



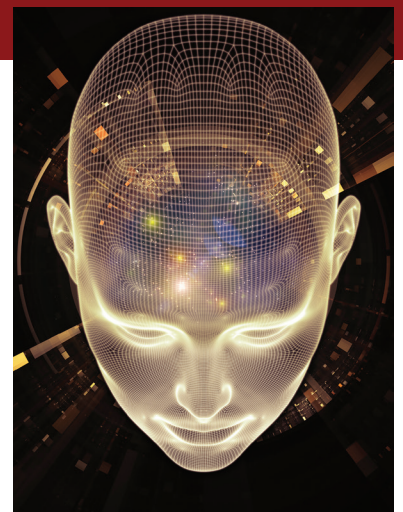
# 3rd Annual Innovations in Psychiatry and Behavioral Health: Virtual Reality and Behavior Change

A Continuing Medical Education Conference Presented by the Department of Psychiatry and Behavioral Sciences  
at the Stanford University School of Medicine

**October 6-7, 2017**

Li Ka Shing Center for Learning and Knowledge  
Stanford, CA

Sponsored by the Stanford University School of Medicine



# Conference Information

# Faculty

## WELCOME MESSAGE FROM THE COURSE DIRECTORS

Dear Colleagues,

We invite you to register for our 3rd annual conference of innovations in psychiatry and behavioral health. This year our conference is completely devoted to virtual and augmented reality (VR/AR) technologies and behavioral change. We will explore 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 will feature a “shark-tank” style innovation lab, demonstrations, and scientific posters. Please join our conference and interact 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.

Sincerely,

**Alan K. Louie, MD and Kim Bullock, MD**

## STATEMENT OF NEED

This symposium seeks to fulfill the need for physicians, psychologists, nurse practitioners, and clinical social workers to increase their knowledge and competence regarding innovations in the application of virtual reality (including augmented reality) in psychiatry and behavioral health, including appropriate referral of patients for these treatments. Topics will also include discussions of virtual and augmented reality innovations and resources that are most likely to change the field including, but not limited to: emerging therapies and devices, impactful combinations of existing treatments with virtual reality, and models for how clinicians may collaborate on these innovations with computer scientists and engineers. Notably, teaching techniques at the symposium will include speakers, posters, and an innovation lab, in which attendees may apply to present solutions to challenge problems in an award contest and engage in experiential learning to improve upon ideas in real-time through expert feedback and interaction.

## TARGET AUDIENCE

This is an international program, designed for physicians, psychologists, nurse practitioners, and clinical social workers practicing in the following specialties:

- Family Practice
- Primary Care
- Neurology
- Psychiatry
- Anesthesiology
- Pediatrics
- Neurosurgery

Also welcomed are people interested in VR/AR from fields like medicine, engineering, computer science, business, education, law, etc.

## LEARNING OBJECTIVES

At the conclusion of this activity, learners will be able to:

- Evaluate and appropriately refer

patients for the newest virtual and augmented reality treatments for health behaviors and mental health including: addiction, anxiety disorders, functional neurological disorder, mood disorders, post-traumatic stress disorder, pain disorders, and other psychiatric disorders.

- Evaluate and appropriately refer patients for the newest virtual and augmented reality treatments for the management of pain disorders.
- Effectively collaborate with interdisciplinary teams of physicians, computer scientists, engineers, and business people to provide optimal psychiatric and behavioral care to patients.

## ACCREDITATION

The Stanford University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

## CREDIT DESIGNATION

The Stanford University School of Medicine designates this live activity for a maximum of **16.50 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The California Board of Registered Nursing recognizes that Continuing Medical Education (CME) is acceptable for meeting RN continuing education requirements; as long as the course is certified for **AMA PRA Category 1 Credit™ (rn.ca.gov)**. Nurses will receive a Certificate of Participation following this activity that may be used for license renewal.

## COMMERCIAL SUPPORT

### ACKNOWLEDGEMENT

This CME activity is supported in part by educational grants. A complete list of commercial supporters will be published in the course syllabus.

## COURSE DIRECTOR

**Alan K. Louie, MD**

*Professor, Associate Chair, and Director of Education, Department of Psychiatry and Behavioral Sciences; Moderator, and Course Content Validation Reviewer*

## COURSE CO-DIRECTOR

**Kim Bullock, MD**

*Clinical Associate Professor, Department of Psychiatry and Behavioral Sciences; Director, Virtual Reality-Immersive Technology Lab*

## KEYNOTE SPEAKERS

**Jeremy Bailenson, PhD**

*Thomas More Storke Professor, Virtual Human Interaction Lab, Department of Communication, Stanford*

**Walter Greenleaf, PhD**

*Visiting Scholar, Virtual Human Interaction Lab, Stanford*

**Giuseppe Riva, PhD**

*Professor, ICE-NET Lab, Università Cattolica, Milan, Italy & ATN-P Lab, Istituto Auxologico, Milan, Italy*

**Albert “Skip” Rizzo, PhD**

*Research Professor, Department of Psychiatry; Director, Medical Virtual Reality; University of Southern California*

## STANFORD FACULTY

**Jacob Ballon, MD**

*Clinical Assistant Professor, Department of Psychiatry and Behavioral Sciences*

**Tom Caruso, MD, MEd**

*Clinical Assistant Professor, Department of Anesthesiology*

**Anne Dubin, MD**

*Professor, Department of Psychiatry and Behavioral Sciences*

**Kate Hardy, Clin.Psych.D**

*Clinical Assistant Professor, Department of Psychiatry and Behavioral Sciences*

**Hadi Hosseini, PhD**

*Instructor, Department of Psychiatry and Behavioral Sciences*

**Sean Mackey, MD, PhD**

*Redlich Professor, Department of Anesthesiology*

**Laura W. Roberts, MD, MA**

*Chairman and Katharine Dexter McCormick and Stanley McCormick Memorial Professor, Department of Psychiatry and Behavioral Sciences*

**Sam Rodriguez, MD**

*Clinical Assistant Professor, Department of Anesthesiology*

**Nina Vasan, MD**

*Psychiatric Resident, Department of Psychiatry and Behavioral Sciences*

**Leanne Williams, PhD**

*Professor, Department of Psychiatry and Behavioral Sciences*

## GUEST FACULTY

**Pat Bordnick, PhD, MPH, LCSW**

*Dean, School of Social Work, Tulane University*

**JoAnn Difede, PhD**

*Professor, Psychology in Psychiatry, Cornell University*

**Diane Gromala, PhD**

*Professor, School of Interactive Arts and Technology, Simon Fraser University, British Columbia, Canada*

**Hunter Hoffman, PhD**

*Professor, Mechanical Engineering, University of Washington*

**Elizabeth McMahon, PhD**

*Clinical Psychologist, Private Practice, Case Western Reserve University, San Francisco*

**Christina Spellman, PhD**

*Executive Director, The Mayday Fund, New York City*

**David Thomas, PhD**

*National Institute of Drug Abuse (NIDA), Washington DC*

**Matt Vogl, MPH**

*Executive Director, National Behavioral Health Innovation Center, University of Colorado Depression Center*

## FACULTY DISCLOSURE

*The Stanford University School of Medicine adheres to ACCME Criteria, Standards and Policies regarding industry support of continuing medical education. Disclosure of faculty and their commercial relationships will be made prior to the activity.*

**Please register early – space is limited!**

# Program (Subject to change)

## Friday, October 6, 2017

7:00-7:45 AM	<b>Registration and Light Breakfast</b>
7:45-8:00 AM	<b>VR and Behavior Change: Day 1 (NO CME)</b> Alan Louie, MD; Kim Bullock, MD; Laura Roberts, MD, MA
8:00-8:40 AM	<b>Overview of Medical VR</b> Walter Greenleaf, PhD
8:40-8:55 AM	<b>Q&amp;A</b>
8:55-9:35 AM	<b>VR and Functional Neurological Disorder</b> Kim Bullock, MD
9:35-9:50 AM	<b>Q&amp;A</b>
9:50-10:05 AM	<b>Break</b>
10:05-10:45 AM	<b>VR: The Future of Substance Abuse Research and Treatment</b> Pat Bordnick, PhD, MPH, LCSW
10:45-11:00 AM	<b>Q&amp;A</b>
11:00-11:25 AM	<b>Translation of Technology into Clinical Care</b> Matt Vogl, MPH
11:25 AM-12:15 PM	<b>Keynote: Neuroscience of VR and Behavioral Change</b> Giuseppe Riva, PhD
12:15-12:30 PM	<b>Q&amp;A</b>
12:30-1:00 PM	<b>Lunch</b>
1:00-1:10 PM	<b>Announcements</b> Alan Louie, MD and Kim Bullock, MD
1:10-2:00 PM	<b>Keynote: Experience on Demand</b> Jeremy Bailenson, PhD
2:00-2:15 PM	<b>Q&amp;A</b>
2:15-2:55 PM	<b>VR, Trauma, and Anxiety</b> JoAnn Difede, PhD
2:55-3:10 PM	<b>Q&amp;A</b>
3:10-3:25 PM	<b>Break</b>
3:25-4:05 PM	<b>VR, Brain Circuits and Precision Psychiatry – Targeting Depression</b> Leanne Williams, PhD
4:05-4:20 PM	<b>Q&amp;A</b>
4:20-5:00 PM	<b>VR in Clinical Practice</b> Elizabeth McMahon, PhD
5:00-5:15 PM	<b>Q&amp;A</b>
5:15-5:45 PM	<b>VR from Bench to Clinic Panel</b> Jeremy Bailenson, Pat Bordnick, Kim Bullock, JoAnn Difede, Walter Greenleaf (Facilitator), Elizabeth McMahon, Giuseppe Riva, Matt Vogl, Leanne Williams

### CALL FOR SUBMISSIONS

**BRAINSTORM VR INNOVATION LAB:** Virtual and augmented reality technologies are transforming what is possible in mental healthcare. That's why we at Stanford are hosting a competition for ideas in virtual and augmented reality that can reimagine the way mental healthcare is delivered. Entries that are selected by the Scientific Committee will present/pitch an idea at our innovation lab and receive expert feedback from our judges. The one person presenting/pitching an accepted entry will be provided with free registration to the conference; email us if you have more than one person presenting/pitching.

**POSTERS:** The conference will feature a number of innovative posters concerning scientific work using virtual and augmented reality in mental healthcare, health behaviors, and healthy behavior change. Posters will preferably include demonstrations and interactive technologies associated with current work. The first author of accepted posters will be provided with free registration to the conference.

Information about submission to the innovation lab and poster abstracts may be found on the conference website at [cme.stanford.edu/psychiatry](http://cme.stanford.edu/psychiatry).

## Saturday, October 7, 2017

7:00-7:45 AM	<b>Light Breakfast</b>
7:45-8:00 AM	<b>VR and Behavior Change: Day 2 (NO CME)</b> Alan Louie, MD and Kim Bullock, MD

<b>Track 1: Brainstorm VR Innovation Lab</b>		<b>Track 2: Lectures</b>	
8:00-8:15 AM	<b>Innovation Lab: Introduction</b> Nina Vasan, MD and Cody Rall, MD	8:00-8:35 AM	<b>VR and Attention Deficit/Hyperactivity Disorder</b> Hadi Hosseini, PhD
8:15-9:25 AM	<b>Innovation Lab: Part IA Finalists' Oral Presentations</b> Nina Vasan, MD	8:35-9:10 AM	<b>VR and Psychosis</b> Jake Ballon, MD and Kate Hardy, Clin.Psych.D
9:25-9:35 AM	<b>Innovation Lab: Part IB Panel and Q&amp;A</b> Gowri Aragam, MD	9:10-9:45 AM	<b>VR, Anxiety Reduction, and Pain</b> Sam Rodriguez, MD and Tom Caruso, MD, MEd
9:35-9:45 AM	<b>Break</b>	9:45-9:55 AM	<b>Break</b>
9:45-10:45 AM	<b>Collaboration Zone</b> Kenechi Ejebe, MD	9:55-11:00 AM	<b>Virtual Reality Poster Presentations (NO CME)</b>
10:45-11:05 AM	<b>Innovation Lab: Part III Finalists' Oral Presentations</b> Cody Rall, MD	11:00-11:05 AM	<b>Introduction of Afternoon (NO CME)</b> Christina Spellman, PhD
11:05-11:35 AM	<b>Virtual Reality Poster Presentations (NO CME)</b>	11:05-11:40 AM	<b>VR and Pain Management/Addiction</b> David Thomas, PhD
11:35 AM -12:15 PM	<b>Innovation Lab: Part IV Debrief and Recap</b> Gowri Aragam, MD and Kenechi Ejebe, MD	11:40 AM -12:15 PM	<b>Advances in Pain Management</b> Sean Mackey, MD
12:15-12:45 PM	<b>Lunch</b>		
12:45-1:35 PM	<b>Keynote: VR Exposure and Virtual Humans to Address PTSD Issues</b> Albert "Skip" Rizzo, PhD		
1:35-1:50 PM	<b>Q&amp;A</b>		
1:50-2:30 PM	<b>VR and Burn Pain</b> Hunter Hoffman, PhD		
2:30-2:45 PM	<b>Q&amp;A</b>		
2:45-3:00 PM	<b>Break</b>		
3:00-3:40 PM	<b>VR and Chronic Pain</b> Diane Gromala, PhD		
3:40-3:55 PM	<b>Q&amp;A</b>		
3:55-4:35	<b>VR and Anxiety with Painful Procedures in Children</b> Anne Dubin, MD		
4:35-4:50	<b>Q&amp;A</b>		
4:50-5:30 PM	<b>Panel on Technology for Pain Management</b> Tom Caruso, Anne Dubin, Diane Gromala, Hunter Hoffman, Sean Mackey, Albert "Skip" Rizzo (Facilitator), Sam Rodriguez		
5:30 PM	<b>Adjourn</b> Alan Louie, MD and Kim Bullock, MD		

**Stanford University**  
Stanford Center for Continuing Medical Education  
1520 Page Mill Road  
Palo Alto, CA 94304



## 3rd Annual Innovations in Psychiatry and Behavioral Health: Virtual Reality and Behavior Change

**October 6-7, 2017**

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Phone: 650-497-8554 • Fax: 650-497-8585  
[cme.stanford.edu](http://cme.stanford.edu)

## Attention: ADDITIONAL MEMBERS OF THE HEALTHCARE TEAM Continuing Education (CE) credit is available

We are happy to announce that CE credits will be available for **nurses, psychologists, social workers, educators**, and other healthcare professionals through our collaboration with the *Institute for Better Health, a division of IABH, Inc.*

We invite you to join us for this exciting educational activity designed to explore innovations in the application of virtual reality in psychiatry and behavioral health.

### - Earn up to 16.5 CE credits -

For complete credit information, please visit the 'Accreditation' tab on the following web link:  
[cme.stanford.edu/psychiatry](http://cme.stanford.edu/psychiatry)

## Registration

### REGISTRATION

Registration fee includes course materials, certificate of participation, breakfast, lunch and refreshment breaks.

Register online with a Visa or Master Card by visiting [cme.stanford.edu/psychiatry](http://cme.stanford.edu/psychiatry). If you prefer to pay by check or need assistance, please call (650) 497-8554 or email [stanfordcme@stanford.edu](mailto:stanfordcme@stanford.edu). Be sure to register with an email address that you check frequently. Your email address is used for critical information, including registration confirmation, evaluation, and certificate.

ALL PARTICIPANTS	FEES	FEES
	Early Bird Rate	After September 8, 2017
	<b>\$595.00</b>	<b>\$695.00</b>

### CANCELLATION POLICY

Cancellations received in writing no less than 30 days before the course will be refunded, less a 20% administrative fee. No refunds will be made on cancellations received after that date. Please send cancellation requests to [stanfordcme@stanford.edu](mailto:stanfordcme@stanford.edu).

Stanford University School of Medicine reserves the right to cancel this program; in the event of cancellation, course fees will be fully refunded.

### CONFERENCE LOCATION

Li Ka Shing Center for Learning and Knowledge  
291 Campus Drive, 2nd Floor Conference Center  
Stanford, California 94305  
[conferencecenter.stanford.edu](http://conferencecenter.stanford.edu)

### ACCOMMODATIONS

Hotels near campus:  
Sheraton Palo Alto Hotel (650) 328-2800  
The Westin Palo Alto (650) 321-4422

### VISITOR INFORMATION

To learn more about traveling to Stanford University, please browse [visit.stanford.edu](http://visit.stanford.edu).

### CONTACT INFORMATION

For questions about the symposium, please contact **Yolanda Cervantes**, CME Conference Coordinator, (650) 724-9549 or email [ycervant@stanford.edu](mailto:ycervant@stanford.edu).

### Stanford Center for Continuing Medical Education

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Stanford University School of Medicine is committed to ensuring that its programs, services, goods and facilities are accessible to individuals with disabilities as specified under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Amendments Act of 2008. If you have needs that require special accommodations, including dietary concerns, please contact the CME Conference Coordinator.



**Please register early – space is limited! • Register online at [cme.stanford.edu/psychiatry](http://cme.stanford.edu/psychiatry)**