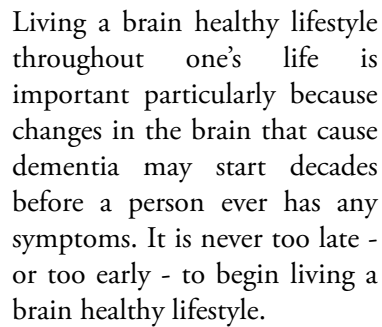


By Tonia Vojtkofsky, Psy.D.



There are some risk factors for dementia that we cannot change such as age and inherited genes,

The two main categories of modifiable risk factors for dementia are 1) medical risks and 2) lifestyle risks. Medical risks are conditions such as untreated diabetes and heart disease. When left untreated or poorly managed, these medical conditions increase our risk of developing dementia significantly. Yet when treated and managed well, the risk declines (Ritchie et.al., 2010).

Lifestyle risk factors are things such as physical exercise, mental stimulation, nutrition, socialization, and coping with stress and depression. Let's look at some research studies on these factors.

Physical exercise: There are numerous studies showing that physical exercise is good for the brain and reduces risk of dementia. The accepted recommendation for exercise is to work out three times per week for approximately 1 hour per session. If exercising for a full hour isn't possible, breaking it up throughout the week for shorter durations of time totaling 3 hours is equivalent (Abbott et al., 2004; Cotman & Berchtold, 2002; Larson et al., 2006; Rovio et al., 2005; Weuve et al., 2004).

Mental Stimulation: The brain is not a muscle but it functions like one in that when we exercise it, our cognitive abilities can grow stronger and can reduce our risk for dementia (Verghese et al., 2003). Participants of the Advanced Cognitive Training for

Independent and Vital Elderly (ACTIVE) Study (Unverzagt et al., 2009; Willis et al., 2006) exercised memory, reasoning, or speed of processing. Immediate improvements in cognitive ability were seen in 87% of the speed of processing group, 74% of the reasoning group, and 26% of the memory group. The 10-year follow-up evaluations on ACTIVE Study participants showed that 73.6% of reasoning-trained and 70.7% of speed-trained participants were still performing at or above their baseline without additional training (Rebok et al., 2014).

Nutrition: So many studies have been done on specific nutrients and their effect on the brain that it is not possible to review them here. Yet one thing is clearly supported, a healthy diet directly effects brain health (Copede et.al., 2012; Morris & Tangney, May 2014; Opie et.al., 2013)

Socialization: Fratiglioni and colleagues (2004) did a meta-analysis looking at many different research studies on socialization and risk for dementia. There was significant evidence to support that those who maintain close emotional ties to friends and family have a lower risk of dementia.

Depression: The Framington Heart Study found those who had depression were at a more than 1.5 times higher risk of developing dementia (Saczynski et.al., 2010).

Stress: A 35-year-long women's study found that subjects' risk of dementia increased with every year they reported that they were under constant stress. Those women who reported experiencing frequent or constant stress for all 35 years were at a 2.5 higher risk for dementia (Johansson et.al., 2010).

Although modifying our behavior can be difficult, the effort is definitely worth it. The key to behavior modification is to start with small and slow steps. Make one small change at a time. And let this information motivate you to make good decisions about your body and brain.



From the Director...

Andrea Tenner, Ph.D.



It is my privilege to assume leadership of UCI MIND from Dr. Frank LaFerla and congratulate him on his new position as Dean of Biological Sciences at UCI. As I take the baton from Dr. LaFerla, I extend my thanks for his incredible contributions to UCI MIND. Our next newsletter will provide me the opportunity to introduce myself more fully, but in the meantime, I'd like to invite you to join me at the 25th Annual Southern California Alzheimer's Disease Research Conference on September 12th at the Costa Mesa Hilton. Kicking off the conference will be Dr. Howard Federoff, who has developed a blood test with the potential to predict future cognitive impairment ahead of actual symptoms, paving the way for an affordable prognostic test. Joining Dr. Federoff is an outstanding

group of researchers from across the country and UCI MIND who will convey the latest exciting advances in diagnosis, imaging and clinical trials.

You may have read or heard about a new Alzheimer's disease drug trial that is starting up, with the goal of testing whether a new investigational treatment can slow memory loss in individuals who have normal thinking but may be at risk of developing Alzheimer's disease. This study, known as the A4 Study (short for the Anti-Amyloid Treatment in Asymptomatic Alzheimer's Study), will be administered at over 60 sites in the U.S.A., Canada and Australia, including UCI MIND. If you are interested participating in this study, visit: <http://mind.uci.edu/research/clinical-trials/clinical-trials-available/>

Our goal at UCI MIND is to understand through innovative research the causes that lead to memory loss and thereby identify how we may effectively prevent or treat it. And you, our professional and lay community, will be the first to know of and have the benefit of that new knowledge.

As we move toward that goal, I want to highlight several UCI MIND accomplishments in the last year that are helping us to fulfill our mission, and I want to thank you for your support which contributed to these successes.

- Successful UCI MIND Gala at the Lyon Air Museum, which helped raise funds for Alzheimer's disease research at UCI MIND. (See separate article on insert page.)
- Successful outreach to the community, highlighted by an annual conference on Alzheimer's disease.
- Funding awarded from the National Institutes of Health (NIH) to establish the first national induced pluripotent stem (iPS) cell bank for Alzheimer's disease. The ability to reprogram adult skin cells (including cells obtained from skin samples from elderly subjects) to make them pluripotent (able to become different cells types) is perhaps one of the most significant achievements over the past decade, and it provides researchers the opportunity to generate a personalized cellular model of Alzheimer's disease and to evaluate new therapies.
- Successfully renewed a NIH Program Project Grant which involves five UCI MIND investigators (Carl Cotman, David Cribbs, Charles Glabe, Frank LaFerla and Andrea Tenner) and is focused on understanding the role that Alzheimer's disease risk genes have in the brain, particularly on inflammation.
- Successfully renewed the 5-year training grant on the Neurobiology of Aging, thereby providing a mechanism to support some of the most talented basic science and clinical graduate students and postdoctoral fellows. Training of the next generation of scientists and clinicians is at the core of the UCI MIND mission.
- The 90+ Study and Dr. Claudia Kawas were featured on 60 Minutes bringing national recognition to aging research at UCI.
- Dr. Charles Glabe, Professor of Molecular Biology & Biochemistry, and Dean Frank LaFerla, PhD, Professor of Neurobiology & Behavior, both UCI MIND faculty members, were listed on the 2013-14 Highly Cited Researchers published by the reputable Thomson Reuters.

TIME OF YOUR LIFE



2014

Celebrating Classic Memories

Benefiting Alzheimer's disease research at

UCI MIND
Institute for Memory Impairments
and Neurological Disorders

Vintage airplanes and rare automobiles offered a backdrop at the Lyon Air Museum, reminding guests of the greatest generation and those black-and-white movie images from past decades. This classic mood was enhanced by the black-and-white themed décor, from table linens to video images and signage, even to the menu selections for dinner and the guests themselves, who were attired in white or black. All of this was coordinated by Linda Young and her team at Elite OC Productions.

More than 250 supporters donated over \$100,000 to fund Alzheimer's research at UCI MIND. Tom and Dana Chou and Sean and Alice Cowell, couples who have personal experience in caring for a loved one with Alzheimer's, chaired the fifth annual Time of Your Life – Celebrating Classic Memories, on May 29, 2014. Past Time of Your Life chairs, Rand Sperry and Burton Young, emceed the evening.

Dean Frank LaFerla, Dean of Biological Sciences and Dr. Andrea Tenner, Director of UCI MIND, ended the evening by sharing these comments, "We are, in reality, only our memories—we are, at the end, only what we can remember. Alzheimer's disease robs us of our memories and much more. At UCI MIND we are researching ways to make our memories last a lifetime."

UCI Alumni Honorees

The evening was highlighted by the first UCI MIND Alumni in Support of Alzheimer's Research Award presentations. As UC Irvine celebrates its 50th anniversary, UCI alumni are being noticed as a growing force in the community and the nation. UCI MIND recognized three alumni who are making a positive difference through their leadership, advocacy and support for Alzheimer's research. Honorees were Dr. James B. Pick, Michelle Egerer, M.Ed., and Shannon Ingram.



Michelle Egerer, Dr. James B. Pick, and Shannon Ingram
Photo provided by DonnaontheTown.com

Funds raised by this event will be used by researchers at UCI MIND to:

- Provide critical 'bridge' funding for researchers with projects underway that face cuts
- To support a junior investigator with a promising idea
- For an 'out of the box' pilot project that needs a small amount of seed money to launch

These dollars give UCI MIND faculty the flexibility to remain at the cutting edge of new research investigations. The donors hope for answers in the fight against Alzheimer's and place trust in the nationally recognized researchers at UCI MIND.

THANK YOU TO OUR COMMITTEE VOLUNTEERS

Dana and Tom Chou, Chairs

Alice and Sean Cowell, Chairs

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Bruce Ballentine
Catherine Barr
Rick Bellasaire
Vicki Clark
Katy Cutter
Danielle Darden
Mary Ehrlich
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 Z' Tejas

THANK YOU TO OUR PHOTOGRAPHY DONORS

Ed Melliza Photography

Antonio Pullano, LovinLife Multimedia

Sandy Zimmer

Sweet Thanks!

Thank you to Chef Nick Gianpietro, Silverado Care, who donated an array of decadent dessert cupcakes for our guests. And to the Dessert Lab, Newport Beach, for mini cheesecakes to sample. They were paired with dessert wines in test tubes!
 Wines provided by Michael Wannamaker, Southern Wine and Spirits.

THANK YOU TO OUR SPONSORS

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5TH ANNUAL TIME OF YOUR LIFE CELEBRATES CLASSIC MEMORIES



Lauren Wong and Susan Kang



Tom Chou, Dr. Michael Schwartz, Rebecca Wolfe van Loon, Mike van Loon (behind), Dana Chou, Geri Schwartz, Sharon Lawson, Alice Cowell, Sean Cowell, and Ken Lawson



Emcee Rand Sperry with Rose White



Bob Naeve taking a chance!



Lourdes Nark and Lauren Wong



Tom and Dana Chou, Dr. Andrea Tenner, Dr. Frank LaFerla and Alice and Sean Cowell



Cal Optima guests: Georgina Maldonado, Michael German, Claudia Hernandez and Mark Lopez



Linda and Burton Young



Dr. Jacqueline Dupont and Marc Carlson



Left: Barbara and Robert Kleist, 2nd and 3rd from right with their guests - ready for takeoff!

Right: Musicians of Bill Strout's Big Band 2000 perform classics from the 1930's and 40's



THE 90+ STUDY FEATURED ON 60 MINUTES

UCI MIND researcher, Dr. Claudia Kawas, Departments of Neurology and Neurobiology and Behavior, who leads *The 90+ Study* at UC Irvine, was featured on the popular news broadcast, 60 Minutes on May 4, 2014. Journalist Leslie Stahl spent several days with Dr. Kawas and her team of researchers and staff at *The 90+ Study* clinic in Laguna Woods where she interviewed Dr. Kawas and several study participants, all over 90 years old, about their journey in aging. Participants described their personal histories, lifestyle behaviors and favorite activities, as well as challenges in aging.

The 90+ Study was launched in 2003 to learn more about the “oldest old,” which represents the fastest growing age group in the U.S. Last year, *The 90+ Study* was renewed for another 5 years through a \$9.5 million renewal grant from the National Institute on Aging. To watch the full broadcast or learn more about *The 90+ Study*, visit: <http://mind.uci.edu/research/90plus-study/90-study-60-minutes/>



UCI MIND is proud to announce a series of sessions
being hosted by be.group for our community.



Alzheimer's Disease: From Diagnosis to Care

Thursday, Sept. 25 - Understanding Alzheimer's Disease

Presented by Cordula Dick-Muehlke, Ph.D., UCI Health, UCI MIND

Thursday, Oct. 23 - Memory Loss: Getting an Accurate Diagnosis

Presented by Malcolm Dick, Ph.D, UCI MIND

Thursday, Nov. 20 - Responding to Challenging Behaviors in Dementia: Problem-Solving and Communication

Presented by Cordula Dick-Muehlke, Ph.D., UCI Health, UCI MIND

All sessions will be offered from 6-9 pm at Kirkwood Orange, 1525 E Taft Ave, Orange, CA 92865

To RSVP, please call: (714) 262-4277

A LEGACY OF MEMORIES

Create your legacy by giving others their memories. Call us today to learn how you can impact Alzheimer's and dementia research in your estate or to obtain a charitable income stream.

Call to create a legacy for UCI MIND:

949-824-6454

Roland Ho, CSPG
Office of Planned Giving
University of California, Irvine

JOIN THE MIND MATTERS CLUB

Would you like to attend private receptions featuring UCI MIND research scientists? Do you want to promote your own cognitive health as you support research at UCI MIND? Join the donor support group, the UCI MIND Matters Club, with a contribution of \$1906 or more annually, and you can be part of such a group.

Members of the MIND Matters Club receive these and other benefits and, if desired, a confidential annual memory screening and personalized brain health consultation, including a review of risk factors.

For details about this donor support group for Alzheimer's research at UCI MIND, contact Linda Scheck, 949-824-3251 or lscheck@uci.edu.