

NEWSLETTER

SPRING/SUMMER 2019

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Director's Letter

Those of us who support the UCLA Longevity Center know that our goal is to help people live longer while maintaining a high quality of life. In addition to age-related physical declines, mind health issues are a major concern, particularly cognitive and mood health, and recent research continues to inform us on how we can maintain memory and other cognitive abilities and avoid depression.

The preponderance of research indicates that addressing age-related physical health needs will also maintain cognitive health. A relatively easy way to protect both physical and cognitive health is to avoid elevated blood pressure. Nearly 75 percent of those age 65 or older suffer from high blood pressure or hypertension, one of the potentially modifiable risk factors for developing dementia. Previous research has not definitively confirmed the degree of blood pressure control needed to lower risk for cognitive decline. In recent findings published in the January 28, 2019 issue of *JAMA*, scientists reported on a clinical trial of more than 9,000 hypertensive adults, who were randomized to two

treatment goals: (1) an upper number in blood pressure readings (systolic pressure) of less than 120 mm Hg (millimeters of Mercury), or (2) less than 140 mm Hg systolic pressure. The results indicated that the more intensive blood pressure control target of less than 120 mm Hg (and not the less stringent 140 mm Hg target) significantly reduced risk for developing mild cognitive impairment and dementia. These findings provide additional guidance for older individuals wishing to protect their minds from cognitive decline.

Another strategy for staving off cognitive decline involves regular physical exercise. Previous research has shown that brisk walking for at least 90 minutes each week is associated with a lower risk for developing dementia. Recently, scientists reported on an investigation published in the *Proceedings of the National Academy of Sciences USA* showing that even less intense exercise – just a few minutes each day of light-intensity exertion – could be adequate to boost memory abilities. For the research, scientists from the University of Tsukuba in Japan performed memory evaluations in 36 young adults before and after

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DIRECTOR'S LETTER CONTINUED

10 minutes of light recumbent cycling. Following this brief, low-intensity aerobic exercise, the research subjects had improved cognitive task performance involving discriminating memorized images. The researchers also performed MRI scans before and after the exercise intervention and found heightened activity in brain neural circuits that control memory.

As we age, mood and cognitive symptoms often overlap. Many people who develop depression in the later years may become forgetful, and those with incipient dementia may experience feelings of depression. A recent study published in *JAMA Psychiatry* indicates that people with a family member with depression may demonstrate poorer performance on cognitive tests when compared with those who do not have family members with depression. Dr. Barbara Pavlova of Dalhousie University in Halifax, Nova Scotia, and associates performed a meta-analysis of 54 studies that included first-degree relatives (i.e., siblings, parents or children) of people with major depression, as well as controls without a family history for depression. The memory and other cognitive abilities of first-degree relatives of research subjects with major depression were significantly worse compared with those for the controls in the study. Even though the research did not reveal the reason for this association, other studies have documented genetic factors that contribute to both age-related cognitive issues and mood disturbances.

Whether or not someone has a genetic or familial risk for depression, these and other studies point to the importance of getting treatment for depression, and both psychotherapy and antidepressant interventions have been shown to be effective. Moreover, the aerobic exercise that protects cognitive health also boosts mood, and a new study provides another reason to get more culture into our

lives: it may help us to fight off age-associated feelings of depression. Daisy Fancourt of University College London and co-workers found that older adults may actually reduce their risk for depression by as much as a third by attending cultural events every several months, and the risk for depression could decline by as much as 50 percent for individuals who attend cultural events monthly. This study was published in the *British Journal of Psychiatry* and included 2,000 volunteers ages 50 and older. The attendance of volunteers at plays, movies, concerts and museum exhibits was tracked for a decade. Why culture may lower depression is not certain but may be related to greater social interactions, physical activity levels, and other factors that protect against feelings of isolation and sadness. The bottom line is that going to a movie, play, dance performance or any cultural event on a regular basis may help you to stay healthy and happy over the years.



Gary Small, M.D.
Director, UCLA Longevity Center

Discussing Dementia: The Potential of Alzheimer's Disease to Bankrupt the Healthcare System

By Emily Gold-Mears, UCLA Longevity Center Board Member



A recent article by Zaven Khachaturian, PhD, titled “Is the Rising Storm of Alzheimer’s Disease Stoppable?” discusses the 40 year failure of Alzheimer’s disease (AD) therapy development and the course of a national initiative to prevent AD.

He points out that a crucial public health objective is to “promulgate national policies and programs to foster prevention.”

Khachaturian identifies two salient areas of discovery that which should inform future research and initiatives. These include “age of onset symptoms” and “interventions that could improve symptom management.” Early studies revealed an age associated exponential increase in the prevalence of dementia, including AD after the age of 65. This increase appears to almost double the prevalence of the disease every 10 years of age, escalating from 10% at age 65 or older to 40% at age 80 or older. Regarding interventions, the research focuses on best practices in nursing care and patient management that can both improve and delay symptoms.

The article provides a history of national policies directed at AD with an emphasis on delaying the onset of symptoms and ultimately preventing the disease.

Khachaturian makes an interesting argument regarding the manner in which public policy goals for AD differ from those for cancer and AIDS due to the prolonged duration of progressive disability associated with AD.

The article suggests that a more realistic goal than eradication or even prevention of AD is the identification of interventions that will delay the onset of symptoms, prolong functional independence and postpone total dependence on labor intensive care for sustaining life.

In order to find a solution to the complex issue of this global public health crisis, a systems approach may be required. This would necessitate a national commitment and should include the scientific community, various advocacy groups, policy

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DISCUSSING DEMENTIA CONTINUED

makers, pharma-biotech companies, government agencies and Congress.

Evidently, vascular problems in midlife can contribute to adverse effects on the brain decades later. Studies looking at stroke, mild cardiovascular problems in middle age, diabetes, hypertension and smoking have demonstrated that all of these are modifiable risk factors for all-cause dementia. Other studies have shown that exercise, diet, nutrition and cognitive and social activities are all major factors for maintaining cognitive health.

Despite the fact that the last 40 years and billions of dollars spent in research have failed to yield any significant disease-modifying therapy, Khachaturian sees a positive outcome. This outcome is a new found understanding of the neurobiology of chronic brain disorders. Some of the theories resulting from the research to date include “calcium hypothesis; neuroinflammation; metabolic or mitochondrial dysfunction; brain microvessel disease and lifestyle and risk factors.”

ABOUT EMILY GOLD-MEARS


Emily Gold-Mears was born and raised in Los Angeles. She has a B.A. and a J.D. and practiced Real Estate Transactional Law before focusing exclusively on philanthropic causes. She is a board member of KCRW and the UCLA Longevity Center and serves on the Society of Fellows Advisory Committee for the Aspen Institute.




As a result of her father suffering and ultimately succumbing to dementia, she embarked on an odyssey of scientific research to understand the causes and potential solutions to neurological disorders. One of the results of this extensive research is her blog called "Discussing Dementia" and the accompanying website on dementia research. The objective of this blog is to share the information she has gathered about dementia with others, particularly those similarly situated.

To subscribe to Emily's blog, please visit her website at: **www.dementia-research.com**

OPTIMIZE YOUR TREATMENT FOR DEPRESSION



ASK YOUR DOCTOR ABOUT THE OPTIMUM STUDY



OPTIMUM is a research study for participants **60 and older with difficult to treat depression.**

- Eligible participants are randomized to medication options:
 - STEP 1:** (for 10 weeks) Adding aripiprazole or bupropion to current antidepressant; or switch to bupropion
 - STEP 2:** (for 10 weeks) Adding lithium to current antidepressant; or switch to nortriptyline
- The study team will assess your side effects and mood for up to 12 months.
- Study psychiatrists will provide medication recommendations to your primary care physician.

You may be eligible if you are

- 60 years or older
- Depressed
- Taking an antidepressant, but not feeling better.


Ask your doctor if you qualify.

For more information:
310-206-5240
LateLifeWellness@mednet.ucla.edu

Protocol ID: IRB#16-001829 UCLA IRB Approved Approval Date: 6/6/2017 Through: 11/30/2017 Committee: Medical IRB 3

UCLA Psychiatry and Biobehavioral Sciences

TAI CHI CHIH OR HEALTH EDUCATION AND WELLNESS FOR OLDER ADULTS



ARE YOU SUFFERING FROM DEPRESSION?

ARE YOU OVER THE AGE OF 60?

The UCLA Late-Life Mood, Stress and Wellness Program in the Geriatric Psychiatry Division is conducting a 6-month research study involving 12 weekly 60 minute session of either a health and education wellness class or a Tai Chi class. Participants will undergo two functional magnetic resonance imaging (fMRI) scans. A complete psychiatric evaluation will be provided. Subjects will not be charged for participation and will be compensated.

You must be at least 60 years old. If you or anyone you know is interested in participating, call for an appointment to see if you qualify or for more information at: (310) 794-9523.

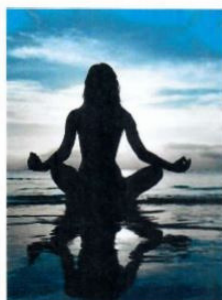
The study will be conducted by Helen Lavretsky, M.D.

Protocol ID: IRB#15-000184 UCLA IRB Approved Approval Date: 1/16/2017 Through: 1/11/2018 Committee: Medical IRB 3



UCLA Psychiatry and Biobehavioral Sciences

YOGA AND MEMORY TRAINING FOR WOMEN



- Are you a woman over age 50?
- Do you have high blood pressure, high cholesterol, heart problems, or diabetes?
- Do you have memory concerns?

THIS STUDY IS FOR YOU!

The UCLA Late Life Mood, Stress and Wellness Program is conducting a year-long research study including 12 weekly 60-minute sessions of yoga or memory training. Participants will undergo 2 functional magnetic resonance imaging (fMRI) scans. A complete psychiatric evaluation will be provided. Participants will be compensated up to \$250 and reimbursed for parking.

For more information please call (310) 267-5264.

This study is being conducted by Helen Lavretsky, M.D.



Protocol ID: IRB#17-001876 UCLA IRB Approved Approval Date: 5/31/2018 Through: 2/25/2019 Committee: Medical IRB 3

Coping with Dementia

Group Education & Counseling for Patients and their Caregivers



Topics Discussed

Interventions for stress, loss and depression

Intimacy and communication

Resources for help with memory loss and caregiving

Preparing for the future: advanced directives, changes in care needs

Maintaining quality of life and adapting to limitations

- Weekly 1.5 hour sessions for 4 weeks
- Led by a licensed psychologist who specializes in aging and memory loss
- Provides education and support to understand the diagnosis and adjust to life changes
- Patients must be able to participate in group discussions

Covered by Medicare and other insurances

For more information please contact:
 Cynthia Yniguez at (310) 794-6314
 or cyniguez@mednet.ucla.edu

Research Study on Treatment Resistant Major Depression

Principal Investigator: Alexander Bystritsky, MD

Major depressive disorder or major depression is a disabling condition that indiscriminately affects millions of people in the United States and contributes to billions of dollars in health care costs each year. Though many FDA-approved treatment options exist for major depression, almost two-thirds of all patients are treatment-resistant, which means that they have not responded adequately to at least two antidepressant therapies.

A new UCLA study is being conducted to compare three common treatment strategies for patients with treatment resistant depression. Each patient in the study will be assigned to one of three treatments:

- (1) adding aripiprazole (Abilify) to a current antidepressant,
- (2) adding repetitive transcranial magnetic stimulation to a current antidepressant, or
- (3) adding a serotonin-norepinephrine reuptake inhibitor antidepressant medicine to a current antidepressant.

The study's goal is to determine which of these three treatment strategies is most effective in reducing symptoms.

It is clear that quality of life has improved because of the currently available medications and devices used to treat depression, which have been tested using clinical trials in the past. Thanks to the assistance of the many volunteers for these studies, these efforts can continue to advance our understanding on how to reduce and eventually eradicate treatment resistant depression.

Anyone who volunteers for this new study will receive compensation for time and travel, up to \$800 over 2 months. For more information, please call CalNeuro Research Group at **(310) 208-7144**.

ABOUT DR. ALEXANDER BYSTRITSKY

Dr. Alexander Bystritsky is a board-certified psychiatrist with a specialty in anxiety disorders, and is currently Professor Emeritus of UCLA and the Director of the UCLA Anxiety Disorders Program and the Targeted Brain Stimulation Program. He received his M.D. and Ph.D. in psychopharmacology from the First Pavlov State Medical University of St. Petersburg. Over the years as a clinician and researcher, he has gained extensive experience into modern neuroscience practices. He now serves as a clinical research investigator with CalNeuro Research Group.

The Big Four: Healthy Diet, Physical Activity, Stress Reduction, and Memory Training

By: UCLA Longevity Center Team

The UCLA Longevity Center partners with individuals and organizations in the community to increase access to our memory programs and to help people to live better longer. One of the programs available, Memory Fitness, a program that focuses on four areas of life that are key to maintaining brain health: healthy diet, physical activity, stress reduction, and memory enhancement exercises. Here are examples of each of these Big Four strategies used in our program. Try some of these out to get a sense of how effective they can be.

1. Healthy Diet

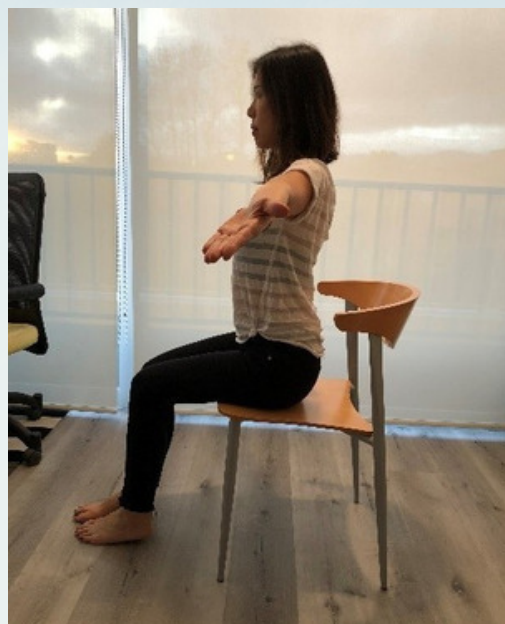
Make your next meal as colorful as possible. Add a spice like curcumin or turmeric to support brain health.

Fun Fact: Did you know vanilla is not only an antioxidant, which is good for the brain, but it is the most consumed spice in the world?

2. Physical Activity

Chest stretch – an excellent activity for improving posture.

- 1) Sit upright and away from the back of the chair. Pull your shoulders back and down. Extend arms out to the side
- 2) Gently push your chest forwards and up until you feel a stretch across your chest. Hold for 5 to 10 seconds and repeat five times



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THE BIG FOUR CONTINUED

3. Stress Reduction

- 1) Sit in a chair and get comfortable with good posture.
- 2) Place one hand on your chest and the other hand on your diaphragm (just above your stomach).
- 3) Spend a moment concentrating on your breath and notice how your body naturally breathes.
- 4) Now bring your shoulders back slightly. By bringing your shoulders back slightly (with no strain on the neck), you open up your heart to receive more oxygen and blood flow.
- 5) Practice paying attention to your breathing. When you inhale, your belly expands; when you exhale, your belly goes in and pushes out oxygen.
- 6) Practice two to three slow inhales and exhales. As you get better at this exercise, spend more time at each sitting.

4. Memory Enhancement Technique

People often group things together or organize information into categories to make it easier to remember. They often do this automatically without even realizing it. For example, when you write a shopping list, you probably group items into categories, such as vegetables, bakery items, etc.

When you group items into categories, you break down a larger group of items into several smaller groups, which makes it easier to remember. Items that are grouped together have something in common and can be given a name or label that represents what they have in common.

Study the list below and form smaller groups or categories of items that have something in common.

List:

Hammer	Basketball	Tomato	Carrot
Lettuce	Bat	Golf Club	Cucumber
Nail	Racket	Bolt	Wrench

After 3 minutes test your memory by recalling as many items from this list as you can. Begin by thinking of your groups or categories, which will jog your memory for the items in each group.



If you are interested in becoming a community partner, who teaches one of our memory programs, please contact Christina Domer at 310-206-1675 or CDomer@mednet.ucla.edu.

Bilingualism and Healthy Aging

By: Mirella Díaz-Santos, PhD., Assistant Adjunct Professor

Cognitive Neuroscience Laboratory, Department of Psychiatry and Biobehavioral Sciences

Models of normal aging have historically emerged from a monolingual scientific framework. Studying bilingualism in healthy aging may advance our understanding on how the bilingual brain is wired differently from the monolingual brain, leading to the known “bilingual advantage” in executive functioning, which is our ability to plan, focus attention, remember instructions and juggle more than one task effectively. The mental tasks involved in driving a school bus provides a good example of executive functioning, which is controlled by the brain’s frontal lobe. The bus driver pays attention to the road, recalls the route to each student’s home, pays attention to other drivers to avoid an accident, and, at times, tunes out the conversations of the children on the bus in order to focus attention on these other tasks.



This “bilingual advantage” in executive function could partially explain how people who are bilingual have a lower risk for age-related cognitive decline and dementia.

If you are a bilingual middle-aged or older adult, age 60 or older, please volunteer for the Human Connectome Project, which will help us to address these important research questions.



To learn more about the
Human Connectome Project, call:
310-794-0077
or email us at:
hcpa@ucla.edu

UCLA Longevity Center Donations

August 2018 - February 2019

Director's Circle (\$2,000+)

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To donate to the UCLA Longevity Center, please visit:

<https://giving.ucla.edu/LongevityCenter>

OR

Make a check out to:

UCLA Foundation Fund #601070

Mailing Address: UCLA Longevity Center

10945 Le Conte Ave. Suite 3119

Los Angeles, CA 90095



JULY 24, 2018

Dr. Gary Small commented in an AARP story about how a healthy diet might lower dementia risk.

AUGUST 7, 2018

Dr. Gary Small commented in an AARP article about supplements for brain health.

AUGUST 27, 2018

A Dr. Phil segment airing on more than 57 local broadcast stations nationwide featured an interview with Dr. Daniel Siegel about improving overall mental and physical health.

SEPTEMBER 9, 2018

A Consumer Reports article on maintaining or improving memory and thinking skills featured Dr. Gary Small.

OCTOBER 1, 2018

Shape interviewed Dr. Daniel Siegel, a clinical professor of psychiatry, for a story about using a meditative tool to improve exercise performance.

OCTOBER 13, 2018

The Guardian published two columns by Dr. Gary Small, one about using methods to keep your brain sharp, and another about lifestyle habits to slow memory decline.

<https://www.theguardian.com>

CALENDAR OF EVENTS

Brain Boot Camp

An intensive, three-hour course that includes individualized healthy lifestyle programs, tips for a healthy heart and brain diet, and advanced memory techniques for learning and recalling names and faces. For more information, contact (310) 794-6314.

Memory Training

A course for people with mild memory concerns. Memory Training presents effective memory-enhancing techniques and is taught by certified volunteer trainers. For more information, contact (310) 794-0680.

Senior Scholars

A program for adults 50 years of age or older to audit UCLA undergraduate courses taught by UCLA's distinguished professors. For more information, contact (310) 794-0679.

Summer Quarter begins June 24, 2019 and August 5, 2019. The registration deadline is May 24, 2019 and July 5, 2019.

Brain Booster

Boost your brain with our 90 minute cognitive sessions. Led by our team of experts, presenters will provide information on healthy aging research and exercises that enhance overall cognitive function. For more information, contact (310) 794-0680.

Memory Care

A weekly, 3-hour program for memory-challenged, middle-aged people (ages 65 and younger) and their loved ones. It teaches memory techniques and strategies to lower stress and stimulate the mind and the body and offers support for people with memory challenges and their caregivers. For more information, contact (310) 794-0680.

UCLA Longevity Center Newsletter

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Executive Editors: Christina Domer & Chay Zhu