



MOND MATTERS

A Quarterly Publication of UCI MIND

Spring 2016

EXPERTS GATHER AT UCI MIND

On February 19, experts in Alzheimer's disease diagnosis, neuroimaging, and bioethics gathered at UCI MIND for a meeting to discuss diagnostic disclosure in patients with Mild Cognitive Impairment (MCI). Patients with MCI have memory and thinking problems that do not affect activities of daily living-people with MCI do not meet the criteria for dementia. Many but not all people with MCI experience worsening cognition and Alzheimer's disease, and it is debated what MCI patients should be told about their condition. Resultantly, the MCI diagnosis can be ambiguous and confusing for patients and families. This debate has been heightened by the recent approval by the US Food and Drug Administration of three new positron emission tomography (PET) scan ligands that can demonstrate the presence of amyloid beta, the protein that accumulates in the brain of a person with Alzheimer's disease. MCI patients whose PET results suggest the presence of elevated levels of amyloid are at substantially increased risk for Alzheimer's dementia, but the timing of further clinical progression remains impossible to predict and the outcome is not necessarily inevitable.

The UCI MIND workgroup meeting included academic clinician scientists from a number of esteemed institutions, as well as leaders from the Alzheimer's Association and the American Geriatrics Society. At the meeting, the workgroup crafted recommendations for clinicians delivering the MCI diagnosis.



Left to right: Oscar Lopez, MD, University of Pittsburgh; Seyed Sajjadi, MD, UC Irvine; Szofia Bullain, MD, UC Irvine; Malcolm Dick, PhD, UC Irvine; Edmond Teng, MD, PhD, UCLA; Aimee Pierce, MD, UC Irvine; Liana Apostolova, MD, MS, University of Indiana; Scott Roberts, PhD, University of Michigan; Sarah Kremen, MD, UCLA; Jeff Burns, MD, University of Kansas; Nancy Lundebjerg, MPA, American Geriatrics Society; Jason Karlawish, MD, University of Pennsylvania; Gil Rabinovici, MD, UC San Francisco; Joshua Grill, PhD, UC Irvine; Dean Hartley, PhD, Alzheimer's Association; Chelsea Cox, MPH, MSW, UC Irvine; Claudia Kawas, MD, UC Irvine; Jennifer Lingler, PhD, University of Pittsburgh; Mark Mapstone, PhD, UC Irvine

recommendations for clinicians delivering the MCI diagnosis. These recommendations will be published and are intended to spur greater discussion among experts, as well as research to test their effectiveness. The meeting was sponsored by a grant from the American Federation for Aging Research and the Hartford Foundation, awarded to UCI MIND's Dr. Joshua Grill.

STAFF HIGHLIGHT: CHLOE THOMAS



Brain donation is among the most valuable gifts research volunteers can make. The donation process, however, can be difficult for families after the loss of a loved one. Chloe Thomas joined UCI MIND's neuropathology team in 2013 and is a point person for families of volunteers who have chosen to donate their brain to research.

According to one family, Chloe's service goes above and beyond. Chloe ensured the family of Ronald "Ronnie" Pastel felt safe and comfortable throughout the brain donation process by providing her personal cell phone number to answer questions and going so far as to text message step-by-step updates. Because of the positive impact Chloe had on the Pastels, they invited her to attend Ronnie's memorial service, where she was met with immense gratitude for her compassion.

This powerful interaction with the Pastel family reminded Chloe, "This is why I do my job." UCI MIND is proud to have dedicated staff members like Chloe and is grateful for resilient volunteers and families like the Pastels who contribute to critical research on brain aging and dementia.

FROM THE DIRECTOR



Dear Friends,

UCI MIND is all about community. The Institute holds the status of "Organized Research Unit" on campus, which can be translated to "a community of clinicians and scientists working toward a common goal." In this case, the goal is to find cures for neurodegenerative disorders. Of course, the UCI MIND community goes well beyond the campus borders. In this Spring issue of MIND Matters, we hope to give a glimpse into some of UCI MIND's many community connections, including new faculty, dedicated staff, and innovative students. Equally important are the community of research volunteers and families who are vital to our mission. For example, the UCI ADRC follows a cohort of older Chinese Americans as part of a larger effort to better understand whether aging, memory, and memory problems differ in people of different races, ethnicities, and cultures.

We aim to educate the community on the importance of our research, and we strive to help patients and families make lifestyle and other decisions that may reduce risk and slow disease. For example, our team delivered community education in two languages at the Irvine Chinese School in March. And in April, we held this year's Distinguished Lecture Series on Brain, Learning, and Memory in partnership with the Ayala School of Biological Sciences and the Center for the Neurobiology of Learning & Memory. This public lecture drew an audience of more than 550 community members.

We need more advocates for patients and families and increased federal, state and private funding for research. To learn more about supporting UCI MIND research, contact Linda Scheck (Ischeck@uci.edu). Alzheimer's disease and other brain disorders are the most important medical problems we face today. Only through research will we solve these problems, and only if we work together as one community.

UCI MIND WELCOMES NEW FACULTY



Mark Mapstone, PhD, is a Professor of Neurology in the School of Medicine. His research focuses on preclinical detection of neurological disease

using cognitive tests and biomarkers obtained from blood. He has a special interest in developing strategies to maintain successful cognitive aging. In the clinic, he specializes in cognitive assessment of older adults with suspected brain disease. Dr. Mapstone earned a PhD in Clinical Psychology from Northwestern University and completed fellowship training in neuropsychology and experimental therapeutics at the University of Rochester. He received a Career Development Award from the National Institute on Aging and his research has been funded by the National Institutes of Health, the Michael J. Fox Foundation, and the Department of Defense.



Karen Edwards, PhD, is a Professor of Epidemiology in the School of Medicine. She is also a member of the Chao Family Comprehensive Cancer Center. Her

research focuses on identifying underlying genetic and environmental influences on a range of conditions, including Parkinson's disease, Alzheimer's disease, type 2 diabetes, cardiovascular disease and cancers. Besides her genetic epidemiologic research interests, she also has a special interest in understanding the ethical, legal and social implications of genomic research, especially as it applies to families. Dr. Edwards earned a PhD in Epidemiology from the University of Washington. Her research has been funded by the National Institutes of Health, American Diabetes Association, and more recently by the UCI MIND Alzheimer's Disease Research Center.



Irene Munk Pedersen, PhD, is an Assistant Professor in the Department of Molecular Biology and Biochemistry.

She has a broad background in biomedical research, with specific training and expertise in RNA biology, particularly how small RNAs (miRNAs) play a crucial role in conditions such as Alzheimer's disease, cancer, and viral disease. Dr. Pedersen earned a PhD in Molecular Biology from the University of Copenhagen in Denmark and completed postdoctoral training in molecular biology and biochemistry at UC San Diego. Her research has been funded by the National Institutes of Health and is currently partially supported with a UCI MIND iPS Cell Pilot grant.

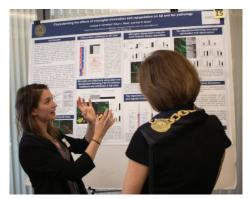
Andrea Tenner Delivers Esteemed Lecture

On April 8, UCI MIND Director, Andrea Tenner, PhD, delivered the prestigious Hans J. Müller-Eberhard Memorial Lecture at the University of Texas Health Sciences Center McGovern Medical School in Houston. Her lecture was titled "Beyond Infection: Novel roles of complement proteins uncover opportunities for neurotherapeutics." Through her selection as recipient, Dr. Tenner was recognized for her contributions to the fields of biochemistry and cell biology. Dr. Tenner was the tenth recipient of the award and the first female selection. Congratulations, Dr. Tenner!

OUTREACH AND EDUCATION

7th Annual ReMIND Emerging Scientists Symposium

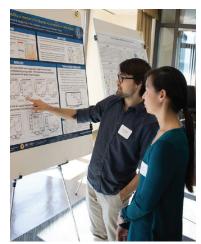
On February 25, UCI MIND's trainee organization, ReMIND, led by predoctoral candidates Natalie Goldberg and Samuel Marsh, hosted a successful 7th Emerging Scientists Symposium. Eleven predoctoral and six postdoctoral scholars presented their research in a two-hour poster session. After the poster session, Dr. Jeanne Loring from The Scripps Research Institute presented an excellent lecture titled, "The Secret Lives of Stem Cells: Genomics, Epigenetics, and Cell Replacement Therapy."



1st Place Postdoctoral Scholar, Lindsay Hohsfield, PhD, presented her poster on, Characterizing the effects of microglial elimination and repopulation on amyloid beta and tau pathology.

The leadership of UCI MIND would like to congratulate Natalie and Samuel for organizing this outstanding event. We also wish to thank our volunteer faculty judges, Drs. David Cribbs, Joshua Grill, Massimo Fiandaca, Lisa Flanagan, Norbert Fortin, and Marcelo Wood. All of the judges voiced the difficulty of their task resulting from the many excellent presentations.

The 2016 poster presentation winners were: 1st Place Predoctoral Scholar, Zachariah Reagh (Yassa Lab); 2nd Place Predoctoral Scholar, Alli



1st Place Predoctoral Scholar, Zachariah Reagh, presented his research poster on, Selective vulnerability of memory for objects vs. locations in older adults.

Haskell (Green Lab); 1st Place Postdoctoral Scholar, Lindsay Hohsfield, PhD (Green Lab); 2nd Place Postdoctoral Scholar, Janine Kwapis, PhD (Wood Lab). Congratulations to all poster presenters on your excellent presentations and keep up the good work! We look forward to another successful event next year.

Asian American Outreach

On March 11, UCI MIND partnered with the South Coast Chinese Cultural Association (SCCCA) to deliver education on brain aging and Alzheimer's disease to over 50 attendees at the Irvine Chinese School in Orange County. The two-hour program led by Dr. Joshua Grill and Ruobing Li included a lecture (in English and Chinese) on maximizing brain health and a rousing question and answer session. The program was well received by the Chinese American community and featured in the World Journal on March 13. The SCCCA will host another UCI MIND education program at the Irvine Chinese School on May 27. Contact Chelsea Cox for more information or to register: (949) 824-9896. You can also visit UCI MIND's website calendar to learn about upcoming education opportunities: www.mind.uci.edu/community/calendar.

Hundreds Attend Annual Barclay Lecture



Laura D. Baker, PhD, Associate Professor of Geriatric Medicine, Neurology, and Public Health at Wake Forest University School of Medicine

UCI MIND, in collaboration with the Ayala School of Biological Sciences and the Center for the Neurobiology of Learning and Memory, sponsored the 22nd UC Irvine Distinguished Lecture Series on Brain, Learning, and Memory at the Irvine Barclay Theatre on April 19. Nearly 600 community members of all ages and backgrounds attended the lecture. The distinguished speaker, Dr. Laura D. Baker from Wake Forest University School of Medicine, delivered an engaging lecture on the potent protective and restorative effects of aerobic exercise on the brain, particularly for older adults with early changes associated with Alzheimer's disease. Dr. Baker and UCI MIND founding director, Dr. Carl Cotman, will lead a national clinical trial to examine the effects of aerobic exercise on cognition in older adults with Mild Cognitive Impairment. If you are interested in learning more about this upcoming study, please contact Megan Witbracht, PhD, at (949) 824-3249.

Taxes, Optional?

Reduce your 2016 tax liability through a gift to UCI MIND.

Your gift can be an outright gift of cash or stock. OR Your gift can even provide you with an income.

To find out how, contact Roland Ho, 949.824.6454 or rolandho@uci.edu.

For other questions about supporting research at UCI MIND, contact Linda Scheck, Director of Development and Donor Stewardship, 949.824.3251or lscheck@uci.edu.



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Research Today. Hope Tomorrow.



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Editors: Joshua Grill, PhD and Chelsea Cox, MPH, MSW

27th Annual Southern California Alzheimer's Disease Research Conference

Alzheimer's | ORANGE COUNTY





Advances in Dementia Research Across Unique Populations

New research has shed light on the clinical factors that may be associated with Alzheimer's disease and related dementias. Greater understanding of these conditions has led to advances in diagnosis, caregiver support, novel research approaches, and clinical trials of new targeted therapies. Join us for this full-day conference featuring renowned experts who will discuss the state of the art in dementia research, including discoveries across unique populations such as victims of head trauma and people living with Down syndrome.

6 CEU/CME credits available

September 30, 2016

7:30 am - 5:00 pm

Irvine Marriott Hotel

REGISTER FOR THE CONFERENCE:

www.alzoc.org/events/2016-research-conference or by phone (949) 757-3721

RESERVE EXHIBITOR SPACE:

Space is limited! For information on exhibitor opportunities, contact Chelsea Cox (949) 824-9896