Center for Neuroscience UC Davis

Mental Function and Dysfunction throughout Life

Brain Awareness Week Neuroscience Public Seminars and Interactive Experience



1:00 - 5:00 PM

Fun, interactive booths and research posters are available throughout the afternoon for your education and enjoyment! (See reverse for booth descriptions)



1:45 PM

DIRECTOR'S WELCOME

Kimberley McAllister, Ph.D. is Interim Director of the Center for Neuroscience and Professor of Neurology and

Neurobiology, Physiology and Behavior. Her research focuses on understanding how circuits in the developing brain are formed and sculpted by experience. The McAllister lab also studies the role for immune molecules in brain development and in psychiatric disorders including schizophrenia, depression and autism.



2:00 PM TREATMENT ADVANCES IN FRAGILE X SYNDROME AND FXTAS

Randi Hagerman M.D., FAAPisDistinguishedProfessorof Pediatrics at theUC DavisMedical Center and Directorof the Fragile X Research and

Treatment Center at the MIND Institute and the Endowed Chair in Fragile X Research. She, her husband and thier research teams have published extensively regarding fragile X premutation disorders including the first description of FXTAS in 2001. She co-founded the National Fragile X Foundation in 1984 and has been involved in targeted treatments for fragile X syndrome, autism, and FXTAS for several years. Dr Hagerman has written over 300 peer-reviewed articles and several books on fragile X and autism. Her most recent book is R. Hagerman and R. Hendren (eds) (2014) *Treatment of Neurodevelopmental Disorders: Targeting Neurobiological Mechanisms.*



2:30 PM ADVANCES IN OUR UNDERSTANDING OF THE GENETICS OF INTELLECTUAL DISABILITY

Alex Nord, Ph.D. is Assistant Professor of Neurobiology, Physiology and Behavior and Psychiatry and Behavioral Sciences. His research explores gene regulatory circuits and chromatin dynamics in the brain, studying how these features contribute to brain development, evolution, and function. He applies a combination of genomics, mouse and cell-based models, and human genetics. His work is rooted in basic and translational science, with an ultimate goal of understanding the biological components of human diseases and disorders of the brain and improving clinical care of afflicted individuals. To that end, he performs both experimental work and computational analysis to reveal function of primary DNA sequence, epigenomic modifications, and chromatin structure.



3:00 PM BREAK

Check out research posters and vote for your favorite! Visit fun, interactive booths,

test your knowledge about the brain and learn more about mental function and dysfunction throughout life.





3:30 PM NAVIGATING **HUMAN MEMORY**

Arne Ekstrom, Ph.D.

Associate Professor is of Psychology at the Center for

Neuroscience. His research focuses on understanding how we navigate and how the human brain forms and represents our surrounding spatial environment. His lab uses methods like functional magnetic resonance imaging (fMRI), intercranial EEG, scalp EEG, and works with patients with focal brain lesions that impact thier ability to navigate. Some of the recent discoveries from the lab include describing signals that orginate deep in the brain that code for spatial distance and how imagining where we navigate can improve our ability to subsequent explore those spaces.



4:30 PM **CLOSING REMARKS**

Diasynou Fioravante, Ph.D.

Assistant Professor is of Neurobiology, Physiology and

Behavior and Co-chair of the Center for Neuroscience's Brain Awareness Week activities. Dr. Fioravante studies the fundamental mechanisms and functional implications of plasticity in neural microcircuits during learning and memory. Her current research examines the role of the cerebellum in the regulation of emotion, which has implications for anxiety and post-traumatic stress disorder.

For more information about the Center for Neuroscience. please contact Jennifer Scott at jescott@ucdavis.edu or visit neuroscience.ucdavis.edu.



4:00 PM **BRAIN HEALTH AND** CONNECTIONS TO **MENTAL HEALTH**

W. Ladson Hinton, M.D.

is Professor of Psychiatry and Behavioral Sciences with the UC Davis Medical School and Director of Outreach and Recruitment at the UC Davis Alzheimer's Disease Center. Over the past two decades, he has conducted interdisciplinary research to better understand the cultural and social dimensions of late life depression and dementiarelated illness and caregiving experience among older adults and their families. Dr. Hinton has received national recognition for his expertise on the cultural aspects of geriatric mental health and family caregiving and has received multiple awards from NIH as principal investigator. He is currently the principal investigator for an NIMH study entitled "A family-based primary care intervention to enhance older men's depression care" and is co-directing a project (CARE-Partners) to develop and implement innovative new community and family-centered models of care for depression in older adults through a grant from the California-based Archstone Foundation. He recently received funding through the NIH Fogarty International Center to develop a community-based intervention for Alzheimer's family caregiver in Vietnam.

1:00 - 5:00 PM FUN INTERACTIVE BOOTHS AND RESEARCH POSTER CONTEST



Anatomy of a Nerve Cell Nerve cells are beautful! Learn about their different parts and observe real nerve cells from varioius species under a microscope.



Touch a Brain! See and touch real brains!



Fragile X-Associated Tremor/ **Ataxia Syndrome**







Visit the local Society for Neuroscience chapter booth for brain trivia, fun prizes and witness mind control in action!



Information, Email Sign-Up and Poster Contest

Mind Control!

Vote for your favorite research poster, grab helpful information and sign up to receive news and events from the UC Davis Center for Neuroscience.

Information and latest research achievements in FXTA's.

Aging and Alzheimer's Disease Do you know the differences between normal aging and Alzheimer's? See diseased brain specimens and receive an update on latest therapies.

Autism Spectrum Disorders Information on genetic causes, early diagnosis and behavioral therapies.