomenological rather than mechanistic frameworks; and (3) Innovation in treatment intervention leveraging neurobiological principles, such as neurofeedback and biophysical measures, which extend beyond current mainstays of medications and psychosocial treatments.

## 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 objective 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 Wellbeing 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 has 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.

# Psychiatry and Behavioral Sciences of Stanford Medicine

## Division of Sleep Medicine



The Division of Sleep Medicine evaluates and manages patients with sleep problems across the age spectrum, from infancy to the elderly. We have one of the largest sleep clinics in the world, with 18 bedrooms for in-laboratory sleep studies, 16 sleep clinicians, 5 basic sleep scientists, and over 60 clinical and research personnel. We use cutting-edge, new technology to aid in the care of our patients, using a patient-centered care and translational approach for the diagnosis and treatment of sleep disorders in our patients. Our sleep research group is not only active in basic and translational research, but also clinical research supported by NIH and industry that includes multicenter studies assessing treatments for sleep disorders, genetic studies, new diagnostic and therapeutic tools, and evaluation of sleep-related comorbidities.

This background of our Division's faculty in basic and/or clinical sleep research allows us to employ a bench-to-the bedside approach in using the latest discoveries not only from our research laboratories, but also those of others, in designing a customized treatment plan for our patients.

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 of sleep medicine.

15,000+

visits in our  
sleep clinics  
in FY17

Stanford is  
the birthplace  
of sleep  
medicine.

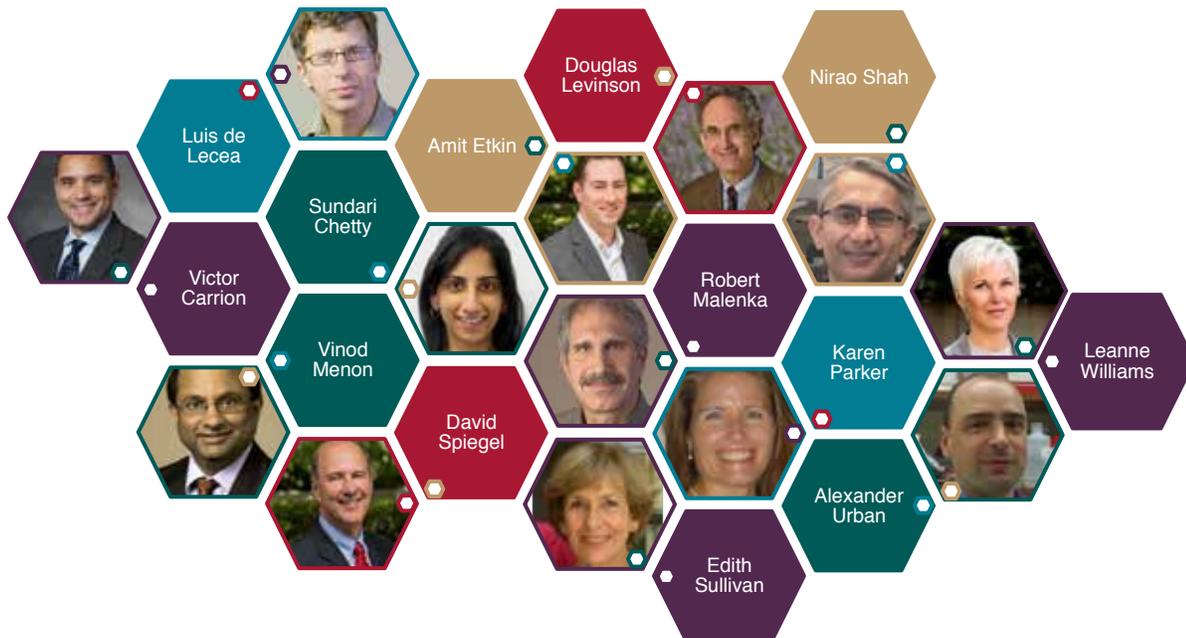
3,000+

in-laboratory sleep  
studies per year

## Major Laboratories and Clinical Translational Neurosciences Incubator

Within the Major Laboratories and Clinical and Translational Neurosciences Incubator, we are national leaders in developing neuroscience-informed models for transforming the understanding of mental health disorders and the precision with which we can diagnose and tailor interventions. With this approach, we are accelerating the translation of neuroscience insights into the clinic. We come together as a “think tank” for targeting new initiatives, and generating opportunities that catalyze our existing strengths. We integrate across scales of measurement and across species, to synthesize insights from fundamental neuroscience, clinical neuroscience and real-world application in practice.

We serve as a hub for engaging faculty across major research programs in the Department. The faculty experts within the Incubator offer guidance targeted to fostering the trajectories of early-career investigators and scholars. In this service, we develop the next generation of preeminent leaders in neuroscience-informed mental health research, education and clinical excellence.



Given the escalating burden of mental disorders, there is a compelling need to accelerate the translation of our discoveries into practice, to improve lives. We want to be leaders in the exciting new field, integrating neuroscience with psychiatry and new models and interventions of the future.

A new initiative is the launch of the Center for Precision Mental Health and Wellness. The focus of the Center is on deepening and broadening research connecting brain function and mental health and translating these discoveries into ways to detect mental disorders earlier, identify optimal treatments faster, and ultimately help more patients. This is a first-in-the-nation Center that catalyzes interdisciplinary efforts within the Department and across the Stanford campus. The Center brings together research leadership with training and clinical translation, and consolidates Stanford’s preeminence in the emerging field of precision psychiatry.



# Uniquely Stanford

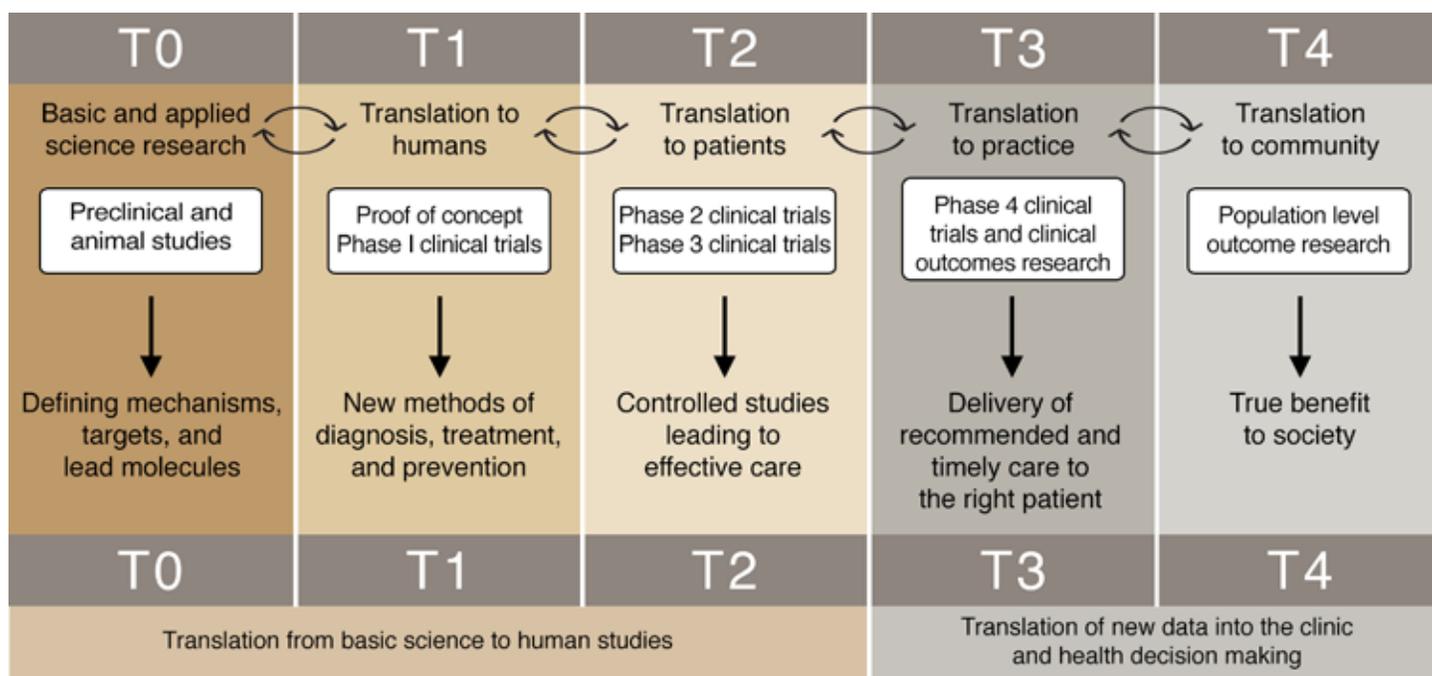
Our Department is accelerating discovery and innovation to dissemination and implementation, coordinating efforts across five mission areas, and selecting points of optimal influence and impact.

# Uniquely Stanford

At Stanford, the future is now. The Department of Psychiatry and Behavioral Sciences sits at the nexus of discovery and innovation. We embrace the dynamic nature of the Silicon Valley and our place in this environment. We constantly challenge ourselves to be at the forefront of high-impact, multidisciplinary development to foster and improve the health and wellbeing of persons living with mental illness, intellectual and developmental disorders, and addiction.

It is only through the continual process of exploration, evaluation, and refinement that we can provide best-in-class treatments and options for those who need them the most. We thrive in this fast-paced environment and derive strength from it.

What is Uniquely Stanford in our Department is our rapid and focused movement along this translational science and clinical research model in order to accelerate discovery, innovate dissemination and implementation (vertical integration), and coordinate these efforts across the five mission areas (horizontal integration) of our Department, selecting points of maximal influence for strategic impact to the populations and communities we serve.



Exemplars of this Uniquely Stanford position are highlighted here:

- Building Bridges: Technology and Mental Health
- Mental Illness Research Education and Clinical Center (MIRECC)
- Addiction Medicine Research and Programs
- Autism Spectrum Disorder Innovations
- Department Innovation Awards Program

# Uniquely Stanford

## Building Bridges: Technology and Mental Health

Our Department brings cutting edge technological science together with clinical expertise to create an array of unique and innovative solutions for those facing mental health challenges. In addition, we are fortunate to have a close collaboration with Psychiatry and Behavioral Science faculty partners from the VA Palo Alto Health Care System. Departmental faculty and staff are utilizing technology to provide support for people of all age groups and diagnostic categories with interventions ranging from web-based tools and telehealth models to mental health apps, virtual reality, augmented reality, and artificial intelligence.

What follows are but a few examples of the novel efforts of our faculty.

### Artificial Intelligence



Our Department's growing efforts in Artificial Intelligence (AI) include the work of **Dr. Adam Miner**, who addresses the use and design of conversational AI in improving access to high quality mental health care. Specifically, Dr. Miner focuses on enabling digital assistants and chat bots to recognize, respect, and respond to health issues through controlled and naturalistic studies. Among our other faculty members doing work in artificial intelligence are **Dr. Sarah Adler** and **Dr. Jane Kim**, who are 2017 recipients of the Center for Digital Health's Apple Watch Seed Research grant to explore an AI approach to support adherence behaviors in psychiatric clinical care.

### Adolescent-Centered Technology



Our adolescent-centered technology efforts include the development of "Mastery", a multi-platform immersive adventure game for youth who have experience traumatic stress, led by **Dr. Victor Carrion's** Early Life Stress and Pediatric Anxiety Program researcher, Pam Shime, as well as the web-based adaptation of a mental health screening tool for high school students being developed by the Stanford Center for Youth Mental Health and Wellbeing under the leadership of Steve Adelsheim MD.



In April 2018, the Center for Youth Mental Health and Wellbeing held "Media & Youth Suicide: Best Practices for Reporting and Storytelling" a pre-conference symposium on April 26, 2018 at Microsoft Sunnyvale, held in conjunction with the 2018 Adolescent Mental Wellness Conference.

With the support of a Suicide Prevention and Outreach (SPOT) grant from the Department to a team led by **Dr. Shashank Joshi** this event was dedicated to promoting responsible portrayals of youth suicide in the media. A mix of over 50 representatives from news media, entertainment media, social media, schools of journalism, youth, and mental health experts attended to explore the link between media portrayal of suicide and public health and how to overcome shared challenges in following best practice guidelines.

## Virtual Reality and Augmented Reality

**Dr. Kim Bullock** leads the Department's Virtual Reality-Immersive Technology (VR-IT) Laboratory, which is aimed towards guiding and safe-guarding the evolution of technology's inevitable merging with the human nervous system in the service of behavioral and mental health. This laboratory bridges gaps between clinical research, evidenced-based psychotherapy, augmented/VR content development, and medical technologies to innovate treatment for a spectrum of psychiatric and mental health conditions. Projects include pediatric preoperative stress inoculation, VR integrated biofeedback for ADHD, and sensory modulation for auditory hallucinations.



## The Mental Health Technology and Innovation Hub & Brainstorm

In October 2017, the Department held its Third Annual Innovation in Psychiatry and Behavioral Health Conference which focused on virtual reality and behavior change. Co-led by **Dr. Alan Louie** and **Dr. Kim Bullock**, the conference was completely devoted to virtual and augmented reality (VR/AR) technologies and behavior change and drew attendees across disciplines including Psychiatry, Psychology, Neuroscience, Engineering, Design, Computer Science, and Business. The Hub envisions “a world where mental health and emotional wellbeing is within reach wherever you are.” It strives to achieve this goal through developing, evaluating, and disseminating mental health technology and innovation to foster emotional wellbeing and ease the burden of mental illness worldwide. The Hub was developed through the efforts of the Behavioral Telehealth and Technology (B-THAT) Workgroup (a partnership between the Stanford Department of Psychiatry and Behavioral Sciences and the VA Palo Alto Health Care System), which consists of clinicians, researchers, educators, trainees, faculty and staff.



The Department also launched Stanford Brainstorm, the world's first academic laboratory dedicated to transforming brain health through entrepreneurship. Brainstorm is also the “Innovation and Entrepreneurship Core” of the Stanford Mental Health Technology and Innovation (MHTI) Hub. It was founded by **Dr. Nina Vasan** and founding partners **Dr. Gowri Aragam**, **Dr. Neha Chaudhary**, **Dr. Linda Drozdowicz**, **Dr. Kenechi Ejebe**, **Dr. Reza Hosseini Ghomi**, **Dr. Swathi Krishna**, and **Dr. Cody Rall**. Brainstorm applies the biopsychosocial model of disease to tackle problems on the systems level. It unites the worlds of medicine, business, and technology to foster innovative ventures that optimize health and human potential. This mission is pursued in three ways: Educate, Collaborate, and Create.



# Uniquely Stanford

## Mental Illness Research Education and Clinical Center (MIRECC)



Clinic Director  
Jerome Yesavage, MD



Associate Director  
Ruth O'Hara, PhD



Led by Director **Dr. Jerome Yesavage**, and Associate Director, **Dr. Ruth O'Hara**, the mission of the Sierra-Pacific MIRECC has been to build an integrated system of clinical, research, and educational programs designed to improve the clinical care for Veterans with dementia and with PTSD both in VISN 21 and system-wide. By using recent advances in clinical neuroscience, we plan to help prepare the VA Health Care System take care of a deluge of older Vietnam Era Veterans suffering from dementia and PTSD.

Our approach is to define risk factors for cognitive decline in older Veterans, and then to develop and implement novel countermeasures to minimize this decline. Our strong translational research programs are helping to ensure that the unique physical and mental health care needs of all older Veterans are met. This work is increasingly important as Vietnam Veterans grow older and more susceptible to significant cognitive decline.

We bring together the efforts from applied neuroscience to clinical trials, utilizing technological advances for both understanding the pathophysiology of these disorders, and for treatment delivery. Here is a brief overview of some of our efforts in these domains this past year.

Dr. Yesavage and other MIRECC investigators have conducted traditional pharmacological trials relevant to the treatment of dementia and associated behavioral disturbances, e.g., the use of citalopram to treat agitation in Alzheimer Disease (AD). MIRECC investigators have begun innovative clinical trials to determine if changes in brain nerve growth factors may affect cognitive decline.

These include studies in MCI and mild AD patients by **Drs. Jauhtai Joseph Cheng** and **Joy Taylor** using repetitive transcranial magnetic stimulation (rTMS) and **Dr. Kaci Fairchild** examining the biological impact of physical exercise.

**Dr. Allyson Rosen** has led a comprehensive education/dissemination program on risk factors for cognitive decline and relevant countermeasures for Vietnam Era Veterans.

NIH Pioneer Award winner **Dr. Amit Etkin** is using advanced brain mapping techniques to guide rTMS treatments in patients with PTSD. His strategies involve the use of rTMS to augment the effectiveness of current evidence-based psychotherapies for PTSD.

Dr. O'Hara is examining sleep biomarkers of cognitive impairment in both PTSD and Dementia. **Dr. Lisa Kinoshita** has developed several novel interventions for sleep disturbances that are common co-morbidities in PTSD patients.

**Dr. Blake Scanlon** has developed several telemedicine and mobile health interventions for Veteran AD patients and caregivers in partnership with the State of California's Alzheimer Center on site at VA Palo Alto, led by MIRECC Clinical Unit Dementia Director, **Dr. Jared Tinklenberg**.

Under the leadership of **Dr. Leanne Williams**, VISN 21 MIRECC investigators are among the first to lead a Research Domain Criteria (RDoC) project under the NIMH priority initiative to develop a biologically valid classification for mental disorders offering new targets for precise therapeutic strategies.

Dr. Williams, in collaboration with Drs. Yesavage, O'Hara and Etkin, is focused on developing new RDoC criteria for mood and anxiety disorders, including PTSD, and outcomes from this RDoC project have included delineation of a brain-based taxonomy that encompasses PTSD and the spectrum of commonly co-morbid mood and anxiety disorders.

A recent trial led by **Dr. Craig Rosen** tested whether telephone care management (TCM) improved Veterans' retention in outpatient PTSD care, and **Dr. Julie Weitlauf** has addressed ways in which PTSD and related mental health conditions may interfere with women Veterans' timely receipt of preventive healthcare.

These studies have provided a strong empirical foundation for trauma-informed women's health care in VA and were used extensively by the American Congress of Obstetrics and Gynecology's guiding documents (Committee Opinion of the Committee on Underserved Populations) related to evidence-based women's health care for Veterans.



Jauhtai Joseph Cheng, MD, PhD



Amit Etkin, MD, PhD



Kaci Fairchild, PhD



Lisa Kinoshita, PhD



Allyson Rosen, PhD



Craig Rosen, PhD



Blake Scanlon, PhD



Joy Taylor, PhD



Jared Tinklenberg, MD



Julie Weitlauf, PhD



Leanne Williams, PhD

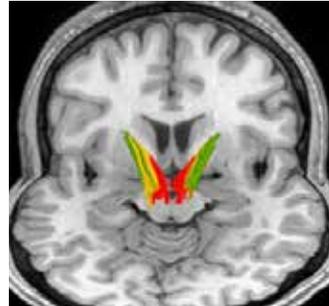
# Uniquely Stanford

## Addiction Medicine Research and Programs

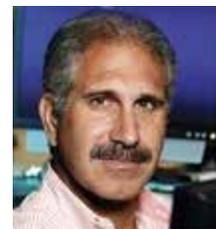
Nearly one quarter of all deaths in the United States are attributable to addiction; to tobacco, alcohol, opioids, and other drugs. Pushing back on this enormous social and medical problem is a daunting task, but at the same time is precisely the sort of challenge which Stanford was founded to undertake.

Accordingly, upon assuming the position of department chair in 2010, **Dr. Laura Roberts** engaged key faculty to develop strategies for advancing science, clinical innovation, training and outreach, and public education and policy related to addiction and its consequences.

Faculty members are working on every level of addiction science and intervention. Internationally recognized researchers **Drs. Robert Malenka** and **Karl Deisseroth** are conducting animal research revealing the role of altered brain circuitry in the development and maintenance of addiction.



Laura Roberts, MD, MA



Robert Malenka, MD, PhD



Karl Deisseroth, MD, PhD

Simultaneously, in a broad effort, engaging other faculty members including **Drs. Mahendra, Bhati, Timothy Durazzo, Amit Etkin, Steven Lindley, Michael Ostacher, and Edith Sullivan** are using the latest neuroscience techniques to illuminate the nature of addiction in humans, as well as how to treat its destructive effects on the brain. Within the dynamic collaborative atmosphere of the department, the basic and clinical researchers enrich each other's work on addiction, helping to focus investigations in the most maximally productive areas.



Psychiatry faculty research on addiction is constantly in productive interchange with the department's innovative clinical and prevention services.

These include school-based programs led by faculty including **Drs. Laura Roberts, Shashank Joshi, and Steven Adelsheim** that provide young people with the core emotional and cognitive strengths that help them avoid substance misuse as well as a range of other developmental problems.

Treatment of addiction is also central to the department's mission, and includes a nationally recognized program to train physicians in addiction medicine (led by **Dr. Anna Lembke**), bold initiatives to incorporate treatment for substance misuse into primary care (led by **Dr. Mark McGovern**), and innovative anti-smoking programs for individuals undergoing treatment for serious diseases such as cancer (led by **Dr. Matthew Kendra**).

Translation of science to clinical and preventive work is critical to battle addiction, yet also insufficient because the lessons faculty are learning have direct relevance to the laws and regulations affecting the country's substance use problems as a whole (e.g., the opioid epidemic). Multiple faculty in psychiatry led by **Dr. Keith Humphreys** with support from scholars in the Law School and Stanford Neurosciences Institute are thus actively engaged with policymakers, including testifying in Congress, providing addiction science briefings to elected officials, and writing empirically-grounded newspaper editorials on drug-related policy.

Throughout their diverse efforts, faculty share the belief that the whole must be greater than the sum of the parts. Collaborative projects that spans levels of analysis and stretch disciplinary boundaries are thus the norm, and nothing less is required to understand and address the multi-faceted nature and harms of addiction.



Steven Adelsheim, MD



Mahendra Bhati, MD



Timothy Durazzo, PhD



Amit Etkin, MD, PhD



Keith Humphreys, PhD



Shashank Joshi, MD



Matthew Kendra, PhD



Anna Lembke, MD



Steven Lindley, MD, PhD



Mark McGovern, PhD



Michael Ostacher, MD, MPH



Edith Sullivan, PhD

# Uniquely Stanford

## Autism Spectrum Disorders Innovations

At Stanford, we approach intellectual and developmental disorders with the same drive and passion that we bring to all conditions that we study and treat. Our work on understanding Autism Spectrum Disorder (ASD) is exemplary of a multidisciplinary approach with a bench to bedside to community model. ASD is a developmental disability that presents with significant social, communication, and behavioral challenges. Investigators in our Department work together across subfields to better understand the biological mechanisms underlying ASD and to develop effective treatment strategies. It is only by approaching ASD from all angles that progress can be made. Here, the sum is truly greater than the parts and each team facilitates the work of another.



### New Treatment Options and Metrics

Under the leadership of **Drs. Antonio Hardan** and **Jennifer Phillips**, the Autism and Developmental Disorders Research Program (ADDRP) focuses on the examination of the neurobiology of ASD and on the development of innovative treatment for individuals with developmental disorders. Through research methods that range from clinical trials, neuroimaging investigations, behavioral analysis to basic science methods, these researchers conduct a variety of research studies of novel behavioral and biological therapies in hopes of developing effective interventions for the treatment of core features of ASD. ASD manifests as 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. Furthermore, the group has focused on the investigation of behaviorally- 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 that are sensitive and valid to be used in clinical trials since existing measures are overly subjective. Similarly, **Dr. Vinod Menon** and his team in the Cognitive and Systems Neurosciences Laboratory is investigating the functional architecture of human brain circuits and seeking to determine how disruptions in specific brain networks impact behavior, cognition, emotion, and learning in normal healthy individuals and in individuals with ASD, psychiatric, developmental and neurological disorders.



## Expanding the Nonhuman Primate Model

The goal of **Dr. Karen Parker** and the Social Neurosciences Research Program at Stanford is to better understand the biology of social functioning – a key deficit in ASD -- using an integrative, translational approach. Their behavioral research spans studies of rhesus monkey social development to social cognition impairments in clinical populations (e.g., in children with autism; in survivors of pediatric hypothalamic-pituitary tumors; in adults with posttraumatic stress disorder).



The Parker Lab is also developing several innovative monkey models of social impairments, including studies of rhesus monkeys that naturally exhibit social deficits and marmosets which are engineered to do so. Their biological studies employ epigenetic, gene expression, and neurotransmitter-based approaches to identify biomarkers of impaired social functioning, and they also conduct treatment trials to test the efficacy of novel pharmacotherapies to improve social abilities in low-social monkeys and in children with autism. The Parker Lab is particularly interested in testing whether “social” neuropeptide signaling pathways are implicated in human and nonhuman primate social behavior, and whether these neuropeptide pathways are robust biomarkers of, and treatment targets for, social impairments in youth diagnosed with ASD.

## Reaching Community: Empirically-based Interventions

Recently joining the Department of Psychiatry and Behavioral Sciences, **Drs. Robert and Lynn Koegel** developed Pivotal Response Treatment (PRT) for ASD. PRT is an empirically-validated, efficient and effective behavioral intervention, which has proven to be a breakthrough in improving the core areas of autism, resulting in very widespread improvements to both the individual symptoms of autism as well as to the entire condition of the disorder. PRT targets key areas thought to be central to the disorder of autism by improving motivation, social initiations, self-control, empathy, and responsiveness to multiple cues. They are working on programs to disseminate their research findings and intervention procedures throughout the world through “train the trainer” and parent education models. Thus their work is both helping individual children and is also addressing the severe shortage of services for this population.



## Genetic Underpinnings

One focus of the biological work of investigators in the Department of Psychiatry and Behavioral Sciences is to determine if and how genetic variations impact the development of Autism Spectrum Disorders (ASD) and other neuropsychiatric disorders. Through the work of **Drs. Joachim Hallmayer, Ruth O’Hara, Sergiu Pasca, and Alex Urban**, in addition to other researchers, we now know that a substantial proportion of genetic risk for ASDs resides in rare genetic variants. During the past several years these investigators have become one of the first groups to study neurons derived from induced pluripotent stem cells (iPSCs) to better understand which common and rare genetic variants increase the risk for developing ASD. Using this approach, they have identified cellular and molecular phenotypes for rare, but highly penetrant, forms of autism, which were rescued by treatment with specific pharmacologic agents acting on identified molecular targets. More recently they have started to characterize neurons derived from iPSCs from patients with 22q11 deletion syndrome (or Velocardiofacial Syndrome).

Additionally **Drs. Scott, Hall, David Hong** and **Allan Reiss** are making outstanding complementary efforts on autism and neurodevelopmental disorders across the age spectrum in the Division of Interdisciplinary Brain Sciences.

# Uniquely Stanford

## Department Innovation Awards Program

The Department of Psychiatry and Behavioral Sciences Innovation Awards 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 a large number of highly meritorious applications were received, far exceeding the amount of funding available. The selected projects represent those most highly rated by reviewers and recognized for salience and balance across department missions and include 5 pilot studies and 8 small scholarly projects, as well as 2 projects provided with seed grants made possible by a generous donor.

In 2017, 14 projects were selected, including 8 pilot studies and 6 small scholarly projects. In its initial year, 2016, 20 applications were selected, including 6 pilot studies and 1 small scholarly projects. Information about each of these projects is noted on the following pages.

### 2018 Innovation Program Awardees



Listed Alphabetically

Row 1: Adelsheim, Ball, Bandstra, Barwick, Bhati, Bullock, Fitzpatrick, Jacobs, Kalinowski

Row 2: Luce, Matlow, McGlynn, Miner, Simpson, Sullivan, Vemuri, Zeitzer

### 2018 Seed Grants

Tali Ball, PhD and  
Kristine Luce, PhD

Personalized trans-diagnostic group therapy for anxiety: Program development and quality improvement (with Leanne Williams, PhD)

Jamie Zeitzer, PhD

Restless Leg Syndrome: Does it start with a Gut Feeling?  
(with Daniel Jin Blum, PhD, Fiona Barwick, PhD, and Emmanuel During, MD)

## 2018 Funded Pilot Studies

|                               |   |
|-------------------------------|---|
| Mahendra Bhati, MD            | Detecting and inhibiting fear with responsive neurostimulation (RNS) of the human amygdala (with Amit Etkin, MD, PhD)   |
| Kim Bullock, MD               | A Randomized Controlled Trial of Virtual Reality Delivered Mirror Visual Feedback for Functional Neurological Disorder (with Jeremy N. Bailenson, PhD, and Andrea Stevenson Won, PhD)   |
| James R. Jacobs, MD, PhD      | The Neurophysiology of Secrets (with Keith Sudheimer, PhD)  |
| Agnieszka Kalinowski, MD, PhD | Leveraging Metabolomics and Genomics of Dopamine Regulation for Precision Medicine to Treat Psychiatric Disorders (with Jacob Ballon, MD, MPH, Laramie Duncan, PhD, Steve Ho, BS, Ruth O'Hara, PhD, and Alexander Urban, PhD) |
| Adam Miner, PsyD              | Natural language processing to detect features of successful psychotherapy (with Stewart Agras, MD, Bruce Arnow, PhD, and Nigam Shah, MBBS, PhD)  |

## 2018 Funded Small Scholarly Projects

|                          |  |
|--------------------------|--|
| Steve Adelsheim, MD      | The Hope and Hype of Technology Ventures in Transforming Brain Health (with Nina Vasan, MD)  |
| Belinda Bandstra, MD, MA | Recruitment and Retainment of Underrepresented Minority Faculty and Residents (with Mario Mercurio, Yasmin Owusu, MD, and Ripal Shah, MD, MPH) |
| Fiona Barwick, PhD       | Student Sleep Health Pilot Project (with Kevin Lee, MD)  |
| Ryan Matlow, PhD         | Implementing Evidence-Based Mental Health Care in East Palo Alto Schools (with Flint M. Espil, PhD)  |
| Lawrence McGlynn, MD     | LGBTQ Mental Health: Opportunities for Research and Practice (with Ripal Shah, MD, MPH and Neir Eshel, MD, PhD)                                |
| Norah Simpson, PhD       | Development and Evaluation of a Sleep Health Educational Resource for Stanford Student Athletes (with Scott Kutscher, MD)                      |
| Shannon Sullivan, MD     | Home-Based Early Detection of Disrupted Sleep in Children with Risk Factors for Sleep Disordered Breathing (Michelle Cao, MD)                  |
| Mytilee Vemuri, MD, MBA  | Addressing Cultural Factors Affecting Professional Fulfillment within the Department of Psychiatry Outpatient Clinics                          |

## 2017 Funded Pilot Studies

|                         |  |
|-------------------------|--|
| Sarah Adler, PsyD       | Analysis of Measurement Based Care Data to Inform Clinical Decision-Making: Building the Model   |
| Cara Bohon, PhD         | Abnormal Perceptual Processing as a Maintaining Mechanism of Body-Image Disturbance in Adolescents with Anorexia Nervosa: Identifying a Novel Treatment Target         |
| Weidong Cai, PhD        | Dynamic Brain States and Connectivity in Children with Attention-Deficit/Hyperactivity Disorder and Its Relation to Intra-Individual Variability and Clinical Symptoms |
| Erin Cassidy-Eagle, PhD | Activate! Training Primary Care Providers in Behavioral Activation Therapy for Older Adults with Depression  |
| Grace Gengoux, PhD      | Parent Training to Enhance Social Success for Children with Autism Spectrum Disorder   |
| Hadi Hosseini, PhD      | Integrating Virtual Reality and NIRS Neurofeedback for Improving Executive Function in ADHD  |
| Debra Safer, MD         | Assessing the Feasibility and Acceptability of a Parent-Based Intervention to Reduce the Risk of Obesity in Children of Weight Loss Surgery Patients                   |
| Ranak Trivedi, PhD      | Determining the Interdependence of Stress and Physical Activity Among Patients and Their Informal Caregivers   |

## 2017 Funded Small Scholarly Projects

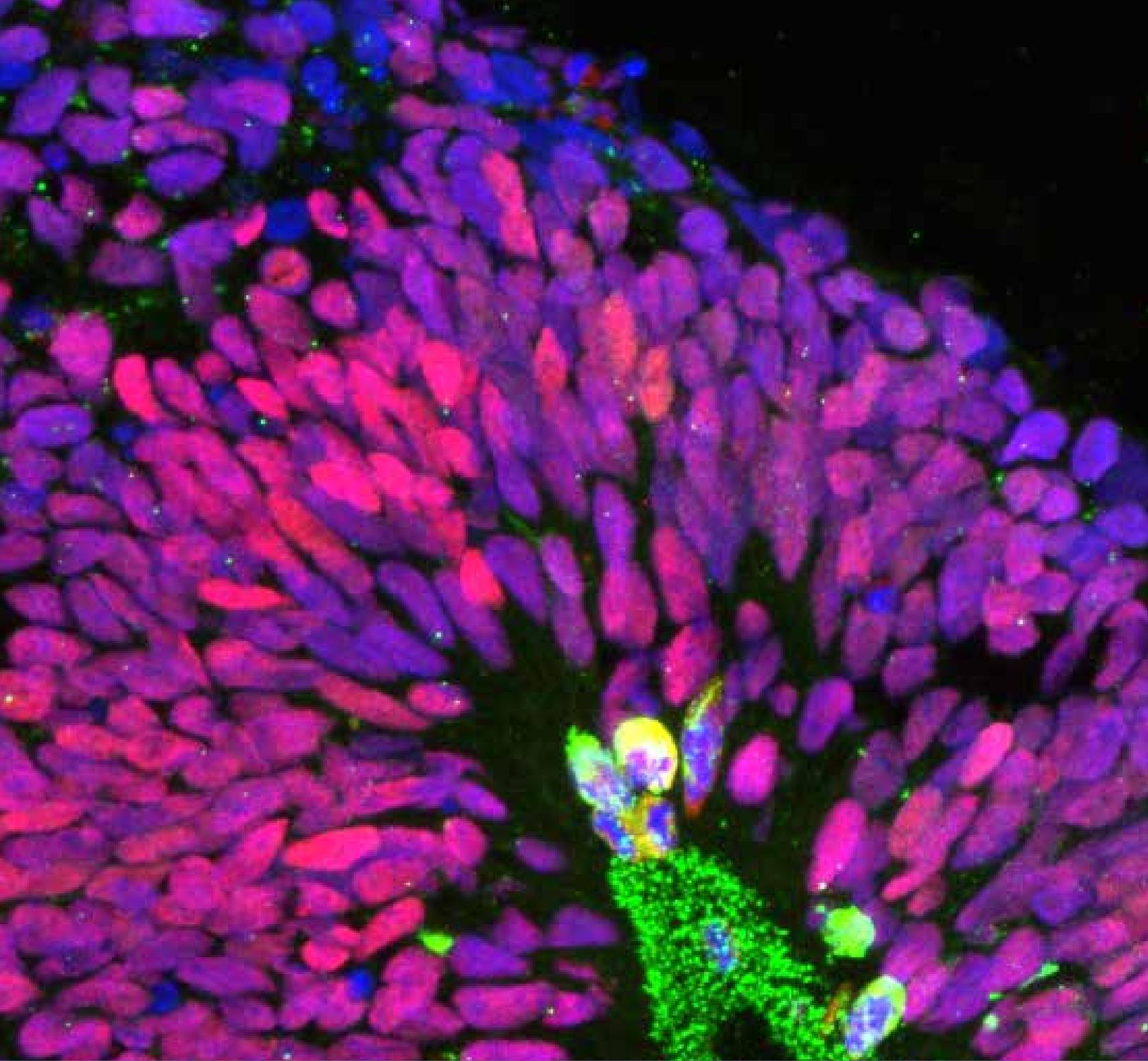
|   |  |
|---|--|
| Sepideh Bajestan, MD, PhD                         | Patient-Centered Clinical Neuroscience Training to Facilitate the Communication with Challenging Neuropsychiatric Patients                               |
| Victoria Cosgrove, PhD                            | Assessing Need for Psychosocial Support in Families with a Child Undergoing Treatment in the Bass Center for Childhood Cancer and Blood Diseases at LPCH |
| Christina Khan, MD, PhD                           | Integrating Mental Health into Primary Care in Rural Guatemala Through Task Shifting to Public Health Clinic Physicians                                  |
| Philippe Mourrain, PhD                            | Pharmacological and Genetic Interrogation of Circuit Dynamics in the Parkinsonian Brain  |
| Adam Miner, PsyD                                  | Natural Language Processing to Detect Features of Successful Psychotherapy<br>(with Stewart Agras, MD, Bruce Arnow, PhD, and Nigam Shah, MBBS, PhD)      |
| Oxana Palesh, PhD, MPH<br>Ingrid Girvan, PhD, MPH | Does Improving Sleep Modify Potentially Relevant Clinical Biomarkers Among Breast Cancer Patients Undergoing Chemotherapy?                               |
| Jennifer Phillips, PhD                            | Development of a Measure of Social Motivation in Autism  |

## 2016 Funded Pilot Studies

|   |   |
|---|---|
| Jacob Ballon, MD                        | Open Label, Flexible-Dose, Adjunctive Bromocriptine for Patients with Schizophrenia and Metabolic Dysfunction   |
| Michele Berk, PhD<br>Moiria 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 Saggarr, 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 |

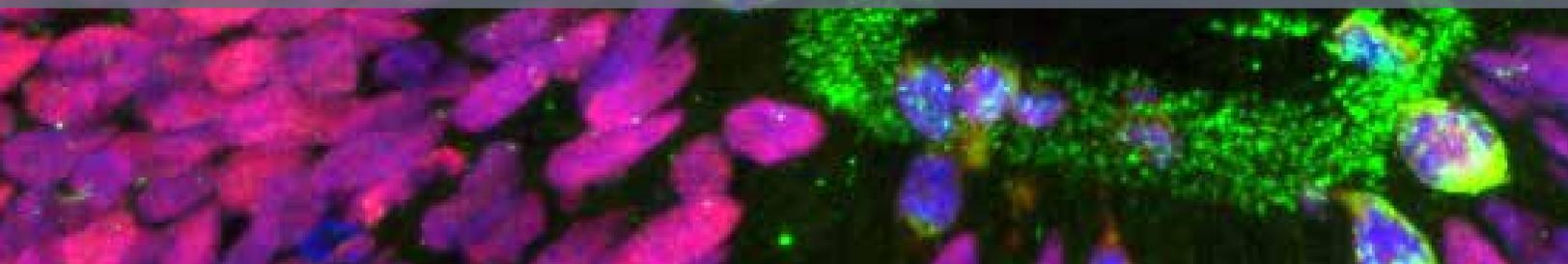
## 2016 Funded Small Scholarly Projects

|  |   |
|--|---|
| Sarah Adler, PsyD                            | Addressing Perceived Barriers to Implementation of Measurement Based Care: A Pilot Feasibility and Acceptability Study  |
| Erin Cassidy Eagle, PhD<br>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 &<br>Katherine Eisen, PhD   | Reading and Recovery Expectations: Developing a Bibliotherapy Group for an Acute Inpatient Psychiatric Unit   |
| Diana Naranjo, PhD                           | Training Mental Health Care Providers in Diabetes Distress to Address Psychosocial Need in Youth and Young Adults with Type 1 Diabetes  |
| Daryn Reicherter, MD &<br>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 &<br>Michelle Cao, DO   | Survey of Sleep Education Offered by US Medical Residency Training Program  |
| Ellie Williams, MD &<br>Julie Weitlauf, PhD  | Women's Health and Wellness Advanced Clinical Didactic Workshop: Assessment and Treatment   |



# Advancing Science

The Department's world-class faculty are defining new approaches to treatment and prevention, seeking to cure psychiatric disorders and to foster overall health, wellbeing, and resilience.



# Advancing Science

One in four individuals will suffer from mental illness during their lives. In terms of individual and societal costs, the burden of mental illness greatly exceeds that of any other class of illness. The research conducted by our faculty aims to advance the practice of psychiatry and create innovative platforms for promoting mental health throughout the world.

Through collaborations across the University, Silicon Valley, and the world, our researchers are working on linking the biology of addiction and decision-making to innovations in clinical care and public policy as well as redefining autism and illuminating novel paths for prevention, diagnosis, and intervention. We are also translating neuroscience insights into novel, personalized circuit-based interventions for depression, anxiety, trauma, OCD, pain, and other life-limiting conditions in addition to connecting neurobiology and behavior to develop and globally scale effective therapies for people suffering from eating disorders.

In support of a digitally driven agenda, our department is building out and integrating digital technology across all department missions. With the launch of the Mental Health Technology and Information Hub, we are utilizing many tools including web-based programs, mobile health apps and sensors, education, ethics, precision psychiatry, and virtual reality to achieve the vision of a world where mental and emotional is within reach, wherever you are.

Researchers in our department are transforming mental health research and mental illness treatment globally. We are driving some of the most exciting advances in neuroscience and psychiatry achieving a global influence through discovery, innovation, translation, and implementation.

767

publications by  
faculty in FY17

72

faculty with over  
1,000 citations

21

faculty with over  
10,000 citations

# Advancing a Continuum of Science

## Major Laboratories: Interdisciplinary Exemplars

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 and, more importantly, because of our poor knowledge of how the brain normally functions to generate thoughts, feelings, and behavior. As a consequence, little progress has been made in the development and delivery of therapeutics to patients with mental illnesses. With this disease burden often comes painful stigma that prevents patients from understanding the source of their suffering and limits use of already-available treatments. 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, which, in turn, will lead to more efficacious treatments. Specifically, that by basic and clinical neuroscientists working together in an interdisciplinary manner to prioritize the discovery, development, and dissemination of novel and scalable interventions, Stanford scientists are creating a “living laboratory” that catalyzes both scientific and clinical advances.



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 behaviorally-relevant neural circuits, basic science researchers can study how genetic abnormalities that contribute to mental illness result in malfunction in specific circuits in model organisms. 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. In turn, clinical neuroscience researchers can apply brain imaging, neurostimulation and genomic tools to understand and manipulate related circuits in patients, for improving both diagnostics and treatments. Indeed, it is now possible for basic and clinical/human neuroscience researchers to work together so that in an iterative fashion – whereby 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. The range and impact of the work at Stanford is illustrated below through the work of several of the many faculty members whose efforts are critical for success of this mission.

What distinguishes the work at Stanford from typical basic or clinical research is that the focus on development of novel diagnostics and interventions through rapid translation requires linking tools and concepts from across generally distinct research and clinical domains. This approach to science both holds great scientific and clinical promise, and is naturally at home in the collaborative and interdisciplinary environment at Stanford.



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. In his work, he uses animal models to understand how specific neuronal populations underlie adaptive behavior, such as the response to reward, and, when dysfunctional, generate symptoms relevant to those that define major mental illnesses (such as blunted response to rewarding stimuli or excessive seeking of reward). These circuits and symptoms are core to clinical disorders such as major depression, where reward signals are blunted, and addiction, where the seeking of reward is excessive and maladaptive.



Leanne Williams, PhD, Associate Chair - Research Strategy and Oversight, is developing a precision neuroscience-based model for mood and anxiety disorders. She integrates imaging of brain circuits with genetics, behavior, and symptoms to identify novel subtypes and guide treatment choices. The findings are being translated from lab to real-world clinics. Dr. Williams is also the inaugural Chair of the steering committee for the Major Laboratories and Clinical Translational Neurosciences Incubator – a new initiative of the Department of Psychiatry and Behavioral Sciences. 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.

Across themes, we are leading the way in new technology platforms for optogenetics, stem cells, neuroimaging technologies, genomics, and digital health. Facilitating the integration of insights within and across each theme are our breakthroughs in computation and new data science approaches. Reflecting our commitment to a translational cycle, we disseminate key research findings into clinical care and commercialize our breakthroughs for widespread access.



The laboratory of Amit Etkin, MD, PhD, an Associate Professor in the Department, bridges between fundamental research on circuit function and regulation in humans and its application for the development of novel circuit-targeting interventions in patients with mood, anxiety, or trauma-related disorders using non-invasive brain stimulation. Driving this work is the goal of more rapid clinical neuroscience translation, comprised of a feedback loop by which neuroscience and clinical insights are conceived into novel clinical interventions; they are tested in an “experimental medicine” framework that maximizes knowledge gained from each patient; and lessons are derived from both clinical and neuroscience outcomes that direct revision of these interventions.

# Research Highlights

## Professoriate Faculty



**Bruce Arnow, PhD**  
Treatment of Mood Disorders

Dr. Bruce Arnow's research interests include 1) treatment outcome in depression; 2) predictors and moderators of outcome in the treatment of depression, including psychotherapy, pharmacotherapy and combined treatment; 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.

Dr. Arnow is author on more than 95 peer-reviewed publications, one book, and numerous book chapters, invited papers and presentations at national meetings.



**John Barry, MD**  
**Sepideh Bajestan, MD, PhD**  
Stanford Neuropsychiatry Research Program

Neuropsychiatry focuses on diagnosis and treatment of the frequently seen co-morbid psychiatric illness in patients with neurological disorders. Cognitive dysfunction is also a commonly observed phenomenon in this population but is often difficult to treat for fear of exacerbating the underlying illness. The Program is focused on multidisciplinary research on prevention, diagnosis, and treatment of neuropsychiatric disorders in addition to researching innovative approaches for community engagement.

The Stanford Neuropsychiatry Research Program has recently completed a double blind, randomized, crossover study examining the effects of methylphenidate on cognition and seizure control in patients with epilepsy compared to healthy controls. In addition, Functional Neurological Disorders are seen commonly in neurology clinics. We have focused on the evaluation of a variety of interventions for this patient population including a recently published CBT trial and an ongoing group DBT and psychodynamic interventions clinical trial. The group is also establishing a pilot partial hospitalization treatment program with a standardized intervention.

The Program has also launched research on innovative clinical neuroscience modules to facilitate clinicians' communication with neuropsychiatric patients in order to foster community engagement.



**Michele Berk, PhD**  
**Treatment of Suicidal Behavior in Adolescents**

The focus of Dr. Michele Berk's research is on psychotherapy approaches for treating suicidal behavior in adolescents. Suicide and suicide attempts are significant public health problems among teens. Despite the fact that suicide is currently the second leading cause of death among 10-24 year-olds in the United States (CDC, 2015), there is surprisingly little research on effective psychosocial treatments for these youth. At present, there are no treatments specifically targeting suicide attempts in adolescents that meet criteria for a "well-established" empirically supported treatment.

Dr. Berk is currently one of four Principal Investigators of a multisite NIMH-sponsored RCT of DBT for adolescents at high risk for suicide (NCT01528020: Collaborative Adolescent Research on Emotions and Suicide [CARES], PI: Linehan, McCauley, Berk, & Asarnow). As part of this research, they have also received funding from the American Foundation for Suicide Prevention (AFSP) to examine the relationship between sleep disturbance and suicidality in this high risk population. Dr. Berk is currently conducting pilot work, funded by a Department Small Grant Award, to test the feasibility and effectiveness of a DBT based parenting intervention for parents of suicidal and self-harming teens. She has also conducted research on the dissemination of DBT into community settings, as well as research on other cognitive behavioral treatment approaches for suicidal adolescents and brief interventions in the Emergency Department designed to link high risk youth to outpatient care.



**Rebecca Bernert, PhD**  
**Science of Suicide Prevention**

Dr. Rebecca Bernert directs the Suicide Prevention Research Laboratory and co-chairs a Departmental initiative to develop a multidisciplinary center for premature mortality. She has collaborated with NIH, DOD, DARPA, and the White House on suicide prevention initiatives and recently addressed the CA State Assembly regarding emerging best practices. Her program utilizes cognitive, biological, and behavioral testing paradigms, with an emphasis on translational therapeutics.

Dr. Bernert is a suicidologist, with subspecialty in clinical trials and standardized suicide risk assessment. She has subspecialty expertise in behavioral sleep medicine and circadian physiology. Her program aims to identify novel therapeutic targets and treatment development of rapid-action, low-risk interventions for suicide. This includes suicide prevention clinical trials, funded by NIH and DOD, testing efficacy of a non-pharmacologic insomnia treatment on suicidal behaviors. These aim to examine biomarkers of response that may inform the pathogenesis of risk and treatment innovation. An overarching mission is to harness new technologies in suicide prevention, including AI/machine learning, to aid risk detection and triage, with pilots focused on pediatric emergency department screenings and enhanced data monitoring.



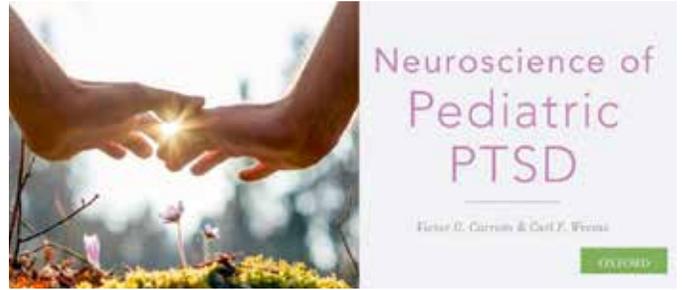
**Cara Bohon, PhD**

**Eating Disorder Neuroscience Program**

The Eating Disorder Neuroscience Program focuses on brain and behavioral markers of eating disorders. With the overarching goal to improve our ability to help people recover, Dr. Cara Bohon's research is uncovering links between emotion regulation, reward, and cognitive function underlying eating and weight disorders. Because current one-size-fits all approaches to treating disordered eating has been insufficient, it is important to understand individual differences in brain function that may help guide treatment plans.

Recent studies have included investigations of brain response to tastes of chocolate milkshake in children, adolescents, and adults who exhibit different eating behaviors, as well as studies examining individual differences in emotion regulation among patients with binge eating.

The lab is also interested in the effects of nutrition on brain structure and function during treatment for eating disorders and obesity and is currently collecting data on brain change over the course of family-based treatment for anorexia nervosa. The Eating Disorder Neuroscience Program has received funding from NIMH, Davis Foundation, Brain and Behavior Research Foundation, and other private and philanthropic organizations.



**Victor Carrion, MD**

**Early Life Stress and Pediatric Anxiety Program**

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 wellness 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 neurobiological markers including magnetic resonance imaging (sMRI and fMRI), functional near infrared spectroscopy (fNIRS), ambulatory polysomnography, and endocrine assays. These neuroscience 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; 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 the empirically-supported, neuroscience-based evaluation of these interventions, Dr. Carrion and his team seek to disseminate results regarding promising, efficacious practices in order to inform and impact institutional, state, and national policies that address the needs of children and families exposed to trauma and adversity.



**Luis de Lecea, PhD**  
Neurobiology of Brain States

Research in Dr. Luis de Lecea's group focuses on defining the arousal construct using modern neuroscience methods. Their group has discovered several neurotransmitter systems involved in sleep and wake transitions and in hyperarousal conditions including anxiety and addiction. During the past two years, they have demonstrated that dopaminergic neurons in the reward center of the brain have a critical role in the control of sleep wake cycle.

Dr. de Lecea's group has also shown that neuronal connections between the extended amygdala and the hypothalamus drive emotional behaviors of opposite valence. While they continue to investigate the neuronal circuitry underlying changes in brain states, current research aims at determining the role of sleep in tumor growth, immune function during aging and neurodegenerative conditions.



**Charles DeBattista, MD, DMH**  
Depression Research Clinic

Dr. Charles DeBattista's current research interests focus on treatment resistant depression, developing novel biological interventions in the treatment of mental illness, studying anti-glucocorticoid 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 Optimised Treatment - in Depression is aimed to identify genetic, physical and psychological markers (or combinations of them) that predict specific response to a range of antidepressants treatment in patients diagnosed with major depressive disorder. Investigate Efficacy & Safety of RO4995819 vs. Placebo as Adjunct Treatment in Patients with Major Depressive Disorder explores the efficacy of a 6-week treatment with an investigational medication, RO4995819, versus placebo as 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. Radiosurgical Neuromodulation for Refractory Depression aims to evaluate the safety and effectiveness of an investigational procedure for treating people with treatment 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.



**Karl Deisseroth, MD, PhD**  
Deisseroth Lab

Dr. Karl Deisseroth is the D.H. Chen Professor of Bioengineering and Psychiatry at Stanford, and Investigator of the Howard Hughes Medical Institute. A neuroscientist and bioengineer, he also completed his psychiatry residency at Stanford, and continues as a board-certified psychiatrist specializing in affective and autism-spectrum disorders. He received his AB from Harvard, MD from Stanford, and PhD from Stanford in 1998.

He launched his lab at Stanford in July 2004, where he and his team created and developed 1) optogenetics with microbial opsin genes, 2) hydrogel-tissue chemistry (which includes methods such as CLARITY), and 3) a broad range of enabling methods. He also launched (and directs) the undergraduate Bioengineering degree program at Stanford.

For his discoveries, Deisseroth has received awards that include the NIH Director's Pioneer Award (2005), Zuelch Prize (2012), Perl Prize (2012), BRAIN Prize (2013), Pasarow Prize (2013), Breakthrough Prize (2015), BBVA Award (2016), Massry Prize (2016) and Harvey Prize from the Technion in Israel (2017).

Deisseroth was also the sole recipient (for optogenetics) of the 2010 Koetser Prize, 2010 Nakasone Prize, 2013 Lounsbery Prize, 2014 Dickson Prize in Science, 2015 Keio Prize, 2015 Lurie Prize, 2015 Albany Prize, 2015 Dickson Prize in Medicine, 2017 Redelsheimer Prize, 2017 Fresenius Prize, and 2018 Eisenberg Prize.

He was elected to the US National Academy of Medicine in 2010 and National Academy of Sciences in 2012.



**Laura Dunn, MD**  
**Erin Cassidy-Eagle, PhD**  
Stanford's Geriatric Psychiatry Program

Dr. Laura Dunn is Director of the Geriatric Psychiatry Fellowship Program at Stanford. She conducts research in several areas, including: enhancing care for older adults with psychiatric conditions; examining ethical issues in clinical research, particularly in populations considered potentially "vulnerable" in the research context; and understanding the symptom experience of cancer patients.

Dr. Cassidy-Eagle is a Psychologist in the Geriatric Psychiatry Outpatient Clinic. Her research focuses on sleep, cognition and mental health in older adults. Recently, Drs. Dunn and Cassidy-Eagle have also conducted an assessment of current practices and barriers related to older adults' ability to access mental health care.

They are currently implementing a pilot program that provides educational and consultative outreach to primary care providers here at Stanford in hopes of increasing the number of mild to moderately depressed older adults able to access support.



**Timothy Durazzo, PhD**  
BRain Alcohol Stimulation Studies Lab

The mission of the Durazzo BRain Alcohol Stimulation Studies (BRASS) lab is to better understand how the interplay between biomedical, psychological and social factors influences treatment outcome in Veterans and civilians seeking treatment for alcohol and substance use disorders. To accomplish this mission, our multidisciplinary team integrates information from advanced neuroimaging, cognitive assessment, genetic profiling and psychodiagnostic methods to identify the biopsychosocial factors associated with relapse and sustained sobriety.

The ultimate goal of our multidisciplinary research program is to promote the development of more effective biomedical and behavioral treatments for alcohol and substance use disorders through consideration of the brain biology, psychology and social circumstances of each individual.



**Amit Etkin, MD, PhD**  
Etkin Lab

In 2017, Dr. Amit Etkin received a prestigious NIH Director's Pioneer Award for his vision entitled "'Circuits-First' Platform for Personalized Neurostimulation Treatment', which aims to transform psychiatric neuroscience from a descriptive to a causal and mechanistic endeavour that directly guides new therapies. Toward this goal, the lab is focused on grounding psychopathology in objective and mechanistic neurobiology at the brain circuit level, and developing new methods for modulating these circuits in a targeted fashion through non-invasive brain stimulation.

Additionally, this work leverages the power of neuroscience for understanding mechanisms at the level of individuals, rather than lumping across large and heterogeneous clinical populations, thus truly advancing personalized medicine for psychiatry.



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

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 morbidity and mortality 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.



**Christian Guillemineault, MD**  
Obstructive Sleep Apnea

Dr. Christian Guillemineault's research has investigated the oral cavity changes that can be associated with pediatric sleep-disordered-breathing. Some of the changes are related to very early in life abnormal sucking, swallowing, chewing, speech and nasal breathing. Remedy of these functional problems may decrease occurrence of obstructive-sleep apnea. A problem that could be remedied at birth and is rarely systematically checked is the presence of a short lingual frenulum, a defect that "runs in families". It is a common phenotype in children with OSA and it impacts the maxillary and mandibular development, increasing the risk of upper-airway collapsibility during sleep.



**Scott Hall, PhD**  
**Translational Applied Behavior Analysis Lab**

The Translational Applied Behavior Analysis (TABA) Laboratory is dedicated to advancing scientific understanding of the behavioral and neuropathological underpinnings of severe problem behaviors, such as aggression, self-injury, and social skills deficits, commonly shown by children and adults diagnosed with autism and intellectual and developmental disabilities (IDD). Led by Dr. Scott Hall, the lab utilizes state-of-the-art neuroimaging and behavioral assessments based on the principles of applied behavior analysis to investigate genetic conditions that cause intellectual impairment and autism-like symptoms, such as fragile X syndrome, Prader-Willi syndrome, and Cornelia de Lange syndrome, among others, which provide valuable study models.

The primary goals of the lab are to determine how environmental and biological factors affect the development of aberrant behaviors, and to develop targeted clinical interventions. Our research portfolio includes studies in collaboration with the Behavior Change Institute to employ telemedicine to improve access to and affordability of appropriate care for children and young adults with IDD. Other studies include the integration of social skills training, state-of-the-art eye tracking, and multimodal brain imaging. We are also collaborating with UC Davis on a multi-site effort to develop a mobile app for parents and teachers to accurately measure and track behaviors commonly shown by individuals with IDD. Our lab has received research grant funding from NIMH, NICHD, the National Fragile X Foundation, the Foundation for Prader-Willi Research, the Simons Foundation, the John Merck Fund, and the Stanford Child Health Research Institute.



**Joachim Hallmayer, MD, Dr med**  
**Genetics, iPSCs, and  
Neurodevelopmental Disorders**

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 his 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 (Drs. O'Hara, Pasca, Urban, Bernstein), 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 cellular and molecular phenotypes for rare but highly penetrant forms of autism, which were rescued by treatment with specific pharmacologic agents acting on identified molecular targets. More recently they started to characterize neurons derived from iPSCs from patients with 22q11 deletion syndrome (or Velocardiofacial Syndrome). They are also extending this research to idiopathic forms of autism by establishing iPSC lines from 200 children with an ASD and 100 age and gendermatched control subjects.



**Antonio Hardan, MD**  
**Autism and Developmental Disorders**  
**Research Program**

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.

Over the years, the research 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 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, pregnenolone, oxytocin, and vasopressin, in targeting the core deficits as well as associated features. Furthermore, the group has focused on the investigation of behaviorally- 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.



**David Hong, MD**  
**Hong Lab**

Dr. David Hong's lab is affiliated with the Center for Interdisciplinary Brain Sciences Research, and focuses on two major domains: (1) examining sex-specific determinants of neurodevelopment, including investigation of sex chromosome influence on brain anatomy and function, as demonstrated by sex chromosome aneuploidies. Utilizing genomic, neuroimaging and cognitive-behavioral methods he investigates mechanisms by which differential gene expression from the sex chromosomes may influence social cognition and executive functions.

He has recently extrapolated this work by studying how genetic factors interface with sex steroid influence, particularly in the modulation of brain development during the dynamic period of adolescence in transgender youth. (2) Dr. Hong also investigates neural correlates of executive function, a complex cognitive ability that is affected in a number of disorders. His recent research aims to deconstruct the significant heterogeneity associated with these deficits, using childhood attention deficit hyperactivity disorder as a model. He currently serves as Director of the Executive Function Clinic in the Division of Interdisciplinary Brain Sciences.



**Hadi Hosseini, PhD**  
Neuroscience and Neuropsychiatry

Dr. Hadi Hosseini's research focuses on computational and translational neuropsychiatry. His computational neuropsychiatry research mainly involves investigating alterations in the organization of connectome in neurodevelopmental and neurocognitive disorders using neuroimaging techniques and novel computational methods. The ultimate goal of his research is to translate the findings from his computational neuropsychiatry research toward developing personalized interventions.

He has been developing and testing novel, personalized interventions by integrating computerized cognitive rehabilitation, real-time brain imaging, virtual reality and neuro-feedback in order to improve neurocognitive functions in children with ADHD and older adults with mild cognitive impairment (MCI). Dr. Hosseini has been teaching the Neuroimaging Research Methods (Psyc250) at Stanford Psychiatry since 2012.



**Keith Humphreys, PhD**  
Addictions and Health Policy

Dr. Keith 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 reviews 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 public policy makers at the local, state, national and international level.

Most recently this included Humphreys being a senior editor for the Surgeon General of the United States' recent landmark report on addiction. Humphreys has also worked extensively with mentees 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.



**Booil Jo, PhD**  
Biostatistics

Dr. Booil Jo is an Associate professor in the Department of Psychiatry and Behavioral Sciences with an emphasis on biostatistics. Dr. Jo has been at the lead in developing pragmatic statistical methods based on the intersection of causal inference and latent variable modeling.

Over the past decade, she has published on various methodological topics such as treatment noncompliance, handling of nested data such as from cluster randomized trials, causal mediation, missing data, propensity scores, and longitudinal heterogeneity.

Her current program of research is focused on developing statistical methods that jointly utilize latent variable modeling, causal inference, and machine learning approaches with the goal of improving the quality in personalized medicine. She is also actively involved in biostatics education, consulting, and collaborative work in various fields of psychiatry/mental health research.



**Shashank Joshi, MD**  
School Mental Health and Community-Based Participatory Research

The Stanford / LPCH School Mental Health Program, has studied 3 primary areas: 1) School-based suicide prevention, 2) The interaction of culture, stigma, and help-seeking among diverse youth and their families, and 3) Process considerations based on the principles of therapeutic engagement with students, school staff, families, and communities.

Dr. Shashank Joshi and his team have implemented and evaluated peer-led (and adult-mentored), culturally-adapted mental health interventions for several communities affected by suicide clusters. Since last starting this work in 2011, the schools they have engaged with have reported a significant increase in referrals made by peers to get help for their friends in distress, and many teen lives have been saved because a peer acted on their behalf. This year, over 5,600 students in the SF Bay are involved in this school-based suicide prevention approach, known as Sources of Strength. The social messaging and mentor guided peer-to-peer activities that are part of this program have led to more students being able to name trusted adults they would go to when seeking help for themselves or for peers.

In the upcoming year, they will be studying classroom teacher self-efficacy in student mental health, by utilizing a virtual classroom interaction platform in school districts within Santa Clara and San Mateo Counties. They will also continue our study of cultural factors that act as either enhancers or barriers to help-seeking in adolescents, especially for those from immigrant families.



**Clete Kushida, MD, PhD**  
Center for Human Sleep Research

The Center for Human Sleep Research focuses on conducting largescale clinical trials in sleep medicine and developing the electronic network informatics 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 PCCM approach for sleep medicine against a conventional diagnostic/treatment outpatient medical care approach with assessment of patient satisfaction and perception of care in 1,806 enrolled patients. The analyses are completed on AHRQ-supported Comparative Outcomes Management with Electronic Data Technology (COMET) Project, in which they repurposed 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 stent for treating OSA, a new medication for adolescent patients with restless legs syndrome, and innovative wearable devices for detecting sleep-wake patterns.



**Laura Lazzeroni, PhD**  
Interpreting Biomedical Research from the  
Perspective of Statistical Epistemology

A major theme in Dr. Laura 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 aid in 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 estimating heritability in twins. Many heritability estimates, especially those from smaller studies, are biased upward, contributing to the well-known "missing heritability" problem. The new algorithm removes this bias, yielding smaller, more realistic assessments of the genetic contributions underlying a trait.



**Anna Lembke, MD**  
Addiction Medicine Initiative



**Doug Levinson, MD**  
Program on the Genetics of Brain Function

The Addiction Medicine Initiative continues to work toward improving clinical care, teaching, and research in the area of substance use disorders and other addictions. They have expanded our clinical offerings by increasing the number of psychotherapy groups for the treatment of addiction, led by the Addiction Medicine Dual Diagnosis Clinic, by collaborating with the Stanford Cancer Center to improve smoking cessation, led by Dr. Matt Kendra, and by securing grant funding to incorporate peer counselors, led by Tracy Chesler. They are working toward augmenting clinical services in the inpatient setting and in adolescent medicine. In the area of teaching, they are collaborating with partners in the School of Medicine and Ed Tech to create and implement a robust addiction medicine curriculum for medical students, to continue to grow and innovate our Addiction Medicine Fellowship, and to produce online continuing medical education courses for health care providers around topics related to addiction and recovery.

Recently, the Addiction Medicine Initiative submitted a proposal to President Tessier LeVigne on the importance of improving campus wide policies and resources for Stanford students with substance use problems, and the proposal was included in the white paper on Mental Health. We continue to collaborate with colleagues in basic science, epidemiology, health services, and public policy, to research ways to improve addiction treatment at the individual, local, state, and national levels.

The Program on the Genetics of Brain Function (GBF) includes the labs of Drs. Douglas Levinson and Alex Urban. We investigate genetic sequences and mechanisms with relevance to the etiology of psychiatric disorders. The Levinson 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-disorder analyses) carried out by the Psychiatric Genomics Consortium and other consortia (Levinson, Duncan)

Synaptic, genomic and morphological effects of genetic mutations association with high risk of schizophrenia, as part of an NIMH National Cooperative Reprogrammed Cell Research Group (NCRCRG) (Levinson, Südhof, Wernig, Aronow, Pang, Swanson, Dage)

Large-scale study of association of schizophrenia with DNA sequence variation in the HLA region of chromosome 6 (Levinson, Mignot, Mindrinos, Fernandez-Vina)

Detection of somatic mutations of mobile elements (retrotransposon sequences) in the brain, using whole-genome sequencing (Levinson, Urban, Snyder)

Psychopathology and genetics of early-onset schizophrenia (Laurent-Levinson and Levinson)



**Steven Lindley, MD, PhD**  
Transforming Mental Health Care Delivery

The overall goal of our efforts is to advance population health through innovations in health care delivery that will improve access to and quality of mental health care. Dr. Steven Lindley serves as Director of Outpatient Mental Health for the VA Palo Alto HCS, a setting that affords a unique opportunity to accomplish this goal – part of the country's largest publicly funded health care system, which excels at translating best practices into clinical care.

Dr. Lindley's efforts include transforming team-based primary care/mental health care by bringing together innovative building design, lean management principals, and fully integrated primary care/mental health care. He is currently investigating ways to advance continuous quality improvement through the implementation of measurement-based mental health care to inform treatment decisions and engaging providers in data-driven, quality improvement decisions through their use of computer modelling to improve patient care. He and his team is also investigating how peer support enhances mental health care delivery and are facilitating dissemination of telehealth through residency education.



**James Lock, MD, PhD**  
Eating Disorders Research Program

The Eating Disorders Research Program in Stanford's Department of Psychiatry and Behavioral Sciences is an internationally recognized interdisciplinary program examining the biological/neural basis for eating disorders using imaging and neuropsychological assessment, treatment of eating disorder across the diagnostic and age spectrum, and strategies for dissemination and implementation of evidence based treatment for eating disorders, including the use of behavioral health technologies.

Current projects include examination of the neural basis of binge eating and reward processes, the role of cognitive training (remediation) in the treatment of adolescents with anorexia nervosa, adaptive use of a smartphone app to address eating disorder symptoms and behaviors, evaluation of web-based training in Family Based Treatment for adolescent eating disorders, novel treatments for young mothers with eating disorders, and family therapy for atypical eating disorders (ARFID).

Current institution research collaborators include: University College, London, UCSF, Columbia University, McMaster University, University of Calgary, Aarhus University, Denmark, University of Sydney, Australia, among others. Current funding is from the NIH, Global Foundation for Eating Disorders, The Davis Foundation, and the Academy of Eating Disorders.



**David Lyons, PhD**  
Behavioral Neurosciences

A major focus of Dr. David Lyons' work follows from the discovery that mild, but not minimal nor 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, Dr. Lyons and his team extended the generality of their 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.



**Jose Maldonado, MD, FAPM, FACFE**  
Neuropsychiatry

Dr. Jose Maldonado's current research and scholarly interests include Neurobiology and Management of Delirium; Neuropsychiatric Sequelae 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; Factitious Disorder & Munchausen's Syndrome; Cultural Diversity in Medical Care; Diagnosis and Treatment of Dissociative Disorders; and Forensic Psychiatry.



**Robert Malenka, MD, PhD**  
Nancy Friend Pritzker Laboratory

The Nancy Pritzker Laboratory under the direction of Dr. Robert Malenka, uses state-of-the-art tools to understand the molecular mechanisms of brain plasticity and how pathological plasticity contributes to the development of prominent neuropsychiatric disorders. Recent work is delineating the pathological brain mechanisms underlying some of the most prominent symptoms of autism, depression and addiction in animal models.

The lab works closely with clinical colleagues studying patients with the goal of using the knowledge gained from the lab's basic science approaches to advance the diagnosis and treatment of patients suffering from a variety of psychiatric disorders.



**Rachel Manber, PhD**  
Depression and Insomnia Research Program

The Sleep Health & Insomnia Program aims to improve sleep of individuals suffering from insomnia through non-pharmacological means. The lab conducts clinical research to answer questions with immediate clinical implications for diverse populations including those with comorbidities, ethnic minorities (Latinos), and women at different phases of life.

Much of their research is focused on testing outcomes beyond sleep (e.g., depressive symptom severity, hypnotic medication use, CPAP adherence, maternal infant interaction, and quality of life).

Their current research projects 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.

The lab also collaborates with researchers at Stanford and at other institutions in the United States, Australia, and Israel to study emotion regulation in bruxism, perimenopausal insomnia, mindfulness for insomnia, and understanding and preventing perinatal depression and insomnia.



### Mark McGovern, PhD

Center for Behavioral Health Services and Implementation Research

The overarching mission of Dr. Mark McGovern’s team is to bring the most effective treatments to scale, so that the people who need them, receive them. Therefore, everyone and anyone gets the best possible chance for a positive health and life outcome. Despite research-based innovation and the scientific discovery of effective therapies, including medical, pharmacological and psychosocial, the evidence-to-practice gap remains significant. This gap is especially great for stigmatized and marginalized conditions: addiction and mental health disorders.

Implementation science is designed to overcome this gap and ensure that individuals and families receive the care they deserve. The Center for Behavioral Health Services and Implementation Research, led by Dr. McGovern, brings implementation science to bear to solve vexing problems in health care delivery.

Currently funded projects include: 1) evaluating implementation strategies to integrate mental health services in community health organizations; 2) designing and scaling up a sustainable model of behavioral health integration in primary care; 3) expanding access to addiction medications in general medical practice settings for persons with opioid addiction; 4) developing standardized measure of care attributes of high value primary care practice with high cost high need patients; and, 5) via collaborations with VA colleagues, expanding access to addiction medicines and improving outcomes for Veterans with complex needs.



### Vinod Menon, PhD

Cognitive and Systems Neurosciences Laboratory

The overarching goal of the research of Dr. Vinod Menon and his team is to investigate the functional architecture of human brain circuits and to determine how disruptions in specific brain networks impact behavior, cognition, emotion, and learning in normal healthy individuals and in individuals with psychiatric and neurological disorders including learning disabilities, autism, ADHD, anxiety and mood disorders, and schizophrenia. They are also involved in quantitative BIG DATA science initiatives with open-source data to advance clinical and translational neuroscience in fundamentally new ways.

They aim to drive human cognitive neuroscience forward by (1) Investigating large-scale architecture and wiring of the adult human brain in health and disease, (2) Elucidating the large-scale architecture and wiring of the developing human brain, (3) Developing advanced computational tools for dynamic brain network analysis, (4) Characterizing aberrancies in the human connectome in neurodevelopmental disorders and learning disabilities, (5) Developing new frameworks and computational models for linking brain connectomics and dynamics, and (6) Using systems neuroscience approaches for identifying biomarkers of neurodevelopmental disorders and learning disabilities in children, and for tracking developmental change and predicting clinical outcomes in affected children. This body of work will lead to fundamental discoveries in human brain science, with wide ranging implications for elucidating fundamental biological and disease mechanisms at the systems level.



**Emmanuel Mignot, MD, PhD**  
Center for Narcolepsy & KLS

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 T cells that are responsible for the autoimmune destruction of hypocretin/orexin cells in narcolepsy, and to understand why the disorder is triggered by specific influenza strains. Dr. Mignot and his team 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, they are using analytics on large clinical datasets of online sleep questionnaire response patterns, activity monitoring, and polysomnography (PSG) recordings. This ranges from simple statistics and epidemiology to deep learning algorithms of the EEG and polysomnography (PSG) signals.



**Philippe Murrain, PhD**  
Genetics, Neurobiology, and Computational  
Analysis of Sleep and Associated Behaviors

Sleep is ubiquitous, it has been described across the entire animal kingdom from octopi to elephants. Evolutionary conservation lends support to the hypothesis that sleep serves a fundamental physiological need yet to be identified. At the very least sleep is known to be important to consolidate memories and prepare the brain for the day to come supporting a role at the synapse. Consistently, sleep is disrupted in most if not all neurodevelopmental and neurodegenerative disorders and is believed to be part of the etiology of these synaptopathies.

One major goal of the Murrain lab is to elucidate the function of sleep at the synapse and to identify the core synaptic endophenotypes affected by sleep in Fragile X syndrome, autism spectrum disorders and Alzheimer's disease. With the development of whole-brain imaging methods such as light sheet imaging and array tomography allowing the comparison of two distant vertebrate sleep models, such as mouse and zebrafish, the Murrain lab aims to define sleep for all vertebrates based on the dynamics of conserved networks in subcortical brain regions and to identify the circuits and synapse classes regulated by different sleep features (NREM continuity, slow wave sleep, REM).

The Murrain lab also investigates how sleep/circadian cycle and the newly identified miR-9/TLX/Onecut posttranscriptional-transcriptional pathway differentially control brain and retina regeneration in mouse and zebrafish. Reprogramming of endogenous neural stem cells is a critical step to develop safe and effective methods to replace damaged or dead neurons in many psychiatric disorders including synaptopathies.



**Ruth O'Hara, PhD**  
**Lifespan Approaches to Neuropsychiatric Disorders Program**

The core focus of Dr. Ruth O'Hara's lab is to characterize the reciprocal relationship between neurocognitive abilities and neuropsychiatric disorders, and to identify the factors that influence these relationships.

Building upon her work demonstrating how affective systems interact with cognitive impairment, her lab has increasingly investigated the overlapping neurocircuitry of cognitive and affect processing. Her group has led the field in demonstrating the role of cognitive impairment in precipitating dysregulated affective and emotional processing in late life. Her work, among others, has led to an increased recognition of the contribution of early developmental processes to psychiatric disorders in mid- to late life.

Over the years she has brought together a team of outstanding collaborators, including Drs. Hallmayer, Pasca, Etkin, and Beaudreau, to implement a translational, interdisciplinary program that considers genetic moderators and physiological mechanisms of cognitive and affective outcomes across the lifespan.



**Maurice Ohayon, MD, DSc, PhD**  
**Sleep Epidemiology Research Center**

Dr. Maurice Ohayon's research focuses on the epidemiology of sleep disorders and their comorbidity in the General population. Public Mental Health and public policy issues are actively investigated through epidemiological studies of the General population in order to promote and prevent Sleep and Mental Disorders and help their recognition and treatment. Dr. Ohayon and his team are pursuing this effort through a longitudinal study of the American General population started in 2001. Every four years, they interview the subjects of this cohort on their Sleep habits, Sleep quantity and quality of Sleep in relationship with their medical and psychiatric conditions. This longitudinal study is now in its fourth wave.

Narcolepsy is another pole of interest of this group. Recently, they have added a very focused research on the family members of Narcoleptic patients.

In an effort to diversify their interests in the domain of Public Health, they have instigated studies to explore the negative feedbacks between sleep and gastroesophageal acid reflux in the US and European populations. They have conducted several studies to exploit the European data on GERD to show how Chronic GERD can be better defined by its Sleep components. Dr. Ohayon and his team have developed collaborations with the Academy of Applied Myofunctional Sciences. Their goal is to assess the prevalence of oromiofunctional disturbances and their impacts on sleep.

Finally, in collaboration with NASA, the data accumulated in their epidemiological studies are being used to evaluate the impact of the proliferation of artificial nighttime lights and electromagnetic fields on sleep and mood.



**Oxana Palesh, PhD**  
Cancer Survivorship Research Lab

Dr. Oxana Palesh's Cancer Survivorship Research Lab at Stanford University investigates the impact of cancer treatments on various functions of overall wellbeing. Their research looks at sleep, fatigue, cognition, and neuronal changes associated with quality of life. They focus on understanding the etiology and psychophysiology of treatment side effects in cancer patients and survivors with the goal of developing and testing novel therapeutic approaches to improve clinical outcomes and reduce symptoms, premature aging, and mortality.

Dr. Palesh's ongoing clinical research includes testing novel behavioral interventions as well as innovative delivery approaches for management of sleep, cancer related fatigue, circadian rhythm disruption, cancer-related cognitive impairments, and health-related quality of life functioning during and subsequent to cancer treatment.

Dr. Palesh and her team are interested in developing interventions that can also be delivered widely in community oncology settings across the United States, and we are therefore testing these interventions' efficacy in such settings.

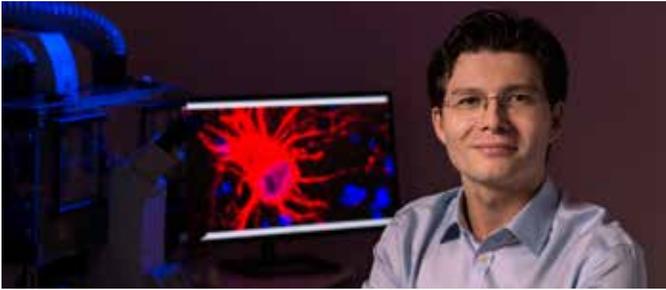


**Karen Parker, PhD**  
Parker Lab Social Neurosciences  
Research Program

The goal of the Parker Lab Social Neurosciences Research Program at Stanford University is to better understand the biology of social functioning using an integrative, translational approach. Their behavioral research spans studies of rhesus monkey social development to social cognition impairments in clinical populations (e.g., in children with autism; in survivors of pediatric hypothalamic-pituitary tumors; in adults with posttraumatic stress disorder).

The Parker Lab is also developing several innovative monkey models of social impairments, including studies of rhesus monkeys that naturally exhibit social deficits and marmosets which are engineered to do so. Their biological studies employ epigenetic, gene expression, and neurotransmitter-based approaches to identify biomarkers of impaired social functioning, and we also conduct treatment trials to test the efficacy of novel pharmacotherapies to improve social abilities in low-social monkeys and in children with autism.

The Parker Lab is particularly interested in testing whether "social" neuropeptide (e.g., oxytocin and vasopressin) signaling pathways are implicated in human and non-human primate social behavior, and whether these neuropeptide pathways are robust biomarkers of, and treatment targets for, social impairments in clinical populations.



**Sergiu Pasca, MD**  
**Cellular Mechanisms of Neuropsychiatric Disorders Laboratory**

A critical challenge in understanding the intricate programs underlying development, assembly and dysfunction of the human brain is the lack of direct access to intact, functioning human brain tissue for detailed investigation by imaging, recording, and stimulation. Dr. Sergiu Pasca's Lab is using pluripotent stem cells derived non-invasively from human individuals to generate in a dish specific regions of the human brain in a functional 3D preparation we have developed. They are using months-to-years long 'brain-a-dish' cultures (also known as brain region-specific organoids or spheroids) to understand how neurons find their final position in the brain and how they mature functionally.

To investigate how different brain regions talk to each other in normal and diseased states, Dr. Pasca's Lab introduced a new approach for in vitro assembly of neural circuits, also known as brain assembloids. They employ state-of-the-art stem cell biology, genome engineering, imaging and neuroscience approaches to identify the dynamical processes that go awry in neural cells derived from patients with neuropsychiatric disorders, such as autism or schizophrenia, and what should be therapeutically targeted in these conditions.



**Natalie Rasgon, MD, PhD**  
**Center for Neuroscience in Women's Health**

Dr. Natalie Rasgon, Director of the Stanford Center for Neuroscience in Women's Health, is currently conducting a study focused on insulin resistance and accelerated cognitive aging, and the developmental trajectory of cognitive and neural biomarkers across the spectrum of metabolic dysfunction in overweight adults younger than 50 years of age. In April 2017, the Psychopathology and Allostatic load across the Life Span (PALS) Network, co-founded by Dr. Rasgon, held a workshop on the "Mechanisms of IR in the CNS and periphery."

Recent research projects in the Women's Wellness Clinic (directed by Dr. Williams) have focused on innovative models of care, including "Bringing Care to New Moms," a pilot project of embedding psychiatry in Gardner Pediatrics Clinic and "Next Steps After Screening: the Development of a Perinatal Psychiatry Curriculum for primary care residents.

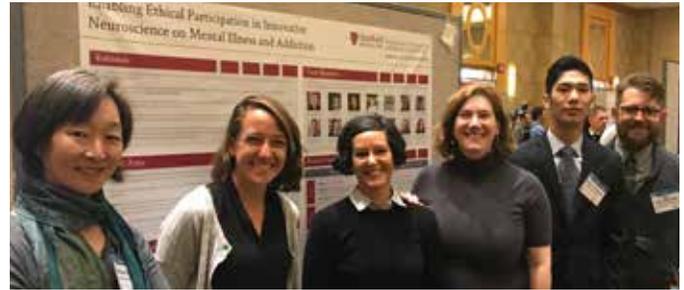
Additionally, Dr. Robakis is working on a study of epigenetic markers of attachment insecurity in relation to risk for postpartum mood disorders, as well as a follow-up assessment of developmental outcomes in the young children of mothers who participated in her 2011 study of attachment insecurity and postpartum depression.



**Allan Reiss, MD**  
Center for Interdisciplinary  
Brain Sciences Research

Dr. Allan Reiss is Director of the Division of Interdisciplinary Brain Sciences. He participates in the clinical activities described for the division and supervises/mentors many early career scientists and clinician. Active clinical research projects include investigation of brain and cognitive-behavioral development in children with fragile X syndrome, Turner syndrome, Klinefelter syndrome, Williams syndrome, autism and young children with type 1 diabetes.

In collaboration with other Center for Interdisciplinary Brain Sciences Research (CIBSR) and affiliated faculty, Dr. Reiss also conducts work focused on developing and utilizing advanced imaging and related research methods to improve our understanding of the neural basis of cooperation among two or more individuals, how an individual's brain responds to unexpected events or distractions while driving, the effect of cycling exercise on attention and learning in children with ADHD, the effects of different treatment approaches on childhood anxiety, and the neuroscience and neurodevelopment of creativity and humor. He is principal investigator on an NIH-funded postdoctoral (T32) research training grant.



**Laura Roberts, MD, MA**  
Roberts Ethics Laboratory

The Roberts Laboratory is a multidisciplinary team of scholars engaged in empirical and analytic study of issues of ethical salience across research, clinical, education, and policy domains.

Dr. Laura Roberts is an internationally recognized scholar in bioethics, psychiatry, medicine, and medical education. She has received extensive scientific peer-reviewed funding from the National Institutes of Health, the Department of Energy, and private foundations to perform empirical studies of modern ethical issues in research, clinical care, and health policy, with a particular focus on vulnerable and special populations. Her work has led to advances in understanding of ethical aspects of physical and mental illness research, societal implications for genetic innovation, the role of stigma in health disparities, the impact of medical student and physician health issues, and optimal approaches to fostering professionalism in medicine. Dr. Roberts was awarded the MacLean Prize in Ethics in 2015 from the University of Chicago in recognition of this work.

In 2017, the Stanford team received a BRAIN Initiative grant to examine ethical issues and decision making in innovative brain research. Dr. Roberts, who serves as Principal Investigator of the project, will work with colleagues at Stanford to identify novel ethical issues that are emerging in the context of innovative neuroscience research and to understand influences on research participation decisions of people living with mental illness and addiction. The collaborative team includes co-investigators Laura Dunn, Jane Paik Kim, Casey Halpern, assistant professor of neurosurgery and, by courtesy, of neurology and psychiatry and behavioral sciences, and Mildred Cho, professor of pediatrics.



**Carolyn Rodriguez, MD, PhD**  
Translational Therapeutics  
Rodriguez Lab

The mission of the Translational Therapeutics / Rodriguez Lab is to improve the lives of people with severe mental illness. We seek to rapidly translate scientific discoveries into new treatments by pursuing circuit-based, neuroscience-driven and computational approaches to clinical research.

Dr. Carolyn Rodriguez and her interdisciplinary team have conducted landmark clinical trials that pioneered a new direction in rapid-acting treatments for Obsessive-Compulsive Disorder (OCD). Other studies focus on understanding the brain mechanisms involved in hoarding disorder and how these differ from normal collecting behaviors.

In addition, work in the lab has established novel methods for mapping brain circuit dysfunction by combining magnetic resonance spectroscopy (MRS), functional magnetic resonance imaging (fMRI) and electroencephalography (EEG). We partner with Stanford experts and others worldwide in genetic, computational, and basic neuroscience to leverage the impact of these brain circuit discoveries.



**Craig Rosen, PhD**  
National Center for PTSD Dissemination and  
Training Division at VAPAHCS

Dr. Craig Rosen is involved in national efforts to increase use of best mental health practices and to advance implementation science. He focuses particularly on improving care for veterans. Although many VA clinicians are trained in effective evidence-based psychotherapies (EBPs) for PTSD, few veterans get these treatments.

Dr. Rosen and colleagues completed a ten-site study that identified clinic leadership, culture, and operational factors that facilitated broader use of EBPs for PTSD. He chaired a VA workgroup that synthesized 20 prior studies on EBP implementation. He developed and tested a telephone-based intervention to improve treatment engagement. He is now evaluating national VA efforts to implement measurement-based care (i.e., use of standardized outcomes measures in clinical decision-making).

Dr. Rosen teaches two courses to Stanford PsyD students. He mentors a cadre of researchers and educators in his role as Deputy Director of the National Center for PTSD Dissemination and Training Division at the VA Palo Alto Health Care System.



**Josef Ruzek, PhD**  
**Traumatic Stress Technology and  
Measurement-Based Care**

Dr. Joe Ruzek began a collaboration with Dr. Alan Louie and others from the Department to develop a workshop and course on applying the methods of design science to help mental health leaders develop innovative solutions to problems. This work is part of the larger Reimagining Mental Healthcare initiative aimed at integrating information technology, design thinking, and implementation science to reinvent mental health services.

Dr. Ruzek also continued work on two randomized controlled trials of online training methods focusing on training component cognitive-behavioral therapy skills and increasing familiarity and use of PTSD Clinical Practice Guidelines. He continued to direct the VA's National Center for PTSD Dissemination and Training Division located at the VA Palo Alto Health Care System.

Within the VA, Dr. Ruzek led the Clinician Training workgroup of the national initiative to implement measurement-based care across the healthcare system, and he co-chaired the national workgroup tasked with developing guidance for integration of web and phone technology within VA mental health services.



**Debra Safer, MD**  
**Eating and Weight Disorders**

Dr. Debra Safer and the members of her research team are collaborating on several projects currently. Recently, she and her Stanford colleagues received an award from the National Eating Disorders Association (NEDA) to adapt virtual reality interventions for eating disorders in “real-world” clinical settings to improve outcomes. Other ongoing projects include a study examining whether Qsymia (phentermine-topiramate), a medication that has been FDA approved for obesity, can be effectively repurposed to target symptoms of binge eating and purging. They are writing up the results of a double blind randomized controlled trial using a crossover design.

In addition, through a multi-site R01 with researchers in N. Dakota, they are studying the problem of weight regain after bariatric surgery using ecological momentary assessment (EMA) to understand the role of loss of control eating. In a study with important departmental implications, Dr. Safer and her team are assessing the acceptability and feasibility of measurement based care in “real world” clinic settings. She and her team are also interested in improving access to eating disorder treatment through investigating the use of self-help and guided self-help approaches.

Additional research collaborations involve improving body image among middle age women, improving satisfaction after orthognathic surgery, and evaluating the feasibility and acceptability of an intervention to reduce the risk of obesity among children whose parents underwent bariatric surgery in the past year.



**Manish Sagar, PhD**  
Brain Dynamics Lab

The Brain Dynamics Lab is a computational neuropsychiatry lab founded by Dr. Manish Sagar in 2017. The overarching goal of the lab is to develop computational methods that will allow for extracting insights about brain's overall dynamical organization in healthy and patient populations.

How the brain dynamically adapts to perform different tasks is vital to understanding the neural basis of cognition. Understanding brain's dynamical organization can be crucial for augmenting human performance (e.g., during creative thinking) as well as for developing and tracking treatments for mental illnesses. The brain's inability to dynamically adjust to environmental demands and brain's aberrant dynamics have been previously associated with disorders such as schizophrenia, bipolar disorder, depression, and dementia. The high spatiotemporal dimensionality and complexity of neuroimaging data make the study of whole-brain dynamics a challenging endeavor. Researchers and clinicians alike demand novel methods aimed to distill such complex data into simple—yet vibrant and behaviorally relevant—representations that can be interactively explored to discover new aspects of the data. Ideally, such representations could also be quantified to allow statistical inferences and provide the basis of future biomarkers and treatment response factors for mental disorders at the single-subject level. With these goals in sight, The Brain Dynamics Lab is dedicated to developing computational methods that can generate useful mechanistic insights about the “transitions” (or lack thereof) in underlying neural processes during ongoing cognition. To achieve these goals, they employ algorithms from a wide range of fields, including Applied Mathematics, Econometrics, Machine Learning, Biophysics and Network Science.



**Alan Schatzberg, MD**  
Mood Disorders Center and  
Depression Research Clinic

Studies funded by the Pritzker Foundation have been ongoing and have included investigation in both rodents and man. The research includes several projects. In one, we have been exploring the pharmacological properties of FGLs, an allosteric compound that binds to fibroblast growth factor receptors that appear to be involved in the pathophysiology of depression. Dr. Alan Schatzberg and his team have explored pharmacokinetic and blood brain barrier penetrance with the compound. In another trial, they have performed genome wide sequencing of a cohort of patients with major depression with psychotic features and healthy controls. The sequencing is complete and we they in the process of obtaining a replication cohort of subjects. In another study, they have begun to transform stem cells from late life depressives into neurons and will explore their reactions to challenge with stress hormones. Last, they are collecting cohorts of severely ill major depressives with and without psychotic features and healthy controls in an effort to explore innovative biomarkers for suicidal and psychotic behavior.

Dr. Schatzberg and team have recently completed a study of the opioid properties of ketamine as an antidepressant. The study was conducted in refractory depressed patients. A parallel study was conducted in mice. Supported by Janssen Pharmaceuticals, they have also participated in biomarker predictor study of depression relapse and are completing the follow up.

They have also collaborated with Nolan Williams on his accelerated theta burst r-TMS for depression protocols as well as with Lea Williams on pharmacogenetics predictors of antidepressant response and Keith Sudheimer on his studies of the effects of cortisol infusions on specific brain region activity.



**Nirao Shah, MD, PhD**  
**Biological Basis for Gender Differences  
in Behavior**

Dr. Nirao Shah's research focuses on understanding how our brain controls gender differences in behavior. Dr. Shah developed this research program as a Jane Coffin Childs and Burroughs Wellcome Fellow in Nobel laureate Richard Axel's laboratory at Columbia University. Over the past year at Stanford they have made significant discoveries regarding the neurobiological basis of social communication and the interactions between nature and nurture in guiding social interactions.

Dr. Shah and his team recently identified neurons that are essential for vocal learning and maintenance of learned vocalizations that are key to social interactions; this study was done collaboratively with a group at Duke University using a genetically engineered reagent that his lab has developed. They have identified a set of neurons whose activity is necessary and sufficient for male aggression in a social setting and experience dependent manner.

Follow up studies are aimed at uncovering the molecular and neural circuit basis of how such contextual information can modify this evolutionarily ancient behavior that is integral for survival and reproduction.



**Richard Shaw, MD**  
**Stanford Pediatric Psychosocial  
Optimization Tool**

Dr. Richard Shaw's research is focused on the following:

Group Intervention to Prevent PTSD in Parents of Premature Infants. In this collaborative project with the Division of Neonatology at LPCH, Dr. Shaw and his team are developing a 6-session group-based intervention based on principles of Trauma-Focused CBT to prevent symptoms of PTSD, depression and anxiety in parents of premature infants. This work builds on an earlier NIMH-funded study that demonstrated the efficacy of an individual therapy intervention model. Angelica Moreyra, Psy.D., a postdoctoral psychology fellow, is helping develop the treatment manual with plans to implement the study this year.

Psychosocial Screening of Pediatric Solid Organ Transplant Recipients. In this collaborative project with the Division of Pediatric Cardiology, Dr. Shaw, along with Drs. Lauren Schneider and Chris Almond are working to develop a psychosocial pretransplant rating instrument to help screen potential solid organ transplant recipients.

App Development for Hypnosis in the Pediatric Medical Setting. Dr. Shaw and his team are in the early phase of developing an application to help deliver hypnosis to pediatric patients at LPCH to assist with the management of symptoms of nausea, pain and distress. The project is funded by the Women's Auxiliary at LPCH.



**Manpreet Singh, MD, MS**  
Stanford Pediatric Mood Disorders Program

The Stanford Pediatric Mood Disorders Program strives to promote healthy brain development through a deeper understanding of how children adapt to mood symptoms and stress. Their bold vision is to prevent adverse mood outcomes and improve the mental health of children, adolescents, and families through fully integrated, globally recognized research, education, and innovation.

Using clinical, neuroimaging, cognitive, and genetic assessments, Dr. Singh and her team are dedicated to understanding risk and resilience factors for unipolar and bipolar mood disorders, investigating how mood disorders evolve with development and interact with cardiovascular and metabolic health, and testing the safety and efficacy of existing and novel applications of treatments (e.g. Transcranial Magnetic Stimulation) in children. The program's research is multidisciplinary and supported by the National Institutes of Health, private foundation, and industry partnerships, bringing together experts from the fields of psychiatry, psychology, neuroscience, computer science, biostatistics and genetics to seek answers for complex questions related to brain-behavior-environment relations in developing youth.



**David Spiegel, MD**  
Center on Stress and Health

Dr. David Spiegel is Willson Professor and Associate Chair of Psychiatry and Behavioral Sciences at Stanford University School of Medicine. He directs the Stanford Center on Stress and Health and Center for Integrative Medicine. Dr. Spiegel is one of United States' most respected experts in research on the brain basis of and clinical uses of hypnosis.

Dr. Spiegel's current research program involves psycho-oncology and hypnosis.

1) Impact of Affect Reactivity and Regulation on Breast Cancer Treatment Decisions. This NCI-sponsored UO1 involves using fMRI to examine the contribution of affect management mechanisms to initial surgical treatment decisions. To understand the neurobiological and affective determinants of the choice of regarding bilateral mastectomy (BLM), and thereby identify future opportunities for new interventions, Dr. Spiegel is examining the relationship between affect reactivity and regulation and women's decisions after initial diagnosis of breast cancer.

2) rTMS Augmentation of Hypnotic Analgesia. Dr. Spiegel, in collaboration with Nolan Williams, M.D., is utilizing repetitive transcranial magnetic stimulation to enhance hypnotic analgesia for the treatment of fibromyalgia syndrome. This work is based upon his earlier findings of specific brain regions involved in hypnosis.

3) Using Alexa to deliver self-hypnosis treatment for smoking cessation. Dr. Spiegel has developed an interactive Alexa app ("Alexa hypnosis stop smoking") that replicates the in-office experience and is evaluating its effectiveness.



**Edith Sullivan, PhD**  
Neuroscience of Addiction Laboratory

Alcohol use disorder remains a leading cause of morbidity and mortality in the U.S. and is a major comorbid factor in numerous medical and psychiatric disorders, including HIV infection and depressive, psychotic, and anxiety disorders. A rising problem among college-age youth is extreme bingeing, which is coincident with ultimate stages of brain structural and functional brain development. Dr. Edith Sullivan's clinical and basic alcohol research group represents a grass-roots evolution of a multidisciplinary team, whose work has been at the forefront of the neuroscience of alcohol misuse and use disorder for 3 decades. The resulting research has contributed significantly to identifying consequences of hazardous drinking on brain structure and function and recognizing its dynamic course of relapse and recovery.

Dr. Sullivan's research themes include:

Brain and behavioral consequences of hazardous drinking across the lifespan, from adolescence to senescence;

Co-occurring health conditions, including HIV and hepatitis C infections;

Factors of resilience and vulnerability of acquired motor fragility and cognitive dysfunction exacerbated by aging. Parallel, in vivo animal models of alcohol exposure using high-field MRI and optogenetic approaches enable pursuit of mechanisms underlying neural disruption and opportunities for recovery.

Support: National Institute on Alcohol Abuse and Alcoholism and the Moldow Women's Hope and Healing Fund



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

The VA Bipolar and depression research program is the mood disorders portion of the department based at the VA Palo Alto health care System. The program's mission is to study clinical and translational neuroscience critical to people, especially veterans, with bipolar disorder and major depressive disorder. The program focuses on four critical areas:

Clinical trials of psychopharmacologic, psychotherapeutic, neurotherapeutic, devices, 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.

Development, dissemination, and implementation of evidence-based guidelines for the treatment of mood disorders.

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

Exploration of exploratory therapeutics for treatment of mood disorders.

The program is 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, an international study of Infliximab for bipolar depression, and the VA PRIME trial of the impact of pharmacogenetic information on prescribing in major depressive episodes. They are embarking on new approaches to treat PTSD for our veteran population, including a trial of a tablet-based device that help moderate breathing by measuring and monitoring expired CO<sub>2</sub>.



**Ranak Trivedi, PhD**  
Mental Health in Veterans

Dr. Ranak Trivedi's work exists at the intersection of two systems critical to patient health and wellbeing: their social system, comprising of family members, friends, and broader community, and the healthcare system, comprising of multidisciplinary providers in primary and specialty care, and healthcare leadership.

Dr. Trivedi and her team strive to understand the sociobehavioral and biobehavioral mechanisms that underlie patient-family and patient-provider relationships, evaluate programs to enhance the identification of mental illness in primary and specialty care settings, and develop and test innovative programs to alleviate barriers experienced by patients, family caregivers, and providers.

In current studies, they are testing a web-based program to enhance communication and collaboration between seriously ill patients and their family caregivers; evaluating the common causes of death among patients with mental illness seen in primary care; evaluating new models of mental health integration with primary care treatment; and developing community based workshops to support seriously ill patients and their family caregivers. Dr. Trivedi's lab includes staff, postdoctoral fellows, interns and graduate students.



**Alexander Urban, PhD**  
The Program on the Genetics of Brain Function

The Program on the Genetics of Brain Function (GBF) includes the labs of Drs. Douglas Levinson 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. They 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 (CNV/SVs) 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 model systems. 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. Dr. Alex Urban is a Tasha and John Morgridge Faculty Scholar of the Stanford Child Health Research Institute.



**Leanne Williams, PhD**  
Williams PanLab  
Precision Psychiatry and  
Translational Neuroscience

To change lives affected by the enormity of the mental health problem, this Lab's premise is to look at mental illness and mental wellness from an entirely new perspective. Dr. Leanne Williams and her team are developing a new taxonomy for understanding and treating mental disorders, anchored in a neuroscience-informed model for precision mental health. They focus on mood, anxiety, and attention disorders that contribute disproportionately to the global burden of illness, lost hope and, all too often, suicide.

In developing our taxonomy, Dr. Williams and her team focus on the imaging of brain circuits. They integrate this brain imaging data with rich information from genetics, psychophysiology, wearables, clinical history and behavior. Biomarkers derived from our taxonomy promise to help guide more precise diagnoses and matching patients with the right treatment, quickly. Their approach is possible through harnessing the power of big data sets, cutting-edge computational approaches and integrated data pipelines. They want to accelerate the translation our neuroscience-informed tests into the hands of our doctors and communities, to improve lives now. PanLab is powered by a thriving team and collaborations that span disciplines and multiple institutions. To catalyze this interdisciplinary program, and accelerate translation, they have launched a Center for Precision Mental Health and Wellness.



**Shannon Wiltsey-Stirman, PhD**  
Fidelity, Adaptation, and Sustainability  
and Training Lab

In many mental health (MH) treatment settings, few if any, evidence-based psychosocial treatments (EBPs) are available. The overarching goal of our lab's research is to determine how to facilitate high-quality delivery of EBPs in public sector MH settings. Areas of emphasis include training and consultation, treatment fidelity and adaptation, and the identification of strategies that promote sustained implementation of EBPs.

In 2017, Dr. Shannon Wiltsey-Stirman and her team continued recruitment and data collection for our NIMH and CIHR-funded study that compares two strategies for supporting therapists and clinics in improving and sustaining the use of Cognitive Processing Therapy (CPT) for PTSD in three diverse MH systems. Some of their other NIMH-funded work aims to identify new methods to assess CPT skill and quality. Reliable and scalable alternatives to the current, cost-intensive approaches to assess and support skilled delivery of EBPs are essential for implementation in low-resource settings.

Their newest study extends to other cognitive behavioral therapies by leveraging routine clinical materials and mobile applications to identify optimal strategies for assessing and supporting high-quality treatment delivery. For more information, visit: <http://med.stanford.edu/fastlab.html>.

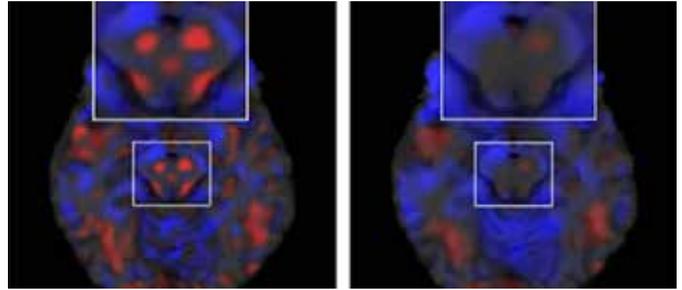


**Jerome Yesavage, MD**  
Mental Illness Research Education  
and Clinical Center

The Mental Illness Research Education and Clinical Center (MIRECC) is a national resource for the Department of Veterans Affairs (VA) focused on the cognitive and emotional challenges of Vietnam War Era Veterans. Its civilian branch is the Aging Clinical Research Center (ACRC) funded by the National Institute on Aging, the National Institute of Mental Health, and the Department of Veterans Affairs. These Centers are located at the Palo Alto Veterans Health Care System in Palo Alto adjacent to the Stanford campus. Here experienced investigators from many disciplines of medicine and neuroscience lead a variety of clinical, research, and educational programs, with the aim of improving the lives of older adults affected by Alzheimer's Disease, and other cognitive and emotional challenges.

A major thrust of these programs is to investigate the complex nature of Alzheimer Disease, its progression over time, its response to treatments, and problems patients and caregivers experience in dealing with the changes that occur. These MIRECC and ACRC programs are closely affiliated with the State of California Alzheimer Disease Center also based at the VA. Investigators also conduct studies that look at changes which occur over the course of normal aging and a variety of risk factors for developing dementias.

Finally, several MIRECC investigators are actively researching important factors associated with preserving cognitive function in older Veterans and civilians. Most recently, studies have focused on the effects of Transcranial Magnetic Stimulation on treating depression, dementia, and mild cognitive impairment.



**Jong Yoon, MD**  
Yoon Lab

The Yoon Lab seeks to discover the brain mechanisms underlying schizophrenia and psychosis and is working to translate this knowledge into diagnostic and therapeutic improvements. The program takes advantage of Stanford's rich intellectual environment through inter-disciplinary collaborations with the Departments of Radiology, Neurology, Computer Science and Linguistics. The lab's work is funded through federal, foundational and internal grants, such as the Dana Foundation, NIDA/NIH, the Department of Veterans Affairs, and the Stanford SPARK Program.

The Yoon Lab's current research studies are aimed towards:

- 1) Elucidating the role of cortical-basal ganglia circuits in psychopathology – The Lab is conducting a series of high-resolution fMRI experiments to identify the dysregulated cortical-basal ganglia circuits giving rise to psychosis. The Yoon Lab has developed new high-resolution fMRI methods, which allow for more precise measurement of these regions' function and dysfunction.

- 2) Testing new treatments for neurophysiologic abnormalities – They are conducting a pilot study to determine if repetitive transcranial magnetic stimulation (rTMS) of the dorsolateral prefrontal cortex remediates cognitive deficits in schizophrenia and improves cognition associated gamma oscillations, a neurophysiologic signature of organized brain function thought to be impaired in this condition.

- 3) Establishing objective, quantitative measures of behavioral abnormalities – The lab is testing whether continuous activity monitoring with wristband devices reveals unique patterns of behavior that distinguish patients from healthy individuals. A separate study is aimed at developing new machine learning/AI-based methods for quantitatively characterizing speech and language abnormalities in psychotic disorders.



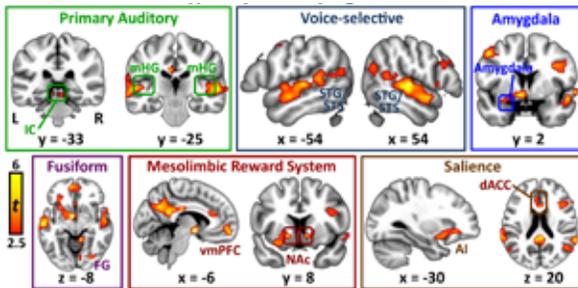
**Jamie Zeitzer, PhD**  
Zeitzer Lab

The Zeitzer lab has a wide variety of interests all under the umbrella of sleep and circadian physiology. They are leaders in the area of human centric lighting. That is, the use of lighting (artificial and natural) to improve physical and mental health. Stemming from an understanding of the neurobiologic principles of brain physiology, They have both laboratory- and community-based projects examining both basic physiology and applied disease research in areas such as delayed sleep in teens, jet lag, shift work, risk of nocturnal falls in elderly, and cognitive decline.

Dr. Jamie Zeitzer and his team are also pioneering new forms of data collection and analysis of real-time biologic signals (accelerometry, EKG, EEG, hormones) that are being used for predictive modeling of psychiatric disease states (e.g., bipolar disorder, cognitive decline, depression) and optimized monitoring and treatment of sleep disruptions. They work both within the lab and collaboratively with labs around the world to meet the goals of improving the human condition through better science.

# Research Highlights

## Instructors

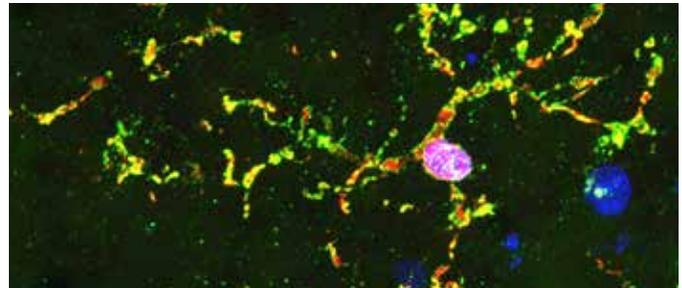


**Daniel Abrams, PhD**

**Brain Systems for Speech Perception in Children with Autism Spectrum Disorders**

Speech is a critical communication signal for social skill acquisition, however children with autism spectrum disorders (ASD) often “tune out” from the voices in their environment, which is thought to impact their social development. This program’s primary research goal is to understand the brain bases of voice perception impairments and their relationship to pervasive social communication deficits in children with ASD. Their recently published results are the first to identify the brain network underlying perception of mother’s voice in typically developing children, and a submitted work shows that mother’s voice elicits aberrant activity within this network in children with ASD.

Dr. Daniel Abrams and his team have extended this research to examine developmental changes in voice-processing networks as children progress into adolescence, as well as brain processing of the vocal cues that signal emotional content in speech, known as affective prosody, in children with ASD. Their work will provide new information regarding the contribution of speech perception impairments to social communication abilities in children with ASD, and may provide critical insight into the remediation of social communication deficits in this population.



**F. Christian Bennett, MD**

**Microglia Impact on Mental Health**

Microglia, the brain’s resident immune cells, play a central role in normal brain function, but remain poorly understood. Dr. Chris Bennett’s research attempts to answer the question “How do microglia contribute to mental health and disease?” Currently, he is developing new methods to derive microglia from blood cells, so that human microglia can be functionally characterized at the cellular and molecular level using a simple blood draw.

This will allow us to understand how microglia from people with mental illness contribute to brain abnormalities at a cellular/molecular level so that we can create new treatments targeting microglia.



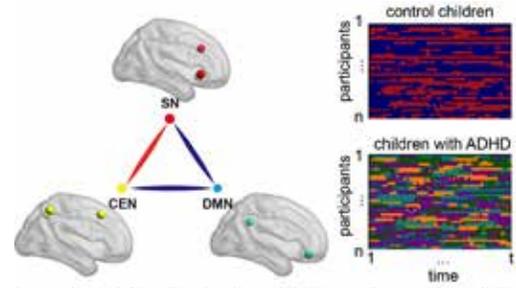
**Jennifer Bruno, PhD, MA**  
**Functional Neurobiology and**  
**Developmental Outcomes**

Dr. Jennifer Bruno is a translational researcher at the interface of developmental cognitive neuropsychology and neurobiology.

Her research is aimed at understanding the neural basis of intellectual and developmental disorders with goals of improving early diagnosis using biomarkers and designing and testing targeted interventions.

Current research projects include longitudinal investigations of neurobiological and behavioral outcomes in Fragile X Syndrome and autism spectrum disorders. Dr. Bruno is also developing adaptable non-constraining functional near-infrared spectroscopy (fNIRS) paradigms to assess the neural circuitry underlying cognition in healthy typically developing individuals and in individuals with neurodevelopmental disorders.

Working towards the goal of informing the design of targeted treatments while providing important outcome and progress metrics, Dr. Bruno's research includes infant developmental studies to uncover early, objective biomarkers and epidemiological studies to investigate brain functioning correlates in populations.



**Weidong Cai, PhD**  
**Human Brain Mechanism in Cognitive Control**

Dr. Weidong Cai and his team are interested in understanding how brain networks support cognitive control, how cognitive control networks develop from childhood to adulthood, and how functional networks are disturbed in neurodevelopmental disorders, such as ADHD. A major direction of his research is to investigate dynamic brain mechanism in human cognitive control using sophisticated computational methods and fast growing “big” public functional neuroimaging data. In a previous study, they demonstrated differential roles of right anterior insula and inferior frontal cortex in detection and anticipation of inhibitory cues, respectively. This finding advances our understanding of dynamic brain mechanism underlying cognitive control. Another important direction is to investigate atypical dynamic brain mechanism in children with ADHD and its relation to clinical symptoms.

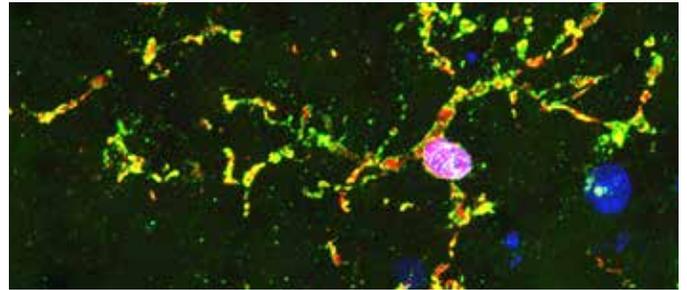
In a recent study, Dr. Cai and his team demonstrated, for the first time, that aberrancies in time-varying engagement of the Salience Network with the Central Executive Network and Default Mode Network are a robust and clinically-relevant neurobiological signature of childhood ADHD. This finding sheds new light on understanding dysfunctional brain networks associated with childhood ADHD.



**Sundari Chetty, PhD**  
Chetty Lab

The Chetty lab is interested in understanding the mechanisms regulating human pluripotent stem cell (hPSC) differentiation. Pluripotent stem cells have great therapeutic potential because they can in theory differentiate into any specialized cell type of the body. However, unlocking this vast potential of stem cells has proven to be challenging in practice. The overarching goal of the Chetty Lab's research program is to understand these mechanisms to more effectively differentiate hPSCs into desired cell types for cell replacement therapy and disease modeling.

Current projects focus on using hPSC lines from individuals with psychiatric disorders (e.g. autism and schizophrenia) to model and understand the underlying cellular and molecular mechanisms. Knowledge gained from these studies will be applied to identify drug targets for the treatment of neuropsychiatric disorders.



**Joseph Cheung, MD, MS**  
Sleep Disorders

Dr. Joseph Cheung is an instructor in Sleep Medicine who specializes in treating patients with hypersomnia disorders. His current research involves: (i) studying individuals with long sleep duration by using objective actigraphy measurements; (ii) applying consumer wearable/mobile technologies for sleep monitoring and clinical applications; (iii) searching for large effect genetic factors associated with long sleep hypersomnia to help elucidate the pathophysiology of hypersomnia disorders.

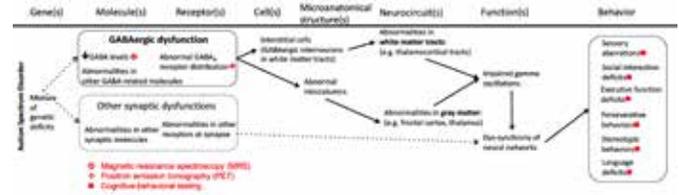


**Laramie Duncan, PhD**  
Integrative Mental Health Lab

The Integrative Mental Health Lab uses computational genomics approaches to identify genetic risk factors for disorders like PTSD and schizophrenia. The long-term goal of the lab is to link genetic findings with neurobiological processes and to use genetic findings for personalized medicine.

This year the Integrative Mental Health Lab completed an investigation of genetic links between schizophrenia and medical, anthropomorphic, and personality traits. In collaboration with the INSPIRE psychosis team, they reported that individuals with schizophrenia are genetically predisposed to lower than average body weight, and to higher than average scores on personality measures of neuroticism and openness to experience.

Second, building upon previous work about the underrepresentation of non-European participants in genetic studies, they developed an analytical pipeline to test the performance of genetic risk scores across different populations. This work was funded by a Spectrum grant from Population Health Sciences. Third, using multiple genomic approaches, they are testing hypotheses about sex differences in PTSD. This work builds upon recent finding that heritability for PTSD is stronger in females than in males.



**Lawrence Fung, MD, PhD**  
Molecular Neuropsychiatry

Dr. Lawrence Fung, is using molecular neuroimaging to identify biomarkers and targeted treatments for autism and neurodevelopmental disorders. In particular, he examines the GABAergic system, the predominant inhibitory neurotransmission system, in the brains of young adults with Asperger's syndrome or high-functioning Autism Spectrum Disorder (ASD). This study is one of the first of its kind to use positron emission tomography (PET) and magnetic resonance spectroscopy (MRS) to categorize simultaneously the receptors and neurotransmitters of the GABAergic system in Neurodevelopmental Disorders such as ASD.

He received a 2016 Young Investigator Award at the 11th International Symposium on Functional NeuroReceptor Mapping of the Living Brain in July for this project. In September 2016, he also received the Clinical Investigator Award / Mentored Clinical Scientist Research Career Development Award (K08) from the National Institutes of Health to conduct this project.

Drs. Fung and Hardan are currently conducting a randomized controlled trial on a neurosteroid called pregnenolone to treat irritability – which includes mood swings, aggression, and self-harming – in adolescents with ASD (funded by the Simons Foundation). This study is supported by the initial findings of their open-label trial which showed that pregnenolone reduced irritability and social withdrawal in adults with ASD.



**Anda Gershon, PhD**  
Life Stress and Sleep/Circadian Disturbance

The goal of the Gershon Lab is to understand the ways by which sleep/circadian disturbances trigger and sustain mood disorders. Sleep/circadian disturbances are among the most consistently identified risk factors for mood dysregulation. Despite their importance, relatively little is known about the ways by which these disturbances impact mood disorders.

Dr. Anda Gershon's Lab focus is to comprehensively characterize sleep/circadian disturbances in people who are diagnosed with, or who are at risk for, mood disorders. They use longitudinal and prospective designs, and ecologically sensitive methods, to measure sleep and circadian rhythms and their impact on mood. Their aim is to help lay the foundation for necessary refinements of existing approaches for the treatment of mood disorders, and to aid in the discovery of new markers for earlier detection of these disorders.



**Tamar Green, MD**  
Neurogenetic Symptoms and  
Cognitive Function

As a child psychiatrist, Dr. Tamar Green works closely with families where an individual is affected by a neurodevelopmental disorder. Her intense engagement with children diagnosed with autism spectrum disorders, attention-deficit-hyperactivity disorder or developmental delay, has instilled a genuine appreciation for the complex interaction between cognition, behavior and genetic risk.

Furthermore, Dr. Green has found that it is critical to understand how cognitive development interacts with other familial, social and educational factors to impact diagnosis and treatment strategies. This conceptual approach has been instrumental in how she provides care for children affected by these disorders, whether through family therapy and parent management training, individual therapy, psycho- and genetic education or medications, largely by focusing on how developmentally-informed strategies can improve clinical outcomes.

This work triggered her interest in pediatric clinical neuroscience. For the last four years, Dr. Green has studied the neural and behavioral manifestations of specific genetic risk factors such as those associated with fragile X, Williams syndrome, and Turner syndrome. These studies provided novel and valuable conclusions about the effects of these disease models on the brain. Her subsequent goals are to examine whether SNP and gene expression of the X-linked genes affect neural substrate (brain imaging measures) and ADHD-associated behaviors in Turner syndrome; expend her line of research uncovering neural correlates associated with deficits in attention, memory and social skills to the RASopathies, specifically Noonan syndrome.



**Jane Paik Kim, PhD**  
Statistical Methods for Public Mental Health

Broadly, Dr. Jane Kim's goal as a statistician is to ensure that the most appropriate methods are being used to advance public mental health through the development and application of statistical tools. Her focus is on two areas that contribute to the changing landscape of psychiatry: mental health technology and ethics. Dr. Kim's research efforts have a methodological component, as well as an ethical one. The research problems she works on concern (1) applying machine learning algorithms to optimize interventions delivered via wearable and mobile health technology and (2) conducting empirical ethics work to enable and safeguard innovative neuroscience.

Dr. Kim is a co-PI and PI of newly awarded pilot grants (inaugural Apple Watch Grant and a Spectrum Healthcare Innovation Challenge Pilot Grant) that aim to optimize and personalize behavioral interventions delivered through mobile applications. Both projects involve the design of algorithms that personalize the timing and content of the delivery of messages to users of wearable and mobile devices, who include both patients and clinicians. She is also involved in other grants, an NIH-funded study (PI: Dr. Lock) and department-funded work (Measurement Based Care, PI: Adler), both of which involve the development and testing of technology to deliver personalized care.

Dr. Kim has ongoing work in the area of ethics in collaboration with Dr. Laura Roberts. She is a co-Investigator on a recently awarded R01 (PI Roberts), "Enabling ethical participation in innovative neuroscience on mental illness and addiction", which aims to better enable ethical participation in brain research through a hypothesis-driven empirical ethics inquiry.



**Megan Klabunde, PhD**  
Neurodevelopment of Interoception

Dr. Megan Klabunde is a researcher within the Center for Interdisciplinary Brain Sciences Research. Her research goal is to examine the neurodevelopment of interoception and its role in emotion processing and empathy throughout childhood and adolescence.

She is particularly interested in better understanding how disturbed interoceptive processing may originate and inform the development of various psychiatric disorders. Within the past five years, Dr. Klabunde's interoception and social cognition research has expanded across typical development, neurogenetic syndromes and childhood psychiatric disorders including: Turner syndrome, Prader-Willi syndrome, ADHD, PTSD, anxiety, mood and eating disorders. Her current projects use multimodal assessment tools such as functional Magnetic Resonance Imaging (fMRI), functional Near-Infrared Spectroscopy (fNIRS) and physiological, eye-tracking, behavioral and neuropsychological assessments.

Additional areas of interest include the role of sex on adolescent brain development, sex differences in the manifestation of symptoms across mental health disorders, the impact of early life stress on interoceptive development and the intersection between interoceptive processing and cognitive control.



**Shaozheng Qin, PhD**  
Stress Effects on Learning

Dr. Shaozheng Qin's primary research interest is to understand how the brain supports learning and memory, and interaction with stress and emotion, and how these processes develop as the brain matures from childhood to adulthood.

Using a multi-disciplinary approach, integrating functional brain imaging and experimental behavioral techniques, endocrine, psychophysiology, and genetics, Dr. Qin currently investigates how the medial temporal, prefrontal, and parietal systems interplay to support learning and memory and interact with emotion, and their maturational changes from childhood through adolescence into adulthood.

The overarching goals of Dr. Qin's research are to optimize learning and memory in education, and to prevent learning and emotion problems over development. Dr. Qin currently serves as PI on a project titled "Brain Systems Underlying Episodic Memory For Social Stimuli In Childhood Autism.



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

Dr. 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 multivariate pattern recognition approaches. Presently, he is working on estimating time varying functional interactions between brain regions using Bayesian Hidden Markov models.

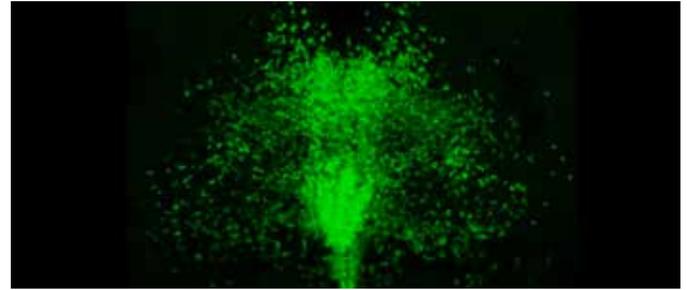
Further, Dr. Ryali is collaborating with colleagues to characterize the differences in time varying functional interactions in healthy children, adults, and clinical populations.



**Nolan Williams, MD**  
Stanford Brain Simulation Lab

Dr. Nolan Williams currently serves as the Director of the Stanford Brain Stimulation Laboratory (SBSL). The SBSL utilizes 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. They focus on utilizing neurostimulation to probe the neural elements involved in control of conflict regulation within the human brain. The mission of the SBSL is to utilize cuttingedge neuroimaging techniques in an effort to develop new hypotheses regarding proposed dysfunction within the neural networks involved in neuropsychiatric diseases/disorders. With this information, the team utilizes neuromodulation strategies to assess whether our proposed brain-behavior theories are accurate. The SBSL offers research study treatments for numerous neuropsychiatric diseases/disorders.

Currently, the SBSL has several active studies examining topics such as treatment-resistant depression, chronic pain, suicide, and obsessive-compulsive disorder. SBSL studies utilize novel brain stimulation techniques, novel psychopharmacological approaches and neuroimaging methods.



**Matthew Wright, MD, PhD**  
Deciphering Affective Circuitry

The goal of Dr. Matthew Wright's research is to deepen our understanding of the circuits underlying affective disorders by using molecular and circuit level tools to dissect their detailed structure and function and establish targets for advancing treatment.

The focus is primarily on the core conserved circuits that instantiate and control mood and anxiety, including the neuromodulatory centers, such as the dorsal raphe nucleus and ventral tegmental area, as well as circuits that run through the amygdala, brain stem, and hypothalamus.

To achieve this Dr. Wright uses molecular and chemical techniques to advance methods to probe the structure and molecular phenotype of circuits in intact tissues. This anatomical work is combined with techniques to measure cellular resolution activity in these conserved circuits and the effects of precisely modulating these circuits on core affective behaviors such as reward, aversion, and learned helplessness. The work is done in collaboration with Dr. Karl Deisseroth and is supported by an NIMH K08 Award.

# Research Highlights

## Clinician Educators



**Elias Aboujaoude, MD, MA**  
Compulsivity and Impulsivity

Dr. Elias Aboujaoude's interests span the compulsivity-impulsivity spectrum. Within obsessive-compulsive disorder (broadly defined), a specific focus has been the compulsive use of technology and its downstream effects on the individual, the family unit and culture at large. As such, his recent scholarly and general-audience writings have focused on cyberbullying; the role of the Internet in rising suicide rates; the "chicken-and-egg" relationship between digital technology and attention deficit and hyperactivity disorder; the mental health case for safeguarding privacy online; the Internet's anti-democratic reality; and the online nurturing of negative personality traits.

In parallel, and given that these technologies are here stay, Dr. Aboujaoude has studied ways to use them to promote mental health, including via technology-enabled interventions like virtual reality therapy, computerized therapist-free therapy and online video-based therapy.



**Steven Adelsheim, MD**  
Early Intervention for Child/Adolescent  
Mental Health Issues

Dr. Steven 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 Sciences 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.



**Sarah Adler, PsyD**  
Adler Lab

Dr. Sarah Adler and her team are dedicated to increasing access to behavioral health care using new models of care delivery which lie at the intersection between behavioral health and technology.

They are just beginning recruitment for a Center for Digital Health funded- Apple, Inc study using apple watches, which use AI to determine algorithms that personalize messages to promote adherence to healthy behaviors. They have been the recipients of a Departmental Grant to investigate how Machine Learning can be used to predict patient outcomes, using data collected through a measurement-based care software we developed and implemented through different departmental clinics.

The Adler Lab has also received funding from the National Eating Disorder Association to investigate the use of Virtual and Augmented reality in improve the treatment of eating disorders. They have recently completed our SPARK Spectrum funded study examining if Qsymia (phentermine-topiramate), a medication that has been FDA approved for obesity, can be effectively repurposed to target symptoms of binge eating and purging. In addition, they are studying the problem of weight regain after bariatric surgery using ecological momentary assessment (EMA) to understand the role of loss of control eating.

Another study uses the pre-bariatric psychosocial evaluation to predict poor outcomes after bariatric surgery. They are currently testing EATT, a video-based intervention for those who are predicted to be at high-risk for weight re-gain.



**Ronald Albucher, MD**  
College/University Student Mental Health

Dr. Ron 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 wellbeing 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.



**Rania Awaad, MD**  
**Muslims and Mental Health Lab**



**Jacob Ballon, MD, MPH**  
**INSPIRE Clinic**

The Muslims and Mental Health Lab is dedicated to creating an academic home for the study of mental health as it relates to the Islamic faith and Muslim populations. The lab aims to provide intellectual resources to clinicians, researchers, trainees, educators, community and religious leaders working with or studying Muslims. Current lines of research include: historical representations of mental health in the Muslim world, psychometric scales specific to Muslims, Refugee mental health, Islamophobia and social justice (including the preparation of an upcoming volume entitled "Islamophobia and Psychiatry" Springer, 2018). The lab has produced several landmark publications on these topics that have resulted in international recognition and awards; such as Dr. Rania Awaad being honored with the 2018 Islamic Psychology Researcher of the Year Award.

Clinically, the SMMH Lab's Muslim Wellness Program is reflected in Dr. Awaad's work in the Diversity Clinic. The lab is also partnered with the Khalil Center- a spiritual community wellness center advancing the practice of professional psychology rooted in Islamic principles.

The lab hosts a monthly meeting for Bay Area Muslim Mental Health Professionals (BAMMHP), the Bay Area Muslim Mental Health Community Advisory Board (CAB) and a Crisis Response Team (CRT) for the Bay Area Muslim community. In recognition of its efforts, the lab was recently awarded the 2017 Stanford Outstanding Community Partnership Award.

Other notable accomplishments include an invitation by President Obama to a convening at the Department of Health in DC to discuss matters relating to Muslim Mental Health.

INSPIRE is an innovative interdisciplinary client-centered resource providing respectful evidence-based care to support people to achieve meaningful recovery from psychosis through collaborative partnership with individuals and their families while advancing knowledge and training for a new generation of providers. With a recovery-oriented philosophy, the clinic provides an array of services including psychopharmacology, psychotherapy, and psychosocial evaluations. As a research clinic, they are focused on collaborating with multiple disciplines throughout the university to conduct clinical and basic science research including functional imaging, clinical trials, basic pathophysiology, and genetics. Some examples of work currently ongoing in the INSPIRE clinic includes, Dr. Kate Hardy's work conducting research in developing innovative psychotherapy treatments including a cognitive behavioral therapy for psychosis (CBTp) intervention for family members of people with psychosis, and a novel group therapy approach targeted at reducing worrying in people at early stages of psychosis.

Dr. Jake Ballon also maintains an interest in developing interventions for treating antipsychotic related metabolic dysfunction, including an active pilot study looking at the use of bromocriptine to target antipsychotic-associated insulin resistance. There are also two active trials looking at the impact of exercise on treatment outcomes, including an NIMH-funded clinical trial looking at the use of aerobic exercise to improve cognition in people with schizophrenia.



**Mahendra Bhati, MD**  
Interventional Neuropsychiatry

Dr. Mahendra Bhati serves as the Section Chief of Interventional Psychiatry at Stanford and works with colleagues within and outside the department to develop and deliver innovative, device-based treatments.

He oversees the Stanford electroconvulsive therapy (ECT) and transcranial magnetic stimulation (TMS) clinical services and has additional expertise in deep brain stimulation (DBS) for obsessive compulsive disorder (OCD) and depression.

He is developing a “Brain Circuits” clinic for treatment of a range of neuropsychiatric disorders, and in addition to clinical care, Dr. Bhati is active in a number of research trials including responsive neurostimulation to detect and inhibit fear, electroencephalography-synchronized TMS for treatment of depression, deep TMS for post-traumatic stress disorder, TMS-evoked potentials as biomarkers in psychiatric disorders, augmented-reality guided TMS (pictured), and high-intensity focused ultrasound for treatment-refractory OCD and depression.

Dr. Bhati’s goal is to collaboratively develop and provide innovative, effective, device-based technologies to ameliorate a range of neuropsychiatric disorders. He has a joint appointment with the Stanford Department of Neurosurgery and is a member of the Stanford Neurosciences Institute.

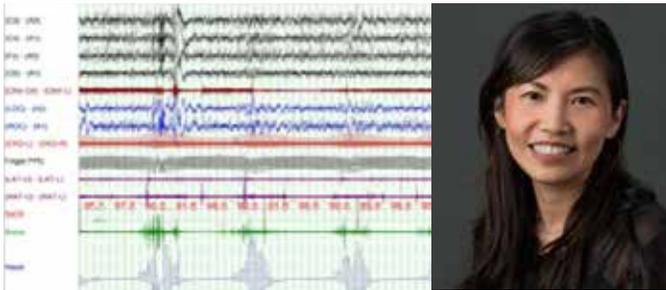


**Kim Bullock, MD**  
Virtual Reality - Immersive Technology Lab

Dr. Kim Bullock is passionate about using technology to improve measurement based care systems. She creates and explores novel treatments and educational interventions using immersive environments in Stanford’s Neurobehavioral Clinic and my Virtual Reality & Immersive Technologies (VRIT) laboratory. Her current research is focused on exploring multimodal interventions for illnesses that involve disruption of bodily sensations, perceptions, and function using virtual reality.

Dr. Bullock is examining the feasibility of delivering exposure based psychotherapy and mirror visual feedback thru virtual reality in a pilot trial to patients with functional neurological disorder (FND), more commonly referred to as “conversion disorder”. She also writes and is involved in research examining group therapy interventions and stigma in FND.

In addition to FND research, Dr. Bullock collaborates on a wide range of studies including virtual reality for mental health issues such as eating disorders, attention deficit disorder, neurodegenerative disorders, psychosis, trauma, and anxiety disorders. She is developing a pilot trial of a measurement based cognitive behavior therapy using an electronic tool that rates patients symptoms and therapeutic alliance before and after every psychotherapy session.



**Michelle Cao, DO**

**Central Sleep Apnea and Respiratory Assist  
Devices for Sleep Apnea Treatment**

Dr. Michelle Cao's expertise includes breathing disorders in neuromuscular disease, central sleep apnea, and home mechanical ventilation. Her research focuses on sleep disordered breathing in neuromuscular disease and advanced positive airway pressure devices for complex breathing disorders.

In addition, Dr. Cao is interested in advancing sleep education. Along with Dr. Shannon Sullivan, she is conducting a study evaluating the state of sleep education across primary residency and fellowship training programs in US.



**Victoria Cosgrove, PhD**

**Prevention and Intervention Lab**

The Prevention and Intervention (PI) Laboratory, housed in the Division of Child and Adolescent Psychiatry, investigates the etiology and treatment of affective psychopathology across the life span and within families.

The lab's mission is focused on two overarching aims: (1) to examine, using multilevel analysis (i.e., behavioral, genetic, immunological, etc.), stress-related etiological phenomena involved in the emergence of affective psychopathology in youth and adults within a diathesis stress framework, and; (2) to develop and test the efficacy of evidence-based psychosocial and pharmacological interventions that promote arousal regulation and decreased inflammation in youth and their families.

The PI Lab recently received funding from the Child Health Research Institute at Stanford to study the biology of bullying in adolescents as well as a Stanford Teaching and Mentoring Academy Innovation Grant to develop an interdisciplinary training program for work with complex family systems. We continue active collaborations with Deakin University in Australia and the University of Toronto in Canada to investigate internet-based psychosocial interventions and anti-inflammatory medication treatments, respectively, for adults with bipolar disorder.



**Sallie De Golia, MD, MPH**  
Medical Student Support

Medical students have higher rates of depression, anxiety, and burnout compared to age-matched samples and the general population.

In response to these statistics, the program developed a novel resident-led reflection group, IRB-approved intervention to enhance resilience and protect against burnout among first and second-year Stanford medical students. Residents receive 7 hours of training prior to group initiation and receive bi-weekly group supervision throughout the intervention period.

The Medical Student Support Program is assessing group efficacy through pre and post-intervention medical student surveys as well as group cohesion and resident training efficacy. The group is working on two manuscripts based on preliminary findings.



**Jennifer Derenne, MD**  
Adolescent Eating Disorders

Dr. Jennifer Derenne is a Clinical Associate Professor of Psychiatry and Behavioral Sciences in the Division of Child and Adolescent Psychiatry at Stanford University School of Medicine. She has clinical expertise in treating anxiety, depression, and eating disorders across the lifespan, with particular interest in treating college age students.

She is currently the Psychiatric Director of the Comprehensive Care Unit for Eating Disorders at Lucile Salter Packard Children's Hospital at Stanford, where she has clinical and administrative responsibilities and serves as the rotation director for child and adolescent psychiatry fellows in their first year of training.

In addition to her clinical practice, she is active in medical education and serves as the co-chair of the American Academy of Child and Adolescent Psychiatry Transitional Age Youth and College Mental Health Committee.



**Sara Gandy, MD**  
Teen Mental Health



**Grace Gengoux, PhD**  
Early Behavioral Interventions  
for Autism Spectrum Disorders

As part of the department's commitment towards the advancement of the health of our local community, Stanford Department of Psychiatry and Behavioral sciences has formed a standing partnership with Sacred Heart Schools, Atherton.

The primary goal of this newly created partnership is to devise and implement a long-term strategic health and wellness plan for students and families across all school divisions, preschool through grade 12.

Collaborating with Sacred Heart School principals, counselors, and educators, Dr. Sara Gandy is helping the school re-envision its advising and counseling programs, evaluating school culture, and recommending best practices in child and adolescent mental healthcare. In addition, the joint initiative will develop an integrated and comprehensive preschool through grade 12 parent education program, aligned with the school's mission, responsive to timely trends, and relaying the most current research in child and adolescent development.

The overall goal of our autism intervention research program is to develop and evaluate the effectiveness of promising behavioral and developmental treatments for ASD.

Over the past year, Dr. Grace Gengoux and her team have completed a randomized controlled trial (RCT) of Pivotal Response Treatment (PI: Hardan) and presented their preliminary findings at several national and international conferences. They have also initiated another RCT of a developmental reciprocity treatment program (PI: Hardan) and trained a team of therapists to provide this treatment over the course of the trial.

Dr. Gengoux has also continued to strengthen the community partnership with Abilities United where she leads an innovative inclusive social skills research program (PI: Gengoux) focused on improving peer initiations made by children with ASD. The current RCT evaluates the addition of a parent training program to enhance the program's effectiveness in fostering meaningful friendships for children. Data gathered from these programs are used to continually improve clinical care and dissemination of evidence-based practices to parents and professionals in training.

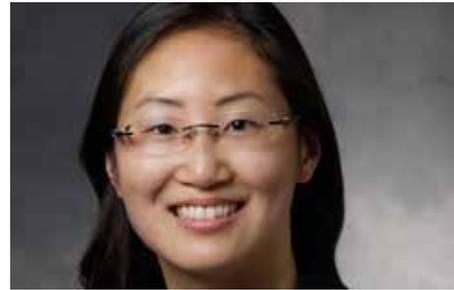


**Kate Hardy, ClinPsychD**  
**Psychosocial Interventions for Psychosis**

As part of the INSPIRE clinic, the goal of this lab is to broaden the development, dissemination, and application of psychosocial interventions for psychosis.

Dr. Kate Hardy is an internationally recognized expert in Cognitive Behavioral Therapy for psychosis (CBTp) and researches novel applications of this approach including training family members in key CBTp skills, integrating Virtual Reality technology to augment traditional therapy interventions, and a targeted group intervention for individuals with co-morbid symptoms of psychosis and worry.

Recently, in partnership with the Department of State Hospitals, Dr. Hardy has also been exploring outcomes following CBTp training for frontline staff in a forensic setting in CBTp. The lab is supported by students from the PGSP-Stanford PsyD Consortium who are committed to conducting their dissertation research in line with the lab's goals.



**Honor Hsin, PhD**  
**Mental Health Digital Monitoring**

Dr. Honor Hsin is a clinical psychiatrist at Verily Life Sciences and an attending psychiatrist on the Stanford Hospital emergency consult service.

She is interested in developing next-generation digital monitoring tools of behavior, mood, cognition, and daily function to unleash data-driven decision-making across the mental health continuum of care. At Verily, she is Principal Investigator of the Project Baseline Mood Study, Verily's first mental health initiative exploring objective markers of behavior and mood through passively-collected smartphone sensor data, as well as Clinical Data Stream Lead for mental health of the Baseline Study, Verily's flagship 10,000-person, 4-year longitudinal project aimed at creating a novel reference "baseline" of human health.

Dr. Hsin has also provided clinical guidance for mental health projects in consumer awareness and wellness across Google and Alphabet teams. At Stanford, she enjoys exploring innovative models of care delivery and writing about the history of psychiatry and ethics of clinical practice.



**Rona Hu, MD**  
**Communication Health Interactive for  
Parents and Others**

A 2015 suicide cluster among Palo Alto teenagers made national news, but few reports mentioned that all four suicides were Asian. Nationally, Asian-American youth are at higher suicide risk, citing family acculturation mismatches as especially stressful.

The Stanford psychiatry department responded with interventions for teens; they also talked with parents, who discussed cultural differences, but also requested role-modeling. They immediately planned a series of theatrical performances for Bay Area schools. Faculty and trainees drew on our academic, clinical and personal experiences, writing scripts and acting, depicting scenarios like arguing about grades, dating someone “unsuitable”, and embarrassment over a parent’s accent. CHIPAO performs each scene first one way, pause for input, then perform it again, but “better”.

The response: coverage from front page news, television and radio, to national and international invitations to perform for schools, communities, and professional meetings. Even more gratifying: parents who realize they are not alone, and talk about their struggles. Responding to requests, we are expanding: vignettes for South Asians and Latinos, outcomes research, and video programs supplementing the live performances. As doctors CHIPAO has found a “treatment” without side effects, that may save lives.



**Jennifer Keller, PhD**  
**HPA Axis and Cognition in Major Depression**

As a clinical researcher, Dr. Jennifer Keller has traditionally investigated the hypothalamic-pituitary adrenal system and cognition in severe depression. While she continues to do so, over many years of clinical work and research on depression, the long-term psychological impact of interpersonal violence, including depression, has become clear and has led to evolving interests in pursuing research on the prevention of gender-based violence (GBV).

Dr. Keller’s developing work in this area involves evaluating GBV prevention programs for both boys and girls. They have published on the impact of a violence prevention program for high school boys in Nairobi, Kenya, and are studying the effectiveness of the Building Empowerment and Resilience Program (BEAR) for high school girls in the U.S.

More recently, Dr. Keller and her team have been investigating the BEAR program as a therapeutic intervention for women living in homeless shelters. Finally, a recent grant will allow them to culturally adapt the BEAR program for implementation with adolescent girls in Gujarat, India.



**Matthew Kendra, PhD**  
Addiction Psychology and  
The Stanford Tobacco Cessation Program

Under the leadership of psychologist, Dr. Matthew Kendra, and with the support of the Psychiatry Department and Addiction Medicine and Dual Diagnosis Clinic, the Stanford Tobacco Cessation Program has greatly expanded its reach and impact. We continued with generous grant support from Stanford Cancer Center Clinical Innovation Fund, submitting an article for publication reviewing the literature on treating tobacco in oncology settings, and providing outreach and support to oncology patients who use tobacco and the providers who treat them. They have also taken an active role in guiding Stanford Hospital and Clinics' (SHC) expansion of tobacco screening and counseling for MIPS reporting efforts.

Dr. Kendra and his team assisted in the development of workflow, referral processes, a dot phrase, and a SmartSet for tobacco treatment at SHC. The team was recently selected for a joint quality improvement project between Psychiatry and Primary Care clinics to increase referrals to the program. With the assistance of Dr. Anna Lembke and her addiction medicine fellows, they are now able to provide streamlined access to medication management for patients in the program which will only serve to improve our ~50% 9-month quit rate for patients who complete the program.



**Christina Khan, MD, PhD**  
THRIVE Lab

THRIVE is a trauma and recovery program focused on the rehabilitation and empowerment of individuals who experience adversity. Those who may benefit include individuals and communities disadvantaged or marginalized by immutable factors such as minority status, poverty, trauma, and exploitation. This includes economically disadvantaged populations, those affected by ethnic or racial discrimination, LGBTQ+, and health services professionals.

Clinical services are personalized through an integrative and strengths-based approach, building on resources available within existing primary medical and community systems of care. Current sites include Ravenswood Family Health Center in East Palo Alto and communities in rural Guatemala and Zimbabwe. Activities include 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 passive sensors, mobile-based interventions and population-based tracking.

The research arm of the laboratory is focused on implementation research related to the above clinical activities and development of tools to better quantify risk and resilience for transdiagnostic markers of distress in vulnerable populations.



**Hilitt Kletter, PhD**  
Childhood Trauma

Dr. Hilitt Kletter is involved in a three year randomized controlled trial that is examining three treatment conditions for traumatized youth: Cue Centered Treatment (CCT), a Stanford developed manualized intervention for chronically traumatized youth, Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), and Treatment as Usual, which is comprised of flexible integrated services offered at Stanford Youth Solutions, a community mental health agency in Sacramento. The study aims to recruit 135 youth between the ages of 10-16 to participate. The purpose of the study is to determine what child characteristics predict treatment outcomes, which phases of treatment are most effective, and to identify neuro-markers that may be predictors of treatment outcome. Collaborators include Allan Reiss (neuroimaging consultant), Judy Cohen (TF-CBT consultant), and Carl Weems (statistical consultant).

Dr. Kletter is also working on development of a formal certification process for training on CCT as well as assessment of training and dissemination.



**Lynn Koegel, PhD**  
**Robert Koegel, PhD**  
Pivotal Response Treatment

Drs. Robert and Lynn Koegel developed Pivotal Response Treatment (PRT) for autism spectrum disorder (ASD). PRT is an empirically validated, efficient and effective behavioral intervention, which has proven to be a breakthrough in improving the core areas of autism, resulting in very widespread improvements to both the individual symptoms of autism as well as to the entire condition of the disorder.

They are working on programs to disseminate their research findings and intervention procedures throughout the world through trainer-of-trainers and parent education models. Thus their work is both helping individual children and is also addressing the severe shortage of services for this population.

Their publications have included treatments for a wide age range from infancy through adulthood and are addressing communication, disruptive behavior, socialization, academic performance, and other areas. Pivotal Response Treatment (PRT) targets key areas thought to be central to the disorder of autism by improving motivation, social initiations, self-control, empathy, and responsiveness to multiple cues.



**Daniel Mason, MD**  
Psychiatry and Humanities

Dr. Daniel Mason's research interests are in the intersection between psychiatry and the humanities, with a particular focus on the practical application of history, literature and art to clinical practice.

Most recently Dr. Mason and his team have used historical and literary sources to present the first working criteria for verbigeration (speech catatonia); studied Enlightenment botanical texts to critically explore the historical basis of contemporary classification; and used literary sources to propose novel ways of approaching the phenomenology of psychosis.

In addition, Dr. Mason continues to teach a pair of undergraduate courses in psychiatry and the humanities, in the hope of teaching students to better understand the experience of mental illness, while inspiring them to reach out across disciplinary boundaries as they move forward in their careers.



**Ryan Matlow, PhD**  
Child Traumatic Stress Intervention  
and Program Development

Dr. Ryan Matlow's research focuses on the development, implementation, and integration of mental health services and interventions in community settings. Dr. Matlow's efforts emphasize programs to address childhood exposure to stress, trauma, and adversity in historically marginalized communities, where trauma exposure is disproportionately high and resources are scarce.

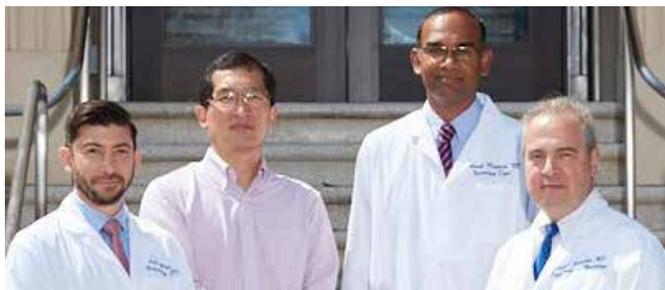
Current projects include evaluations of school-wide yoga and mindfulness programs, trauma-focused psychotherapy (i.e., Stanford's Cue-Centered Therapy), integration of mental health supports in community-based organizations, and training in evidence-based mental health delivery for school-based service providers. These projects apply a neurodevelopmental framework for understanding and addressing the impact of child trauma exposure and include measures of neurobiological functioning. Dr. Matlow is interested in the use of community-engaged research methods to inform program development and evaluation.



**Lawrence McGlynn, MD**  
LGBTQ Health Center

LGBTQ individuals have unique healthcare needs and face significant health disparities. The Health Trust of Santa Clara County is in the process of completing a feasibility study looking at the creation of an LGBTQ Health Center to serve the South Bay and Peninsula. The Center received a small grant award from Stanford to survey students, residents, and faculty about their knowledge and comfort taking care of LGBTQ patients as well as their interest participating in a new LGBTQ health clinic forming in San Jose. As they move forward, they will use this data to guide resource management and program development, and help define Stanford's role in health center.

Dr. Lawrence McGlynn is also coming onboard as an investigator with Drs. Edith Sullivan and Adolf Pfefferbaum in their work studying the effects of alcohol in the brain, particularly in older individuals with HIV disease.



**Mitchell Miglis, MD**  
Neurology & Neurological Sciences  
and Sleep Medicine

Dr. Mitchell Miglis' current research involves skin biopsy biomarkers to assess risk of progression to Parkinson's disease in patients with REM-sleep behavior disorder, and the association between sleep disorders and various disorders of autonomic nervous system dysfunction.

Dr. Miglis received his B.S. in Biology from the University of North Florida and his MD from the University of Florida. After serving as a medical intern at Washington Hospital Center/Georgetown University, he completed his neurology residency at Bellevue and NYU Hospital in New York City. He then completed two fellowships, the first in Autonomic Disorders at the Beth Israel Deaconess Medical Center of Harvard Medical school, and the second in Sleep Medicine at the Stanford Sleep Medicine Center. Dr Miglis is board certified in neurology and sleep medicine by the American Board of Psychiatry and Neurology. Dr. Miglis treats a wide variety of neurological diseases and has a special interest in Autonomic Disorders, Sleep Disorders, and the interaction between these conditions.



**Lauren Mikula Schneider, PsyD**  
Psychological Aspects of Pediatric  
Transplantation and Cardiology

Dr. Lauren Mikula Schneider's clinical research involves better understanding the psychological aspects of chronic illness on pediatric patients and their families. Specifically, her clinical work and research focus on the implications of solid organ transplant and cardiac conditions on mental health and family issues. Dr. Schneider, Dr. Anne Dubin from the Division of Pediatric Cardiology, and colleagues have recently completed enrollment in a project in which pediatric patients with implantable cardioverter defibrillators and their parents completed a psychosocial battery in order to describe the psychological needs of this patient population and guide medical professionals treating these patients.

Dr. Schneider, Dr. Richard Shaw, and Dr. Christopher Almond from the Division of Pediatric Cardiology have created the Stanford Pediatric Psychosocial Optimization Tool-Transplant Module (SPPOT-T): a standardized psychosocial tool for pediatric solid organ transplant evaluations. They are in the process of piloting this measure with cardiac transplant candidates and will soon extend it to other solid organ transplant teams at LPCH.

Moreover, Dr. Schneider in collaboration with colleagues from the Division of Pediatric Cardiology, is involved in current research projects aimed to 1) examine the effectiveness of virtual reality for cardiac procedure preparation and medical professional training, 2) understand the impact of an exercise program for patients with Marfan's Syndrome, 3) understand the psychological burden of transplantation on patients with congenital heart disease, and 4) examine the potential for post-traumatic growth in pediatric heart transplant patients.



**Adriana Sum Miu, PhD**  
Mindset Effects on Mental Health

Dr. Adriana Miu's research interests focus on social-cognitive processes related to depression, anxiety, and trauma. Specifically, Dr. Miu is interested in examining how fixed and growth mindsets about one's personal characteristics may affect mental health.

Dr. Miu's current projects include applying fixed and growth mindsets to clinical populations and interventions.



**Diana Naranjo, PhD**  
Psychosocial Aspects of  
Chronic Illness in Children

Dr. Diana Naranjo's clinical research is aimed at overcoming barriers and increasing adherence in persons with chronic illness, specifically diabetes and cystic fibrosis. Two areas of emphasis cut across this work: 1) addressing health disparities in chronic illness through individual, provider, and systems level interventions, and 2) optimizing health and quality of life through medical devices and technologies.

Beginning in postdoctoral fellowship, Dr. Naranjo specialized in understanding the unique behavioral, mental health, individual, and family factors that impact health care for youth with chronic illness.

She has successfully implemented a clinic-based transition program for youth with type 1 diabetes within a Quality Improvement framework, and research to implement patient reported outcomes routinely across pediatric health clinics.



**Douglas Noordsy, MD**  
Sports Psychiatry and BrainEx

Dr. Douglas Noordsy serves as Associate Chair for Clinical Integration and Coordination in the Department of Psychiatry and Behavioral Sciences. He is also the Director of Sports Psychiatry and Director of BrainEx.

**Sports Psychiatry:** The Stanford Sports Psychiatry program provides evaluation and treatment for professional, Olympic and NCAA athletes, including Stanford student athletes. Services are tuned to the unique training needs of athletes and incorporate cutting-edge lifestyle, psychological and pharmacologic interventions. The program supports elite athletes to achieve maximal performance outcomes while maintaining their mental health and wellness. They also train the next generation of Sports Psychiatry & Psychology professionals.

**BrainEx:** Stanford's program on physical exercise and the brain. BrainEx is a multidisciplinary research partnership of clinical research, neuroscience, exercise physiology, and prevention medicine to build the capacity to study the impact of physical exercise on brain response, reward pathways, neuroprotection, and prevention of psychiatric disorders. This program aims to study the neurobiology of elite athletic performance, sustained exercise behavior, and the subjective experience of exercise, as well as the potential for exercise to prevent and reverse neurodegenerative psychiatric disorders. In addition to measuring the effects of individual exercise sessions on psychiatric symptoms, Dr. Noordsy is studying relationships between activity level and wellbeing and the cognitive effects of exercise.



**Lisa Post, PhD**  
Sports Psychology

Dr. Lisa Post's clinical and research group is focused on improving psychosocial functioning in elite athletes. Recent research initiatives include evaluation of a pilot injured athlete support group designed to support Stanford Athletes that was funded by the National Collegiate Athletic Association (co-PI Norah Simpson). This program was identified as a highly desired resource by both student-athletes and athletic staff.

Ongoing work is focusing on how to increase access to this critical support system, as well as continued development and dissemination efforts. Dr. Post serves as the Chief of Sports Psychology in the Stanford Athletic program and also is the Sports Psychologist for the San Francisco 49ers football program. Her clinical program provides direct services to athletes, psychoeducational services to athletic staff, and training to psychology fellows.



**Douglas Rait, PhD**  
Couples and Family Therapy  
Team Learning and Design

Dr. Douglas Rait's current research and scholarly interests include the therapeutic alliance in couples and family therapy, the family context of health and illness, family-systems training in medical education, work-couple-family balance, the influence of technology on family relationships, health technology innovation, multidisciplinary team performance, and digital applications in the behavioral sciences.



**Daryn Reicherter, MD**  
**Human Rights in Trauma**  
**Mental Health Program**

Dr. Daryn Reicherter is the director of The Human Rights in Trauma Mental Health Program. The program is committed to understanding psychiatric sequelae for survivors of human rights abuses with an eye towards informing transitional justice and judicial processes.

The program focuses on the psychological changes and mental health pathology caused by trauma on individuals, their families, and their communities, over time and between generations. Program affiliates and colleagues analyze the rich data in the interdisciplinary scientific literature and in specific conflict situations relevant to the impact on human psychology of various forms of mass trauma, including genocide, mass killings, rape, and torture. This can be used to advocate for the survivors' human rights and mental health in a whole range of settings, including criminal trials, civil suits for monetary damages, and asylum proceedings. The program will participate in these transitional justice processes in a range of ways, including by providing expert testimony/reports and consulting with the legal teams prosecuting perpetrators or representing victims.

The program's projects include formal consultative reports for United Nations backed transitional justice programs for situations in Cambodia and the Central African Republic, and consultative reports for human rights violations in Haiti and in Somalia. The program also provides expert opinions for cases in Central America, the Caribbean, and the Middle East.



**Thalia Robakis, MD, PhD**  
**Biology of Perinatal Mood Disorders**

Dr. Thalia Robakis is interested in perinatal mood disorders and the transgenerational transmission of early life stress.

Dr. Robakis is currently pursuing several lines of research relating to perinatal mental illness, in collaboration with investigators within and outside the Department of Psychiatry. She is working to isolate an epigenetic signature of insecure attachment in pregnant women, and determine how this may be related to the development of depression postpartum, in collaboration with Dr. Alex Urban in the departments of Genetics and Psychiatry. She is working with Dr. Ian Gotlib in the department of Psychology to explore the connections between maternal mental health characteristics and neurobehavioral outcomes in infants and children, including a follow-up study of developmental outcomes in the children of the women in her previous study of attachment insecurity and postpartum depression. She is also collaborating with Dr. Alex Butwick and other investigators in obstetrics and maternal-fetal medicine to conduct epidemiological studies of the risk factors and prevalence of perinatal psychiatric illness.

As a member of the Center for Neuroscience in Women's Health, she works with Drs. Ellie Williams and Natalie Rasgon on projects related to clinical care and resident education in women's mental health.



**Athena Robinson, PhD**  
Eating Disorders: Emotion Dysregulation,  
Athlete and Bariatric Populations

Dr. Athena Robinson's core areas of programmatic research include treatment outcome and implementation research for eating disorders (ED). She has developed and researched several psychotherapeutic interventions, employing evidence-supported theory and treatment for ED, body image enhancement (for athletes), weight loss/maintenance (including bariatrics), and has facilitated the delivery of such interventions via individual, group, guided self-help, inperson, telephone, and online formats. She is currently engaged in effectiveness studies of 1) an online intensive outpatient program for ED; 2) a mobile application for ED; 3) dialectical behavior therapy skills training groups.

Dr. Robinson is also co-investigator on a nationwide multi-site implementation study of evidence-based treatment for EDs and depression on college campuses. She has completed research support from the National Institutes of Mental Health, National Cancer Institute, National Collegiate Athletic Association, and Stanford University Center for Cognitive and Neurobiological Imaging Seed Grant.



**Logan Schneider, MD**  
Genetic Basis for Sleep and Sleep Disorders

Dr. Logan Schneider's long-term career plan, from a research perspective, is to refine the understanding of normal and dysfunctional sleep, much like the Epilepsy Phenome/Genome Project (EPGP) and Epi4K are doing for the enigmatic epilepsies. Insufficient sleep has been deemed a public health problem with poorly understood behavioral and physiologic sleep disorders lying at the core of the issue.

Dr. Schneider is currently using well-defined distinct and objective phenotypes (e.g. periodic limb movements, hypocretin-deficient narcolepsy) to acquire the analytic skills necessary to expand his knowledge of both signal processing and genetics, with the former enhancing his ability to identify and/or refine sleep phenotypes, and the latter facilitating the pathophysiological understanding of these phenotypes. As a consequence of a better link between symptoms/phenotypes, physiology, and genetic risks, more personally targeted and effective therapeutics can be developed to address the enriched spectrum of sleep disorders.



**Yelizaveta Sher, MD**  
**Delirium in Lung Transplant Recipients**

Dr. Yelizaveta Sher has been collaborating with cystic fibrosis (CF) and lung transplant (LT) teams. As a Mental Health Coordinator in CF clinic, sponsored by CF Foundation, she oversees mental health screening and care. Ongoing research will determine whether mental health interventions embedded in CF clinic improve mental and physical health outcomes in CF patients.

In addition, Dr. Sher has been leading a Quality Improvement (QI) project on timely delirium identification and treatment in LT recipients. The project was inspired by our own retrospective study of 163 LT recipients, which identified a 44% delirium rate post LT surgery. Delirium was associated with longer intensive care unit (12.9 days, 95% CI: 6.1-19.6) and hospital lengths of stay (17.7 days, 95% CI: 7.6-27.8). This publication is currently under review.

In Dr. Sher's QI project, the Psychosomatic Medicine team follows each new LT recipient. So far, 37 new LT recipients have been evaluated for development of delirium for at least 5 days post-surgery. Treatment is recommended when needed. In addition to improving patient care, this project will allow them to better identify delirium characteristics and associated outcomes in this patient population, and to design interventions to decrease incidence of delirium and improve outcomes.



**Norah Simpson, PhD**  
**Sleep and Health**

Dr. Norah Simpson's research interests are focused on the intersection of sleep and health, including use of behavioral sleep medicine approaches to improve sleep among individuals with sleep disorders and high performance athletes. She was recently awarded a departmental grant to conduct focus groups with Stanford Athletes to develop a tailored sleep psychoeducational resource for this population. She is also the study therapist on Dr. Rachel Manber's insomnia/obstructive sleep apnea randomized controlled trial.

Dr. Simpson remains active in experimental sleep loss research; most recently this research examined the impact of repeated episodes of sleep restriction on markers of stress, inflammation and pain.



**Margo Thienemann, MD**  
PANS Program

Dr. Margo Thienemann is currently involved in research regarding neuroinflammatory pediatric syndrome that presents primarily and abruptly with psychiatric symptoms: PANS (Pediatric Acute-onset Neuropsychiatric Syndrome). In the multidisciplinary PANS Program,

Dr. Thienemann, along with Dr. Jenny Frankovich and colleagues, are working to characterize the syndrome, its course and etiology using a database and biorepository. She has been part of creating the PANS Consortium diagnostic guidelines and first author on the PANS treatment guidelines for psychiatric and behavioral interventions.



**Mickey Trockel, MD, PhD**  
Health for Healers

Dr. Mickey Trockel's research over the last year has focused on health care provider wellbeing, including development of tools for assessment of professional fulfillment, burnout, and determinants of both of these outcomes.

A primary focus of their work in 2018 and 2019 will be program development and evaluation research funded by The Physician Foundation. This program development and evaluation project aims to train physicians identified by peers as Opinion Leaders (well-liked and influential physicians). These Opinion Leaders will then encourage engagement in activities designed to create an organizational culture of wellness (e.g. appreciation, values alignment, and peer support).

The intent of this effort is: 1) to invite all physicians to become co-creators of their own practice culture in order to cultivate gratitude, compassion, and associated high performance at work, and 2) to learn, experiment with, and encourage each other to practice skills that increase compassion and gratitude for ourselves and for each other. If successful, the result will be a rising tide to increase professional fulfillment for all, and buoy up those at highest risk of burnout.



**Katherine (Ellie) Williams, MD**  
**Julie Weitlauf, PhD**  
**Women's Wellness**

Over the past three years, Drs. Ellie Williams and Julie Weitlauf, in collaboration with the Department of Obstetrics and Gynecology have developed a collaborative and interdisciplinary clinical education enterprise designed to: a) identify state-of-the-science best practices related to the assessment and psychotherapeutic treatment of female sexual pain disorders (i.e., vaginismus); b) create sustainable clinical education training protocols in these practices to facilitate mastery and competence among key practitioners at Stanford; and c) facilitate the implementation of these treatments in the Center for Neuroscience in Women's Health's Women's Wellness within the Department of Psychiatry and Behavioral Sciences.

To this end, they have created and implemented a web based course on this topic for Stanford Clinicians, designed and implemented a simulation based training program in conjunction with the Center for Immersive and Simulated Learning (CISL) at Stanford. They have also trained three clinical teams (comprised of dyadic clinician pairs: Gynecology + Psychiatry) to competency with Therapist Guided Exposure Treatment for Penetration Disorders (GET-PEN). The GET-PEN protocol has been empirically validated outside of the U.S. through a series of clinical trials. Nevertheless, the newly trained teams at Stanford, which include Drs. Weitlauf and Williams, represent the only group in the US trained to implement this protocol. They (Williams/Weitlauf) recently succeeded in getting GET-PEN formally added to the list of specialty interventions for which qualified Stanford practitioners may apply for privileges.



**Helen Wilson, PhD**  
**Healthy Relationships Lab**

Dr. Helen Wilson's Healthy Relationships Lab focuses on interconnections among violence, stress, sexual and reproductive health, and other aspects of intimate relationships. Dr. Wilson is the Principal Investigator of a federally funded longitudinal study examining pathways from early violence exposure to dating violence and unsafe sex in a sample of young African American women from underserved Chicago communities.

Dr. Wilson is also collaborating with the Department of Obstetrics and Gynecology to determine whether stress in women pregnant with multiple gestations renders them at a higher risk for preterm labor and delivery. Dr. Wilson and Adriana Miu are investigating the role of cognitive beliefs (e.g., fixed vs growth mindset), in the development of psychopathology or resilience in students who have experienced sexual and relationship violence.

Finally, Dr. Wilson is Co-Investigator of a study that recently received funding to determine whether an empowerment program focused on reducing sexual assault may also reduce mental health outcomes among adolescents in Nairobi slums, including those who experience sexual assault during the study period.



**Lynn Yudofsky, MD**  
**Wellness and Mindfulness**

Dr. Lynn Yudofsky has had a longstanding interest in clinical treatment and research focused on wellness (including integrative medicine, exercise, nutrition, tobacco cessation, yoga, dance, meditation, mindfulness, stress-management, sleep hygiene etc.) for individuals with psychiatric disorders, neuropsychiatric disorders including developmental disorders, other medical illnesses, and also for preventive purposes and quality of life enhancement for the general population.

In her practice at Integrative Medicine at Stanford, under the direction of Dr. Spiegel, she has been able to incorporate wellness-based interventions into her treatment of psychiatric patients. She has also been working on the development and establishment of a Lifestyle Psychiatry Clinic at Stanford. The purpose of this clinic is to provide wellness-based treatments for individuals who would like to improve their mental and physical wellbeing by focusing on interventions including mindfulness, compassion focused therapy, nutritional counseling, exercise, guided imagery, stress management, and positive psychology--among others. One type of innovative treatment that she plans to provide in this clinic is “walk therapy” which involves engaging in outdoor walking exercise during psychotherapy.

Dr. Yudofsky is in the process of planning a research project which investigates the effectiveness of this type of treatment. She is also passionate about teaching students and learners at all levels of training and is a member of the Educator's for Care (E4C) Associates Program and a preceptor for the Practice of Medicine in Psychiatry Course.

# Research Highlights

## Emeritus Faculty

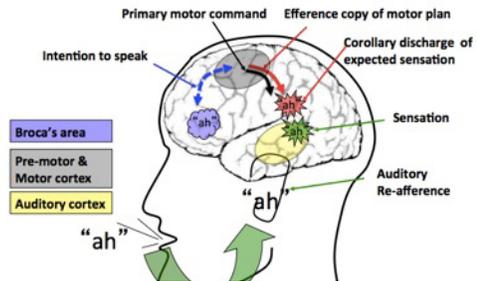


**Stewart Agras, MD**

**Implementation of Evidence-Based Therapies  
in Community Settings**

A problem common to many areas of medical practice is that evidence-based treatments or practices are not used correctly or not used at all, hence providing less than adequate care. This problem pertains to psychiatry and psychology because research has shown that many practitioners do not use evidence-based psychotherapeutic treatments.

Dr. Stewart Agras is currently investigating this problem 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 further study is examining the use of machine learning to identify a rapid method to estimate therapist's adherence to evidence-based psychotherapy.



**Judith Ford, PhD**

**Brain Predictions**

The brain is in the prediction business. Predictions about imminent sensations can be made in at least two ways: Dr. Judith Ford predicts that specific sensations will follow from actions that produce them or "actionbased" predictions, and we base predictions of sensations on the immediate past history or "context-based" predictions. Dr. Ford uses neurophysiological methods to test the hypothesis that psychosis is associated with a basic inability to predict sensations. For example, if predictive mechanisms are dysfunctional, sensations that should have been predicted, but were not, may be attributed to external sources. These errors of prediction are costly to society and the patient.

Efference copy and corollary discharge mechanisms may be responsible for predicting sensations resulting from our actions. This concept is illustrated below from the point of view of vocalization. Every utterance is accompanied by the transmission of an efference copy of the motor plan to sensory cortex, where a corollary discharge of the expected sensory consequences of the motor act will be compared to the actual sensation. When the sensation was predicted, auditory cortex responds less to it than when it was not predicted. This system is abnormal in patients with psychosis, their first-degree relatives, and in people at clinical high risk for schizophrenia.



**Dolores Gallagher Thompson, PhD, ABPP**  
Caregiver Research Lab

The Department's Caregiver Research Lab focuses on fostering research and innovative clinical care for family members who provide day to day support and assistance to an older relative with a neurodegenerative disease, such as Parkinson's or Alzheimer Disease.

These family members typically experience significant stress in their role and over half are clinically depressed. CBT-based individual and small group intervention programs have been developed and empirically tested by Dr. Dolores Gallagher Thompson and colleagues for over 20 years. Her "Coping with Caregiving" program and the nationally-based REACH protocol (Resources for Enhancing Alzheimer Caregivers' Health) are both evidence based, and have been exported successfully to many other settings and communities.

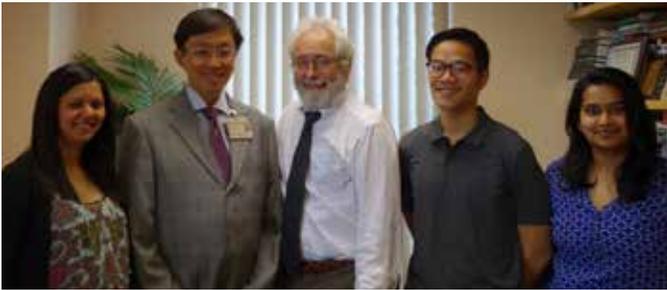
In particular, Dr. Gallagher Thompson's lab has focused on unique caregiving issues experienced by diverse communities including Hispanic/ Latino-, Chinese- and Persian- Americans. They have adapted these programs for use with Latinos with limited education both in East Palo Alto and in southern San Diego county, and her lab is currently working with Vietnamese colleagues to modify them for use with Vietnamese Americans both in San Jose and in southern CA. This body of work has resulted in international recognition: Dr. Gallagher Thompson is one of two Americans on a WHO-sponsored working group to develop and test a web-based caregiver stress reduction program designed to be offered to the global community after pilot testing is completed. Pilot testing is currently underway in Bangalore, India; results are expected by the end of 2017.



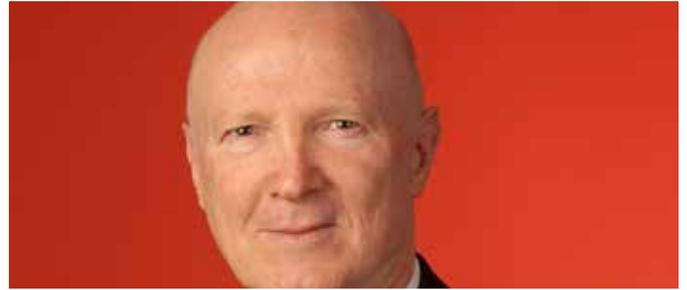
**Ira Glick, MD**  
Schizophrenia

Along with Dr. Jake Ballon, Dr. Ira Glick is doing a long-term follow-up study that has never been done. They have followed patients with schizophrenia over 8-50 years correlating antipsychotic treatment adherence with outcome. Dr. Glick and Dr. Ballon found that "the better the adherence to antipsychotic medication, the better the outcome." If adherence was very poor, outcomes were disastrous.

Dr. Glick was recently honored with Dean's Award for Research in Schizophrenia from The American College of Psychiatrists.



**Terence Ketter, MD**  
Bipolar Disorders Clinic



**Lorrin Koran, MD**  
OCD Treatment

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 links between creativity, temperament, and mood disorders. Treatment research has involved clinical trials of novel medications for bipolar disorder, with emphasis on anticonvulsants, 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-BD), 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-BD assessment and longitudinal monitoring instruments) care since the year 2000.

Current research initiatives include efforts to establish mood correlates of actigraphy in bipolar disorder and integrate actigraphy 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 lurasidone use in bipolar disorder patients.

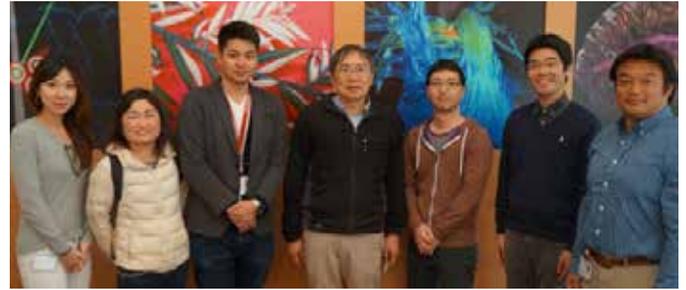
Dr. Larry Koran is serving as a mentor to two new faculty in the Department of Psychiatry, Dr. Carolyn Rodriguez and Dr. Nolan Williams, as they develop their research into finding new and more effective treatments for obsessive-compulsive disorder (OCD). He continues to serve on the Scientific Advisory Board of the International OCD Foundation (IOCDF), review articles for scientific journals, and give invited lectures regarding OCD and the anxiety disorders.

Dr. Koran has recently begun the first biological studies of a newly described condition, gadolinium deposition disease.



**Helena Kraemer, PhD**  
Statistics in Psychiatry

Dr. Helena Kraemer continues to serve as the Statistical Editor for JAMA Psychiatry, and on the editorial boards of several psychiatry, psychology, applied statistics journals, and thus do a great deal of reviewing. She continues to consult both for colleagues at Stanford, and at other universities, as well as some US government projects, and to teach a few seminars as well. Her focus in her own papers has been on correcting common statistical errors that occur in medical research papers misleading both clinical decision-making and research directions.



**Seiji Nishino, MD, PhD**  
Sleep and Circadian Neurobiology Lab

The Sleep and Circadian Neurobiology (SCN) Laboratory is dedicated to understanding sleep-wake control and biological rhythms at all levels from the molecular to behavioral and developing new generations of pharmaceuticals to remedy the unmet needs of sleep disorders and disorders of circadian timekeeping.

Dr. Seiji Nishino and his team use rodent models of narcolepsy and circadian rhythm sleep disorders as well as other neurological, neuromuscular (myotonic dystrophy), and neurodegenerative diseases (Alzheimer's disease, Parkinson's disease [i.e. MitoPark TG mice], dementia with lewy bodies) to examine the pathophysiology of sleep problems in these diseases. They house a large scale sleep-wake and circadian rhythm bioassay facility for these animal model systems where we conduct sleep recordings. In conjunction with the molecular biology laboratory, they study the pharmacology and molecular biology of sleep disordered and/or deprived animals and conduct (1) neurotransmitter and regional drug delivery studies (In vivo microdialysis, HPLC analysis) as well as (2) neurochemical assessments (radioreceptor binding assays, radio/enzyme-immuno assays, gene expression analysis).



**Barbara Sommer, MD**  
Depression in Elderly Patients

Dr. Barbara Sommer is interested in the long-term outcomes of elderly patients with depression for whom all treatments have failed. Although new and innovative antidepressant treatments become available each year, most are in need of further investigation prior to release to the general public. At this time the most definitive treatment for severe depression remains electroconvulsive therapy (ECT) from which around 90% of patients recover.

Dr. Sommer has become interested in the 10% who do not, and aim to perform long-term outcome evaluations as we advocate for raising the conversation on whether such patients, capable of making the decision, should have autonomy to continue or discontinue active treatment.



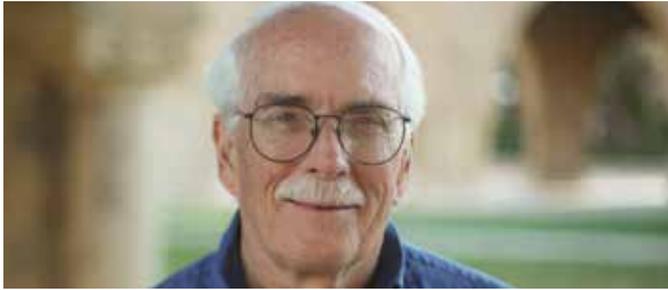
**Hans Steiner, MD**  
Humanistic Principles to the Practice of  
Medicine and Psychiatry

Dr. Hans Steiner's work is focused on the integration of Medicine and the Humanities.

He is the Director of The Pegasus Physician Writers at Stanford (since 2008). This is a group of some 100 academic and private practice physicians of all specialties, in various stages of career development who also are creative writers. Dr Steiner founded the group in 2008, together with Drs. Irvin Yalom (Psychiatry), Larry Zaroff (Cardiovascular Surgery) and Audrey Shafer (Anesthesiology). Members write fiction, poetry, narrative non-fiction, fictionalized memoirs, biographies, op-ed pieces and educational texts for the lay public with the intent to broaden public understanding of the science and art of medicine. The group supports students from all levels (undergraduate, graduate, postgraduate) on their way to or through medicine. The group has regular public events on the Stanford campus in January, March, July, October, and a joint poetry and music event with the St. Lawrence String Quartet in November.

He also directs Stanford's Program in Psychiatry and The Law. This special initiative provides expert psychiatric testimony to legal bodies, systems and lawyers on a contractual basis.

He is regularly providing keynote addresses in the US, Europe, Asia & Australia. He maintains an active mentoring and teaching schedule at the undergraduate, graduate and postgraduate level.

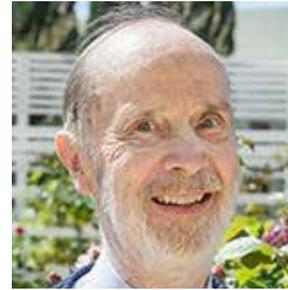


**C. Barr Taylor, MD**  
Laboratory for the Study of  
Behavioral Medicine

Dr. Barr Taylor's laboratory focuses on developing and evaluating accessible, affordable, technology and evidence-based prevention and treatment programs for anxiety, depression, and anxiety disorders.

In partnership with Washington University and Palo Alto University, they are conducting 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 currently 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, healthy weight regulation programs for middle schools), and many investigators in the U.S. Dr. Taylor serves as a chief scientific advisory to the iCare 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.



**Jared Tinklenberg, MD**  
Alzheimer Research Center

Dr. Jared Tinklenberg, MD, serves as Director of the Stanford/VA Alzheimer 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 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 University Department of Psychiatry 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 Research Center offers information, referral services, and comprehensive diagnostic assessments of individuals with memory problems. In addition to providing advanced caregiver support, intervention, community education, and professional training, the center plays an important role in developing a central pool of information on Alzheimer disease in California.

# Research Highlights

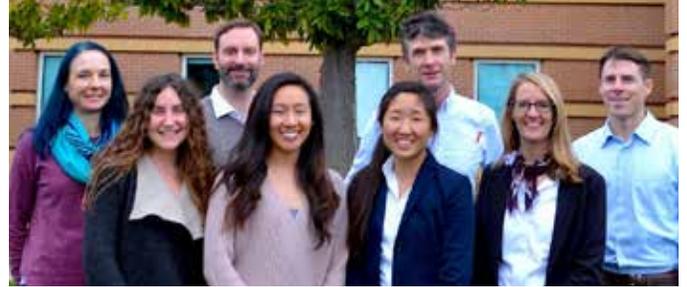
## Affiliated Faculty



**J. Wesson Ashford, MD, PhD**  
War Related Illness & Injury Study Center  
Alzheimer Disease Research

Dr. Wes Ashford, Director, War Related Illness & Injury Study Center, VA Palo Alto Health Care System, leads research in chronic pain, PTSD, sleep problems, Gulf War / Chronic Multisymptom Illness, traumatic brain injury, and cognitive impairment. Investigative techniques used in the Center include computerized questionnaires, brain imaging, and genetics. This Center is recognized by Veterans as one of the top clinical, education, and research programs in the US.

Dr. Ashford has been one of the foremost leaders in the Alzheimer disease field, initiating drug development for treating Alzheimer disease in 1978, proposing the neuroplasticity basis for this disease in 1985, focusing the field's attention on the APOE genotype in 2002, explaining the role of the amyloid protein precursor in basic neurobiology in 2002, 2015, and contributing extensively to the development of dementia assessment, screening, and brain imaging. Dr. Ashford is developing an internet-based assessment system for memory and Alzheimer disease: [www.memtrax.com](http://www.memtrax.com), which is the most popular test on: [www.brainhealthregistry.org](http://www.brainhealthregistry.org) and has been studied in several countries around the World (for example: [www.memtrax.com.cn](http://www.memtrax.com.cn)).



**Peter Bayley, PhD**  
War Related Illness & Injury Study Center

Dr. Peter Bayley, is a clinical neuroscientist in the War Related Illness and Injury Study Center, VA Palo Alto and a Clinical Associate Professor (Affiliated) in the Department of Psychiatry and Behavioral Sciences.

His lab is participating in the development of innovative treatments and novel approaches to healthcare. His research interests include rehabilitation treatments for chronic pain and posttraumatic stress disorder (PTSD) using mind-body interventions such as yoga and meditation. He takes a cognitive neuroscience perspective to explore mechanisms of action including memory consolidation, autonomic nervous system activity, and cognitive performance. He also has an interest in early detection of dementia and is a member of the Memory Screening Advisory Board for the Alzheimer's Foundation of America.

Most recently he is the PI on two grants investigating yoga as novel pain treatment for Veterans with Gulf War Illness, and breathing-based meditation as a treatment for PTSD.



**Sherry Beaudreau, PhD, ABPP**  
Mental Health, Neurocognition, and  
Treatment in Older Adults

The overarching goal of the lab focuses on the interface between psychiatric symptoms and neurocognitive processing in older adults to inform the development of psychiatric behavioral interventions. This has led to a specific focus on problem-solving therapy for anxiety and depression in older Veterans and civilians. This and other treatment approaches in which distressed older adults with neurocognitive processing issues benefit in terms of a reduction in symptom distress and improvement in functioning drive our treatment approach.

Dr. Beaudreau and her team collaborate extensively with the Lifespan Approaches to Neuropsychiatric Disorders Program directed by Associate Professor, Dr. Ruth O'Hara and the Geriatric Mental Health lab directed by Instructor, Dr. Christine Gould.



**Daniel Blonigen, PhD**  
Center for Innovation to Implementation

Dr. Daniel Blonigen a mental health services researcher at the Center for Innovation to Implementation (Ci2i), Veterans Affairs (VA) Palo Alto Health Care System. His mission is to promote scholarly research aimed at increasing access to and engagement in clinical care for high-risk, high-need populations marked by co-occurring addictions and mental illness, chronic homelessness, and/or cyclical involvement in the criminal justice system.

One of his current projects is a VA-funded multisite trial to investigate the effectiveness and implementation potential of Moral Reconciliation Therapy to reduce criminal recidivism risk and improve health outcomes for justice-involved veterans. He is also conducting a project funded by VA HSR&D to test the feasibility and acceptability of an innovative, patient-centered model of care for Veterans with substance use problems that leverages technology (e.g., mobile apps) and peer support services.

Finally, Dr. Blonigen has ongoing interests and involvement in mixed methods research to identify and test high-value approaches to care to reduce excessive utilization of psychiatric emergency services.



**Jessica Breland, PhD, MS**  
Assessing Health Care

Dr. Jessica Breland's work focuses on using quantitative and qualitative methods to bridge gaps in care by: 1) assessing outcomes related to the implementation of evidenced-based treatments, especially through controlled trials in novel settings (e.g., primary care) or with novel methods (e.g., apps); 2) identifying and reducing racial and ethnic disparities in health; and 3) enhancing care for patients with chronic conditions, such as obesity or diabetes.

She is completing a five-year Career Development Award (CDA 15-257) from the Veterans Health Administration's (VHA) Health Services Research & Development service to understand and improve veteran's engagement in behavioral health services. As part of that work, she is conducting administrative database analyses to understand weight loss treatment use among the roughly five million veterans using VHA primary care and is developing a motivational interviewing-based self-help tool to increase weight loss treatment use.



**Eve Carlson, PhD**  
Dissemination and Training Division  
of the National Center for PTSD

Dr. Eve Carlson is a clinical psychologist and a senior researcher with the Dissemination and Training Division of the National Center for Posttraumatic Stress Disorder which is located in the Palo Alto VA Health Care System. Dr. Carlson's research focuses on assessment, the psychological impact of traumatic experiences, early interventions after traumatic stress, and increasing access to care with online and mobile applications and peer support.

Her recent projects included development of risk factor prediction measures for military, VA, and civilian populations, development of other trauma-related measures (dissociation, trauma exposure, emotion regulation, self-destructive behavior, and relationship impairment related to deployment or traumatic stress), study of noncombat trauma exposure in military veterans, collective contributions of variables that create vulnerability or resilience to traumatic injury, and research on intensive ("real time") assessment of responses to trauma. Her research has been funded by NIMH and the Department of Veterans Affairs.

Current projects include study of trauma patients and family needs, early interventions following traumatic stress, and the combined effectiveness of peer support and non-stigmatizing online self-help programs to improve problem-solving and reduce anger and irritability.



**Christine Gould, PhD**  
Geriatric Mental Health

Dr. Christine Gould's research program focuses on the development and evaluation of technology-delivered geriatric mental health interventions. Technology-delivered interventions can help mitigate the national shortage of geriatric mental health providers while delivering effective mental health treatment. Dr. Gould recently completed my NARSAD award, in which she found that her video-delivered behavioral intervention called Breathing, Relaxation, and Education for Anxiety Treatment in the Home Environment (BREATHE) reduced anxiety, depressive, and somatic symptoms in older adults with anxiety disorders.

With the support of the VA Career Development Award, Dr. Gould refined the BREATHE intervention and is currently testing its feasibility with older Veterans. She is conducting a mixed methods investigation of older Veterans' preferences for technology platforms to be used to deliver self-management interventions.

Dr. Ruth O'Hara (Co-I) and Dr. Gould (PI) also were awarded an investigator-initiated grant from Meru Health to evaluate their mobile app-based intervention for depression.



**Tina Lee, MD**  
Co-Occurring Psychiatric and  
Medical Disorders

As Deputy Chief of Staff of the Mental Health Service at the VA Palo Alto Health Care System, Dr. Tina Lee provides leadership and operational management for a robust, comprehensive mental health service that provides a rich environment for the numerous clinical, educational and research activities of Stanford faculty, Stanford affiliates and VA staff. Her research focuses on the quality, outcome and delivery of mental health services to a mentally ill population with high prevalence of co-occurring psychiatric and medical disorders.

Dr. Lee has been the site Principle Investigator of a multi-site, randomized controlled trial examining the efficacy of sending emails and reminders to decrease suicidality in military personnel and veterans. She is currently conducting research to improve routine outcome monitoring for Veterans engaged in outpatient mental health care through implementation of a measurement-based feedback software system.

Dr. Lee has collaborated on research projects examining clinical practice guideline implementation, the use of technology to bridge the research to practice gap, and use of telemedicine to address mental health access-of-care issues.



**Alka Mathur, MD**  
Telemental Health Program

Dr. Alka Mathur is a Stanford trained Psychiatrist, currently serving as a Clinical Instructor Affiliate with the Department of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine and as Medical Director of Telemental Health Services for the VA Palo Alto Healthcare System.

In her role, she manages the Telemental Health program throughout the entire Palo Alto VA system, including community based outpatient clinics (CBOCs) in Modesto, Monterey, San Jose, Capitola, Sonoma, Livermore, Fremont, Stockton, Menlo Park, and Palo Alto. She oversees a team of psychiatrists, Stanford Psychiatry residents, psychologists, LVNs, social workers, clinical pharmacists, nurse practitioners, and Telemental Health coordinators, who provide mental health services across the state, allowing veterans increased access to care. In addition to managing the program, she creates the curriculum for and supervises the Stanford 3rd year Telemental Health Psychiatry rotation and resident clinics. Dr. Mathur also serves as an attending psychiatrist at the CBOC sites.



**Carmen McLean, PhD**  
PTSD in the Military Health System

Dr. Carmen McLean's research focuses on increasing the reach of evidence-based treatments for posttraumatic stress disorder (PTSD) and improving the efficiency and efficacy of PTSD treatments.

Dr. McLean is currently the PI of a DoD funded randomized controlled trial to test the efficacy of a web-version of prolonged exposure therapy in active duty military personnel with PTSD and Co-PI of a DoD-funded study to increase the implementation of prolonged exposure for PTSD in the military health system.



**M. Windy McNerney, PhD**  
Neurophysiology and Biochemistry of  
Brain and Mental Health Diseases

Dr. M. Windy McNerney is Research Health Specialist in the MIRECC the VA Palo Alto, and a Clinical Assistant Professor (Affiliated) at Psychiatry and Behavioral Sciences at Stanford School of Medicine. She earned her PhD from the University of Notre Dame, went on to a postdoctoral position and Lawrence Livermore National Laboratory (DOE), and then completed fellowship at the WRIISC program at the VA and Stanford University.

Dr. McNerney is primarily interested in the neurophysiology and biochemistry of brain and mental health diseases, especially degenerative diseases, depression, TBI, PTSD, and addiction. She is collaborating with researchers to integrate brain imaging and biochemical markers in hopes to better understand these diseases. She also is taking a lead role in investigating the biochemistry of magnetic brain stimulation.

She is currently teaching a class at Stanford, entitled "Addictions in Our World: From Physiology to Human Behavior," which discusses the societal implications of addiction from a neurophysiological perspective.



**Claudia Padula, PhD**  
Neural Circuits and Addiction

Dr. Claudia Padula's research program aims to understand neural circuits underlying addiction in order to predict risk of relapse and understand who may benefit from specific treatments based on their brain functioning. Through multidisciplinary collaborations between Stanford and the VA, she has been awarded a Career Development Award to lay the foundation for this research. The project will examine the relationship between brain circuits of emotion and reward and risk of relapse following standard residential treatment at the VA.

Technological advances in brain imaging have revolutionized our capacity to understand the brain circuits that underlie complex behaviors, like addiction. It is her goal to utilize such technologies to create a more precise care model of treatment for Veterans. Findings from the proposed study will be the first to determine if brain circuits underlying alcohol use disorder can be used to predict relapse in this population. This study is a foundational first step and will lay the groundwork in using innovative neuroimaging technology to identify individuals at greatest risk who may need prolonged or more precise treatment strategies. This neuroscience based translational program of research will help vulnerable Veteran populations obtain more effective treatments and achieve better outcomes.

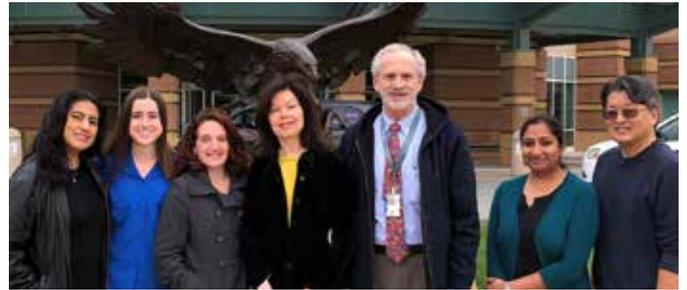


**Allyson Rosen, PhD, ABPP-CN**  
Cognitive and Affective Neuroscience  
in Geriatric Health Care

Dr. Allyson Rosen is a board certified, geriatric, clinical neuropsychologist, who has been conducting neuropsychological, brain imaging, and noninvasive brain stimulation research in older adults. Her focus is on applying cutting edge cognitive and affective neuroscience to advance geriatric precision care. One line of research focuses on helping older adults fight cognitive decline and depression.

Dr. Rosen's lab is just finishing a multisite study of how fMRI derived brain networks relate to clinical transcranial magnetic stimulation for depression. She is also interested in vascular risk and have been studying mechanisms and cognitive changes associated with surgery to improve blood flow to the brain (carotid revascularization) in patients at risk for stroke.

Dr. Rosen also leads a neuroethics feature in the Journal of Alzheimer's Disease (blog below) that promotes solutions to ethical issues raised by innovations. She is based at the Palo Alto VA and work with Stanford Alzheimer Disease Research Center.



**Joy Taylor, PhD**  
Memory Improvement through  
Precision Stimulation (MIPS) Project

The Memory Improvement through Precision Stimulation (MIPS) Project lab's clinical research is directed toward discovery of innovative non-pharmacological treatments for age-related cognitive decline, Mild Cognitive Impairment (MCI), and Alzheimer Disease dementia.

Currently, Dr. Joy Taylor's Lab is harnessing the potential of repetitive Transcranial Magnetic Stimulation (rTMS) to learn if precisely targeted, noninvasive brain stimulation can improve memory and cognition in MCI, and if so, for how long after a course of rTMS treatment (NCT03331796; supported by 1 R01 AG055526; PI: Taylor). Because the posterior cingulate cortex (PCC), a brain network "hub", is profoundly affected in amnesic MCI, they hope that targeted brain stimulation can help restore abnormal connectivity of the PCC with other regions of the brain. It would be very exciting if rTMS can ultimately delay progression to dementia.



**Christine Timko, PhD**  
Substance Use Disorder Treatment

Dr. Christine Timko, works in three main areas of mental health services research: (1) developing and implementing evidence-based practices to facilitate transitions between levels and types of health care, such as detoxification to substance use disorder treatment, (2) helping family and friends of individuals with unhealthy substance use, and (3) evaluating approaches to improve mental health and recidivism outcomes among Veterans involved in the criminal justice system or seeking legal aid. For example, she is currently implementing and evaluating Enhanced Telephone Monitoring as a telehealth intervention to facilitate the transition from inpatient detoxification to specialty substance use disorder treatment, aiming to improve patients' outcomes and decrease health care system costs.

Dr. Timko is also evaluating a method to increase use of help resources, such as the 12-step groups of Al-Anon and Nar-Anon, by people concerned about another's alcohol and drug use; objectives are to improve functioning of both "Concerned Others" and persons in treatment for substance use.

Finally, Dr. Timko is developing and conducting system-wide surveys of legal aid clinics to examine their potential as settings in which to intervene to increase health care access and utilization by clients.



**Julie Weitlauf, PhD**  
Mental Health in Women

Dr. Julie Weitlauf's current work focuses broadly upon the intersection of physical and mental health in women across the lifespan. Her research has particular emphasis on the role of interpersonal violence on women's health and wellbeing, and current projects are evaluating the intersection of physical, sexual and emotional abuse exposure and women's risk of premature mortality, development of chronic illness at midlife, and impact on sexual functioning throughout the life course.

Dr. Weitlauf serves as a standing member of the Vietnam Veterans Mortality Study Steering Group, have worked with Veterans Benefits Administration and the Office of Women's Health and Reproductive Health at the Veterans Affairs Central Office (Washington D.C.) regarding the development of VA centric health care policies and practices pertinent to the reproductive health of women Veterans, and with the American College of Obstetrics and Gynecology's Committee on Underserved Populations regarding the unique medical and mental health care needs of women Veterans.

Other notable projects include work related to the evaluation of cognitive behavioral therapy for menopausal hot-flashes in mid-life women with mood disorders and the development and implementation of a simulation based training protocol designed to teach interdisciplinary clinical teams (gynecology + mental health) to use cognitive behavioral therapy to treat sexual pain disorders (i.e., vaginismus) in women.

# Advancing Science

## Active Sponsored Research (as of March 1, 2018)

### Federal and State Funding

|                    |                    |         |  |
|--------------------|--------------------|---------|--|
| Abrams, Daniel     | NIH                | K01     | Decoding Neural Systems Underlying Affective Prosody in Children with Autism                               |
| Adelsheim, Steven  | Santa Clara County |         | Headspace Program  |
| Agras, Stewart     | NIH                | R01     | Implementation of evidence-based treatment for on-campus eating disorders (Co-PI)                          |
| Beier, Kevin       | NIH                | K99/R00 | Investigating function of novel drug-induced synaptic changes in the VTA                                   |
| Bennett, Chris     | NIH                | K08     | Creation of new tools to study human microglia using blood cells   |
| Bernert, Rebecca   | Dept of Defense    |         | A Behavioral Sleep Intervention for Suicidal Behaviors in Military Veterans: A Randomized Controlled Study |
| Bernert, Rebecca   | NIH                | K23     | A Sleep-Oriented Intervention for Suicidal Behaviors   |
| Bohon, Cara        | NIH                | K23     | Neurochemical and functional neuroimaging of negative and positive valence systems in binge eating         |
| Cai, Weidong       | NIH                | K01     | Dynamic Brain Mechanisms of Proactive and Reactive Control in Childhood ADHD                               |
| Christoffel, Dan   | NIH                | F32     | Function of thalamic excitatory synapses in social reward processing                                       |
| De Lecea, Luis     | NIH                | R01     | Optogenetic Control of Vigilance State Transition  |
| De Lecea, Luis     | NIH                | R01     | Optogenetic interrogation of sleep circuits during aging   |
| De Lecea, Luis     | NIH                | R01     | Neuronal mapping of anxiety and panic  |
| Etkin, Amit        | NIH                | R01     | Mapping and Manipulating Circuits for Emotion and Cognition in Anxiety and Depression                      |
| Fung, Lawrence     | NIH                | K08     | GABAergic Neurophysiology in Autism Spectrum Disorder  |
| Gershon, Anda      | NIH                | K01     | Sleep and Circadian Dysregulation in Pediatric Bipolar Disorder  |
| Giardino, William  | NIH                | F32     | Optogenetic studies of hypocretin in binge drinking and negative hedonic valence                           |
| Goldstein, Andrea  | NIH                | F32     | Neuroimaging and Machine Learning to Redefine Anxiety and Depression                                       |
| Hall, Scott        | NIH                | R01     | Effects of Social Gaze Training on Brain and Behavior in Fragile X Syndrome                                |
| Hallmayer, Joachim | CIRM               |         | Induced pluripotent stem cells from children with autism spectrum Disorder                                 |
| Hallmayer, Joachim | NIH                | R01     | Integrative Molecular and Phenotype Analysis of 22q11.2 Deletion Syndrome                                  |

## Federal and State Funding (continued)

|                   |                            |     |   |
|-------------------|----------------------------|-----|---|
| Hardan, Antonio   | NIH                        | R21 | Pivotal Response Treatment Package for Young Children with Autism   |
| Hardan, Antonio   | NIH                        | R21 | Quantitative Measurements of Cortical Excitability in Neurodevelopmental Disorder   |
| Hardan, Antonio   | NIH                        | R01 | 2/2-Early Intervention for Youth at Risk for Bipolar Disorder   |
| Hardy, Kate       | CA Dept of State Hospitals |     | Investigation of Staff Burnout following a Targeted CBT for Psychosis Training  |
| Hosseini, Hadi    | NIH                        | K25 | The influence of multi-domain cognitive training on large-scale structural and functional brain networks in MCI                 |
| Jo, Booil         | NIH                        | R01 | Heterogeneity in Prevention Intervention Effects on Substance Use: A Latent Variable Causal Modeling Approach                   |
| Kawai, Makoto     | NIH                        | K23 | Cortical Hemodynamism and Oxygenation During Sleep and Cognition: Window to Cognitive Impairment and Neurodegeneration in Aging |
| Kushida, Clete    | NIH                        | R21 | Predictive Adherence Modeling (PAM) Study   |
| Kushida, Clete    | PCORI                      |     | Sustainable Methods, Algorithms & Research Tools for Delivering Optimal Care  |
| Levinson, Douglas | NIH                        | R01 | HLA and schizophrenia: a high-throughput sequencing study   |
| Levinson, Douglas | NIH                        | R01 | Testing the Hypothesis of Somatic Cell Retrotransposition in Human Brain  |
| Levinson, Douglas | NIH                        | U19 | Multimodal analysis of high-risk psychosis mutations in induced neuronal cells  |
| Lock, James       | NIH                        | R34 | Feasibility of Combining Family and Cognitive Therapy to Prevent Chronic Anorexia   |
| Lock, James       | NIH                        | K24 | Mentoring and Research in Adolescent Eating Disorders   |
| Lock, James       | NIH                        | R01 | Confirming the efficacy/mechanism of an adaptive treatment for adolescent anorexia nervosa                                      |
| Lock, James       | NIH                        | R33 | Optimizing Fidelity to Family-Based Treatment for Adolescent Anorexia Nervosa   |
| Lock, James       | NIH                        | R44 | Optimizing a Smartphone Application for Individuals with Eating Disorders (Co-PI)   |
| Malenka, Robert   | NIH                        | P50 | Activity-dependent Synaptic and Circuit Plasticity  |
| Manber, Rachel    | NIH                        | R01 | Stepped-care management of insomnia co-occurring with sleep apnea (Co-PI)   |
| McGovern, Mark    | NIH                        | R21 | Integrating Combined Therapies for Persons with Co-occurring Disorders  |

## Federal and State Funding (continued)

|                  |      |         |  |
|------------------|------|---------|--|
| McGovern, Mark   | NIH  | R01     | Using NIATx Strategies to Implement Integrated Services in Routine Care  |
| Menon, Vinod     | NIH  | R01     | Methods for Dynamic Causal Interactions in Human Brain Function and Dysfunction  |
| Menon, Vinod     | NIH  | R01     | Novel Bayesian linear dynamical systems-based methods for discovering human brain circuit dynamics in health and disease       |
| Menon, Vinod     | NIH  | R01     | Interventions in Math Learning Disabilities: Cognitive and Neural Correlates   |
| Menon, Vinod     | NIH  | R01     | Learning and brain plasticity in children with autism: relation to cognitive inflexibility and restricted-repetitive behaviors |
| Mignot, Emmanuel | NIH  | P50     | Center for Narcolepsy and Related Disorders  |
| Mignot, Emmanuel | NASA |         | HERO Twin Astronaut Study Consortium (TASC): Immunome Changes in Space   |
| Mignot, Emmanuel | NIH  | T32     | Multi-Institutional Training in Genetic/Genomic Approaches to Sleep Disorders (Co-PI)  |
| Nishino, Seiji   | NIH  | R21     | Brain Mast Cells in Sleep and Behavioral Regulation  |
| O'Hara, Ruth     | NIH  | R01     | Neurocircuitry of Emotion: Distinguishing Late Life Anxiety and Depression   |
| Palesh, Oxana    | NIH  | R21     | RCT for Mechanisms and Management of Sleep Utilizing Multicenter Clinical Oncology Network                                     |
| Palesh, Oxana    | NIH  | R01     | Prefrontal cortex abnormalities associated with breast cancer chemotherapy   |
| Palesh, Oxana    | NIH  | R01     | Brief Behavioral Intervention for Insomnia During Chemotherapy   |
| Parker, Karen    | NIH  | R21     | Epigenetic regulation of social impairments and treatment response in autism   |
| Parker, Karen    | NIH  | R01     | A monkey model of naturally occurring social impairments   |
| Parker, Karen    | NIH  | R01     | Intranasal vasopressin treatment in children with autism   |
| Pasca, Sergiu    | NIH  | R01     | Gaining insight into psychiatric disease by engineering piece by piece the human brain in vitro.                               |
| Qin, Shaozheng   | NIH  | K99/R00 | Brain Systems Underlying Episodic Memory for Social Stimuli in Childhood Autism  |
| Rasgon, Natalie  | NIH  | R01     | Insulin Resistance and Accelerated Cognitive Aging   |
| Reiss, Allan     | NIH  | R01     | Longitudinal MRI Study of Brain Development in Fragile X   |
| Reiss, Allan     | NIH  | R01     | Type 1 Diabetes and the Brain in Children: Metabolic Interventions (Co-PI)   |
| Reiss, Allan     | NIH  | R01     | Developmental trajectory of anxiety, avoidance, and arousal in girls with the FMR1 full mutation                               |

## Federal and State Funding (continued)

|                    |     |         |   |
|--------------------|-----|---------|---|
| Reiss, Allan       | NIH | R01     | Gene, Brain and Behavior in Turner Syndrome   |
| Reiss, Allan       | NIH | T32     | Research Training for Child Psychiatry and Neurodevelopment   |
| Rodriguez, Carolyn | NIH | K23     | Novel Interventions for Adults with Obsessive-Compulsive Disorder   |
| Rodriguez, Carolyn | NIH | R01     | NMDAR Modulation As A Therapeutic Target and Probe of Neural Dysfunction in OCD                                 |
| Ryali, Srikanth    | NIH | K25     | Methods for Dynamic Causal Interactions in the Developing Human Brain   |
| Saggar, Manish     | NIH | K99/R00 | Quantifying the Fluctuations of Intrinsic Brain Activity in Healthy and Patient Populations                     |
| Schatzberg, Alan   | NIH | R25     | Research Career Development Institute for Psychiatry (Co-PI)  |
| Schatzberg, Alan   | NIH | T32     | A Biobehavioral Research Training Program   |
| Shah, Nirao        | NIH | R01     | Characterization of Sexual Dimorphism in the brain  |
| Shah, Nirao        | NIH | R01     | Dissecting hypothalamic pathways that regulate sexually dimorphic behaviors                                     |
| Shah, Nirao        | NIH | R01     | Molecular and Neural Networks Underlying Social Attachment  |
| Singh, Manpreet    | NIH | R56     | Neurodevelopmental Features of Sexual Dimorphism in Pediatric Psychopathology                                   |
| Singh, Manpreet    | NIH | R01     | Neurobehavioral Trajectories of Pediatric Depression and Insulin Sensitivity                                    |
| Singh, Manpreet    | NIH | R01     | 2/2-Mechanism of Antidepressant-Related Dysfunctional Arousal in High-Risk Youth                                |
| Spiegel, David     | NIH | U01     | Impact of Affect Reactivity and Regulation on Breast Cancer Treatment Decisions                                 |
| Sudheimer, Keith   | NIH | K01     | Cortisol Receptor Polymorphisms And Cortisol-Induced Emotion Changes In Major Depression                        |
| Sullivan, Edith    | NIH | K05     | Translational Studies of Brain Circuitry Disrupted by Alcoholism  |
| Sullivan, Edith    | NIH | R01     | Neuroimaging of Connectivity in Alcoholism/In Vivo Diffusion & Spectroscopic Brian Imaging in Alcholism (Co-PI) |
| Sullivan, Edith    | NIH | R37     | Cerebellar Structure and Function in Alcoholism   |
| Sullivan, Edith    | NIH | U01     | International Research Collaboration on Neuroimaging Studies of Alcoholism                                      |
| Urban, Alexander   | NIH | DP2     | Genomic and epigenomic effects of large CNV in neurons from iPSC  |
| Walsh, Jessica     | NIH | F32     | Systems level investigation of di-synaptic circuit involved in panic disorder                                   |
| Williams, Leanne   | NIH | R01     | Neural Dimensions of Threat Reactivity and Regulation for Understanding Anxiety                                 |

## Federal and State Funding (continued)

|                  |                          |     |   |
|------------------|--------------------------|-----|---|
| Williams, Leanne | NIH                      | U01 | Mapping connectomes for disordered emotional states   |
| Williams, Leanne | NIH                      | UH2 | Engaging self-regulation targets to understand the mechanisms of behavior change and improve mood and weight outcomes (Co-PI) |
| Williams, Nolan  | NIH                      | R33 | Use of Repetitive Transcranial Magnetic Stimulation to Augment Hypnotic Analgesia   |
| Wilson, Helen    | NIH                      | R01 | Exposure to violence and unsafe sex in late adolescent African American women   |
| Wright, Matthew  | NIH                      | K08 | Dissection of the role of serotonin circuits in reward and aversion   |
| Ye, Li           | NIH                      | K01 | Brain-wide functional mapping of circuits controlling hedonic feeding in obesity  |
| Yesavage, Jerome | CA Dept of Public Health |     | California Alzheimer's Disease Centers (CADC)   |
| Zeitler, Jamie   | NIH                      | R21 | Treating sleep disruption in teens with millisecond light exposure during sleep   |

## Industry-Sponsored Clinical Trials and Research

|                     |  |  |   |
|---------------------|--|--|---|
| Ballon, Jacob       | Vanguard Research Group                    |  | 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  |
| De Lecea, Luis      | Merck Sharp & Dohme Corp.                  |  | Hcrt/orexin circuit dynamics and memory consolidation   |
| De Lecea, Luis      | Johnson and Johnson                        |  | Functional Connectivity of GPR-139-Expressing Neurons   |
| De Lecea, Luis      | Boehringer Ingelheim Pharmaceuticals, Inc. |  | Role of Hcrt neurons on Compulsive Behavior   |
| Debattista, Charles | Pacesetter, Inc.                           |  | Continuing Access to SJM Totally Implantable Deep Brain Stimulation System using the BRIO Rechargeable System   |
| Debattista, Charles | AssureRX Health, Inc.                      |  | 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 |
| Hardan, Antonio     | BioElectron Technology Corp                |  | Analysis of the Glutathione Cycle in Children with Autism   |
| Kushida, Clete      | XenoPort, Inc.                             |  | A Multicenter, Double-Blind, Placebo Controlled, Parallel Group, Efficacy 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   |

## Industry-Sponsored Clinical Trials and Research (continued)

|                  |                                   |   |
|------------------|-----------------------------------|---|
| Kushida, Clete   | XenoPort, Inc.                    | A Multicenter Open-Label Extension Study to Evaluate the Efficacy and Safety of HORIZANT (Gabapentin Enacarbil) Extended-Release Tablets in Adolescents Aged 13 to 17 Years Old with Moderate-to-Severe Primary Restless Legs Syndrome  |
| Kushida, Clete   | XenoPort, Inc.                    | 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  |
| Kushida, Clete   | Seven Dreamers Laboratories, Inc. | Nasal Airway Stent (NAS) study  |
| Kushida, Clete   | INC Research, LLC                 | A Double-blind, Randomized, Placebo Controlled, Two Arm Multi-center Study to Assess the Efficacy and Safety of a Once Nightly Formulation of Sodium Oxybate for Extended-Release Oral Suspension (FT218) for the Treatment of Excessive Daytime Sleepiness and Cataplexy in Subjects with Narcolepsy / Randomized study Evaluating the efficacy and SafeTy of a ONce nightly formulation of sodium oxybate (REST-ON Study) |
| Kushida, Clete   | Sleepwell Corporation             | A study on realization of objective evaluation method of depression using sleep EEG   |
| Kushida, Clete   | Jawbone Corporation               | Comparison of Jawbone Devices to In-Lab Polysomnography   |
| Mignot, Emmanuel | Merck Sharp & Dohme Corp.         | Are Insomnia Symptoms Associated With Increased CSF Hypocretin-1 Levels? - A Retrospective Pilot Study  |
| Mignot, Emmanuel | Jazz Pharmaceuticals              | Consulting Agreement: Global Lead Investigator for the Jazz Pharmaceuticals Pediatric Narcolepsy Study  |
| Mignot, Emmanuel | Jazz Pharmaceuticals              | A Double-Blind, Placebo-Controlled, Randomized-Withdrawal, Multicenter Study of the Efficacy and Safety of JZP-258 in Subjects with Narcolepsy with Cataplexy   |
| 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              | A Long-Term, 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 | Balance Therapeutics, 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  |

## Industry-Sponsored Clinical Trials and Research (continued)

|                  |                                     |  |
|------------------|-------------------------------------|--|
| Mignot, Emmanuel | 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 with Cataplexy   |
| Mignot, Emmanuel | Jazz Pharmaceuticals                | PSG Biomarkers Narcolepsy Detector   |
| Nishino, Seiji   | SK Biopharmaceuticals               | Characterization of the wake-promoting effects of SKN-N07 in the narcoleptic mouse model   |
| Nishino, Seiji   | Airweave                            | Evaluation of Effects of a High Rebound Mattress Pad on Sleep and Athletic Performance   |
| Nishino, Seiji   | Airweave Holdings, Inc.             | Effect of High Rebound Mattress Toppers on Sleep and Sleep Related Symptoms  |
| Nishino, Seiji   | Daiichi Sankyo Company, Limited     | Drug discovery research targeting the epigenome: focus on SIRT6 and SIRT7 longevity genes  |
| Nishino, Seiji   | Ono Pharmaceutical Co., Ltd.        | Sleep and behavioral characterizations of mouse models of Alzheimer's disease (AD) and Dementia with Lewy Bodies (DLB)   |
| Noordsy, Doug    | Janssen Research & Development, LLC | A Prospective, Randomized, Matched Control, Open-Label, Rater-Blinded, Flexible-Dose Study in Subjects with Recent-Onset Schizophrenia or Schizophreniform Disorder to Compare Disease Progression and Disease Interception Following Treatment with Paliperidone Palmitate Long-Acting Injection or Oral Antipsychotics |
| 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   |
| Singh, Manpreet  | Janssen Research & Development, LLC | An Observational Longitudinal Study in Offspring of Parents with Bipolar Disorder to Evaluate the Relationship of Impairment in Psychosocial Functioning with the Manifestation of Mood Symptoms over 24 Months  |
| Solvason, Hugh   | Neuronetics, Inc.                   | A Randomized, Sham-Controlled Trial Evaluating the Safety and Effectiveness of NeuroStar Transcranial Magnetic Stimulation (TMS) Therapy in Depressed Adolescents  |
| Wang, Po         | Merck Sharp & Dohme Corp.           | Adjunctive suvorexant for treatment-resistant insomnia in patients with bipolar disorder   |
| Wang, Po         | Sunovion Pharmaceuticals Inc.       | Longer-Term Effectiveness of Lurasidone in Bipolar Disorder in a Clinical Setting  |

## Foundation and Non-Profit Funding

|                    |  |  |
|--------------------|--|--|
| Adelsheim, Steven  | The Robert Wood Johnson Foundation                       | Headspace in the US: Creating a National Culture of Adolescent Health  |
| Bian, Wenjie       | Human Frontier Science Program Organization              | Developmental roles of sleep and arousal circuits in shaping the cortical connectivity and functions   |
| Cao, Michelle      | American Sleep Medicine Foundation                       | A National Survey on Sleep Medicine Education in Medical Schools and Primary Residency Programs  |
| Carrion, Victor    | The Tipping Point Foundation                             | Early Life Stress Research Program   |
| Cosgrove, Victoria | American Psychological Association                       | Understanding the Climate of a Cognitive Behavioral Therapy Group for Adolescents with Mood Disorders.   |
| De Lecea, Luis     | United States-Israel Binational Science Foundation (BSF) | Functional connectivity in hypothalamic circuits   |
| Espil, Flint       | American Academy of Neurology                            | Cortical Functioning and Correlates of Behavior Therapy for Youth with Persistent Tic Disorders  |
| Etkin, Amit        | Cohen Veterans Bioscience Inc.                           | Biomarker Establishment for Superior Treatment of PTSD   |
| Hall, Scott        | The John Merck Fund                                      | Treatment of Disruptive Behaviors in Fragile X Syndrome  |
| Hardan, Antonio    | The Simons Foundation Autism Research Initiative         | Randomized Controlled Pilot Trial of Pregnenolone in Autism  |
| Hardan, Antonio    | Boston Children's Hospital                               | A randomized double-blind placebo-controlled trial of Everolimus in children and adolescents with PTEN mutations (rare disease clinical research consortium-developmental synaptopathies consortium) |
| Holmberg, Carrie   | Brain & Behavior Research Foundation                     | Chronic stress effects on connectivity between default mode network structures in a mouse model  |
| Humphreys, Keith   | Society for the Study of Addiction                       | Americas Editorial Office for Addiction  |
| Kawai, Makoto      | American Sleep Medicine Foundation                       | Cortical Activation and Oxygenation During Sleep and Cognition: Window to Cognitive Impairment and Neurodegeneration in Aging  |
| Levinson, Douglas  | Cohen Veterans Bioscience Inc.                           | Danish and Military PTSD Analyses - CVB 2016 Project   |
| Lock, James        | National Eating Disorders Association                    | Treating Avoidant/Restrictive Food Intake Disorder (ARFID) with Family-Based Treatment   |
| Lock, James        | Hilda & Preston Davis Foundation                         | Empowering and Guiding Parents with Eating Disorders Through a Focused Intervention: Randomized Control Trial Program  |

## Foundation and Non-Profit Funding (continued)

|                            |  |  |
|----------------------------|--|--|
| Malenka, Robert            | The Simons Foundation<br>Autism Research<br>Initiative | Neural mechanisms of social reward in mouse models of autism   |
| Menon, Vinod               | Simons Foundation                                      | Decoding Affective Prosody and Communication Circuits in Autism  |
| Mignot, Emmanuel           | Kleine-Levine Syndrome<br>Foundation                   | GWAS and Exome Sequencing in Kleine Levin Syndrome (KLS)   |
| Mignot, Emmanuel           | Klarman Family<br>Foundation                           | Next Generation Sleep Analytics  |
| Mourrain, Philippe         | BrightFocus Foundation                                 | Deeply conserved GWAS SNPs reveal a regulatory mutation underlying AMD   |
| Mourrain, Philippe         | The Simons Foundation<br>Autism Research<br>Initiative | Autism synaptic endophenotypes & candidate drug rescue   |
| Mourrain, Philippe         | The John Merck Fund                                    | Pharmacological and genetic solutions for FXS and related intellectual disabilities  |
| O'Hara, Ruth               | The Simons Foundation<br>Autism Research<br>Initiative | Sleep Disordered Breathing, Microparticles and Proinflammation in ASD  |
| Parker, Karen              | The Simons Foundation<br>Autism Research<br>Initiative | Detecting and Treating Social Impairments in a Monkey Model  |
| Parthasarathy,<br>Srinivas | Human Frontier Science<br>Program Organization         | Unbiased identification of new mediators of sex hormone signalling and transport   |
| Pasca, Sergiu              | MQ: Transforming<br>Mental Health                      | Identifying cellular mechanisms of disease and novel therapeutic targets in neurons derived from patients with schizophrenia |
| Pasca, Sergiu              | PCDH19 Alliance  | Using iPSC derived neurons to understand PCDH19-related encephalopathy   |
| Rasgon, Natalie            | American Diabetes<br>Association, Inc.                 | Effects of Liraglutide on hippocampal structure and function in aging adults with prediabetes                                |
| Rasgon, Natalie            | Alzheimer's Association                                | Sex Specific Interactions of Modifiable & Non-modifiable Risk Factors of AD  |
| Robakis, Thalia            | Brain & Behavior<br>Research Foundation                | Epigenetic Profile of Attachment Insecurity in Postpartum Depression   |
| Rodriguez, Carolyn         | The Robert Wood<br>Johnson Foundation                  | Neural Mechanisms Underlying Fast-Onset OCD Treatment Across Molecules, Physiology, and Circuits                             |
| Rodriguez, Carolyn         | Brain & Behavior<br>Research Foundation                | Pilot Study of the NMDAR Modulator GLYX-13 in Obsessive-Compulsive Disorder  |
| Schatzberg, Alan           | Prizker Foundation                                     | iPSC derived neurons to model stress and depression  |

## Foundation and Non-Profit Funding (continued)

|                      |   |  |
|----------------------|---|--|
| Singh, Manpreet      | Brain & Behavior Research Foundation    | Neurobehavioral response during antidepressant-related dysfunctional arousal in high-risk youth  |
| Steinberg, Elizabeth | A.P. Giannini Foundation                | Anatomical, physiological and behavioral dissection of an amygdala-dopamine circuit  |
| Supekar, Kaustubh    | Brain & Behavior Research Foundation    | Behavioral, Cognitive, and Neural Signatures of Autism in Girls: Towards Big Data Science in Psychiatry  |
| Suppes, Trisha       | The Stanley Medical Research Institute  | Multi-site clinical trial: Infliximab Study  |
| Urban, Alexander     | March of Dimes Birth Defects Foundation | Multilevel genomics analyses of models of neuronal and cardiovascular symptoms in 22q11-Deletion-Syndrome using induced pluripotent stem cells |
| Vyssoki, Benjamin    | Max Kade Foundation                     | HPA Axis Genetic Variation and Risk for Depression Study assesses allelic variation of stress genes and depression risk.                       |
| Williams, Leanne     | One Mind Institute                      | Anxiety App Rating Study   |
| Williams, Nolan      | Brain & Behavior Research Foundation    | Interrogating the Opioid System to Understand the Mechanism of Action Underlying the Antidepressant Effects of Ketamine                        |
| Yang, Taehong        | Brain & Behavior Research Foundation    | Molecular and Neural Control of Female Social Behaviors  |
| Yoon, Jong           | The Charles A. Dana Foundation          | Improving the early detection of schizophrenia and outcomes with a novel method of precisely measuring substantia nigra activity               |

## Subcontracts

|                     |   |   |
|---------------------|---|---|
| Albucher, Ronald    | University of Michigan                        | Electronic Bridge to Mental Health (eBridge) for College Students   |
| Debattista, Charles | Massachusetts General Hospital                | Double-Blind, Placebo-Controlled Proof-of-Concept (POC) Trial of Ketamine Therapy in Treatment-Resistant Depression (TRD)                       |
| Debattista, Charles | Massachusetts General Hospital                | Switching Versus Augmentation in Treatment-Resistant Depression   |
| Etkin, Amit         | New York University                           | Prevention of PTSD III -- Neurobehavioral Training of Emotional Regulation  |
| Etkin, Amit         | New York University                           | The Steven and Alexandra Cohen Veterans Center for Post-Traumatic Stress and Traumatic Brain Injury   |
| Fitzpatrick, Kara   | Children's Hospital of Philadelphia           | Boston Children's Hospital  |
| Hardan, Antonio     | Boston Children's Hospital                    | Developmental Synaptopathies Associated with TSC, PTEN, and SHANK3 Mutations  |
| Humphreys, Keith    | Santa Clara County                            | Designing a Social Impact Bond-Funded Mental Health Evaluation  |
| Humphreys, Keith    | Baystate Health                               | Impact of health reform on outpatient substance abuse treatment programs  |
| Jo, Booil           | Palo Alto Veterans Institute for Research     | Leveraging Routine Clinical Materials and Mobile Technology to Assess CBT Quality   |
| Jo, Booil           | Palo Alto Veterans Institute for Research     | Clinical Trial of yoga as a therapeutic intervention for chronic pain in gulf war illness   |
| Joshi, Shashank     | SRI International                             | An Efficacy Study of the Cognitive Behavioral Intervention for Trauma in Schools (CBITS) Program  |
| Kushida, Clete      | Palo Alto Veterans Institute for Research     | Treatments for Insomnia, Mediators, Moderators, and Quality of Life   |
| Levinson, Doug      | University of California, San Diego           | Psychiatric Genomics Consortium for PTSD  |
| Levinson, Doug      | University of California, San Diego           | 4/7 Psychiatric Genomics Consortium: Finding actionable variation   |
| Malenka, Robert     | Mt. Sinai School of Medicine                  | Molecular Neurobiology of Drug Addiction (NIH P01)  |
| Mignot, Emmanuel    | Cincinnati Children's Hospital Medical Center | A Multicenter Retrospective and Prospective Follow-up Study of Early Onset Childhood Narcolepsy: Recent Cases and Post Infection Human Subjects |

## Subcontracts (continued)

|                    |   |  |
|--------------------|---|--|
| Mignot, Emmanuel   | Utah State University                     | Long-term trajectories of subjectively- and polysomnographically-assessed sleep patterns as predictors of neuroendocrine dysregulation and weight gain in adults |
| O'Hara, Ruth       | University of California, Los Angeles     | Neurodevelopment and Psychosis in the 22q11.2 Deletion Syndrome  |
| Phillips, Jennifer | University of California, San Francisco   | Characterization of Minimally Verbal Adults with ASD   |
| Reiss, Allan       | University of California, Berkeley        | Long-term sequelae of early life pesticide exposure in the CHAMACOS birth cohort   |
| Reiss, Allan       | National Fragile X Foundation             | Fragile X Registry and Database  |
| Reiss, Allan       | UCLA Neuropsychiatric Research Institute  | Post-Surgical Predictors of Depression and Weight Regain After Bariatric Surgery   |
| Schatzberg, Alan   | Palo Alto Veterans Institute for Research | Emotion Regulation in Anxiety & Depression: A Novel Neurobehavioral Intervention   |
| Sullivan, Edith    | SRI International                         | Neuroimaging of Alcohol-Induced Neuroadaptation: Translation from Animals to Humans  |
| Sullivan, Edith    | SRI International                         | Tracking HIV Infection and Alcohol Abuse CNS Comorbidity with Neuroimaging   |
| Sullivan, Edith    | SRI International                         | CNS Deficits - Interaction of Age and Alcoholism   |
| Sullivan, Edith    | SRI International                         | National Consortium on Alcohol and NeuroDevelopment in Adolescence: Data Analysis Resource   |
| Thompson, Dolores  | 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  |
| Urban, Alexander   | Yale University                           | Somatic Mosaicism in autism spectrum disorders   |



# Educational Excellence

Our department is committed to nurturing the development of each of our learners through personalized education that fosters independent thinking and the pursuit of specialized interests.

# 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 producing leaders - individuals whose work will bring about change in our world through their influence and impact.

Our department engages with over 7,000 learners each year, including medical students, residents, fellows, postdocs, clinicians in practice and even college undergraduates and high school students. 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 encouraged.

In sum, 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, engage in critical thinking and creativity, connect knowledge across professions, and form a learning community to bringing about transformative change in society.



Alan Louie, MD  
Professor and Associate Chair – Education

7 and 3

subspecialty physician  
fellowships and NIH T32  
training programs

Top 10

ranked psychiatry  
residency in the country  
in 2018

7,000+

learners engaged  
by our department  
in the past year

# Department Education Programs

## Medical Student and Resident Programs

### Medical School Education in Psychiatry

Charles DeBattista, MD, DMH, Director, Medical Student Education  
Yasmin Owusu, MD, Pre-Clerkship Director  
Margaret May, MD, Site Director VA Palo Alto Division and Faculty Liaison to the Psychiatry and Behavioral Sciences Interest Group  
Kathy Sanborn, MD, Site Director Stanford Health Care

Psychiatry and behavioral sciences are taught during both the pre-clerkship and clerkship parts of medical school. Pre-clerkship instruction is provided to first- and second-year students and explores the behavioral determinants of health, doctor-patient relationship, and human development; offers patient interviewing apprenticeships; and examines the major psychiatric disorders including psychotic, mood, anxiety, eating, trauma-related, somatic symptom, and substance use disorders.

Elective courses are also offered in topics like careers in psychiatry, child and adolescent psychiatry, and group discussions of the medical student experience. Clerkships and Continuity Clinics 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.

### 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 Kuppaswamy, MD, Site Director, VA Palo Alto Division  
Mark Freeman, MD, PhD, Site Director, VA Menlo Park Division

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. The Psychiatry Residency Training Program was ranked #10 in the country by U.S. News/Doximity.



# Professional Education

## Continuing Medical Education (CME)

Alan Louie, MD, Director

Multiple educational activities for professionals 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. Many offer CME credit through the Stanford Center for Continuing Medical Education. As a service to our patients, their families, and others, several activities are open to the general public, for instance, conferences on autism, dementia, and bipolar disorders, and a number of grand rounds sessions.

Examples of activities are as follows:

- CME Conferences: Fourth Annual Innovations in Psychiatry and Behavioral Health: Virtual Reality and Behavior Change
- Grand Rounds: Psychiatry and Behavioral Sciences Grand Rounds, Sleep Medicine 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

## Annual CME Conference

In 2017, we hosted our 3rd annual conference of innovations in psychiatry and behavioral health. This year our conference was completely devoted to virtual and augmented reality (VR/AR) technologies and behavioral change. We explored the application of immersive technologies for treating and researching addictions, ADHD, anxiety, PTSD, psychosis, pain, depression, psychosomatic illness and more. In addition to lectures with time for questions and answers, the conference featured a “shark-tank style” innovation lab, demonstrations, and scientific posters. Those who joined our conference interacted with all stakeholders in this VR/AR and behavioral change space, including psychiatrists, psychologists, behavioral scientists, neuroscientists, engineers, developers, designers, computer scientists, business people, etc.

## Faculty Scholars Program

Alan Louie, MD, Director

Faculty Scholars are members of the Department's faculty who spend one year with an emphasis in a specialized academic area (e.g. autism spectrum disorders, prodromal psychosis) aligned with the Department's missions. Along with a majority of time spent in clinical work, the Faculty Scholar has protected time for scholarly pursuits in research and teaching. Faculty Scholars are appointed for one year as a Clinical Instructor in the Clinician Educator faculty line, after which their position ends with the expectation that they will apply for a subsequent position in academia.



# Subspecialty Clinical Fellowships

## Addiction Medicine Fellowship

Anna Lembke, MD, Training Director

The Addiction Medicine Fellowship is a one-year fellowship open to two physicians each year, who have completed any ACGME-accredited residency in any specialty (e.g., combined psychiatry/internal medicine, family medicine, emergency medicine). The fellowship provides state-of-the-art training in the treatment of patients with substance use disorders and other addictions. The program is tailored to the individual background and interests of the applicant, and our goal is to promote expert clinicians, policy-makers, researchers, and future leaders in the field of addiction medicine. The fellowship is currently accredited by The Addiction Medicine Foundation (TAMF).

The Addiction Medicine Fellowship has become a model of cross-specialty training, participating in the White House/NIH Symposia "Medicine Responds to Addiction" in 2015, 2016, and 2018. The fellowship published the online, enduring CME course "Prescription Drug Abuse – Compassionate Care for a Complex Problem," funded by the Stanford Center for Continuing Medical Education. The Fellowship was awarded the Next Generation Award (2014-2016) for Adolescent Substance Use Prevention, (2014-2016); and one of our goals is to expand training in child and adolescent addiction treatment. Our graduated fellows have gone on to leadership roles in diverse areas of addiction medicine, including academia, county mental health, and the private sector.

## Child and Adolescent Psychiatry Fellowship

**Shashank Joshi, MD, Training Director**  
**Glen Elliott, MD, PhD, Associate Training Director**  
**Michelle Goldsmith, MD, MA, Assistant Training Director**

The highest priority of the ACGME-approved Child and Adolescent Psychiatry Fellowship is to prepare trainees for leadership roles in academic child and adolescent psychiatry, clinical practice, and public service. All fellows are thoroughly trained as clinicians and scholars. The training program is based on the principles of developmental sciences and developmental psychopathology. This theoretical framework views human development and its disturbances as flowing from the complex and reciprocal interactions between the family, broader social and physical environments, and biological factors. This framework integrates information from the social and behavioral sciences, developmental psychology, neuroscience, molecular biology and human genetics, developmental biology, and epidemiology.

The fellowship is ACGME-approved for nine fellows per year, one of the largest child and adolescent psychiatry fellowship in the country, with a total of 18 fellows over the two-year training. Two of these fellows enter a community track and a varying number a research track.

## Geriatric Psychiatry Fellowship

Laura Dunn, MD, Geriatric Psychiatry Program Director

The goal of the ACGME-approved VA/Stanford geriatric psychiatry fellowship is to train psychiatrists to assume leadership roles in clinical and academic geriatric psychiatry. Two fellows per year develop clinical expertise in assessing and treating a wide range of psychiatric disorders in older adults. The faculty currently includes eight faculty members who are ABPN-certified in geriatric psychiatry.

Fellows develop excellence in working with multidisciplinary teams, provide geriatric psychiatry consultation in a variety of clinical settings (including inpatient, outpatient, collaborative care, consultation, and residential and long-term care), and develop skills in teaching geriatric psychiatry concepts, content, and skills to a variety of learners in a variety of settings. Fellows have a broad range of research opportunities, and develop skills in scholarly activities and administration that are required of leaders in clinical practice, community work, and/or academia.

## Neuropsychiatry Fellowship

**John Barry, MD, Training Director**  
**Sepideh Bajestan, MD, PhD, Associate Training Director**

The United Council of Neurologic Subspecialties (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. The fellowship allows for research and specialization in different areas of neuropsychiatry that include Neuropsychiatry Psychopharmacology Outpatient Clinic, Neuropsychiatry Consult Liaison, Interventional Psychiatry Clinic (the opportunity to learn and practice different Interventional psychiatry methods in-depth including Transcranial Magnetic Stimulation, Electroconvulsive Therapy, etc.), individual and group psychotherapy for neuropsychiatric disorders, Outpatient Neurology Clinics, and Epilepsy Monitoring Unit.

The Fellowship has two fellows per year and seven core faculty who are UCNS-certified in "Neuropsychiatry and Behavioral Neurology." Our UCNS accredited program includes a sister Behavioral Neurology Fellowship program in the Neurology Department under our accreditation. Over the past years, all of our graduates have attended and presented the results of their research studies at the American Neuropsychiatric Association's Annual Meeting. Eighty percent of our past fellows are currently in academic institutions.

## Psychosomatic Medicine Fellowship

Jose Maldonado, MD, FAPM, FACFE, Training Director  
Yelizaveta 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 have contributed to the development of various clinical tools currently used world-wide for the psychosocial assessment of solid organ transplant candidates, to the prediction of patients at risk for complicated alcohol withdrawal, to the assessment and prediction of delirium in medically ill individuals. They have also been instrumental in the development of treatment protocols and algorithms of psychiatric conditions among medically-ill patients. The program has two fellows per year and nine faculty who are ABPN-certified in "Psychosomatic Medicine."

## Sleep Medicine Fellowship

Shannon Sullivan, MD, Training Director

The ACGME-accredited Sleep Medicine Fellowship was the first accredited by the American Sleep Disorders Association and is viewed internationally as the world's leading training program for sleep disorders medicine. It draws fellows from across the United States as well as from around the globe, who have trained in diverse specialties and subspecialties (e.g., anesthesia, family medicine, internal medicine, neurology, otolaryngology, pulmonology, pediatrics, psychiatry). This one-year clinical fellowship at the Stanford Sleep Medicine Center is available to 8 fellows per year. Twenty-three faculty members from multiple specialties train the fellows in the full range of sleep medicine areas including the pharmacology of sleep, sleep disordered breathing, insomnia, narcolepsy, pediatric sleep, parasomnias, restless legs syndrome, neurodegenerative disorders, and orthodontics involving both children and adults. Fellows have opportunities to pursue research and to be educators and are quite active in public education about sleep and in scholarly/research endeavors. Of our 2016-2017 fellowship class, three fellows took positions at academic medical centers, two at Kaiser Permanente, and three at private practices.

## Student Mental Health Fellowship

Amy Alexander, MD, Training Director

The Student Mental Health Fellowship is one of only a few in the U.S. 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). The first fellow joined in the 2017-2018 academic year and is working within Stanford Health Care, Vaden Health Center, and Stanford University. This fellow is receiving specialized training in sports psychiatry for student athletes and will be presenting "In the Classroom and on the Field: Improving Mental Health Care for Collegiate Student Athletes" at the American Psychiatric Association (APA) Meeting in 2018.

# Advanced Research Training Programs

## Mental Illness Research, Education, and Clinical Center (MIRECC) Advanced Fellowship

Ruth O'Hara, PhD National Director  
Kaci Fairchild, PhD, Director (Psychology), VISN 21  
Michael Ostacher, MD, MPH, MMSc, Director (Psychiatry), VISN 21

The Sierra Pacific Mental Illness Research, Education, and Clinical Center (MIRECC) at Veterans Affairs Palo Alto 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 dementias 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.

Amongst the 2017 MIRECC graduates, one has an academic position as an Assistant Professor at Case Western Reserve University and one has joined the staff of the Richmond Psychiatry Department at Kaiser Permanente.

## 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 Veterans Affairs Palo Alto 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. One 2016 graduate of the NCPTSD is now a research psychologist in our department.

## 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 or basic 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. Continuously funded by NIMH since 1994, this program has supported some 80 fellows, who have produced numerous publications in top journals and won career development grants from NIH. All the recent graduates currently have academic appointments -- three are instructors in our department, two of whom have K08 awards and another was awarded a NARSAD Young Investigator Award.

## 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 complement 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 the genetics of sleep, and the monthly national grant writing seminar is led by Dr. Ruth O'Hara at Stanford University.

## T32 Research Training Program in Child Neuropsychiatry and Neurodevelopment

PI: Allan L. Reiss, M.D.

This research training program provides funding for postdoctoral researchers who seek to improve or expand their ability to conduct ground-breaking interdisciplinary investigation in child neuropsychiatry and neurodevelopment. Candidates selected for the program (MD, PhD, MD/PhD) are those who seek to develop and pursue an original idea that crosses traditional disciplinary boundaries (e.g., psychiatry, psychology, genetics, education, neuroscience, cellular biology). Fellows typically engage in mentored research for two to three years in the clinical and/or basic sciences.

Postdoctoral fellows have the opportunity to participate in research projects of their mentor(s) and/or develop their own research programs. A key component of the program is the mentoring relationship, designed to facilitate the fellow's career trajectory toward academic independence. The training program offers didactic courses to promote research and professional development including formal training in research methods and ethics.

Continuously funded by NIMH since 1993, graduates of the program have gone on to develop highly successful and productive careers in academia or industry.

## 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 Veterans Affairs Palo Alto Health Care System provides a two-year post-doctoral fellowship affiliated with Stanford for MD and PhD fellows in advanced neuroimaging, neuroscience, mental health and neuroscience, and complementary and alternative medicine. The fellowship is sponsored by the Office of Academic Affiliations, Department of Veterans Affairs.

The training program offers individual mentorship with leaders in the field combined with didactic courses to promote research and professional development. The fellowship has attracted outstanding applicants from across the nation. Since its inception in 2012, alumni have benefited from the training to launch successful careers in academia, government, healthcare, or high technology industries. Amongst the three 2017 WRIISC graduates, two took positions with the VA.

# Clinical Psychology Training

## Child and Adolescent Pre-doctoral Psychology Internship

Michelle Brown, PhD, Director

The Doctoral Psychology Internship Program is a one-year, American Psychological Association (APA)-accredited program with a training focus on clinical child and pediatric psychology. As a consortium, the internship provides intensive training in the assessment and treatment of children and families in a variety of interdisciplinary settings at the Lucile Packard Children's Hospital at Stanford and the Children's Health Council. Inpatient and outpatient clinical experiences are informed and enriched by exposure to current empirical literature, ongoing applied research, and scholarly lectures. The program seeks to train reflective, highly skilled and culturally sensitive clinicians capable of functioning in a variety of clinical settings with a wide range of child and family issues and challenges. As the capstone of graduate training in clinical psychology, the internship provides a wealth of supervised experiences so that interns may develop particular areas of clinical interest with the aim of preparing leaders in the field of clinical child and pediatric psychology, who will be engaged in clinical practice, interdisciplinary collaboration, as well as advocacy and/or scientific investigation.

In 2017, the internship program was granted re-accreditation from the APA for a ten- year period, the maximum number of years granted.

## Clinical Psychology Post-doctoral Fellowships

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

The Clinical Psychology Fellowship at Stanford, accredited by the American Psychological Association (APA), 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.

In 2013, the Clinical Psychology Post-doctoral Fellowship Program achieved accreditation from the APA. This initial accreditation for the program was for seven years, the longest term possible, which is rarely confirmed for a new program. The Child and Adolescent Program has 8 positions and continues to be 1 of 7 programs in the country with this accreditation. The Adult Program now offers 10-12 positions across the four tracks.

## PGSP-Stanford PsyD Consortium

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

The PGSP-Stanford PsyD Consortium is an American Psychological Association (APA)-Accredited, full-time, five-year, practitioner-scholar program intended for those seeking careers devoted primarily to the direct delivery of clinical psychological services. Students in the program, which admitted its first cohort in 2002, 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, doctoral internship.

In 2017, we matched 100% of graduates into APA-accredited internships. Over the last five years, the APA-Accredited internship match rate has averaged 99% in the PGSP-Stanford PsyD Consortium compared to 56% for PsyD students nationally. In the 2016 US News & World Report ranking of clinical psychology graduate programs, the PGSP-Stanford PsyD Consortium was ranked 3rd among PsyD programs in the country.

# Undergraduate and High School 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. 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 1,400 undergraduates in educational activities in the Department. Over forty members of the Department's faculty taught undergraduate courses.

## Clinical Neuroscience Immersion Experience (CNI-X)



Alan Louie, MD, Co-Director  
Laura Roberts, MD, MA, Co-Director

The Clinical Neuroscience Internship Experience (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. An international version (CNR-X) was launched in 2017, with students from China. The program is packed with small group sessions on topics ranging from miniature human brains in petri dishes, to treatments using virtual reality, to addiction in adolescents, to transcranial magnetic stimulation. Experiential learning, designing a research project in a group, and self-directed study and self-reflection are emphasized. CNI-X has grown to enroll 120 students and engage over 25 faculty and staff.

## Clinical Neuroscience Research Experience (CNR-X)

Alan Louie, MD, Co-Director  
Laura Roberts, MD, MA, Co-Director

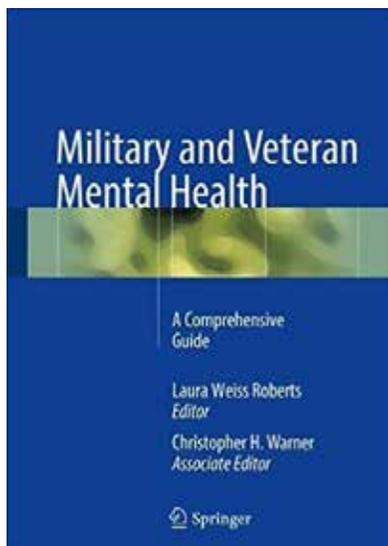
The Clinical Neuroscience Research Experience (CNR-X) is an immersive, two week educational summer program for high school students from China who are interested in advancing their knowledge in the fields of neuroscience, psychiatry, and psychology.

In the first year of the program, 2017, students from all across China came together in Stanford's Department of Psychiatry and Behavioral Sciences for two weeks of immersive lectures on the principles of neuroscience, clinical neuropsychiatry, neuroscience research, psychiatric epidemiology, behavioral and social sciences, and more. The lectures were diverse and engaging, and challenged the students to think critically about many fields of research that they had not been exposed to previously. CNR-X also offers international students an opportunity to experience life as an undergraduate on Stanford's campus.



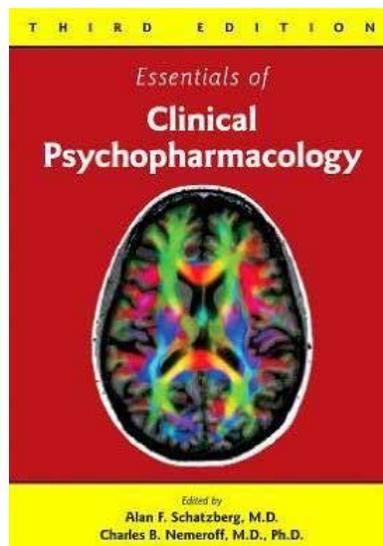
# Featured Works

## Recent Texts



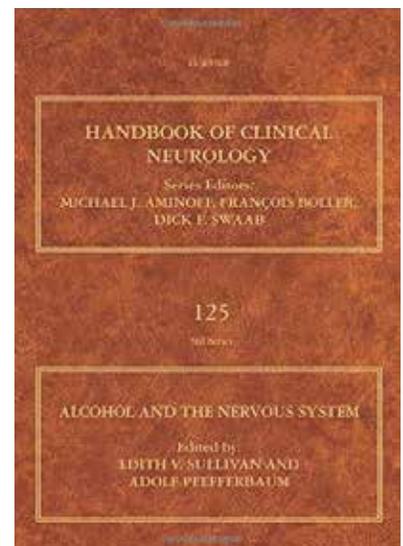
Military and Veteran  
Mental Health

Editor  
Laura Roberts, MD, MA



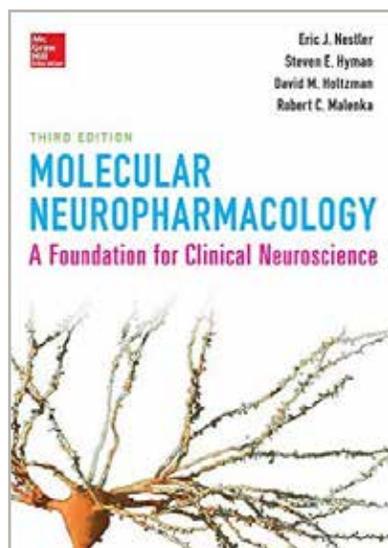
Essentials of Psychopharmacology:  
Third Edition

Co-Editor  
Alan Schatzberg, MD



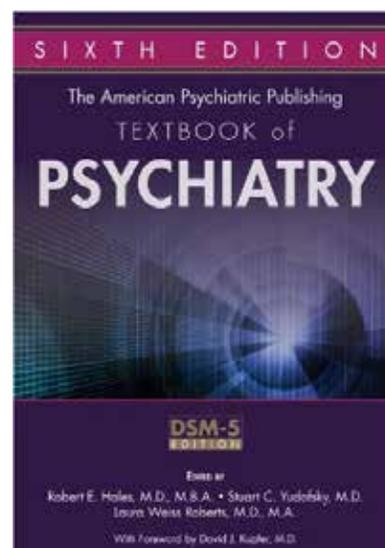
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Third Edition

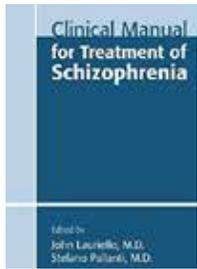
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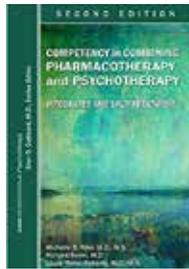
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Textbook of Psychiatry: Sixth Edition

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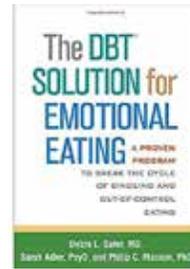
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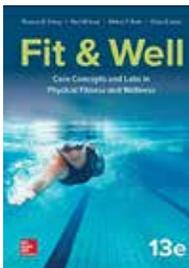
Competency in Combining Pharmacotherapy and Psychotherapy: Integrated and Split Treatment, 2nd Edition  
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Debra Safer, MD



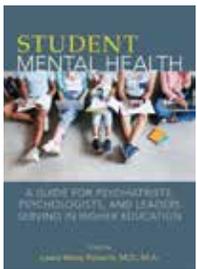
Disruptive Behavior: Development, Psychopathology, Crime, & Treatment  
Co-Authors  
Whitney Daniels, MD  
Michael Kelly, MD  
Hans Steiner, MD



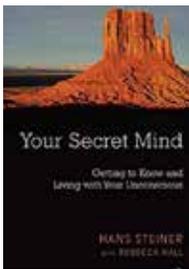
LooseLeaf for Fit & Well: Core Concepts and Labs in Physical Fitness and Wellness, 13th Edition  
Co-Authors  
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Walton Roth, MD



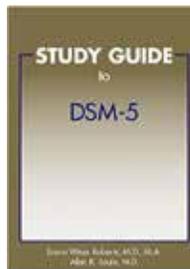
Neuroscience of Pediatric PTSD  
Co-Author  
Victor Carrion, MD



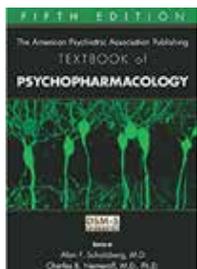
Student Mental Health: A Guide for Psychiatrists, Psychologists, and Leaders Serving in Higher Education  
Editor  
Laura Roberts, MD, MA



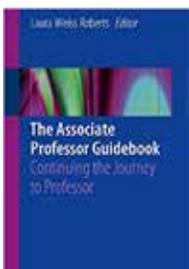
Your Secret Mind: Getting to Know and Living with Your Unconscious  
Co-Author  
Hans Steiner, MD



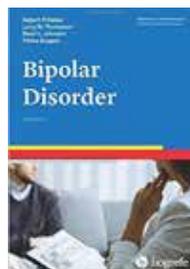
Study Guide to DSM-5  
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Alan Louie, MD



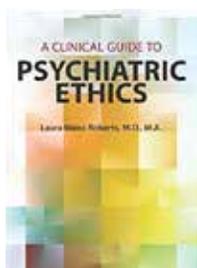
American Psychiatric Association Publishing Textbook of Psychopharmacology  
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The Associate Professor Guidebook: Continuing the Journey to Professor  
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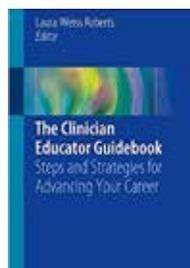
Bipolar Disorder, 2nd Edition, a Volume in the Advances in Psychotherapy: Evidence-Based Practice Series 2nd Edition  
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Larry W Thompson, PhD



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Author  
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Clinical Medical Ethics: Landmark Works and the Legacy of Mark Siegler, MD  
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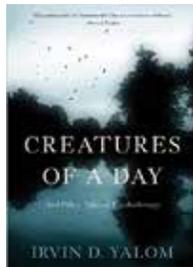
The Clinician Educator Guidebook: Steps and Strategies for Advancing Your Career  
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## Recent Books



Connect Core Concepts in Health

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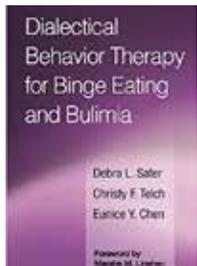
Creatures of a Day:  
And Other Tales of  
Psychotherapy

Author  
Irvin Yalom



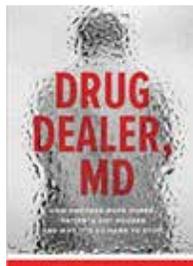
Dement's Sleep and  
Dreams, 2nd Edition

Co-Authors  
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Rafael Pelayo, MD



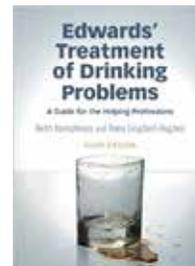
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Therapy for Binge  
Eating and Bulimia

Co-Author  
Debra Safer, MD



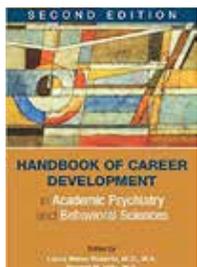
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Patients Got Hooked,  
and Why It's So Hard  
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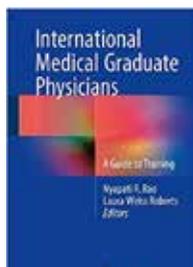
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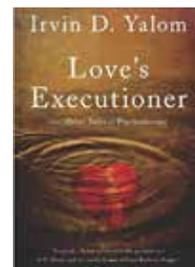
The Handbook of  
Career Development in  
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A Guide to Training

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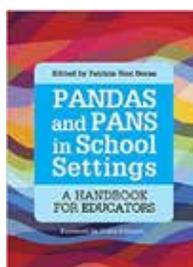
Love's Executioner:  
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Vision: Algorithms for  
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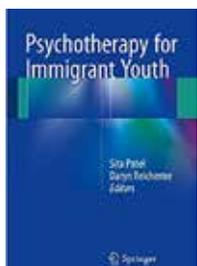
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for Educators

Contributor  
Margo Thienemann, MD



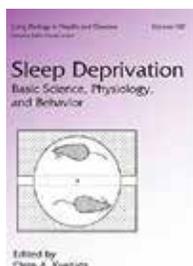
Psychiatric Aspects of  
Critical Care Medicine,  
An Issue of Critical Care  
Clinics, 1st Edition

Editor  
José Maldonado, MD, FAPM,  
FACFE



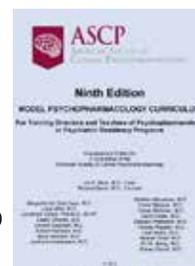
Psychotherapy for  
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Sleep Deprivation:  
Basic Science,  
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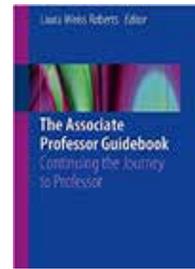
The Academic Medicine Handbook: A Guide to Achievement and Fulfillment for Academic Faculty

Editor  
Laura Roberts, MD, MA



Advances in Treatment of Bipolar Disorders

Editor  
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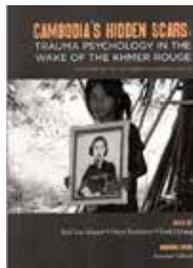
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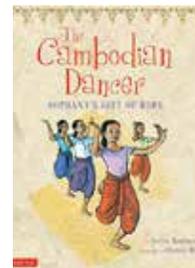
Autism Spectrum Conditions: FAQs on Autism, Asperger Syndrome, and Atypical Autism Answered by International Experts

Co-Editor  
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Cambodia's Hidden Scars: Trauma Psychology in the Wake of the Khmer Rouge

Co-Editor  
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The Cambodian Dancer: Sophany's Gift of Hope

Author  
Daryn Reicherter, MD



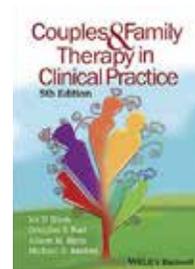
Cognitive-Behavioral Therapy for Late-Life Depression

Presenter  
Dolores Gallagher-Thompson, PhD, ABPP



Community-Based Participatory Research for Improved Mental Healthcare: A Manual for Clinicians and Researchers

Author  
Laura Roberts, MD, MA



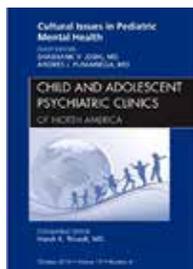
Couples and Family Therapy in Clinical Practice

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Ira Glick, MD  
Douglas Rait, PhD



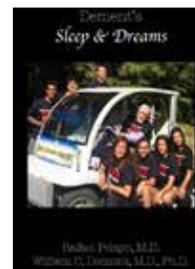
Cue-Centered Therapy for Youth Experiencing Posttraumatic Symptoms: A Structured Multi-Modal Intervention, Therapist Guide

Author  
Victor Carrion, MD



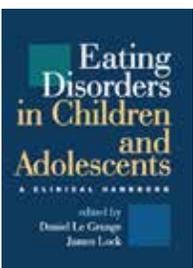
Cultural Issues in Pediatric Mental Health, An Issue of Child and Adolescent Psychiatric Clinics of North America

Co-Editor  
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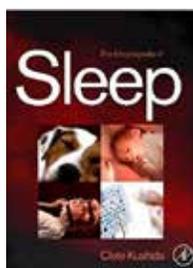
Dement's Sleep and Dreams

Co-Authors  
William Dement, MD  
Rafael Pelayo, MD



Eating Disorders in Children and Adolescents: A Clinical Handbook

Co-Editor  
James Lock, MD, PhD



Encyclopedia of Sleep

Editor  
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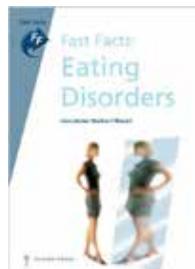
Ethnicity and the Dementias

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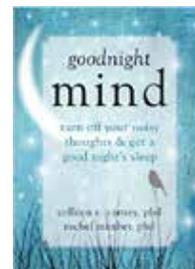
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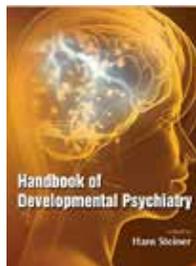
Evaluation of Sleep Complaints, An Issue of Sleep Medicine Clinics  
 Editor  
 Clete Kushida, MD, PhD



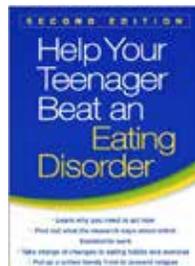
Fast Facts:  
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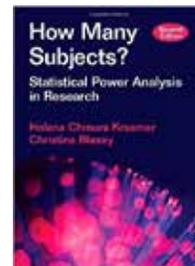
Goodnight Mind: Turn Off Your Noisy Thoughts and Get a Good Night's Sleep  
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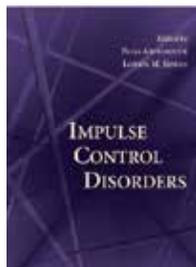
Handbook of Developmental Psychiatry  
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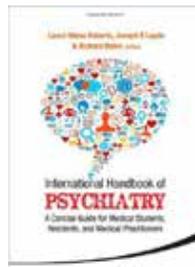
Help Your Teenager Beat an Eating Disorder  
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 Helena Kraemer, PhD



Impulse Control Disorders  
 Co-Editors  
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 Lorrin Koran, MD



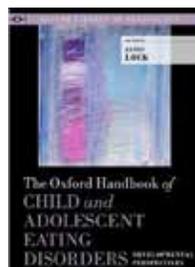
International Handbook of Psychiatry: A Concise Guide for Medical Students, Residents, and Medical Practitioners  
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 Laura Roberts, MD, MA



Manual of Clinical Psychopharmacology  
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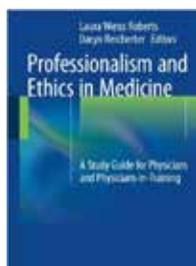
Mental Health in the Digital Age: Grave Dangers, Great Promise  
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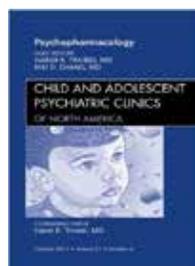
The Oxford Handbook of Child and Adolescent Eating Disorders: Developmental Perspectives  
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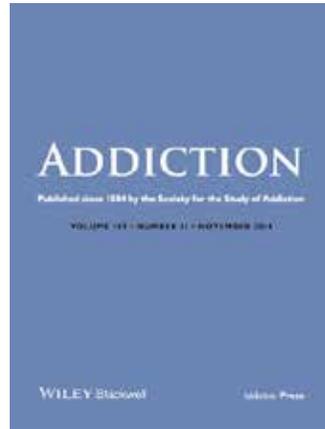


The Spinoza Problem: A Novel  
 Author  
 Irvin Yalom, MD

## Journals



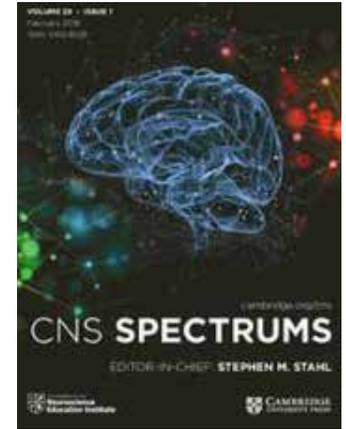
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**CNS Spectrums**  
Field Editor  
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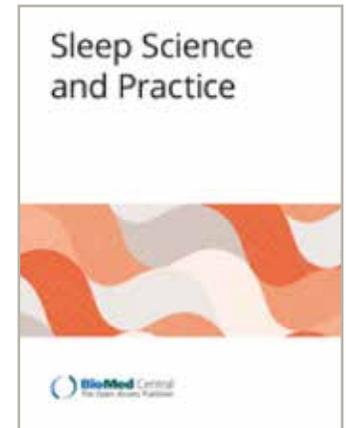
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**Journal of Psychiatric Research**  
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**Sleep Science and Practice**  
Editor-in-Chief  
Clete Kushida, MD, PhD



## Clinical Innovation and Service

The preeminence of our department is predicated on exceptional clinical care for individuals and families across the age spectrum who live with mental disorders and related conditions.

# Clinical Innovation and Service

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 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 FY18, our Quarry Road clinics will have nearly 90,000 outpatient visits and our faculty as a whole has more than 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 optimal impact in real-time and in the future.

Our department is dedicated to providing outstanding, evidence-based clinical and wellbeing services for individuals of all ages who are living with mental health-related conditions and their families. The department's world-class faculty is defining new approaches to treatment and prevention, seeking not only to cure psychiatric disorders but to foster overall health, wellbeing and resilience. Our faculty, fellows, and advanced clinical trainees see patients in many different settings in our community and throughout the health systems of Stanford Health Care, Stanford Children's Health/Lucile Packard Children's Hospital, and the Veterans Affairs Hospital.

40+

department specialty  
clinic programs

*"Seeking not  
only to cure but  
to foster overall  
health, wellbeing,  
and resilience."*

106%

increase in  
departmental clinic  
visits since FY10

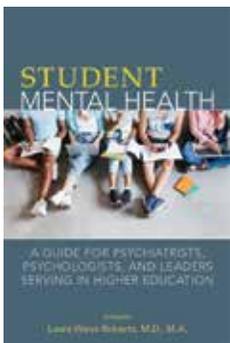
# University Engagement

## Student Health and Wellbeing

The Department of Psychiatry and Behavioral Sciences works in close collaboration with colleagues across Stanford University to foster and support the wellbeing and overall health of our students. Our efforts fall along the five missions of advancing science, clinical innovation, educational excellence, community commitment and engagement, and leadership and professionalism. We have endeavored to be good citizens and outstanding partners in addressing the hardest challenges faced on every university campus across the country: enhancing mental health and combatting the phenomena of sexual violence and of discrimination associated with identity. Our retreat in June 2017 focused on social justice as one of its primary themes.

In the undergraduate programs, we have made intensive, comprehensive, and expanding efforts to address student wellbeing and mental health in specific areas including increased focus on wellbeing of each student, strengthened positive care, community resources across the campus, further integration of self-care in the curriculum, more coordinated, comprehensive mental health services, new prevention, identification, and early-intervention approaches, and preparation for the needs of future students. In addition, for years we have partnered with others in the School of Medicine and Stanford Health Care to develop new services for physicians-in-training as well as other health professionals to promote self-care and strengthened programmatic approaches ensuring health of trainees and their mentors and teachers.

## New Student Mental Health Book



With writing contributions from numerous members of our department faculty, including several based at Vaden Health Center, Dr. Laura Roberts edited the book *Student Mental Health: A Guide for Psychiatrists, Psychologists, and Leaders Serving in Higher Education*. The book is a result of multidisciplinary collaboration of scholars, leaders, clinicians, and educators at Stanford committed to student health and wellbeing. The book addresses the issues encountered in caring for today's students who experience distress or develop significant mental health conditions, including suicidality, newly emergent psychosis, problems associated with substance misuse, the health risks of eating disorders, and the devastation of sexual assault. The book also covers topics related to safety, respect, conflict, and connection on campus, as well as students' evolving relationships with family, friends, and romantic partners.

At a time when students—whether in college, graduate school, or professional training—are experiencing unprecedented levels of stress and distress, the need for guidance that is comprehensive, compassionate, constructive, and culturally sensitive has never been greater. *Student Mental Health* brings understanding and clinical acumen to bear on the complex problems of this vulnerable group.

## Psychiatry Services at Vaden Health Center



Led by Executive Director, James Jacobs, MD, Vaden Health Center is an accredited, multidisciplinary ambulatory clinic serving the 16,300 undergraduate, graduate, and professional students of Stanford University. Vaden departments include medical services, psychiatric and counseling services, the Confidential Support Team for survivors of sexual and relationship abuse, some wellness services, and administrative operations. Additional clinical services available at Vaden include nutrition, radiography, laboratory, injection and immunization clinics, travel medicine, pharmacy, and physical therapy, plus specialty clinics staffed by School of Medicine faculty. Vaden also administers the Cardinal Care health insurance program, which serves more than half of the student body. All of Vaden's physicians, the director of the Confidential Support Team, and increasing numbers of psychologists are Clinician Educators in the School of Medicine, primarily in the Department of Psychiatry and Behavioral Sciences and in the Department of Internal Medicine. Vaden also hosts a training program for pre- and post-doctoral psychologists and serves as a rotation site for Stanford Psychiatry and Internal Medicine resident physicians.

## Creation of the Confidential Support Team

Directed by our Department's own Dr. Helen Wilson, the Stanford Confidential Support Team (CST) offers free and confidential support to Stanford students impacted by sexual assault and relationship violence, including domestic abuse, intimate partner abuse, stalking, and sexual or gender-based harassment and discrimination. CST services include brief emotional support and ongoing individual counseling. CST counselors offer information about rights and reporting options and support throughout the reporting process, if pursued. Appointments are intended to provide confidential support for students who have experienced sexual/relationship violence, students accused of violence, and those who have questions about how to help a survivor of sexual/relationship violence. CST takes a collaborative approach and supports a student in determining the best next steps in their unique situation. Same day appointments are available for urgent needs, and 24-hour support is available by phone.



## Other Examples of Recent Collaborations

- Creation of several new psychotherapy groups to address and support needs of special student groups/interests
- Introduction of new models of short- and medium-term multidisciplinary therapies
- Expanded services for underrepresented students
- Expanded services for at-risk students
- Expanded services for student athletes
- New University Mental Health Fellowship for physicians



## Stanford WellConnect

Stanford WellConnect is a confidential mental health referral and consultation for residents and fellows, and it is a program that helps support institutional programs with necessary educational activities and policies related to trainee health and wellbeing. For physicians-in-training, stressors can get in the way of balancing the demands of professional and personal life, and without help, problems can intensify, having an effect on emotional and physical wellbeing and professional success. Although emotional distress often manifests in obvious ways, the symptoms can be subtle. WellConnect is a way to help our students stay healthy and resilient, even as they face the many challenges that come with modern medical training.



## Student Athletes

The Sport Psychology Program offers confidential personal counseling, performance psychology counseling, psychological rehabilitation from injury, medication evaluation and management and specialized care referrals. Team centered workshops for varsity teams, crisis intervention and consultation with coaches and athletic department staff are also available. The services are provided by two licensed psychologists who specialize in sport performance and in student-athlete mental health. Medication evaluation and treatment is provided by physician specialists of the Department.



## The Belonging Project

The Belonging Project at Stanford is a new Special Initiative of the Chair that was developed to promote emotional health and wellbeing through connection with the community through a sense of belonging. 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. University activities that foster a sense of belonging promote mental and physical health and help individuals to flourish in all aspects of their lives.



# Specialty Clinical Programs in our Divisions

## Overview from Division Chiefs

### DIVISION OF GENERAL PSYCHIATRY AND PSYCHOLOGY

*Division Chiefs: Chris Hayward, MD, MPH and Bruce Arnow, PhD*

The Division of General Psychiatry and Psychology provides state-of-the-art treatment for a wide range of psychiatric illnesses. We provide comprehensive psychiatric and psychological services across a continuum of care, through each of our specialized clinics and services. Our inpatient units include open and secured programs. Our ambulatory sub-specialty clinics focus on acute phase care with modes of treatment that include psychopharmacology, group and individual psychotherapy, interventional treatments including transcranial magnetic stimulation, and other innovative approaches to care, including virtual and augmented reality therapy.

### DIVISION OF SLEEP MEDICINE

*Division Chief: Clete Kushida, MD, PhD*

The Division of Sleep Medicine evaluates and manages patients with sleep problems across the age spectrum, from infancy to the elderly. We use cutting-edge, new technology to aid in the care of our patients, using a patient-centered care and translational approach for the diagnosis and treatment of sleep disorders. Our division adopts a comprehensive approach to our management of patients with sleep disorders; our faculty is composed of specialists in neurology, psychiatry, psychology, pulmonary medicine, internal medicine, pediatrics, and otolaryngology who excel in the diagnosis and treatment of the close to 90 different sleep disorders.

### DIVISION OF INTERDISCIPLINARY BRAIN SCIENCES

*Division Chief: Allan Reiss, MD*

The Division of Interdisciplinary Brain Sciences brings together faculty in psychiatry, psychology, statistics, and computational neuroscience, whose collective efforts are committed to leveraging interdisciplinary knowledge to provide explanatory models for human behavior that capture the inherent complexity of genetic, biological, and environmental factors, developing innovative methods for studying the brain and behavior and applying these tools to better understand brain-behavior associations underlying cognitive, developmental, and neuropsychiatric impairments, and addressing an individual as a whole person undergoing unique trajectories of development, across all stages of the lifespan.

### DIVISION OF CHILD AND ADOLESCENT PSYCHIATRY AND CHILD DEVELOPMENT

*Division Chief: Antonio Hardan, MD*

The Division of Child and Adolescent Psychiatry and Child Development is an integral part of one of the preeminent child and adolescent mental health treatment consortiums in the country, which includes Lucile Packard Children's Hospital at Stanford, Stanford Children's Health, Stanford Hospital & Clinics, and Stanford University School of Medicine. Our clinical mission is founded on a commitment to family focused evaluation and treatment using the best available evidence-based methods. Our treatment philosophy embodies an emphasis on improving parent empowerment and providing parent training, when indicated, to make meaningful improvements in family quality of life and optimize outcome.

### DIVISION OF PUBLIC MENTAL HEALTH AND POPULATION SCIENCES

*Division Chiefs: Cheryl Gore-Felton, PhD and Mark McGovern, PhD*

The focus of the Division of Public Mental Health and Population Sciences is on the wellbeing of the general population and the expert care of special populations or communities. This division bridges the fields of psychiatry, epidemiology, ethics, and policy. The five main sections in the division are Public Mental Health and Behavioral Epidemiology, Underserved and Veteran Populations, Students and Young Adult Populations, Mental Health Policy, and Ethics and Vulnerable Populations.

## Overview from the Chair

Our department is dedicated to providing outstanding, evidence-based clinical and wellbeing services for individuals of all ages who are living with mental health-related conditions and their families. The department's world-class faculty is defining new approaches to treatment and prevention, seeking not only to cure psychiatric disorders but to foster overall health and resilience.

Our faculty, fellows, and advanced clinical trainees see patients in many different settings in our community and throughout the health systems of Stanford Health Care and Stanford Children's Health/Lucile Packard Children's Hospital. New efforts, collaborations, and programs are always underway. Selected clinical activities and programs can be found on the following pages.

## Selected Clinical Activities and Programs

|   |   |
|---|---|
| Addiction Medicine Dual Diagnosis Clinic    | Interventional Psychiatry Clinic                              |
| Adolescent Crisis Clinic                    | Mood Disorders Program  |
| Adolescent Dialectical Behavioral Therapy   | Neuroendocrine and Sex Chromosome Variation Clinic            |
| Adult Eating and Weight Disorders Program   | Neuropsychiatry Services                                      |
| Assessment Clinics                          | Neuropsychology Assessment Clinic                             |
| Autism and Developmental Disorders Clinic   | Obsessive-Compulsive Disorders Clinic                         |
| Behavioral Neurogenetics Clinic             | PANS: Pediatric Acute-Onset Neuropsychiatric Syndrome Program |
| Center for Integrative Medicine             | Pediatric Anxiety and Traumatic Stress Clinic                 |
| Child Parent Management Clinic              | Pediatric Mood Disorders Program                              |
| Cognitive Behavioral Sleep Medicine Program | Pediatric Psychiatry Consult Service                          |
| Comprehensive Care Program                  | Positive Care Clinic  |
| Couples and Family Therapy Clinic           | Psychosocial Treatment Clinic                                 |
| Dialectical Behavior Therapy Adult Program  | Psychosomatic Medicine Program                                |
| Diversity Clinic                            | School Based Services   |
| Eating Disorders Clinic                     | Sleep Health & Insomnia Program                               |
| Executive Function Clinic                   | Sports Psychiatry and Sports Psychology                       |
| Forensic Psychiatry Program                 | THRIVE  |
| General Adult and Pediatric Sleep Medicine  | Virtual Reality-Immersive Technology Clinic                   |
| Geropsychiatry Services                     | WellConnect   |
| Inpatient and Acute Psychiatry Services     | Women's Wellness  |
| INSPIRE Clinic                              |   |

# Specialty Clinical Programs



Clinic Director  
Anna Lembke, MD

## Addiction Medicine Dual Diagnosis Clinic

Addiction Medicine Dual Diagnosis Clinic is composed of experts with experience treating patients with many different types of addiction, including behavioral addictions. Our team provides an evidence-based approach to treat patients with substance use disorders, behavioral addictions, and co-occurring psychiatric disorders.

### Conditions Treated

- Alcohol use disorders
- Drug use disorders
- Prescription drug use disorders, including prescription opioids
- Behavioral (process addictions): Internet, gambling, shopping, sex, pornography

### This Program Provides

- Detoxification
- Pharmacotherapy for addiction
- Abstinence-based recovery models
- Harm-reduction recovery models
- Motivational interviews
- 12-Step Facilitations
- Psychosocial approaches to the treatment of patients with addiction and pain
- Group Psychotherapy: Early Recovery Group, Mindfulness Group, Buprenorphine Group, and Smoking Cessation Group



Clinic Director  
Michele Berk, PhD

## Adolescent Crisis Clinic

The Adolescent Crisis Clinic addresses the shortage of mental health services in the local area for teens at risk for suicide. The Crisis Clinic provides brief, evidence-based interventions to youth who present to the Stanford Children's Health Outpatient Child & Adolescent Psychiatry Clinic or to the Stanford Emergency Department with recent suicidal and/or self-harm behaviors. The Crisis Clinic provides youth and families with 1-4 sessions that include diagnostic evaluation, treatment recommendations, assistance with linkage to ongoing follow-up care, and a series of safety-focused strategies known to decrease suicide risk.

### Criteria for referrals to the clinic

- Adolescent has a recent history of a suicide attempt (within the past 4-6 months)
- OR, Adolescent has a recent history of non-suicidal self-injury/self-harm (past 4 months)
- OR, Adolescent has had recent suicidal ideation (within the past 4 months) requiring hospitalization or an ER visit
- AND, Adolescent is not currently in treatment with another psychotherapy provider and is in urgent need of services

## Adolescent Dialectic Behavior Therapy

Adolescents who hurt themselves often experience very strong and painful negative emotions, such as depression, anger, and anxiety. Because these emotions can be so hard to bear, people may engage in suicidal and self-harm behaviors as a way to make the painful feelings stop. Dialectical Behavior Therapy (DBT) helps people stop hurting themselves by teaching them safe and positive ways to cope with their negative emotions. DBT with adolescents includes parents in the treatment process. Adolescent DBT is for ages 12-18 (living at home and attending middle or high school). For Adult services, please see our Dialectical Behavior Therapy Adult Program page.

### This Program Provides

- Individual therapy
- Multifamily skills group
- Telephone coaching
- Consultation team meeting for therapists



Clinic Co-Directors  
Sanno Zack, PhD  
Michele Berk, PhD

## Adult Eating and Weight Disorders Program

The Adult Eating and Weight Disorders Program is a specialty program providing evidence-based treatment to patients with disordered eating behaviors that impact their health and quality of life. The Program's mission is to provide efficient, efficacious treatment for our patients while supporting clinician and trainee professional development and wellbeing. The Program, housed within Stanford's Psychosocial Treatment Services Program, serves adult patients ages 18-75. For patients younger than age 18, please see the Eating Disorders Clinic listing for a description of services.

### Conditions Treated

- Disordered eating
- Body image
- Weight management
- Post-bariatric surgery weight regain
- Anorexia nervosa
- Bulimia nervosa
- Binge-eating disorder
- Other specified feeding and eating disorders (OSFED)

### This Program Provides

- Initial evaluation and assessment
- Evidence-based psychotherapy
- Also available: adjunctive medication management



Clinic Co-Directors  
Debra Safer, MD  
Kristine Luce, PhD



**Clinic Director**  
Sallie De Golia, MD, MPH

## Assessment Clinics

The Assessment Clinics comprise three separate clinics: The Evaluation Clinic, the Individual Psychotherapy Clinic (IPC), and the Continuity Clinic. The Evaluation Clinic offers comprehensive evaluations and brief management (up to 3 months) for stabilization and support. Comprehensive recommendations and referrals will be provided for ongoing treatment. The Individual Psychotherapy Clinic (IPC) is a training clinic offering patients weekly, long-term psychodynamic psychotherapy. The Continuity Clinic is a training clinic offering patients comprehensive evaluations and up to one year of management for all psychiatric conditions. Treatment includes medication management and brief psychotherapy, recommendations and referral for longer-term psychotherapy or interventional therapies where appropriate, and collaborative care with patients' psychotherapists and primary care providers.

### This Program Provides

- Diagnostic evaluations
- Full medical and psychological workup
- Medication initiation and management (as appropriate)
- Psychodynamic Psychotherapy within the Individual Psychotherapy Clinic (IPC)
- Supportive, brief modalities within the Evaluation Clinic and Continuity Clinic
- Expedited referrals to appropriate resources and services through social work facilitation



**Clinic Director and  
Division Chief**  
Antonio Hardan, MD



**Clinic Co-Director**  
Jennifer Phillips, PhD

## Autism and Developmental Disorders Clinic

The Autism and Developmental Disorders Clinic (ADDC) is an integrated program that strives to achieve excellence in patient care, research, and clinical teaching. The program is founded on a commitment to family-focused evaluation and treatment using the best available evidence-based methods.

### Conditions Treated

- Autism Spectrum Disorder
- Social (Pragmatic) Communication Disorder
- Developmental Delays and Intellectual Disability
- Down Syndrome
- Tuberous Sclerosis
- 22q11 deletion (Velocardiofacial) and duplication syndromes
- Other genetic or medical conditions associated with developmental delay and/or autism

### This Program Provides

- Diagnostic evaluations
- Developmental and psychological testing
- Behavioral treatments
- Parent consultations
- Pharmacologic interventions
- Early Support Program for Autism
- Support Groups

## Behavioral Neurogenetics Clinic

The Behavioral Neurogenetics Clinic focuses on the evaluation and treatment of neuropsychiatric, behavioral, and developmental problems of children, adolescents, and young adults with genetic disorders.

### Conditions Treated

- Fragile X syndrome
- Williams syndrome
- 7q11.23 duplication syndrome
- Velo-cardio-facial (22q11.2 deletion) syndrome
- Marfan syndrome and other connective tissue disorders
- X-Chromosome linked intellectual/developmental Disorders
- Neurofibromatosis-1
- Noonan syndrome
- Other conditions associated with identifiable genetic disorders or risk factors

### This Program Provides

- Diagnostic consultation and evaluation
- Medication management
- Individual and family therapy



**Clinic Director**  
Allan Reiss, MD

## Center for Integrative Medicine

Integrative Medicine combines the best of “alternative” and complementary treatments with mainstream modern medicine and psychology to provide care for the whole person: mind and body. We provide evaluation and counseling to help patients match integrative medicine offerings with their individual needs. We assess medical problems, coping resources, family and social support, and patient goals, abilities, and opportunities. We offer our patients a variety of integrative techniques including acupuncture, hypnosis and mindfulness, and information regarding dietary supplements, in conjunction with traditional medical care.

### Conditions Treated

- Chronic pain
- Headache
- Anxiety
- Gastrointestinal issues
- Women’s health issues
- Cancer (or other illness) treatment side effects
- Depression
- Musculoskeletal and joint pain
- Infertility
- Smoking habits
- Facing life-threatening diagnoses
- Stress management
- Phobias
- Stress-related neurological problems
- Fatigue



**Center Director**  
David Spiegel, MD



**Clinic Co-Directors**  
Elizabeth Reichert, PhD  
Mari Kurahashi, MD

## Child Parent Management Clinic

The Child Parent Management Clinic consists of a multidisciplinary team specializing in the diagnosis and treatment of externalizing behaviors.

### Conditions Treated

- Attention-Deficit/Hyperactivity Disorder
- Oppositional Defiant Disorder
- Conduct Disorder
- Disruptive Mood Dysregulation Disorder
- Intermittent Explosive Disorder (IED)
- Family Conflict
- Parent-Child Conflict
- High Functioning Autism Spectrum Disorder
- Anxiety
- Self-Esteem Issues

### This Program Provides

- Psychotherapy programs:
  - Family therapy
  - Behavioral parent training (PMT)
  - Parent-Child Interaction Therapy (PCIT)
  - Individual cognitive behavioral therapy (CBT)
- Consultation and medication management



**Program Director**  
Fiona Barwick, PhD

## Cognitive Behavioral Sleep Medicine Program

The Cognitive Behavioral Sleep Medicine Program specializes in identifying and treating a variety of sleep disorders such as insomnia, nightmares, and circadian rhythm disorders. Our program employs a non-medication approach with an emphasis on cognitive and behavioral techniques to help people improve their sleep, including problems falling and staying asleep, experiencing recurrent nightmares, feeling sleepy or fatigued during the day, or adjusting to CPAP therapy. These techniques are highly successful and have been endorsed among the primary recommendations for managing insomnia and other sleep problems by the American Psychiatric Association, National Institutes of Health, and the American College of Physicians.

### This Program Provides

- Cognitive Behavioral Therapy for Insomnia (CBT-I)
- Online CBT-I, in partnership with Sleep Healthy Using The Internet (SHUTi), for non-complex cases of insomnia
- Augmentation techniques for managing Circadian Rhythm Disorders
- Desensitization and relaxation strategies for enhancing adjustment to CPAP Therapy
- Imagery Rehearsal Therapy (IRT) for reducing the frequency and severity of nightmares

## Comprehensive Care Program

The Comprehensive Care Program (CCP) is a 15-bed inpatient unit located at El Camino Hospital. The program uses a multidisciplinary approach to treating eating disorders and is part of Lucile Packard Children's Hospital's Comprehensive Eating Disorders Program. Patients admitted to this unit are adolescents who are medically compromised as a result of their eating disorder. Admission is designed to:

- Treat medical disorders resulting from abnormal eating that may affect a patient's heart, bones, liver, kidney, brain, reproductive system, or other organs
- Prevent long-term and life-threatening complications
- Evaluate and treat psychiatric disorders that often accompany eating disorders, such as:
  - Depression
  - Obsessive-compulsive disorder
  - Anxiety

### This Program Provides

- Diagnostic evaluation (both medical and psychiatric)
- Medical management to prevent or detect complications
- Nutritional assessment and management
- Growth and development evaluation
- Assessment and management of osteopenia and osteoporosis
- Psychiatric medication evaluation and monitoring
- Individual therapy (including cognitive behavioral therapy, interpersonal therapy, psychodynamic therapy, and family-based therapy)
- Coordination with the patient's school
- Group and environment (milieu) treatment



**Psychiatric Director:**  
Jennifer Derenne, MD



**Program Director**  
Mary Sanders, PhD

## Couples and Family Therapy Clinic

All relationships experience difficulties from time to time. When these problems pile up or seem too complicated to solve, it may be helpful to meet with a couples and family therapist. Because family and intimate relationships provide an important setting for growth and understanding, we focus on these relationships as the primary unit of care in the Couples and Family Therapy Clinic.

### This Program Provides

- Couples and family assessment and consultation
- Couples and family therapies, including structural couples and family therapy, emotion focused couples therapy, integrative behavioral couples therapy, and multigenerational approaches

### Conditions Treated

- Communication difficulties
- Marital conflict
- Parent-child problems
- Child and adolescent distress
- Depression and anxiety
- Work-family balance
- Family stress and crisis
- Infidelity and affairs



**Clinic Chief**  
Douglas Rait, PhD



**Clinic Director**  
Sanno Zack, PhD

## Dialectal Behavior Therapy Adult Program

The Stanford Dialectical Behavior Therapy (DBT) Adult Program offers evidence-based care to adults (ages 18-75) with suicidal behavior and self-harm, as well as those with a range of diagnostic presentations underpinned by emotion dysregulation, impulsivity, difficulty with interpersonal relationships, and reduced quality of life. For patients younger than 18, please see the Adolescent Dialectical Behavioral Therapy services listing.

### Conditions Treated

- Suicidality
- Self-harm
- Borderline Personality Disorder
- Ineffective coping behaviors directly related to core emotion dysregulation and/or chronic trauma sequela (e.g., substance abuse, binge eating, high risk behavior)

### This Program Provides

- Comprehensive DBT
  - Individual DBT
  - Skills Group
  - Telephone Coaching
  - Provider Consultation Team
- DBT Skills Group Only Track for Emotion Dysregulation
- DBT Skills Group for Functional Neurological Disorder (Conversion Disorder)
- DBT Skills Groups for Friends and Family of loved ones who are enrolled in or who would benefit from DBT



**Clinic Co-Directors**  
Rania Awaad, MD  
Yasmin Owusu, MD

## Diversity Clinic

The Diversity Clinic serves patients from all walks of life and provides a safe space to address the unique intersectional identities of each individual. A holistic approach that fully integrates the many potential variables that affect a patient's emotional wellbeing (such as culture, race, ethnicity, faith/spirituality, class, gender identity, sexuality, or immigration status) is taken in order to provide the best care possible.

### Conditions Treated (For ages 18 and above)

- Depression
- Anxiety Disorders
- Post Traumatic Stress Disorder (PTSD)
- Obsessive Compulsive Disorder (OCD)
- Peripartum or Postpartum Depression/Anxiety
- Cultural Concerns
- Role/Identity Change
- Professional Life Balance
- Stress and Anger Management
- Spirituality and Faith Concerns
- Immigration Status Concerns

### This Program Provides

- Clinical assessment and treatment
- Medication consultation and management
- Individual therapy and counseling
- Family counseling
- Black and Muslim student services are offered through a partnership with Counseling and Psychological Services (CAPS) at Vaden Health Center

## Eating Disorders Clinic

The Eating Disorders Clinic provides comprehensive outpatient medical and psychiatric evaluation, treatment, and follow-up for children, teens, and young adults (ages 10-24) with eating disorders. Please see the Adult Eating and Weight Disorders Program listing for a description of services for adults with eating and weight disorders.

### Conditions Treated

- Anorexia Nervosa
- Bulimia Nervosa
- Binge Eating Disorder
- Avoidant Restrictive Food Intake Disorder
- Atypical eating disorders

### This Program Provides

- Diagnostic evaluation
- Medical management
- Nutritional assessment and management
- Growth and development evaluation
- Assessment and management of osteopenia and osteoporosis
- Psychiatric medication evaluation and monitoring
- Individual psychotherapy
  - Cognitive behavioral therapy
  - Interpersonal therapy
  - Psychodynamic therapy
  - Family-based therapy
- Coordination with the patient's school
- Group and environment (milieu) treatment



**Clinic Director**  
Cara Bohon, PhD

## Executive Function Clinic

The Executive Function Clinic primarily serves as a consultation service for psychiatrists at Stanford and for primary care physicians looking for a rigorous clinical evaluation for individuals with executive function difficulties, including Attention Deficit Hyperactivity Disorder (ADHD), but also encompassing other domains of executive function. The clinic also provides individual and family therapy, with an emphasis on habit formation and organizational skills development.

### Conditions Treated

- Executive Function Deficits
- Attention Deficit Hyperactivity Disorder

### This Program Provides

- Diagnostic consultation and evaluation
- Medication management
- Cognitive and behavioral therapies
- Organizational skills training
- Parent training
- Individual and family therapy



**Clinic Co-Directors**  
David Hong, MD  
Megan Klabunde, PhD



**Clinic Director**  
Hans Steiner, MD

## Forensic Psychiatry Program

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 opinion, among others.

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

### This Program Provides

Our mission is to provide you with 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 unique case to ensure that we are providing the most objective psychiatric assessments and expert opinions.



**Clinic Director**  
Cleto Kushida, MD, PhD

## General Adult and Pediatric Sleep Medicine

Our General Adult Sleep Medicine Clinic focuses on not only the diagnosis and treatment of common sleep disorders, but also rare sleep disorders. Our Pediatric Sleep Medicine Clinic diagnoses and manages infants, children, and adolescents with any sleep issue, from difficulty falling and staying asleep to disorders such as delayed sleep phase syndromes (i.e., inability to fall asleep unless late at night), sleepwalking, night terrors, or sleep-related breathing disorders.

### Conditions Treated

- Insomnias
- Circadian rhythm sleep disorders
- Sleep-related breathing disorders
- Sleep-related movement disorders
- Parasomnias
- Hypersomnias
- Autonomic Disorders
- Dental Sleep Medicine
- Narcolepsy
- Neuromuscular Disease

### This Program Provides

- Sleep–Wake Pattern Assessment
- Hypoglossal Stimulation
- Positive Airway Pressure Naps
- Support Groups
- Sleep Technology Fairs
- Sleep Surgery
- Dental Sleep Medicine

## Geropsychiatry Services

The Geropsychiatry Clinic provides a team-based approach to the evaluation and treatment of older adults with many different types of mental health conditions. We work collaboratively with patients, their families and caregivers, and other treating providers, to enhance older adults' mental wellbeing and quality of life.

### Conditions Treated

- Mood disorders
- Anxiety disorders
- Neurodegenerative disorders (e.g., Alzheimer disease) with behavioral or psychological symptoms

In addition, we work with many of our patients on co-occurring symptoms and conditions that affect their mental wellbeing, such as sleep problems, changes in physical function, pain, loneliness, and grief.

### This Program Provides

- Pharmacotherapy
- Psychotherapy
- Psychosocial support groups
- Social work consultation
- Referrals to other resources and agencies for identified needs



**Clinic Director**  
Laura Dunn, MD

## Inpatient and Acute Psychiatry Services

The Inpatient Psychiatry Service at Stanford is committed 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.



**Clinic Director**  
Katherine Sanborn, MD



**Clinic Co-Directors**

Adult:

Jacob Ballon, MD, MPH

Kate Hardy, ClinPsychD

Adolescent:

Steven Adelsheim, MD

Kate Hardy, ClinPsychD

## INSPIRE Clinic

The INSPIRE Clinic provides respectful and recovery-oriented assessment, consultation, and treatments for adolescents and adults experiencing clinical high risk and early symptoms of psychosis. Using an innovative interdisciplinary approach, we provide patient-centered and community-focused, evidence-based assessment and treatment for people at risk of or experiencing a psychotic disorder, with a focus on comprehensive treatment at the early stages to prevent progression of illness.

**This Program Provides**

- Assessment
- Consultation
- Psychopharmacology
- Cognitive Behavioral Therapy for Psychosis
- Participation in Clinical Trials and Other Research
- Interdisciplinary Consultation
- Family Education
- Group Cognitive Behavioral Therapy for Psychosis (adult clinic only)
- Social Work Support (adult clinic only)



**Clinic Director**

Mahendra Bhat, MD

## Interventional Psychiatry Clinic

The Interventional Psychiatry Clinic provides specialized treatments utilizing device-based interventions such as electroconvulsive therapy (ECT), repetitive transcranial magnetic stimulation (rTMS), and deep brain stimulation (DBS). We provide consultations for patients with major depressive disorder who may benefit from TMS or ECT and patients with treatment-refractory obsessive compulsive disorder who may benefit from DBS. In addition to these clinical interventions, active research using novel forms of TMS, DBS, focused ultrasound, and other device-based interventions are available for patients.

**Conditions Treated**

- Major depressive disorder
- Bipolar depression
- Schizoaffective disorder
- Catatonia
- Obsessive-compulsive disorder
- Post-traumatic stress disorder
- Pain syndromes (e.g. fibromyalgia)
- Tourette's syndrome

**This Program Provides**

- Electroconvulsive therapy (ECT)
- Repetitive transcranial magnetic stimulation (rTMS)
- Deep brain stimulation (DBS)

## Mood Disorders Clinical Services

Stanford's comprehensive, interdisciplinary approach to mood disorders integrates significant basic science research with innovative clinical care and training for future physician-scientists.

### Conditions Treated

- Major depressive disorder
- Bipolar disorder
- Seasonal affective disorder (SAD)
- Cyclothymic disorder
- Persistent depressive disorder (dysthymia)
- Disruptive mood dysregulation disorder

### This Program Provides

- A holistic approach beyond traditional psychiatry—integrating social factors, a deeper understanding of brain mechanisms, and a diverse range of diagnostic and treatment techniques, including genetics, imaging, psychotherapy, acupuncture, and behavioral therapy
- Pharmacological management and pharmacogenetics
- Targeted brain stimulation
- Minimally invasive surgery
- Computer-based brain training



**Program Director**  
Charles DeBattista, MD,  
DMH

## Neuroendocrine and Sex Chromosome Variation Clinic

The Neuroendocrine and Sex Chromosome Variation Clinic provides consultation and services across a range of syndromic disorders that commonly include cognitive-behavioral and psychiatric symptoms as part of their overall phenotype. This particular focus of the clinic is to treat conditions related to the action of hormones on the brain and/or differences in sex chromosome number. We provide specialized care for these often complex conditions that require interdisciplinary care across a number of medical domains, and we participate in advisory capacities for several national organizations related to these conditions.

### Conditions Treated

- Turner syndrome
- Klinefelter syndrome
- Other sex chromosome aneuploidies
- Endocrinological and neuroendocrine disorders associated with psychiatric symptoms

### This Program Provides

- Diagnostic consultation and evaluation
- Medication management
- Behavioral therapy – including organizational skills training
- Parent training
- Individual and family therapy



**Clinic Co-Directors**  
David Hong, MD  
Allan Reiss, MD  
Gisela Sandoval, MD



**Program Co-Directors**  
Sepideh Bajestan,  
MD, PhD  
John Barry, MD

## Neuropsychiatry Services

Our department is home to the only neuropsychiatry service in Northern California. Our focus is on the interface of neurological and psychiatric disorders and therefore we collaborate closely with the departments of neurology and neurosurgery.

This Program Provides

- Multidisciplinary care in outpatient services
- Neuropsychiatry consultation-liaison services
- Partial Hospitalization and Residential Programs

Our interventions include several levels of psychopharmacology, individual and group psychotherapy, and interventional neuropsychiatry.



**Clinic Director**  
Elias Aboujaoude, MD, MA

## Obsessive-Compulsive Disorders Clinic

The Obsessive-Compulsive Disorder Clinic provides specialized treatment for OCD and related conditions. We provide expert consultation and state-of-the-art medication and psychotherapy treatment in a supportive outpatient environment that respects the safety, dignity, and confidentiality of every patient. We also specialize in helping patients previously resistant to treatment and patients with complex, related problems.

**Conditions Treated**

- Trichotillomania
- Compulsive buying disorder
- Hoarding disorder
- Body dysmorphic disorder
- Problematic use of Internet-related technologies

**This Program Provides**

- Psychopharmacologic treatment
- Exposure and response prevention
- One-time consultations

## PANS (Pediatric Acute-Onset Neuropsychiatric Syndrome Program)

The Stanford PANS Clinic, the first established multidisciplinary PANS clinic, aims to care for affected children in the context of working to characterize and understand mechanisms of illness development and develop effective treatments. The multidisciplinary clinic engages members of the Division of Child and Adolescent Psychiatry working in concert with (and literally in the examining room with) members of the Department of Pediatrics, Primary Care, the Divisions of Allergy/Immunology/Rheumatology, the Department of Social Work and Hospital Educational Advocacy Liaisons (HEAL). We consult with many services, several of which are otolaryngology, sleep medicine, infectious disease, dermatology, occupational therapy, and physical therapy.

The clinic accepts patients referred by pediatricians meeting specific criteria.

### This Program Provides

- Psychiatric diagnostic evaluations
- Psychotherapies targeted at specific symptoms of OCD, food refusal, tics, anxiety, mood symptoms (Child Psychiatry and Social Work)
- Psychopharmacologic interventions when indicated
- Brief computer-based and extensive neuropsychiatric testing
- Consultation with HEAL and schools
- Group Psychotherapy for parents psycho-education and skills-building
- When indicated, some patients participate in a cognitive behavior therapy group for OCD in the Division of Child and Adolescent Psychiatry and Child Development



**Director of Psychiatry Services**  
Margo Thienemann, MD

## Pediatric Anxiety and Traumatic Stress Clinic

The Pediatric Anxiety and Traumatic Stress (PATS) Clinic consists of an integrated, multidisciplinary team seeking to address the impact of anxiety, stress, and trauma exposure on child development.

### Conditions Treated

- Separation Anxiety Disorder
- Selective Mutism
- Specific Phobias
- Social Anxiety Disorder
- Generalized Anxiety Disorder
- Panic Disorder
- Agoraphobia
- PTSD and Traumatic Stress
- Obsessive Compulsive Disorder
- Trichotillomania
- Tics and Tourette's Disorder

### Additional conditions:

- Adjustment to life stressors
- Shyness
- School refusal
- Medical trauma

### This Program Provides

- Evaluation and consultation
- Individual, family, and group therapy
- Pharmacotherapy
- Parent coaching
- School collaboration
- Psychotherapy programs:
  - Cognitive Behavioral Therapy (CBT)
  - Cue Centered Therapy (CCT)
  - Exposure/Response Prevention (ERP)
  - Trauma Focused CBT (TF-CBT)
  - Habit Reversal Training (HRT)
  - Mindfulness and acceptance based treatments
- Specialty programs for young children:
  - Parent Child Interaction Therapy (PCIT)
  - CBT and play therapy
  - Trauma focused therapies



**Clinic Director**  
Elizabeth Reichert, Ph



**Program Director**  
Manpreet Singh, MD, MS

## Pediatric Mood Disorders Program

The Pediatric Mood Disorders Program treats children and adolescents with a spectrum of mood disorders using developmentally sensitive and evidence based approaches. We provide careful assessment and treatment of mood disorders using clinical and structured interviews and evidence-based interventions (psychotherapies and psychopharmacological and psychoeducational interventions) to improve the mental health of children and adolescents affected by mood disorders.

### Conditions Treated

- Major Depressive Disorders and all of their subtypes (melancholic, atypical, seasonal, premenstrual dysphoria, unspecified)
- Persistent Depressive Disorder
- Bipolar Spectrum Disorders (Bipolar I Disorder, Bipolar II Disorder, Unspecified Bipolar Disorder)
- Cyclothymia
- Disruptive Mood Dysregulation Disorder
- Unspecified Mood Disorder
- Adjustment Disorders with mood components
- Mood Disorders due to a General Medical Condition
- Substance-induced Mood Disorder
- Bereavement
- Commonly co-occurring conditions: Anxiety Disorders, Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder, Conduct Disorder, Substance Use Disorders, Alcohol Use Disorders



**Medical Director**  
Richard Shaw, MD

## Pediatric Psychiatry Consult Service

The Pediatric Psychiatry Consult Service provides inpatient and outpatient psychiatric consultation on children and parents of children with physical illness with the goal of facilitating the psychological adjustment of families dealing with the stress of new diagnoses and complex chronic health conditions.

### Conditions Treated

- Adjustment to medical illness
- Medical posttraumatic stress disorder
- Nonadherence with medical treatment
- Somatoform disorders
- Delirium
- Factitious disorder
- Catatonia
- Psychiatric complications of autoimmune encephalitis

### This Program Provides

- Diagnostic evaluations
- Psychopharmacology for the treatment of delirium, depression, insomnia, and other related conditions
- Individual and family therapy to address emotional stress
- Medical hypnosis to assist with chemotherapy-related nausea, pain syndromes, and procedural anxiety
- Solid Organ Pretransplant Psychosocial Evaluation

## Positive Care Clinic

We are committed to changing lives in positive ways. Our clinic offers appointments for evaluation and physical examination within 24 hours, organizes laboratory testing, and provides cost effective treatments for sexually transmitted infections (STIs) and diseases. Other services include private STI testing and general sexual health and safety counseling for non-HIV positive patients.

### This Program Provides:

- Primary and HIV specialty care
- Comprehensive primary care services for persons with HIV infection
- Adult primary care services for spouses and partners of HIV-positive individuals
- Family planning and counseling for HIV-positive individuals
- Culturally competent primary care and psychiatric services for the lesbian, gay, bisexual, and transgender community
- Adult psychiatric care and treatment



Director of Mental Health  
Lawrence McGlynn, MD

## Psychosocial Treatment Clinic

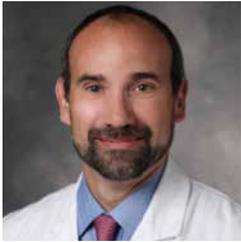
The Psychosocial Treatment Clinic provides short-term, evidence-based, psychological treatment for a variety of mood and anxiety disorders. Psychotherapy may be delivered in individual or group format. The clinic is staffed by faculty psychologists, clinical psychology post-doctoral fellows, faculty psychiatrists, and psychiatry residents.

### Conditions Treated

- Major Depressive Disorder
- Dysthymic Disorder
- Bipolar Disorder
- Panic Disorder
- Acute Stress Disorder
- Posttraumatic Stress Disorder
- Generalized Anxiety Disorder
- Social Phobia
- Obsessive-Compulsive Disorder
- Trichotillomania
- Simple Phobia
- Adjustment Disorders



Clinic Director  
Bruce Arnow, PhD



**Clinic Director**  
Jose Maldonado, MD

## Psychosomatic Medicine Program

The Psychosomatic Medicine Service functions both as a consultant and as part of the primary medical/surgical treatment team. Via conjoint rounds and teaching conferences, formal consultations, and involvement in inpatient treatment and discharge planning, the PMS provides a comprehensive approach to the emotional, cognitive, and behavioral needs of the patient.

### This Program Provides

- Consultation to Stanford Hospital medical/surgical units for patients with psychiatric disorders
- Pre-organ transplant evaluation to assess patients' psychological readiness for transplantation, as well as treatment for common psychiatric complications
- Prevention and management of alcohol and drug withdrawal at Stanford Hospital
- Competency assessments for participation in medical decision making
- Psychiatric aspects of pain management
- Prevention, diagnosis, and treatment of delirium
- Psychotherapeutic and pharmacologic interventions for those suffering from cancer, HIV, terminal illnesses, neurological illnesses, and chronic medical processes
- Psychopharmacology of intubated patients in the intensive care unit setting
- Family, caregiver, and hospital staff support for coping with illness or death of a loved one
- Consultation to hospital staff managing complex patients and the psychiatric aspects of medical processes



**Director of School  
Mental Health Services**  
Shashank Joshi, MD

## School Mental Health Services

The School Mental Health team provides clinical consultation and teacher training to several San Francisco Bay Area schools through established contracts with their respective school districts. These include the Palo Alto Unified School District, Mountain View Los Altos High School District, Los Altos School District, East Palo Alto Academy High School, San Mateo Union High School District, and Achievekids School.

### This Program Provides

- Consultation in suicide postvention and crisis response
- Assistance on implementing the Student Suicide Prevention Bill (AB 2246)
- Teacher and administrator training on student mental health
- Assistance with selecting evidence-based school mental health curricula and school-wide suicide prevention programs
- Direct mental health support for students and school staff
- Opportunities for community-academic research collaborations

## Sleep Health and Insomnia Program

The Sleep Health and Insomnia Program offers effective, non-medication treatments for adults and children with sleep difficulties. In our experience, many people with sleep problems continue to suffer because they are unaware that their sleep can be improved with non-medication based treatments that have significant and durable benefit.

### Conditions Treated

- Insomnia
- Circadian rhythm sleep-wake disorders
- Nightmare disorders
- Daytime sleepiness
- Chronic insufficient sleep
- Difficulty reducing or eliminating sleep medication
- Difficulty acclimating to sleep apnea treatment (CPAP or BiPAP)

### This Program Provides

- Short-term, sleep-focused treatments based on current scientific knowledge of how sleep and arousal systems are regulated
- A comprehensive sleep assessment
- Also available: one-time extended consultations



**Clinic Director**  
Rachel Manber, PhD,  
CBSM

## Sports Psychiatry and Sports Psychology

The Sports Psychiatry and Sports Psychology Program provides evaluation and treatment for professional, Olympic, and NCAA athletes from around the San Francisco Bay area. We also provide integrated behavioral health services to Stanford student-athletes, including a full-service sport psychology program. We provide psychological services to varsity student-athletes that foster mental health and wellbeing, promote excellence in educational and athletic goals, and contribute to a safe, welcoming, and multi-culturally aware athletic department and campus community.

### Conditions Treated

- Mood disorders
- Substance abuse
- Anxiety disorders
- Difficulties with anger, loneliness, or sadness
- Attention, concentration, and academic performance difficulties
- Motivation challenges and burnout
- Coping with and returning from injury
- Rest and recovery

### This Program Provides

- Confidential personal counseling and psychotherapy
- Performance psychology consulting
- Psychological rehabilitation from injury
- Career counseling
- Medication evaluation and management
- Lifestyle interventions
- Help identifying strengths and weaknesses in mental game
- Help improving confidence, composure, consistency, and goal-setting



**Clinic Directors**  
Sports Psychiatry  
Douglas Noordsy, MD

**Sports Psychology**  
Lisa Post, PhD



**Clinic Director**  
Christina Khan, MD, PhD

## THRIVE

THRIVE (therapeutic, healing, resilience, inclusivity, values, empowerment) focuses on the wellness of individuals who experience adversity. Those who may benefit from our services include individuals who have experienced significant stress and are coping with changes in mood, anxiety, sleep, or disruption to work performance and interpersonal relationships. Services are personalized through an integrative and strengths-based approach to promote resilience in each individual served.

Clinical services include psychiatric consultation, psychotherapy, and referral for the following conditions: stress, burnout, anxiety, mood disorders, gender and sexuality issues, and trauma/loss. The program has subspecialty clinics serving LGBTQ+ individuals and resident physicians-in-training.

### Focus of Work

- Stress management and strengthening coping skills
- Identity exploration and development
- Fostering assertiveness and effective interpersonal skills
- Re-engaging meaning and hope
- Addressing stigma, discrimination, and micro-aggressions
- Processing trauma and moving toward recovery
- Promoting healthy lifestyles and maximizing quality of life



**Clinic Director**  
Kim Bullock, MD

## Virtual Reality-Immersive Technology Clinic

With the development of biometric sensing devices, virtual reality and other immersive technologies can now provide many types of sensory feedback retraining and education relevant to treating psychiatric illnesses. The merging of immersive technology with the biology of sensation allows behavioral shaping and conditioning procedures specifically targeting symptoms unique to each patient. The Virtual Reality and Immersive Technology (VR-IT) Clinic bridges evidenced-based behavioral psychotherapies, clinical research, and medical technologies to treat a varying spectrum of psychiatric conditions. The VR-IT Clinic incorporates the most current and emerging methods of virtual and augmented reality treatments into traditional cognitive behavior and mindfulness-based therapies, taking a holistic, customized, and personal approach to each patient.

### Conditions Treated

- Simple Phobias
- Obsessive Compulsive Disorder
- Post-Traumatic Stress Disorder
- Complex Trauma
- Addiction
- Psychosis
- Social Anxiety
- Panic Disorder
- Generalized Anxiety Disorder
- Somatic Symptom Related Disorders
- Eating Disorders

### This Program Provides

- Patient evaluation and consultation
- Desensitization
- Exposure Therapy
- Trauma-focused psychotherapy
- Social, interpersonal, and communication skills training
- Habit Reversal Training
- Evidenced-based psychotherapies delivered with virtual and augmented reality technology
- Mindfulness-based skills training
- Dialectical Behavior Therapy skills training

## WellConnect

Stanford WellConnect is a confidential mental health referral and consultation for residents and fellows. At times, stressors can get in the way of balancing the demands of professional and personal life, and without help, problems can intensify, having an effect on emotional and physical wellbeing and professional success. Although emotional distress often manifests in obvious ways, the symptoms of many psychological problems can be subtle.

### This Program Provides

- Individual counseling
- Couples counseling
- Substance abuse assessment and counseling
- Medication evaluation
- Medication management
- Consultation to assist in the recognition of mental health concerns of residents and fellows
- Lectures and workshops on various 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



**Clinic Director**  
Mickey Trockel, MD, PhD

## Women's Wellness

The Women's Wellness Clinic provides specialized mental health care to women. The clinic specializes in the evaluation and treatment of a wide variety of disorders.

### Conditions Treated

- Premenstrual dysphoric disorder (PMDD)
- Perinatal mood and anxiety disorders
- Perimenopausal mood and anxiety disorders
- Infertility treatment related adjustment and mood disorders
- Treatment resistant depression in women
- Psychiatric effects of gynecology-related conditions, such as polycystic ovary syndrome (PCOS), endometriosis, and cancer



**Clinic Director**  
Katherine Williams, MD



PSYCHIATRY & BEHAVIORAL SCIENCES

# Community Commitment and Engagement

Because it is so important to address critical mental health issues, our community mission is valued by every member of our Department, from laboratory scientist to front-line community-based clinician.

# Community Commitment and Engagement

Community commitment and engagement is a fundamental academic mission of the Department and continues to grow and expand over time. Our community mission is defined broadly and flexibly to include our dedication to expanding our intensive local, state, and national community partnerships, ultimately extending these efforts to support novel behavioral health systems for providing mental health care around the world. In addition, we focus on building academic collaboration and support among our faculty, learners, and staff across the Stanford community and family. 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 individuals with mental illness from historically underrepresented communities 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.

Because it is so important for us to address these critical mental health issues, the community mission is valued by every member of our Department, whether laboratory scientist or front-line community-based clinician. Our community engagement and collaboration mission remains an area of ever-increasing focus as a key component of the vision and within our 10-year plan aspiration for the Department

of Psychiatry and Behavioral Sciences of Stanford Medicine. Numerous groups of faculty, trainees and staff have come together to support these community efforts, including the monthly Community Psychiatry and Behavioral Sciences Workgroup, the faculty Community Engagement Advisory Committee, and the trainee community interest group. The dialogues within these workgroups and with our community partners have led to numerous community-based activities in training, research and program development.

Our department continues to expand the community experiences for our trainees in county and local agency settings. We continue to integrate our community behavioral health efforts with an ever-increasing number of county and community agencies and partners. We continue to develop and expand our 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, international victims of torture and others. And through the development of new partnerships, we seek to expand our community engagement efforts to increase broad access to culturally appropriate, cutting-edge mental health care.

Over this next year we will continue to directly address and challenge the issue of stigma that delays access to critical mental health care and leads to difficulty in advocating for expanded community resources for mental health care. Further, by expanding on current efforts to create a cadre of trainees equipped to serve as community mental health leaders and team members, providing education and consultative support for our community-based 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 community capacity, to give rise to better mental health outcomes for the communities, people and populations we serve.

# Regional Collaborations

## School Mental Health District Partnerships

The Stanford / Lucile Packard Children's Hospital (LPCH) School Mental Health Program has worked extensively with elementary, middle and high schools in Palo Alto, East Palo Alto, Mountain View, San Francisco, and San Jose since 2000, and provides a variety of mental health services, engages in community-based participatory research, builds capacity through ongoing professional development of school staff, promotes leadership among our trainees and community partners, and disseminates findings in multiple venues (academic journals, national meetings, and popular media). Our program is led by Dr. Shashank Joshi, with clinical care and consultation by Drs. Moira Kessler, Steven Sust, and Steven Adelsheim with staff partnership from Jasmine Lopez, Nadia Jassim, and Vicki Harrison.



Through these partnerships, we have learned about the specific mental health factors that may impact a student's learning, such as trauma, loss, depression, anxiety, and emotional distress in general. Many stakeholders have been engaged in these community efforts focused not only on mental health treatment and wellness promotion, but also on suicide prevention (see below).

Some school mental health research efforts focus on the interaction of culture, stigma, and help-seeking among diverse youth and their families. We have also implemented and evaluated peer-led (and adult-mentored) culturally adapted mental health interventions for several communities affected by suicide clusters. These interventions have led to more students being able to name trusted adults they would go to when seeking help for themselves or for peers. Recently, we received funding to study classroom teacher self-efficacy in student mental health, by utilizing a virtual classroom interaction platform.

## Stanford Health and Wellness Study



Stanford Health and Wellness Study, led by Drs. Victor Carrion and Ryan Matlow, is a three-year longitudinal, multi-method neuroscience-based research evaluation of a yoga- and mindfulness-based health and wellness curriculum being implemented in local school districts. It is a partnership between Pure Edge Inc. (formerly The Sonima Foundation), Ravenswood City School District, Alum Rock Unified School District, Orchard School District and Stanford's Early Life Stress and Pediatric Anxiety Program.

## The California Student Mental Health Policy Workgroup

State Superintendent of Public Instruction (SSPI) Tom Torlakson convened the Student Mental Health Policy Workgroup (SMHPW) to bring together individuals with diverse expertise to develop innovative policy recommendations to address the mental health challenges facing vulnerable youth. This work group is composed of teachers, school counselors, school social workers, school psychologists, school nurses, and school administrators, as well as state and county mental health professionals. This diverse group of experts has reviewed the current mental health needs of California students as well as the existing student mental health practices, and its first recommendation is that educators—including administrators and teachers—need more training in student mental health. Dr. Shashank Joshi is actively involved in working with this state effort to expand suicide prevention plan training for schools across the state.

# Suicide Prevention Efforts

## Project Safety Net and the HEARD Alliance

For the past 7 years, many department members have been involved in local, regional and state suicide prevention efforts. Through partnerships with Palo Alto's Project Safety net and the regional HEARD Alliance of health and mental health professionals, departmental faculty, staff and trainees have lent support to local efforts to expand suicide prevention programs, including efforts focused on lethal means restriction. Drs. Joshi and Adelsheim continue to be involved in the leadership of these initiatives. In addition, Dr. Joshi has been a leading partner in the efforts to expand the HEARD Alliance's highly acclaimed Suicide Prevention Toolkit, which has now become a state guide. This effort has been linked with our team's contribution to the passage of California AB 2246, The Student Suicide Prevention Bill, signed into law in the Fall of 2016. Members of our team have also led statewide webinars in suicide prevention designed specifically for school districts to implement the provisions of the bill.

## Suicide Prevention Through Outreach

Through a Departmental Collaboration with Lucile Packard Children's Hospital and the Stanford Department of Pediatrics, funding has been developed to support departmental initiatives to address issues of mental health and media and models for building mental health support for young men in Santa Clara County. This Suicide Prevention Through Outreach (SPot) effort has led to a number of innovative efforts ranging from focus groups with young men across the county looking at access issues and needs for mental health support as well as plans for an conference on Mental Health and the Media on April 26th, 2018. For this conference, community members, media partners, youth and mental health specialists from across the Bay Area will be coming together to focus on improving dialogue and communication to decrease suicide risk and improve collaborative communication.

## Santa Clara County EPI-AID Epidemiological Partnership

Our faculty have been consulted statewide and nationally to provide recommendations on both upstream and downstream suicide prevention measures. Dr. Rebecca Bernert, a suicidologist in our department, recently received a grant from the Stanford Center for Clinical and Translation Research and Education to create a formalized infrastructure to support monitoring of youth self-directed violence in Palo Alto and comparator districts/counties. In addition, the Santa Clara County Behavioral Health Division is supporting Dr. Bernert's efforts to develop an initial fatality statistics database along the Caltrain railway corridor to support epidemiological monitoring of youth suicides and their prevention.

## Teen Wellness Conference

The Stanford Center for Youth Mental Health and Wellbeing was proud to co-sponsor and help plan the Teen Wellness Conference held at Microsoft's Silicon Valley campus on September 30, 2017. The event was organized "for teens by teens" under the leadership of Teenstalk founder and Los Gatos High School senior, Nadia Ghaffari. It brought together 220 youth (from 15 counties in California and 1 county in Arizona) to connect around their mental health experiences and explore resources for wellness, all while harnessing the power of positive peer support and empowering youth voices.

# Training Collaboration Efforts

## Regional Adolescent Wellness Conference



In August of 2016, the Stanford Psychiatry Center for Youth Mental Health and Wellbeing co-sponsored the first regional adolescent mental wellness conference with Lucile Packard Children's Hospital (LPCH). Held in South San Francisco, the conference had over 70 speakers and was unique in bringing together youth, parents, educators, clinicians, and policymakers to focus on youth mental health issues and needs.

Our next conference, focused on Overcoming Cultural Barriers to Access, will take place April 27-28, 2018 at the Santa Clara Convention Center.

## One East Palo Alto Neighborhood Improvement Initiative

One East Palo Alto (OEPA) is a youth-focused, community-based nonprofit established as a comprehensive community change initiative. OEPA's mission is to develop resident leadership, broker resources and services, build the capacity of individuals and organizations, and advocate for change for East Palo Alto youth. In a project supported by a Spectrum Grant for Population Health Sciences and the Department's Small Grant Program, Dr. Ryan Matlow and Dr. Flint Espil provide consultation and training for OEPA's Behavioral Health Advisory Group Ambassador Team to inform mental health support services provided to youth and families at Ronald McNair Academy. In addition, Dr. Matlow participates, consults, and serves as a focus area workgroup leader for OEPA's Youth Empowerment and Strategies for Success (YESS) collaborative.

## Tipping Point Mental Health Initiative

Tipping Point Community's Mental Health Initiative began a partnership with Stanford's Early Life Stress and Pediatric Anxiety Program in 2012 to develop comprehensive and integrated wellness services and mental health supports at community-based organizations in the South Bay. Dr. Victor Carrion, Dr. Daryn Reicherter, Dr. Ryan Matlow, and Dr. John Rettger are engaged in ongoing collaboration with Tipping Point Community and their grantees at JobTrain, CollegeTrack East Palo Alto and Aspire's East Palo Alto Charter School and East Palo Alto Phoenix Academy. Mental health clinicians Veronica Alvarez, Cristina Cortez, and Cynthia Yee serve as Wellness Educators providing psychoeducation, mental health consultation, and service linkage and coordination for clients and staff at grantee sites.

## Trauma Treatment Training for Community Partners

Dr. Victor Carrion, Dr. Ryan Matlow, and Dr. Hilit Kletter provide training on Stanford's Cue Centered Therapy for Youth Experiencing Posttraumatic Symptoms (CCT) for therapists and counselors at behavioral and mental health care service organizations. In 2016 and 2017, CCT training was provided to members of partner organizations including the Center for Youth Wellness, Counseling and Support Services for Youth, Ravenswood City School District, Stanford Youth Solutions, One East Palo Alto, and Ponce Health Sciences University in Puerto Rico. Current plans are to hold annual 1-2 day CCT trainings for program and department partners.

## Early Psychosis/ CBT for Psychosis Training

Dr. Kate Hardy has led departmental efforts in early psychosis training for regional and state partners. With First Hope, in Contra Costa County Dr. Hardy has been training community clinicians in CBT for individuals at risk of developing psychosis with 6-month weekly consultation and tape review to ensure clinicians provide fully competent CBT for this population. She also works with Contra Costa Behavioral Health, training team members in Positive Practices for working with Psychosis (a CBTp informed approach) for clinicians working with adults with psychotic disorders in the community plus ongoing group consultation.

On the state level, Dr. Hardy collaborates with the Department of State Hospitals, training 25 clinicians in Cognitive Behavioral Therapy for psychosis plus 9-month weekly consultation to support provision of this model within the state forensic system. This contract resulted in the development of a manualized group CBT for psychosis in forensic settings protocol that is now implemented in Patton State Hospital. Nationally, Dr. Hardy is involved in training NAVIGATE Early Psychosis teams across Michigan in CBTp. Within this initiative 20 clinicians were trained in this approach over the course of a three-day training. Weekly consultation is being conducted with these clinicians with monthly tape review in collaboration with the NAVIGATE trainers to support ongoing sustainability and integration of these models.

## San Jose AIDS Education and Training Center

The San Jose AIDS Education and Training Center (SJ AETC), under the medical directorship of Dr. Lawrence McGlynn, provides training, clinical consultation and technical and capacity building assistance for health care professionals at no cost utilizing expert faculty on topics related to HIV/AIDS and Hepatitis C prevention and care in the counties of Santa Clara, Santa Cruz, San Benito, Monterey and San Luis Obispo. SJ AETC provides customized presentations tailored to specific provider audiences and offers capacity building support for the development and implementation of routine HIV testing in primary care practices. Training and coaching services are also available for primary care clinics interested in transforming into a Patient Centered Health/Medical Home.

## American Psychiatric Association Minority HIV Fellowship

The APA offers fourth year medical students the opportunity to spend one month at Stanford's Positive Care Clinic and Santa Clara Valley Medical Center's PACE Clinic working with Dr. Lawrence McGlynn in HIV psychiatry. The fellowship provides a stipend for housing, as well as a fully-funded 3-day HIV training program in Washington D.C.

## Stanford Mental Health Innovation Challenge



This summer, with support from the Ambassadors at Lucile Packard Foundation for Children's Health and in partnership with the Stanford + Mental Health student group, we engaged with more than 80 local high school students from San Mateo and Santa Clara counties in our first ever Stanford Mental Health Innovation Challenge (SMHIC). With the guidance of mentors and experts in design thinking, technology, and mental health, students came together to develop innovative approaches to solving some of the most complex issues in youth mental health.

At the end of two days, students were asked to give three minute pitches to a panel of experts in the technology, mental health, education and innovation fields. Five winning teams earned small grants and access to a year of mentorship from our staff, faculty and other community partners to help develop their idea.

# Cultural Partnerships

## Stanford Communication Health Interactive for Parents of Adolescents and Others



In 2015, youth suicides among Palo Alto teenagers again made national news. To be responsive to the community, the department chose to expand a focus on supporting Asian students and families across the region. Nationally, Asian-American youth are at higher suicide risk, citing family acculturation mismatches as especially stressful. As the Stanford Psychiatry department responded with interventions for teens, we also talked with parents, whose upbringing may have stigmatized emotional issues. At a 2015 symposium, Asian parents discussed cultural differences, but also requested role-modeling and guidance on parent-child communication. We immediately planned a series of theatrical “vignettes” and started performing them in Bay Area middle and high schools.

Stanford faculty and trainees, under the leadership of faculty member Rona Hu, wrote scripts and became actors, depicting scenarios like arguing about grades, dating someone “unsuitable”, and embarrassment over a parent’s accent, drawing on our academic backgrounds, clinical work, and our own lives. The team performed each scene first one way, paused for questions, and then performed the scene again, using audience input.

The response: coverage from front page news, television and radio, to national and international invitations to perform for schools, communities, and professional meetings. Even more gratifying has been the response from parents who realize that they are not alone, and talk openly about their struggles. Responding to requests, the program is now expanding: vignettes for South Asians and Latinos, outcomes research, and video programs supplementing our live performances. As clinicians, we have found a “treatment” with lasting effects and no side effects, that the team hopes can save lives.

## Chinese Health Initiative



Steven Sust, MD is the Co-Chair of San Mateo County’s Chinese Health Initiative (CHI). The CHI is dedicated to community education and outreach for general wellness of the Chinese population and the corresponding services available. In addition, CHI advocates for culturally and linguistically appropriate community services given the shortage of available community resource.

## The Bay Area Muslim Mental Health Community Advisory Board

In partnership with the Muslim Community Association (MCA), the largest Muslim community center in the Bay Area, the Stanford Muslims and Mental Health Lab was awarded a 2016 pilot grant from the Stanford Center for Clinical and Translational Research and Education (Spectrum). The overall goal of this project was to develop a community advisory board with key stakeholders that could address the mental health needs of the Muslim community. This CAB meets monthly under the leadership of Dr. Rania Awaad and is working to develop a community based model that facilitates utilization of formal mental health services among American Muslims in the Bay Area. At the 15th Annual Community Health Symposium in January 2017, the community-university partnership between the Stanford Department of Psychiatry and the Muslim Community Association was awarded the Outstanding Community Partnership Award.

## The Bay Area Muslim Mental Health Professionals

The Stanford Muslims and Mental Health Lab hosts and helped develop a monthly meeting at Stanford for the Bay Area Muslim Mental Health Professionals network. This meeting has drawn mental health professionals and trainees from all over the Bay Area who work with Muslim populations. Since its inception, this network of Muslim Bay Area mental health professionals has grown from a handful to over 100 interdisciplinary mental health providers and trainees. The monthly meeting facilitates networking, peer support, and mentorship opportunities for those interested in Muslim Mental Health. The lab also helps organize the monthly didactic sessions and competency pre/post evaluations for these monthly trainings.

## Muslim American Society Social Services Foundation

Muslim American Society-Social Services Foundation (MAS-SSF) is a non-profit based in Sacramento, CA that aims to aid families in general and the Muslim community in particular with their culturally sensitive social and mental health service needs. The Stanford Muslims and Mental Health Lab has assisted MAS-SSF in applying for and successfully receiving a Capacity Building Pilot Project grant that is offered by California Department of Public Health (CDPH) California Reducing Disparities Project (CRDP). This grant will provide technical assistance to MAS-SSF to further develop their infrastructure and improve their ability to apply to larger state or federal grants. Later, the lab's role will be to evaluate the efficiency and the impact of their community based mental health practices.

## The Bay Area Muslim Mental Health Crisis Response Team

Dr. Rania Awaad is the co-chair of a crisis response team that services the Muslim community in the Bay Area. This team is comprised of therapists who volunteer their time for emergency consultations when the local Muslim community faces a crisis. Examples of emergency response efforts have been in the aftermath of the Muslim Travel Ban, Chapel Hill, UC Merced, San Jose Shootings and Santa Cruz drownings.

## Tribal Youth Suicide and Opiate Use Prevention Partnerships

Through a new grant from the Indian Health Service, The Center for Youth Mental Health and Wellbeing is working with Two Feathers Native American Family Services of Big Lagoon Rancheria to expand suicide prevention programs for young people in Northern California and across the state. Efforts are also underway to build clinical and consultation partnerships around opiate use prevention with tribal partners as well, through a collaboration with Dr. Mark McGovern.

# Clinical Collaborations

## Center for Youth Wellness

The Center for Youth Wellness (CYW) is an innovative, public-private initiative working to provide a full spectrum of services under one roof for San Francisco's most vulnerable children. Dr. Victor Carrion is a founding member and past Chair of the Scientific Advisory Committee. Dr. John Rettger provides ongoing support in yoga and mindfulness practices for CYW staff.

## Headspace Program Development

With funding from the Robert Wood Johnson Foundation and Santa Clara County's Behavioral Health Board, Stanford Psychiatry's Center for Youth Mental Health & Wellbeing is leading the effort to bring the headspace model to the US by establishing stand-alone, integrated care sites for young people ages 12-25 to access early mental health support. Under the direction of Dr. Steven Adelsheim, the Center is in the process of creating infrastructure and partnerships to pilot the very first US-based implementation of the headspace model in the San Francisco Bay Area with the goal of national replication. The first two sites in the US will open hopefully by January 1 of 2019 in San Jose and North Santa Clara County. The Center also has support from partners at the McKenzie Foundation of San Francisco to develop the new name, design and look of these unique clinical programs. Our team continues to partner with the state Mental Health Services Oversight and Accountability Commission, headspace Australia, the Foundry Programs in British Columbia and the international Frayme group in expanding public mental health programs for young people within the US.

## Center for Survivors of Torture, Asian Americans for Community Involvement

Since its inception in 2000, Center for Survivors of Torture (CST) has provided specialized services, including individual and group psychotherapy, psychiatry, psychological and medical evaluations for political asylum cases, medical, social and legal services to more than 800 victims of torture and family members from 64 countries. Dr. Daryn Reicherter has become the medical director and provides clinical services for victims of political torture from around the world. He also helped develop rotations there to enhance exposure to community psychiatry for education at Stanford School of Medicine. AACI now has a robust resident training program and PsyD training from Stanford and from Stanford/PAU programs (respectively). AACI is developing an integrated behavioral health program to complement its growing primary care program as well.

## Support for Families Facing Dementia

The Caregiver Research and Practice Lab (CARP), led by Dr. Dolores Gallagher-Thompson, focuses on studying, and providing, evidence-based psychological interventions to reduce distress in family caregivers of persons with Alzheimer's disease or other forms of dementia. The program partners with a variety of community-based organizations in San Mateo and Santa Clara counties including Rosener House (Menlo Park), Avenidas comprehensive senior services and referral program and San Mateo County Aging and Adult Services. Several of these programs have been translated into Spanish, Chinese, and Farci. Currently CARP members are focusing minority outreach and intervention efforts on nearby Latino communities, in collaboration with the Stanford Alzheimer Disease Research Center. Future goals include offering our family skill-training workshops in Spanish in collaboration with interested partners in San Mateo and Santa Clara county, and increasing knowledge about why Latinos are needed in dementia research, along with reducing barriers

## South Bay Project Resource

Dr. Doug Noordsy collaborates with South Bay Project Resource (SBPR) by providing a family education program as well as identifying & inviting other teachers. He also supports SBPR's development of a web-based education resource, Psychosis Summit, by identifying & interviewing experts in psychosis.

## Gardner Family Health Network

Dr. Daryn Reicherter is a Consulting Psychiatrist working to develop Integrated Behavioral Health for Gardner Primary Care. Three of Gardner's 7 sites have operational behavioral health, including Packard/Gardner Children's Health Center.

Gardner has an operational 1st Five Program operating at several sites. The Program is growing with the goal of having behavioral health available at all its sites.

## Ravenswood Family Health Center



Ravenswood Family Health Center is a nonprofit federally qualified community health center based in East Palo Alto. RFHC provides healthcare for the underserved, uninsured and most vulnerable low-income residents of communities in southeastern San Mateo County. Drs. Christina Khan and Ryan Matlow provide mental health services for Ravenswood Family Health Center as members of the Integrated Behavioral Health Services team.

## Partners in AIDS Care and Education Clinic, Santa Clara Valley Medical Center

The Partners in AIDS Care and Education (PACE) Clinic is the largest provider of comprehensive HIV care in Santa Clara County. The patient population represents the diversity of the community it serves, including over 50% Hispanic and significant numbers of Asians and immigrants from Africa.

Dr. Lawrence McGlynn serves as the PACE Clinic's Director of Mental Health Services. In addition to primary and psychiatric care, the clinic also offers substance abuse counseling and treatment, pain management, Hepatitis C treatment, case management, and outreach.

# Clinical Collaborations

## Stanford Psychiatry Forensics Team



The Stanford Psychiatry Forensics team provides clinical support and collaboration with juvenile and adult court systems in San Mateo and Santa Clara Counties, with their expanding community partnerships the team works to “Bring medicine to crime” in an effort to support the mental health needs of those involved with the justice system. They also provide training to agencies, courts, and community partners on mental health assessment, needs, and issues of those in the justice system.

## The Khalil Center - Bay Area



The Khalil Center works to address the clinical needs of local Muslim populations using faith-based approaches rooted in Islamic theological concepts, while integrating the science of psychology towards addressing psychological, spiritual and communal health. There are currently offices in both the South Bay and East Bay. Dr. Rania Awaad teaches Khalil Center interns and trainees and provides leadership, vision, and capacity building through her role as the Khalil Center’s Clinical Director.

## El Camino Women’s Medical Group



El Camino Women’s Medical group provides comprehensive women’s health care in Mountain View and San Jose. It is the largest OB/GYN practice that caters to the Muslim community and holds a community partnership affiliation with the Department of Psychiatry and Behavioral Sciences to offer women’s mental health care to its diverse population. Dr. Rania Awaad serves as its Psychiatric Director.

## Stanford Positive Care Clinic

The Stanford Positive Care Clinic was founded in 1994 to provide support and treatment for those living with HIV/AIDS. Today the clinic has expanded its mission, providing primary and mental health care to the LGBT population, as well as those seeking Pre-Exposure Prophylaxis (PrEP), an effective method to reduce the transmission of HIV. The faculty and staff of the Positive Care Clinic are also active in outreach and education of the HIV and LGBT community. International research continues to be an important component of the Positive Care Clinic’s work.

## Therapeutic, Healing, Resilience, Inclusivity, Values, and Empowerment Clinic



Therapeutic, Healing, Resilience, Inclusivity, Values, and Empowerment (THRIVE) is a new clinical program at Stanford directed by Dr. Christina Khan that focuses on the rehabilitation and empowerment of individuals who experience adversity. Those who may benefit include individuals and communities disadvantaged or marginalized by immutable factors such as minority status, poverty, trauma, or exploitation, including LGBTQ+, immigrant and refugee populations, individuals who have coped with racial discrimination, individuals and communities affected by traumatic events, and human services professionals experiencing secondary trauma. Services are personalized through an integrative and strengths-based approach to promote resilience in each individual/community served.

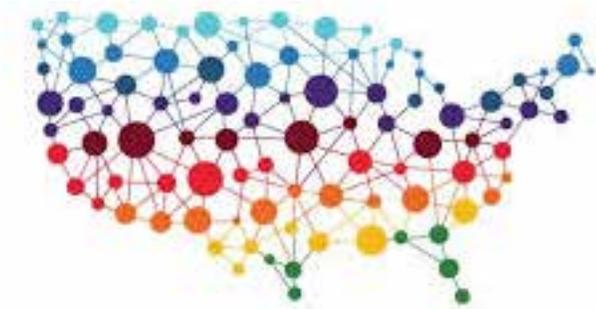
## Arbor Free Clinic: Stanford Medicine's Free Clinic



Founded in 1990, the ongoing mission of Arbor Free Clinic is to provide culturally appropriate, high quality transitional medical care for an underserved patient population and to educate and empower a new generation of healthcare leaders to proactively address health disparities and improve access to care in their communities. Dr. Daryn Reicherter is Faculty Advisor and an Attending Physician for the Mental Health Chapter of the Arbor Free Clinic. This serves as a training experience for Resident Psychiatrists, Medical Students, and Pre-medical Undergraduates.

# National Collaborations

## National Prodrome/Early Psychosis Programs Network



In partnership with many national experts, academic institutions and government agencies, Dr. Steven Adelsheim, Dr. Kate Hardy and Dr. Douglas Noordsy work with clinical high risk and first episode psychosis programs across the country in supporting a national Prodrome/Early Psychosis Programs Network (PEPPNET) to link training efforts, evidence-based treatment and outcomes tracking

## Muslim American Mental Health Leadership



Dr. Rania Awaad continues to be recognized for her national leadership in Muslim mental health. In April of 2016, by invitation of President Obama, the Secretary of Health and Human Services, Sylvia Burwell and SAMHSA leadership, she represented the Stanford Muslims and Mental Health Lab at a convening at the Department of Health in DC to discuss matters relating to Muslim Mental Health.

## Women in Psychiatry Leadership

Dr. Amy Alexander is the Treasurer of the Association for Women Psychiatrists (AWP), which meets at the American Psychiatry Association meeting. The AWP advocates for women's issues in the field of psychiatry. She is also part of a group from the APA Women's Caucus working on a joint national project developing a position statement and advocating for the policy "Recommending 12 weeks of Universal Paid Parental Leave."

## School Mental Health Leadership

Dr. Shashank Joshi continues as the Co-Chair of the Schools Committee of the American Academy of Child and Adolescent Psychiatry (AACAP).

In this capacity, Dr. Joshi guides the direction for child psychiatrists working in schools across the country. He is also currently serving a term on the National Council for AACAP.

## The American Psychiatric Association Office of HIV Psychiatry



The APA Office of HIV Psychiatry coordinates the many HIV/AIDS-related educational, training, and support activities within the American Psychiatric Association and the American Psychiatric Foundation. The office provides information on the spectrum of clinical, neuropsychiatric, and psychosocial aspects of HIV disease and AIDS, and offer a myriad of trainings and services for various audiences including psychiatrists, psychiatric residents, physicians, physician assistants, nurses, social workers, substance abuse professionals, mental health providers, case managers and individuals living with HIV. Lawrence McGlynn serves in the Office of HIV Psychiatry as a member of the Steering Committee and Faculty.

## College and University Student Mental Health Leadership

Dr. Amy Alexander is currently serving as one of the Co-Chairs of the College Mental Health Caucus at the American Psychiatric Association's (APA) annual meeting. She organizes the Caucus' national meeting, which brings college mental health psychiatrists together to discuss and advocate for mental health issues that are important to the college student population. In addition, she is also one of the American Psychiatric Association's (APA) representatives to HEMHA (Higher Education Mental Health Alliance), a consortium of 9 national organizations, which includes the American Academy of Child & Adolescent Psychiatry (AACAP), the American Psychological Association (APA), and the American College Health Association (ACHA). HEMHA develops consensus guides for college administrators and college mental health providers on different topics. Current projects include Telemental Health Services on College Campuses, and Service Animals and Emotional Support Animals on College Campuses. Amy is also one of the founders of the Association for College Psychiatry (AFCP), the first such organization for college psychiatrists, and is currently serving as its President.

# International Collaborations

## Refugee Mental Health

In collaboration with colleagues from CPR-Alalusi Foundation, Dr. Rania Awaad has traveled to Amman, Jordan to provide refugee mental health aid and help develop a “train the trainers” curriculum for clinicians working with Syrian and Iraqi refugees in Jordan.

To date, the annual conference sponsored by the Alalusi Foundation has trained over 100 clinicians, therapists and social workers who work with refugee populations in Jordan.

## Building Capacity for Mental Health in Rural Guatemala

Dr. Christina Khan leads a global health partnership in the department to address stigma and build capacity for mental health care and research in rural Guatemala. Through collaboration with ALAS Pro Salud Mental and other partners in Guatemala, this partnership offers training opportunities for undergraduates, medical students, residents and fellows as well as Guatemalan students, community health workers, and clinicians to learn mental health outreach, promotion and treatment in low-resource settings. The lab has recently received funding to deliver a WHO mental health curriculum to public health physicians in Sololá province, Guatemala.

## Stanford Global Mental Health Initiative

The Global Mental Health Initiative was created with the mission to integrate clinical, research, service, leadership, and educational efforts in the department focused on global mental health. This program will unite existing faculty efforts and provide opportunities for new partnerships and initiatives. A core component of the Initiative will be to utilize information technology tools to scale up mental health activities on a global level, taking advantage of the expertise available in Silicon Valley.

## Pediatric Mental Health Training in Africa

The department has a partnership with University of Zimbabwe to build child psychiatry efforts in Zimbabwe. There are training opportunities for residents and fellows to learn about mental health care provision in settings with few trained mental health professionals. Dr. Christina Khan is partnering with faculty at U of Z, Stanford, NextGen University, and others around the globe to create online training opportunities in pediatric mental health.

## Global Caregiving: iSupport for Dementia Family Caregivers

Dr. Dolores Gallagher-Thompson and colleagues have teamed up with the World Health Organization to develop an interactive web-based caregiver support tool (iSupport) that is accessible via computer, tablet and mobile phone. The pilot study is taking place in Bangalore, India where internet penetration is high and collaboration is secured with the NIMHANS Alzheimer research center.

The study will determine if English speaking dementia family caregivers in India will use this website and if they benefit from the resources. Following that, the website and accompanying technological information will be released to countries globally, on request with modifications as necessary to ensure that it is culturally relevant and likely to be used in their countries.

## The Human Rights in Trauma Mental Health Laboratory

The Human Rights in Trauma Mental Health Laboratory, led by Dr. Daryn Reicherter, is a Stanford based, multidisciplinary program, committed to advancing and applying scholarly work on the physical and psychiatric impact of trauma on survivors of human rights abuses with an eye towards informing transitional justice and judicial processes.

Examples of work include providing psychiatric consultation and assessments for a multi-disciplinary resettlement project for survivors of the Syrian war, working on two projects about the mental health outcomes of human rights violations from post-conflict Sierra Leone and under British rule in Kenya, collaborating with the International Criminal Court in the case of the Lord's Resistance Army in Uganda.

## Science and Service for Disaster Relief

Dr. Victor Carrion and the Early Life Stress and Pediatric Program are partnered in an effort to respond to the needs of international communities affected by recent natural disasters. In collaboration with international academic and community partners, this project is engaging in a mental health needs and resource assessment in response to: Hurricane Maria in Puerto Rico; the September 17 earthquake in Mexico City; and the October fires in Napa and Sonoma counties. Based on the needs assessment, a program of service, training, and resource delivery will be offered to affected communities, followed by ongoing evaluation of outcomes.

# Department Locations

## Selected Sites



401 Quarry  
Stanford, CA



VAPAHCS - Palo Alto Division  
Palo Alto, CA



1520 Page Mill  
Palo Alto, CA



Grant Building  
Stanford, CA



SIM1  
Stanford, CA



Outpatient Center  
Redwood City, CA



Beckman Center  
Stanford, CA



Alway Building  
Stanford, CA



Lucas Center (MSLS)  
Stanford, CA



Canary Center  
Palo Alto, CA



1070 Arastradero  
Palo Alto, CA



CJ Huang Building  
Stanford, CA



213 Quarry Road  
Stanford, CA



Clark Center  
Stanford, CA



CCSR  
Stanford, CA



3165 Porter  
Palo Alto, CA



Hoover Pavillion  
Stanford, CA



321 Middlefield Road  
Palo Alto, CA



VAPAHCS - Menlo Park Division  
Menlo Park, CA



Palo Alto University  
Palo Alto, CA



Gronowski Clinic  
Los Altos, CA

# Special Initiatives of the Chair

## The Belonging Project at Stanford



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.

## Brain-Mind Initiative



The Department hosted the first Brain-Mind Summit in September 2016 in collaboration with community partners, bringing neuroscientists, entrepreneurs, and community stakeholders together to foster innovation. From September 7-9, 2018 the Department will co-host the second annual BrainMind Summit, an invitational conference presenting the world’s top thought leaders in neuroscience and the study of human consciousness. The BrainMind Summit is the flagship event of the BrainMind ecosystem, which brings together neuroscience institutions, researchers, entrepreneurs, and investors with the purpose of accelerating values-driven brain endeavors. Through the BrainMind ecosystem, participants in the BrainMind Summit will be engaged with how to answer the hardest and most urgent questions in the field for years to come.

The 2018 Summit at Stanford will be hosted by Dr. Michael McCullough, Dr. Laura Roberts, Reid Hoffman, and Juan Enriquez. All BrainMind Summit participants are carefully selected for potential contribution, influence, and moral intent. The goal is to foster vital impact investing needed to bridge the resource gap for rapid and impactful innovation in medicine and technology, catalyzing transformative proof-of-concept development in this field.

## Brainstorm: The Stanford Laboratory for Entrepreneurship in Mental Health



Brainstorm is the first academic laboratory dedicated to transforming brain health through entrepreneurship. Brainstorm applies the biopsychosocial model of disease to tackle problems on the systems level by uniting the worlds of medicine, business, technology, and design. We we diagnose and treat the Mental healthcare system. We are the “Innovation and Entrepreneurship Core” of the Stanford Mental Health Technology and Innovation Hub.

The Brainstorm founding mission is to transform brain health by fostering innovative ventures that optimize health and human potential. We pursue our mission by building:

### Ecosystem:

Provide students and professionals with the knowledge and skills they need to create innovative solutions to brain health problems, including through our Stanford course “Leadership and Innovation in Mental Healthcare”. Build a network to unite key stakeholders and identify the most important ideas, challenges, and potential in this new field.

### Expertise:

Consult for academia, nonprofits, government, and industry to develop innovative ideas into successful, scalable solutions for patients. Advance research and publish insights on brain health technology (mobile, VR/AR, artificial intelligence, blockchain, devices, etc.) and ventures.

Brainstorm was founded in 2017 by Dr. Nina Vasani with founding partners from across the country, Dr. Gowri Aragam, Dr. Neha Chaudhary, Dr. Kenechi Ejebe, Dr. Reza Hosseini Ghomi, Dr. Swathi Krishna, and Dr. Cody Rall. Brainstorm’s multidisciplinary team includes fellows from Stanford’s college, Graduate School of Business, and Law School.

## Clinical Neuroscience Immersion Experience (CNI-X)



Co-directed by Dr. Laura Roberts and Dr. Alan Louie, the Clinical Neuroscience Immersion 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.

Packed 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 vitae. Each student creates a project, often in a team, to self-express some lesson taken from the internship that is verbally presented at a final capstone session for themselves and their families. The experience is fast-paced, intense, challenging, creative, and creates lasting bonds between students.

## Clinical Neuroscience Research Experience (CNR-X)



Co-directed by Dr. Laura Roberts and Dr. Alan K. Louie, the Clinical Neuroscience Research Experience (CNR-X) is an immersive, two week educational summer program for high school students from China who are interested in advancing their knowledge in the fields of neuroscience, psychiatry, and psychology.

In the first year of the program, thirteen high-achieving students from all across China came together in Stanford's Department of Psychiatry and Behavioral Sciences for two weeks of immersive lectures on the principles of neuroscience, clinical neuropsychiatry, neuroscience research, psychiatric epidemiology, behavioral and social sciences, and more. The lectures were diverse and engaging, and challenged the students to think critically about many fields of research that they had not been exposed to previously.

Throughout the course of the program, students also spent time working in small groups to develop innovative, novel solutions to social issues related to psychiatry, psychology, or neuroscience. The students spent two full weeks developing, testing, and refining their product ideas, which they then presented to a panel of faculty judges in a 15-minute business-style pitch.

Beyond the academics, CNR-X also offered international students an opportunity to experience life as an undergraduate on Stanford's campus. During their two weeks in the United States, they lived in shared dormitories, ate in the dining halls, and spent their free time exploring the campus and surrounding areas.

## Community Outreach Activities



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 labs to support communities of people with early psychosis, children and adults who have faced trauma, the United States Muslim community, people with Alzheimer 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.

## Editor-in-Chief, Books: American Psychiatric Association



Dr. Laura Roberts is the Editor in Chief, Books for the American Psychiatric Association. In this capacity she works 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.

Beginning in 2018 Dr. Roberts will also be hosting a podcast series in her capacity as Editor in Chief of Books for the APA. This podcast will feature interviews with authors of books recently published by the APA, as well as interviews with likely readers of those texts. In so doing the podcast aims to offer insights into the personal motivations that inform psychiatric research as well as reflect on the ways that professionals in the field put these books to use.

## Editorial Office: Academic Psychiatry



Academic Psychiatry is a bi-monthly, international academic medical journal sponsored by the American Association of Chairs of Departments of Psychiatry, American Association of Directors of Psychiatric Residency Training, Association for Academic Psychiatry, and Association of Directors of Medical Student Education in Psychiatry. 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.

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



### Program in Psychiatry and the Law

*Department of Psychiatry and Behavioral Sciences*

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 queries 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 care, research, education, and evaluation. As such, we are able to provide expert testimony in many areas of specialization and have considerable experience with depositions and trial testimony in both civil and criminal proceedings.

## Headspace



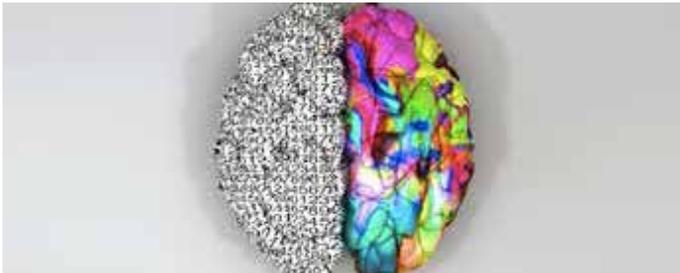
In collaboration with Santa Clara County and the Robert Wood Johnson Foundation, members of the Center for Youth Mental Health and Wellbeing will bring the Australian headspace model to the Bay Area. Headspace offers integrated care sites for young people ages 12-25 to access early mental health support, school support, and web-based connectivity in a stand-alone setting. These stand-alone settings have proven effective internationally as sites for improving the access that young people have to mental health resources, as well as providing a comfortable and welcoming community context in which young people can thrive. Part of the success of headspace in Australia is that young people see the program as their own independent place for mental health/health care. Also, by standing alone but still linking to the national headspace brand, each site is able to also reflect the unique adolescent/young adult culture of each geographic community being served.

Critical to breaking down stigma and other barriers to access is strategic marketing and advertising campaigns that include linkages to musical events, the involvement and voice of youth leaders, and ties to activities of interest to adolescents and young adults.

Stanford Psychiatry's Center for Youth Mental Health & Wellbeing is leading the effort to bring the headspace model to the US by building a community-academic partnership that has the potential to develop a nationally replicable model for supporting adolescent and young adult mental health.

The headspace model, developed in Australia, creates stand-alone, integrated care sites for young people ages 12-25 to access early mental health supports, along with school support and web-based connectivity. These programs improve young people's mental, social, and emotional wellbeing through the provision of high quality, integrated, age-appropriate care for teenagers, young adults, and their families who are facing early life challenges—whether they are issues like relationship breakups, bullying, sexual orientation, depression, anxiety, or other mild-moderate health conditions. headspace approaches youth wellness in a comprehensive and youth-friendly way, reaching them in clinical sites, online, and in schools.

## Humanities and Medicine: Growing the Heart and Mind of Medicine



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; developing a 3-5 year plan for enhancing/growing the academic and clinical

## Innovation Awards Program



The Department of Psychiatry and Behavioral Sciences Innovation Awards Program, launched in 2015, promotes research and collaborative scholarly projects that advance the academic interests of our faculty and the strategic themes of our department. Projects across the full spectrum of science and scholarship are encouraged.

The Innovation Awards Program has two offerings: Pilot Studies in novel scientific areas that have high potential to lead to competitive grant applications and Small Scholarly Projects related to areas including education, clinical care, community and health systems, and professional development. Pilot Study applications are systematically evaluated by senior faculty who assess significance of the scientific question, strengths of the investigator(s), degree of innovation, methodological approach, salience to departmental missions, and likelihood of leading to future funding. Small Scholarly Projects are systematically evaluated for overall quality, salience to the departmental missions, and feasibility. Assessments by individual faculty raters are kept separate and confidential and are submitted as guidance to the Chair.

Since its inaugural year the Innovation Awards Program has received over 125 applications and has funded nearly 50 projects in part or in whole. In so doing the Innovation Awards Program has leveraged departmental resources to fund worthy scholarly projects and has paved the way for external funding of ongoing research. The Innovation Awards Program occurs annually, with applications due each November.

## LGBTQ Mental Health



Lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals experience unique healthcare needs and face significant health disparities. Lack of cultural competence by healthcare providers contributes to these disparities by deterring LGBTQ individuals from seeking medical care, or by providing suboptimal care. Over the past 5-10 years, attention to LGBTQ health disparities has intensified nationwide, with widely-hailed reports from the Institute of Medicine and the Joint Commission serving to catalyze funding and research. More locally, Santa Clara County recently completed the first needs assessment of the LGBTQ population, which confirmed troubling trends in healthcare discrimination and highlighted significant mental health needs, with more than 42% of respondents indicating the desire to see a healthcare professional to address emotional or substance abuse issues. Despite the pressing demand, there is a dearth of LGBTQ-focused health clinics or expertise at Stanford or in the entire Peninsula and South Bay.

This special initiative aims to expand local resources for the LGBTQ community and train a new generation of providers to confidently and expertly promote LGBTQ health and wellbeing. We have four ongoing projects. First, through collaborations with local nonprofits and Santa Clara County government, we are working to launch an LGBTQ health clinic. Second, we are conducting research among Stanford trainees and faculty on knowledge and comfort caring for the LGBTQ population, as well as interest in further training opportunities. Third, we are compiling and publicizing existing resources for LGBTQ mental health to educate the local community. Fourth, we are leading efforts within the residency program to expose trainees and faculty to issues relevant to the LGBTQ community, informally through events such as lunchtime talks, as well as through our formal didactic curriculum.

The initiative was founded by Lawrence McGlynn, MS, MD, a clinical professor who has focused his career on HIV/AIDS and related psychiatric comorbidities; Ripal Shah, MD, MPH, the chief resident of diversity initiatives and community partnerships; and Neir Eshel, MD, PhD, a research-track psychiatry resident with longstanding interest in LGBTQ mental health, research, and advocacy.

## Lyme Disease Working Group



Lyme Disease is a serious and prevalent condition with physical, cognitive, and affective consequences. This condition and other tickborne 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 major breakthroughs in knowledge and improve medical practice—perhaps even more so in the context of Lyme Disease where bringing together diverse views is greatly needed to advance the science and inform practice.

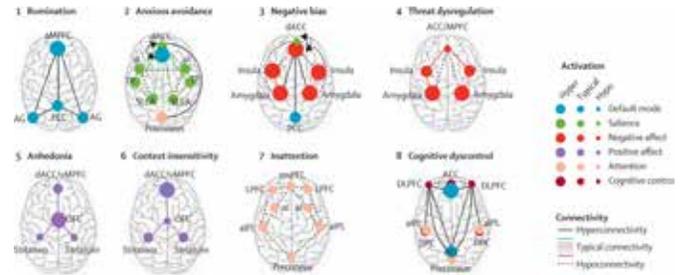
## Pegasus Physician Writers at Stanford



The Pegasus Physician Writers at Stanford are a group of academic and private practice physicians in various stages of career development who also are creative writers. The group was founded in 2008 by Audrey Shafer, MD (Anesthesia), Hans Steiner, MD (Psychiatry and Human Development), Irvin Yalom, MD (Psychiatry), and Larry Zaroff, MD, PhD (Cardiac Surgery). This independent group closely collaborates with the Medicine & the Muse, an arts and humanities program at the Stanford School of Medicine. The group currently has some eighty members from all branches of medicine participating in monthly meetings, workshops, and annual events. Members write poetry, fiction, fictionalized memoirs, op-ed pieces, and educational texts for the public with the intent to broaden public understanding of the science and art of medicine. Other goals of the group are to bring the insights of humanistic arts to the practice of medicine, to inform creative writing by the practice of medicine, to educate medical students and young physicians in the humanistic dimensions of medical practice, and to celebrate the lives of patients through their writing.

Recently, the Pegasus group was featured in a SciArt in America blog post, a Psychology Today post, two Stanford Medicine SCOPE blog posts, and on Ernst Schmiederer. Dr. Yalom was featured in The Huffington Post. The Pegasus Physician Writers at Stanford also participated in a Café Scientifique event, reading short stories and poems on using blood products as life-saving interventions. The group has been featured in an article about the arts, humanities and medicine programs that allow Stanford School of Medicine students to explore their artistic passions in conjunction with their medical studies. They have also published several pieces in *The Intima*, A Journal of Narrative Medicine.

## Precision Mental Health



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 examples, depression increases the risk of cardiovascular-related deaths threefold.

Mitigating such mental health statistics will require the best cutting-edge prediction, prevention, and preemption 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 2013 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.

## Project Catalyst for Mental Health



Mental disorders are the second leading cause of disability and premature mortality throughout the world and the first leading cause in economically established countries, and yet the profound consequences of these conditions remain underrecognized.

Project Catalyst for Mental Health is a new effort of the Department of Psychiatry and Behavioral Sciences. The intent of Project Catalyst for Mental Health is to foster innovation to address and lessen the impact of mental disorders and related conditions.

Bringing to bear the insights of diverse disciplines, Project Catalyst seeks to improve health outcomes through scholarly work conducted initially in six areas: 1) suicide; 2) co-occurring disorders, including physical, mental, and addiction-related conditions; 3) grief and survivorship; 4) computational neuroscience; 5) social and economic determinants and consequences of mental disorders and related conditions; and 6) health disparities and health policy.

## Reimagining Mental Healthcare



“Reimagining Mental Healthcare” challenges us to put aside what we know and to start from scratch – to reimagine mental healthcare and to then accelerate the translation of discoveries and ideas to our society with maximal impact.

This special initiative of the Department of Psychiatry and Behavioral Sciences seeks to bring together people and resources to dream into the future of mental healthcare through educational venues and forums, learning communities, and social networks. Participants are encouraged to bring to bear theories, tools, and expertise from diverse fields – in particular, information technology, design thinking, and implementation science.

By **Information technology**, we mean the broad spectrum of possible applications including m-health apps and biometrics, virtual and augmented reality, serious computer games, big data and machine learning, and web-based interventions. Direct applications to care and education include telemental health, measurement-based care, technological adjuncts to treatments, virtual extenders, technology-assisted medical education with simulations, online and blended learning, and more.

**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 better understand the needs of our patients and the myriad array of providers and craft solutions required to impact mental healthcare.

**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 accelerating the translation (from T1 to T4) of discoveries into clinical practices and the care of populations, here and globally.

## Small Scope High Impact Partnerships (S<sup>2</sup>HIP)



S<sup>2</sup>HIP initiates collaborations with community partners to leverage departmental resources for high-impact results in underserved communities. These collaborations seek to build upon clinical and population health research observations about the need to engage community partners by deploying community participatory research principles such as mutualism, respect, and inclusion.

These nascent collaborations provide the seeds for ongoing partnerships in local communities in the greater Bay Area by inviting members of historically marginalized communities to the table to participate in the development of research questions, methods, and delivery options appropriate to their communities. Preliminary conversations under this initiative are underway with community arts organizations, food justice groups, sustainable transportation advocates, and environmental schools. Community Participatory Research has demonstrable success in improving health and academic outcomes outside of the ivory tower and outside of traditional clinical settings. S<sup>2</sup>HIP provides a setting and support for incubation of potential collaborations between the Department of Psychiatry and Behavioral Sciences and a variety of community partner organizations.

## Stanford Center for Youth Mental Health and Wellbeing



The Center for Youth Mental Health and Wellbeing (CYMHWB) is working with state and local partners to bring integrated youth mental health programs to Santa Clara County, the state of California and other communities across the nation. This next year will bring the first two of these clinical programs to Santa Clara County, based on an integration of the Australian headspace model and the Foundry model from British Columbia. These integrated care sites for young people ages 12-25 create access to early mental health support, primary care, early substance abuse treatment and education/school support in a stand-alone setting. These “no wrong door” programs have proven effective internationally as sites for improving the access that young people have to mental health resources, as well as providing a comfortable and welcoming community context in which young people can thrive. Part of their success has been that youth see the program as their own independent place for mental health/health care.

In bringing this integrated youth mental health model to our region, the CYMHWB has developed a strong partnership with Santa Clara County in order to implement these models in appropriate locations with culturally appropriate features and design that will help effectively connect the sites with local youth. Critical to breaking down stigma and other barriers to access is strategic marketing and advertising campaigns that include the involvement and voice of youth leaders, and ties to activities of interest to adolescents and young adults.

In addition, the CYMHWB is partnering with the Mental Health Services Oversight and Accountability Commission and others to bring this valuable model to counties across California. Currently 5 other counties and several other states are considering how to bring these services to their communities as a result of the awareness created by the Center's outreach efforts. The CYMHWB, with technical collaboration from international partners at headspace and Foundry, will continue to lead the effort to bring these models locally, statewide and across the US by building partnerships that will ultimately create critical access to integrated mental health, primary care and coordinated services for our young people.

## Stanford Mental Health Technology & Innovation Hub



Stanford Psychiatry and Behavioral Sciences continues to be on the cutting edge of innovation in the field of technology and mental health. Positioned in the heart of Silicon Valley, and with the vast array of technology partners across the Stanford campus, our Department brings cutting edge technological science together with clinical expertise to create an array of unique and innovative solutions for those facing mental health challenges. In addition, we are fortunate to have a close collaboration with Psychiatry and Behavioral Science faculty partners from the VA Palo Alto Health Care System. Departmental faculty and staff are utilizing technology to provide support for people of all age groups and diagnostic categories with interventions ranging from web-based tools and telehealth models to mental health apps, virtual reality, augmented reality, and artificial intelligence.

## Stanford Neurodiversity Project



Led by Dr. Lawrence Fung, the Stanford Neurodiversity Project was established to promote neurodiversity, empower neurodiverse individuals, and maximize the potential of neurodiversity. Neurodiversity is a concept that regards individuals with differences in brain function and behavioral traits as part of normal variation in the human population. Examples of neurodiverse individuals include those with dyslexia, attention deficit hyperactivity disorder, and autism spectrum disorder. There are four key components for this project: Education, Service, Research, and Advocacy. The current plans for the Stanford Neurodiversity Project include the following three projects: (1) Neurodiversity Awareness and Education Initiative, (2) Neurodiversity at Work and Wellness Initiative, and (3) Neurodiversity Independent Living Skills Initiative.

The Neurodiversity Awareness and Education Initiative focuses on raising the awareness on neurodiversity within Stanford University through activities designed to optimize acceptance and maximize impact for neurodiverse individuals and Stanford University in general. The Neurodiversity at Work and Wellness Initiative is designed to attract talented neurodiverse individuals to work at Stanford University. Instead of going through the traditional interview process, individuals are selected based on their technical skills and abilities. This initiative is designed not only to prepare neurodiverse individuals for their careers, but also trains the next generation of professionals who will serve the neurodiverse population in the decades to come. While we have commenced our efforts in the first two initiatives, we anticipate that the Neurodiversity Independent Living Skills Initiative will be implemented in the near future.

## Suicide Prevention through Outreach



The Stanford University School of Medicine Department of Psychiatry & Behavioral Sciences in collaboration with the Lucile Packard Children's Hospital Stanford and the Stanford Medicine Child Health Research Institute invited applications for special projects focused on suicide prevention among youth in our community in 2017. We sought innovative and collaborative projects for each category that are responsive to the CDC report and the need to provide resources and support for our local and regional community.

In March 2017, in response to a request from the Santa Clara County Public Health Department, the Centers for Disease Control and Prevention (CDC) with their partners released a special report on suicide among youth in Santa Clara County. The CDC Report found that the rate of suicide among young people in our community is similar to other areas across our state and our nation, although many of the suicides have occurred in temporal and geographic "clusters." The 2017 report highlighted under-recognized risk factors that may contribute to this devastating health threat.

In response, leaders across Stanford Medicine came together to found Suicide Prevention through Outreach (SPOt). This newly established program in the Department of Psychiatry will initially focus on two factors identified in the recently published report: better understanding the greater suicide risk experienced among young men, and the role of the media in the context of youth suicide.

## Virtual Reality and Immersive Technology



Immersive technologies like virtual reality (VR) and augmented reality (AR) are capable of creating perceptual illusions that bring the individual to an entirely different location or place. They facilitate and can people stories by simulating experience. Conscious and unconscious learning can be enhanced by this technology by personalizing content to teach the user precisely what they need to learn.

Stanford Psychiatry's Virtual Reality & Immersive Technology (VRIT) Program is the first clinically focused academic endeavor dedicated to studying these immersive technologies and their capabilities in psychiatry. The VRIT Program team are a group of interdisciplinary academics passionate and called upon to evaluate, innovate, and disseminate advances in this field. Being situated in the center of Silicon Valley and Stanford campus activities, they are uniquely positioned for academic innovations in this space.

The VRIT Program team are committed to creating and disseminating sustainable best practices for patients using immersive technology as well as researchers exploring its uses

## Wellbeing and Self-Care



Our mission to improve the health of individuals, communities, and populations begins with improvement of our own health. With every choice we make to contribute to our own wellbeing, we invest in our own capacity for sustainable contribution to each of our five missions.

With every endeavor we engage in collectively to support the wellbeing of our colleagues and team-members, we invest in our collective capacity that multiplies our contributions to our patients, our community, and the world. Wellbeing adds inspiration and creativity to the advancement of science, meaning and purpose to clinical innovation and service, and enduring integrity to educational excellence. With unwavering commitment to our own wellbeing and the well-being of those we love and those work with, we create a compelling pattern for others to emulate in our community engagement efforts.

Only with sustained commitment to wellbeing might we rise to the height of opportunity for professionalism and leadership capable of inspiring others to play full part in preventing and relieving suffering, and solving societal problems that vex humanity.

## 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 of 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



