

## Agenda

Wednesday, September 6

updated 8/22/17

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11:00 am Registration & Expo

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1:00 pm Welcome

Linda Raines, CEO, BrainFutures

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1:10 pm The Brain's Way of Healing

Norman Doidge, MD

Psychiatrist, Psychoanalyst, Researcher and Author

Dr. Norman Doidge will keynote BrainFutures 2017, sharing remarkable discoveries and recoveries from the frontiers of neuroplasticity, the application of effective neuroplasticity-based treatments featuring case examples from his films, and practical advice for practitioners introducing the five stages of neuroplastic healing. Dr. Doidge is on faculty at the University of Toronto's Department of Psychiatry, and Research Faculty at Columbia University's Center for Psychoanalytic Training and Research, in New York. He is the author of two New York Times Bestsellers.

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3:10 pm Break

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3:30 pm Magnetic and Electrical Brain Stimulation and Healing

Alvaro Pascual-Leone, MD, PhD

Professor of Neurology and Director, Berenson Allen Center for Noninvasive Brain Stimulation, Harvard Medical School

Dr. Pascual Leone will present an overview of neuromodulation and neurostimulation, explain the clinical use of transcranial magnetic and direct current stimulation, and share treatment applications employed at the Berenson Allen Center for Noninvasive Brain Stimulation and the innovative programs of the Brain Fit Club.

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4:15 pm The Central Importance of Diet, Exercise and Lifestyle Choices in Brain Health

John Ratey, MD

Clinical Professor of Psychiatry, Harvard Medical School

Harvard psychiatrist and author of *Go Wild* and *Spark: The Revolutionary New Science of Exercise and the Brain*, Dr. John Ratey will present the scientific evidence demonstrating the profound impact exercise, diet and lifestyle choice in our health, brain performance and emotional wellbeing and share what we can do to keep our brains healthy throughout our lives. He is the author of numerous bestselling books on brain health, attention deficit disorder and other mental health problems.

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5:00 pm The Distracted Mind: Ancient Brains in a High Tech World

Adam Gazzaley, MD, PhD

Professor of Neurology, Physiology and Psychiatry, and Executive Director, Neuroscape, University of California, San Francisco

Learn the truth about multitasking, and practical strategies, backed by science, to fight the distraction caused by our technology-obsessed lives. Physician and UCSF professor Adam Gazzaley is the co-author of *The Distracted Mind*, and Co-Founder and Chief Science Officer of Akili Interactive Labs.

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5:30 pm The Future of Brain Health and Enhancement

Alvaro Fernandez

SharpBrains' CEO & Editor in Chief and Member of the World Economic Forum's Council on the Future of Human Enhancement

Hundreds of science labs and companies around the globe are researching and developing new ways to help brain owners be smarter, sharper and healthier. What explains this flurry of activity, and where may it be headed? Which companies, technologies and solutions are gaining the most traction so far, and what are some of the best practices for appropriate use?

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6:00 pm Reception and Expo

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Thursday, September 7

**7:30 am** Breakfast and Expo

**8:15 am** Morning Mindful Moment

Ali Smith, Founder, Holistic Life Foundation

**8:30 am** Scaling Science to Practice Innovation

Moderator: Charlie Hartwell, Operating Partner, the Bridge Builders Collaborative

Kathleen Herath, RN, BSN, CRRN, Associate Vice President, Health & Productivity, Nationwide Insurance

Ofer Leidner, CoFounder and President, Happify

John Sullivan, Sport Scientist and Clinical Sport Psychologist

Angel investor Charlie Hartwell teams up with Nationwide Insurance VP Kathleen Herath, NFL/NCAA sports psychologist John Sullivan and Happify President Ofer Leidner for a lively discussion of what it takes to successfully move innovation to scale.

**9:20 am** Workshop 1

**10:30 am** Break

**10:50 am** Workshop 2

**12:00 pm** Lunch and Expo

**12:50 pm** Workshop 3

**2:00 pm** Transforming Health Care Through Virtual Reality

Walter Greenleaf, PhD, Professor, Virtual Human Interaction Lab, Stanford University

Virtual reality legend Dr. Walter Greenleaf believes VR technology will transform health care. An internationally recognized research neuroscientist and medical product developer working at Stanford University, he will address the use of VR to treat post-traumatic stress disorder, anxiety disorders, traumatic brain injury, addictions, autism, cognitive decline and other difficult problems in behavioral and physical medicine.

**2:30 pm** Military Mental Health

Moderator and Presenter: General Peter Chiarelli, CEO, One Mind

Former US Representative Patrick Kennedy, Founder, The Kennedy Forum

Marsden McGuire, MD, Acting Chief Consultant, Office of Mental Health & Suicide Prevention, US Dept of Veterans Affairs

Robert L. Koffman, MD, MPH, Captain, Medical Corps, USN (retired)

Led by retired US Army General Peter Chiarelli, this panel will explore the ongoing crisis in care for returning veterans, profile promising initiatives of the US Department of Veterans Affairs and Walter Reed's Brain Fitness Center, and advance a call to action to reform brain health services provided to our men and women in uniform.

**3:20 pm** Break

**3:35 pm** Workshop 4

**4:45 pm** Closing Plenary

Moderator: Sheilah Kast, WYPR Baltimore

Jeff Nichols, CSCS\*D, TSAC\*D, Exercise Physiologist and Former Navy Seal

John Sullivan, PhD, CEO, Clinical and Sports Consulting Services

Former Navy Seal Jeff Nichols survived double digit deployments, 22 concussions and countless injuries during his 11 years of military service. Battling sleep deprivation, excruciating pain and a very stressed central nervous system, he credits Dr. John Sullivan's science-based brain management program for providing him with a path to recovery, and is today the strongest, healthiest and happiest he's ever been.

**5:30 pm** Adjourn

## September 7 Workshop Track One: Mental Health and Substance Use Disorder Treatment

### 1) Quality, Efficacy, Regulation and Reimbursement (9:20-10:30 am)

**Moderator and Presenter: Henry Harbin, Health Care Consultant**

**General Peter Chiarelli, CEO, One Mind**

**Adam Gazzaley, MD, PhD, Chief Science Officer, Akili**

**Walter Greenleaf, PhD, Chief Science Officer, Pear Therapeutics**

**Carlos Pena, PhD, MS, Director, Neurological and Physical Medicine Devices Division, US Food & Drug Administration**

This session will explore the role of the FDA, other quality regulatory processes and payers in the evolution of digital treatments, featuring Akili, a company developing a consumer video game interface for treatment of ADHD, autism, depression and traumatic brain injury; and Pear Therapeutics, a company developing prescription digital therapeutics and drug/software combinations for treatment of substance use disorders, schizophrenia, PTSD and generalized anxiety disorder.

### 2) Magnetic and Electrical Stimulation in Behavioral Health Treatment (10:50 am - Noon)

**Moderator: Mark Trullinger, MSN, BCN, Managing Director, Neurothrive**

**Ana Maiques, CEO, Neuroelectrics**

**Nick Dogris, CEO, Neurofield**

Neuroelectrics' pioneering work in advancing the science and application of tDCS (transcranial direct current stimulation) to address a wide range of health conditions will be shared, including ADHD, autism and depression. This will be followed by an in depth presentation on the use of Neurofield's low intensity transcranial magnetic stimulation devices for the treatment of a variety of behavioral health conditions, drawing on the founder and inventor's 20 years of clinical experience as a BCIA certified neurofeedback practitioner.

### 3) From Pharmacogenetics to Psychedelics: Promising Medication Advances (12:50-2:00 pm)

**Moderator: Stephen N. Xenakis, MD, Brigadier General (Retired)**

**George Carpenter IV, CEO, Mynd Analytics**

**Jay Lombard, CoFounder, Chief Scientific Officer and Medical Director, Genomind**

**Bill Richards, PhD, Johns Hopkins University School of Medicine, Psilocybin Research Project**

This session will examine two diverse innovations in the use of pharmaceutical agents. We will explore the promise of personalized medicine in reducing trial and error prescribing for the treatment of mental health conditions, through the innovative work of two companies using neuroimaging and genetics to improve the selection of medications for the treatment of mental health conditions. And we'll hear from a pioneering researcher investigating clinical uses for psychedelic drugs. Dr. Bill Richards is today revisiting promising research he was involved in 40 year ago, and will share results of trials at Johns Hopkins and NYU, which found that a single dose of medical grade psilocybin eased anxiety and depression for up to six months among cancer patients.

### 4) Digital Technologies for Treatment, Assessment and Health (3:35-4:45 pm)

**Moderator: Pamela Greenberg, President & CEO, Association for Behavioral Health and Wellness**

**Dror Ben-Zeev, PhD, Director, mHealth for Mental Health Program, Department of Psychiatry, University of Washington**

**Scott Cousino, CEO & Co-Founder, myStrength**

**Sherry Dubester, MD, MS, Vice President, Behavioral Health and Clinical Programs, Anthem, Inc.**

**Cori Lathan, PhD, Founder and CEO, Anthrotronix**

This panel will explore a range of digital technologies, including:

- ❖ the FOCUS smartphone app for psychosis, which helps individuals living with schizophrenia to manage symptoms of psychosis, and has achieved an 86 % usage rate in recent trials,
- ❖ the Dana Brain Vital, originally developed to monitor the brain health of soldiers, which offers potential to fill a glaring gap in routine visits to the doctor, dramatically reducing health costs and improving outcomes,
- ❖ MyStrength, a digital resource that complements medication, therapy and other forms of care, which gives users support that is affordable, accessible and devoid of the negative image that mental health care sometimes carries.

## September 7 Workshop Track Two: Brain Fitness and Healthy Aging

### 1) The Practical Application of Neuroscience Findings to Maintain Healthy Brains as We Age (9:20-10:30 am)

**Moderator and Presenter: Thomas R. Insel, MD, Co-Founder and President, Mindstrong Health**  
**Sandra Chapman, PhD, Founder and Chief Director, Center for Brain Health, University of Texas at Dallas**  
**Michael Merzenich, MD, Chief Scientific Officer, Posit Science and Professor Emeritus, University of California, San Francisco**

Led by former NIMH Director Tom Insel, this panel, collectively representing more than 125 years of neuroscience leadership, will offer a glimpse of Dr. Insel's bold plans at Mindstrong Health; present the impressive evidence supporting the work of 2016 Kavil Prize recipient Dr. Michael Merzenich, in reducing depression risk, improving cognition and memory, and delaying the onset of dementia, through his work at Posit Science; and share Dr. Sandra Chapman's groundbreaking work at the Center for Brain Health, and her audacious challenge to translate relevant applications as quickly as possible to measurably improve brain health across the lifespan and globe.

### 2) Two Approaches to Cognitive Remediation (10:50 am - Noon)

**Sarah Shizuko Morimoto, PsyD, Associate Professor, Department of Psychiatry, University of Utah**  
**Majid Fotuhi, MD, Medical Director, Neurogrow Brain Fitness Center**

In response to her research identifying a singular cognitive deficit that predicts non-remission with conventional antidepressants, Dr. Shizuko Morimoto has developed a computerized cognitive remediation for older adults with depression, which targets and changes the underlying neural circuit dysfunction, and effectively treats both cognitive and affective symptoms of the disorder. Dr. Majid Fotuhi is a Harvard and Hopkins trained neurologist who operates the Neurogrow Brain Fitness Center, a pioneering neurology practice that offers a science-based program to boost memory and grow the memory parts of the brain.

### 3) Holistic and Mindful Aging (12:50-2:00 pm)

**Moderator: James Gimian, Executive Director, The Foundation for a Mindful Society**  
**Sarah Lenz Lock, JD, Senior Vice President for Policy, AARP and Executive Director, Global Council on Brain Health**  
**Kathy Washa, AARP**

**Joel Kahn, Chief Operating Officer & Chief Medical Officer, eMindful**  
**Graeme Moffat, PhD, Vice President of Scientific and Regulatory Affairs, InteraXon**

This panel will explore the five pillars of brain health, presenting AARP's approach to holistic brain health through Staying Sharp and the Global Council on Brain Health, followed by a focused look at the use of meditation to build resiliency, reduce stress and improve productive and quality of life, featuring eMindful's online and mobile approach, and InteraXon's Muse, a sensory headband that simplifies meditation and provides real-time feedback to your phone.

### 4) Social Connection and Brain Health (3:35-4:45 pm)

**David Nace, MD, Chief Medical Officer, Lantern**  
**Michelle Carlson, PhD, Associate Professor of Psychology, Johns Hopkins Bloomberg School of Public Health**

Dr. Michelle Carlson's lab integrates functional neuroimaging, mobile technologies and lifestyle approaches to delay and prevent the onset of dementia. She studied the impact of AARP Foundation's Experience Corps, a Baltimore City older adult school volunteer program, and found benefits for youth and positive impact on the brain health of volunteers, who experienced mitigation or reversal of age-related brain atrophy.

## September 7 Workshop Track Three: Brain Fitness, Youth and Learning

### 1) Novel Programs Making Change in the Classroom (9:20-10:30 am)

**Moderator:** Nancy Grasmick, PhD, Co-Director, Center for Innovation and Leadership in Special Education, Kennedy Krieger Institute

**Ali Smith, Founder, Holistic Life Foundation**

**Vance Benton, Principal, Patterson High School, Baltimore, Maryland**

**Jacque Gamino, PhD, Director, Adolescent Reasoning Initiative, Center for Brain Health, University of Texas at Dallas**

**Jonathan Smith, Principal, Thomas W Browne Middle School, Dallas, Texas**

Through a comprehensive and evidence-based approach which helps children develop their inner lives through yoga, mindfulness and self-care, the Holistic Life Foundation demonstrates deep commitment to learning, community and stewardship of the environment. We'll learn from program founder Ali Smith and high school principal Vance Benton how the program is transforming student lives in Baltimore. Dr. Jacque Gamino and Dallas middle school principal Jonathan Smith will present the science and outcomes of SMART, a research-based classroom intervention for teenagers, which has equipped 50,000 youth with advanced reasoning skills, and significantly increased academic performance among students living in poverty.

### 2) Neurofeedback: an Effective Intervention for ADHD and Other Youth Disorders (10:50 am – Noon)

**Moderator:** Shanti Fry, BrainFutures Advisor

**Laurence Hirshberg, PhD, BCN, Director, Neurodevelopment Center & Clinical Assistant Professor, Alpert Medical School, Brown University**

**Naomi Steiner, MD, Attention Tutoring and Clinical Associate Professor, Boston University School of Medicine**

A licensed psychologist specializing in neurodevelopmental disorders, Dr. Laurence Hirshberg will explain neurofeedback, its use in treating ADHD and other disorders at the Neurodevelopment Center, and share his experience as a licensed psychologist with 25 years of experience in the field. Boston University Medical School's Dr. Naomi Steiner will share her expertise as a pediatrician treating children with ADHD and as the founder of Attention Tutoring, and share her research outcomes using computer attention training and neurofeedback in Boston schools.

### 3) Enhancing School Performance with Computer Brain Training and Physical Exercise (12:50-2:00 pm)

**Moderator:** Amy Kennedy, Education Director, The Kennedy Forum

**Bruce Wexler, MD, Professor Emeritus of Psychiatry, Yale School of Medicine, and Founder, C8 Sciences**

**Kisya L. Johnson, Transformation Specialist, Duval County Schools, Jacksonville, Florida**

**Martha Burns, PhD, Director of Neuroscience Education, Scientific Learning**

**Jody Woodrum, Assistant Superintendent, Starkville-Oktibbeha Consolidated School District, Mississippi**

Dr. Bruce Wexler and Duval County Schools' Kisya Johnson will share the ACTIVATE™ program's research and outcomes, profiling improvements in reading and math scores among Florida second graders. Developed by Yale neuroscientists, ACTIVATE's three components: cognitive software, physical exercise and NIH assessments are particularly beneficial for youth with ADHD and other disorders. Dr. Martha Burns will explain how the principles of neuroplasticity are applied in Fast ForWord's evidence-based computerized reading program which is combined with trained educational consulting. The program remediates underlying difficulties that keep struggling readers and English language learners from making progress, and Assistant Superintendent Jody Woodrum will share results in her Mississippi school district.

### 4) Advancing Strategies to Improve School Outcomes (3:45-4:45 pm)

**Moderator and Presenter:** John Cammack, Cammack Associates

**Kisya L. Johnson, Transformation Specialist, Duval County Schools, Jacksonville, Florida**

**Richard Lemons, Deputy Director, Connecticut Center for School Change**

**Bruce Wexler, MD, Professor Emeritus of Psychiatry, Yale School of Medicine, and Founder, C8 Sciences**

The track will close with a discussion on scaling-evidence-based innovation in schools. Richard Lemons will share his perspective on challenges and effective strategies in translating scientific advances to learning environments, accompanied by angel investor John Cammack and innovators Kisya Johnson and Bruce Wexler.