



MIND MATTERS

Commemorating 30 Years of
Alzheimer's Disease Research at UCI

SUMMER 2015

Alzheimer's disease research at UC Irvine: A brilliant future



Howard Federoff, M.D.

In 2013, the G8 Summit pronounced Alzheimer's disease and dementia as a worldwide priority. In the United States, Alzheimer's disease could single-handedly bankrupt the health care system if interventions that can delay or prevent disease onset are not developed in the next decades. Basic and clinical research will be key to achieving this goal. Here at UC Irvine, we have a proud history of Alzheimer's disease research excellence and we are poised to lead the field in the coming decades.

On July 1, 2015, Dr. Howard Federoff joined UC Irvine as the Vice Chancellor for Health Affairs and the Dean of the School of Medicine. Dr. Federoff received M.S., M.D., and Ph.D. degrees from the Albert Einstein College of Medicine and completed his internship, residency, and clinical and research fellowships at Harvard Medical School and Massachusetts General Hospital. He has held faculty appointments at Albert Einstein College of Medicine, University of Rochester, and most recently at Georgetown University, where he was Dean of the School of Medicine. Dr. Federoff is a world-renowned researcher in

Alzheimer's disease, Parkinson's disease and other neurodegenerative conditions. In 2014, Dr. Federoff and his team published a widely lauded study in the prestigious journal *Nature Medicine*, in which they described a new blood signature that could predict future dementia in older persons with normal memory performance. These results represent a critical area of need in Alzheimer's disease: a blood test that could enhance diagnosis and be used to identify persons at the earliest stages of disease, when treatments may be most effective.

Dr. Federoff's recruitment to UC Irvine is timely, not only because of the importance of Alzheimer's disease as a field of study, but also because of the momentum that Alzheimer's disease research has generated leading up to his arrival. Led by Dr. Frank LaFerla, Dean of the Ayala School of Biological Sciences, UCI researchers recently successfully applied for and received a competitive renewal of the grant funding UCI's NIH-designated Alzheimer's Disease Research Center (ADRC). This highly competitive grant system includes less than 30 centers nationwide. The renewal funds the ADRC for an additional five years. It allows continued study of three unique cohorts: those with Down's syndrome who are at increased risk for Alzheimer's disease, led by Dr. Ira Lott; the important 90+ autopsy study of the oldest old, led by Dr. Claudia Kawas; and a cohort of successful aging persons and persons with mild cognitive impairment, led by Dr. Aimee Pierce. The renewal grant also permits the continuation of extensive community education activities by the ADRC and the Institute for Memory Impairments and Neurological Disorders (UCI MIND). New faculty member Joshua Grill, Ph.D., was recruited to UCI to lead the Outreach Recruitment and Education Core in the ADRC in March of this year. Dr. Grill is an Associate Professor of Psychiatry and Human Behavior and he will also serve as Director



Joshua Grill, Ph.D.

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From the Director



Andrea J. Tenner, Ph.D.

The summer of 2015 is off to an exciting start at UCI MIND and for the field of Alzheimer's disease as a whole. Just in July, UCI welcomed its new Dean of the School of Medicine and Vice Chancellor for Health Affairs, Howard Federoff, M.D. – a noted Alzheimer's disease researcher (see page 1). We've also seen the National Institute on Aging announce a planned increase in the devoted funding levels for Alzheimer's disease and legislation continues to work through Congress that could increase Alzheimer's research funding by \$350 million (see page 3).

These developments reinforce what many of us already know—Alzheimer's disease and other neurodegenerative diseases are among the most important problems we face today and there is an urgent need for biomedical research to improve understanding, enhance diagnosis, and develop better treatments for this deadly and costly disease. Now is the time for UCI MIND to continue to grow its partnerships with the community of caregivers, families, and professionals whose lives are touched by this disease. Only together, can we make the future truly brilliant.

We are developing new ways for UCI MIND to interact with the community. We are doing more clinical studies, including clinical trials of new treatments and preventions, than ever before. Academic investigators cannot cure this disease on their own. This effort will require many partners, investing in a common goal—a future where memories last forever.

Congratulations!



UCI MIND's founding Director, Dr. Carl Cotman, is the 2015 recipient of the UCI Clinical Translational Scientist Career Achievement Award. Dr. Cotman was selected for his outstanding contributions to the fields of brain aging and Alzheimer's disease, which have spanned more than 40 years and included more than 750 peer-reviewed publications, more than 10 books and numerous book chapters. Already the recipient of the UCI Medal, Dr. Cotman has also been consistently NIH funded for more than 30 years and has been instrumental in the growth of UCI's research excellence, especially in the neurosciences. Dr. Cotman received his award at the 7th Annual ICTS Awards Dinner on May 12th.



Dr. Rodrigo Medeiros, Research Associate Professor at UCI MIND has been awarded a UCI Institute for Clinical and Translational Science Special Pilot Grant Award. The award was given for outstanding translational projects with a focus on early onset Alzheimer's disease. Dr. Medeiros' project examines blood levels of interleukin-37, a novel immune molecule that appears to play a role in controlling inflammation, as a potential biomarker for Alzheimer's disease.

Alzheimer's disease research *(Continued from page 1)*

of Education for UCI MIND and the Associate Director of the ADRC under Dr. LaFerla.

Partnership with the community is a major thrust of both the ADRC and UCI MIND, and will be essential to achieving the goal of developing preventative medicines by 2025. UCI MIND is working to expand its scope of clinical research studies, especially clinical trials of novel treatments, which will be critical to the development of preventative therapies and will require large numbers of volunteer participants.

Dean LaFerla's visit to Washington D.C.



Dr. Frank LaFerla, fourth from the left, joined Congresswoman Mimi Walters, third from the left, in Washington, D.C., June 2, 2015

On June 2, 2015, Professor Frank LaFerla, Dean of the Ayala School of Biological Sciences and Principal Investigator of the UCI Alzheimer's Disease Research Center, presented a briefing on Alzheimer's disease at the Capitol Visitor Center in Washington, D.C.. Members of the offices of Senator Dick Durbin, Congresswoman Mimi Walters, and Congressman Ami Bera (a UCI alum) were in attendance. Later that day, Senator Durbin specifically cited Dr. LaFerla in his comments on the Senate Floor, discussing the scientific setbacks that result from lost funding, as was the case during the sequestration in 2013 and threatens again this year. This event represented one item in a very large advocacy agenda led by researchers and advocates from the Alzheimer's Association, Alzheimer's Impact Movement, US Against Alzheimer's, and many other groups.

In what is being viewed as a major victory for all Alzheimer's advocates, on June 16 the House Labor, Health and Human Services (Labor-HHS) Appropriations Subcommittee Chairman Tom Cole (R-OK) proposed a \$300 million increase for Alzheimer's research at the National Institutes of Health (NIH). The Senate Appointment Committee later approved a \$350 million increase in Alzheimer's disease funding. Though not yet law, such an increase would be a major step toward accelerating research critical to better understanding this disease and developing treatments capable of preventing its onset and slowing its progression.

UCI MIND invited speakers at global Alzheimer's Conference



At this year's Alzheimer's Association International Conference (AAIC) in Washington, D.C., three UCI MIND faculty members delivered prestigious invited lectures. Drs. Maria Corrada and Claudia Kawas presented on the 90+ Study, for which they are principal investigators. Dr. Corrada presented in a session on the methodological considerations for studying the oldest old, while Dr. Kawas presented in a session on insights into Alzheimer's disease mechanisms based on studying the oldest old. Dr. Joshua Grill, who joined UCI MIND in March, was invited to participate in a session on novel clinical trial design and delivered a lecture titled "Ethics in Alzheimer's disease prevention trial design."

The AAIC generates substantial media attention and serves as a meeting place for more than 5,000 Alzheimer's and dementia researchers. These presentations demonstrate UCI's leadership in the field and facilitate increased collaborations with other researchers throughout the world.

University of California, Irvine

**INSTITUTE for MEMORY IMPAIRMENTS
and NEUROLOGICAL DISORDERS
2646 Biological Sciences III
Irvine, CA 92697-4545**

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Investing in Discovery

Alzheimer's disease (AD) and related cognitive disorders affect millions of Americans and their families. The faculty of UCI MIND are committed to finding cures for these diseases through research. UCI MIND is Orange County's only Alzheimer's Disease Memory Assessment and Research Center and is home to one of only 27 Alzheimer's Disease Research Centers funded by the National Institute on Aging. Notably, UCI ADRC includes the first federally funded induced Pluripotent Stem Cell Core, which was originally initiated through individual private donations. Research advances occur most rapidly when public and private funding sources are leveraged through unique partnerships. With increased funding, the faculty and staff of UCI MIND can do more and achieve goals more rapidly.

UCI MIND is home to innovative scientists and clinician researchers who are leaders in the field of Alzheimer's disease research. These investigators are poised to make important discoveries and advances in pursuit of a world where memories last a lifetime. We invite you to consider investing in discovery today by making a contribution to UCI MIND. We value your donation of any amount to support research.

To make a donation online visit our website at www.mind.uci.edu and click "Donate." Alternatively, mail a check made out to UCI MIND to Linda Scheck, Director of Development and Donor Stewardship, at UCI MIND, 2646 Biological Sciences III, Irvine, CA 92697-4545. If you would like to discuss opportunities to support research through philanthropy, please contact Linda Scheck for more information (949-824-3251 or lscheck@uci.edu).