To many, Down syndrome (DS) is a childhood condition. But improved health care means that individuals with DS now routinely reach age fifty or sixty, sometimes beyond. However, if they live long enough, people with Down syndrome are almost certain to develop Alzheimer's disease (AD).

Risk estimates vary, but the National Down Syndrome Society says that nearly 25 percent of individuals with DS over the age of thirty-five show signs of Alzheimer’s-type dementia, and this percentage dramatically increases with age. Almost all develop dementia by the age of sixty.

“The more we learn about Down syndrome and Alzheimer’s disease, the more we realize these conditions—one seen at birth, the other quite late in life—are two sides of the same coin,” said William C. Mobley, MD, PhD, professor and chair of the Department of Neurosciences at the UC San Diego School of Medicine and a member of the Stein Institute for Research on Aging Chair’s Advisory Committee.

“Autopsies of DS and AD brains reveal virtually identical pathologies: the same telltale amyloid plaques and neurofibrillary tangles.”

Under the auspices of the Alzheimer’s Disease Cooperative Study (ADCS), based at the UC San Diego School of Medicine, a new clinical study called the Down Syndrome Biomarker Initiative (DSBI) was launched in March 2013. According to the study’s director, Michael Rafii, MD, PhD, medical director of ADCS, its aim is to discover indicators of Alzheimer’s and study progression of the disease, with the ultimate goal of better understanding brain aging and AD in adults with Down syndrome.

The three-year pilot study has enrolled twelve participants, ages thirty to sixty. Participants will be screened for various biomarkers of Alzheimer’s disease using tests that include three types of brain scans, retinal amyloid imaging, and blood tests, among others.

“Findings to date using MRI and amyloid PET scans indicate that individuals with Down syndrome show the same brain patterns as those in the general population with the earliest stages of the memory-robbing disease, called prodromal AD,” said Dr. Rafii. He added that indications of increased brain amyloid deposition—the insoluble protein aggregates found in the brains of patients with AD that are thought to be an underlying...
The purpose of this project is to determine how age-related postural changes affect balance dynamics and the risk of falls in older persons. For more information please contact Deborah Kado, MD, MS, Departments of Family and Preventive Medicine and Internal Medicine, UC San Diego School of Medicine, (858) 534-4309.

The UC SAN DIEGO KYPHOSIS STUDY

Volunteers Needed for a Posture, Balance, and Falls Study

TESTING PROCEDURES

- Detailed postural assessments
- Bone mineral density
- Body composition
- Detailed balance measures

ELIGIBILITY CRITERIA

- Sixty-five years or older
- Male or female

BENEFITS OF PARTICIPATION

- Increased postural awareness
- Knowledge of your bone mineral density
- Understanding of your body composition
- Up to $75 in compensation

Free Public Lecture

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from internationally renowned expert Sonja Lyubomirsky, PhD, professor of psychology at UC Riverside.

Dr. Lyubomirsky’s work has been written up in hundreds of magazine and newspaper articles, and she has appeared in multiple TV shows, radio shows, and feature documentaries in North America, South America, Asia, the Middle East, and Europe. She lives in Santa Monica, California, with her family.

Free Parking

In order to receive a free parking permit by mail, call (858) 822-7485 NO LATER THAN THE LAST FRIDAY BEFORE THE LECTURE. Note: If you have a disabled person placard, you do not need a permit and are allowed to park in any handicap or metered space.

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cause of the disease—is similar in individuals with DS and those in the general population with AD.

People with amyloid deposition in the brain experience progressive cognitive deterioration. Brain atrophy—shrinking of the brain’s hippocampus—caused by the amyloid buildup, affects routine functional abilities, ultimately leading to complete physical disability.

“By understanding the progression of the disease in people with Down syndrome and those in the general population, we hope discoveries can be made in each group that can be shared between both populations,” said Dr. Rafii.

The design of the DSBI pilot study is patterned after the Alzheimer’s Disease Neuroimaging Initiative (ADNI), which began in 2004 to establish neuroimaging and biomarker measures of AD. ADNI tracked the changes taking place in the brains of eight hundred

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MEET THIS MONTH’S SUCCESSFUL AGER

Natasha Josefowitz, PhD

By Maja Gawronska, MA

Natasha Josefowitz—friend of the Stein Institute, former Community Board of Advisors member, and contributing author to this newsletter—turned to writing poetry after her husband of thirty-five years, Dr. Herman Gadon, died four years ago. This resulted in her latest book, Living Without the One You Cannot Live Without: Hope and Healing after Loss, a beautiful collection of poems that embraces the pain and heartbreak of mourning, and the healing process.

“I was inspired to put my poems on paper by my own experience with the death of my husband, as well as grief I witnessed among so many of my friends. I endeavor to help others who are confronting an unimaginable end of a wonderful relationship,” said Dr. Josefowitz. “I hope that Living Without the One You Cannot Live Without: Hope and Healing after Loss will offer solace and support to those who are bereft, and who will benefit from empathy and emotional connection as they work through their own grief to hope and feeling.”

Dr. Josefowitz calls herself a late bloomer, having earned her master’s degree at age forty and her doctorate at age fifty. She was on the faculty of the business schools at the University of New Hampshire and San Diego State University and taught the first course in the United States on women in management. Her efforts on behalf of women have earned her numerous awards, including the Living Legacy Award from the Women’s International Center. She has been named Woman of the Year many times by various national and international organizations.

Dr. Josefowitz is an internationally known consultant and speaker, having lived and worked abroad and in the United States. For ten years, she had her own weekly radio broadcast and a weekly television segment. She has been a guest on numerous television shows, including Larry King Live and the Dr. Ruth Show.

She is a noted columnist and the author of twenty business and poetry books. Her articles have appeared in hundreds of magazines and journals, including the Harvard Business Review, the Wall Street Journal, the London Times, and Psychology Today. She currently writes a bimonthly column for La Jolla Today and San Diego Jewish World. According to the Washington Post, “Natasha Josefowitz is helping her generation, and those that follow, find their way into a successful, meaningful older age . . . her optimism about aging is inspiring.”

Lost in the Periphery

After my husband died
I was no longer the center of anyone’s life
nor is anyone
the center of mine
family and friends
are supportive and comforting
but they are peripheral
as I am peripheral
in their lives
they can continue
without me
as I am supposed
to continue
without him
without the one person
I cannot live without

Living Without the One You Cannot Live Without: Hope and Healing after Loss has been published in paperback and for the Kindle. It can be ordered from Amazon and Barnes and Noble online.

UCSD TV

PUBLIC LECTURE SERIES

THIS MONTH ON UCSD-TV

Please tune in to UCSD-TV to watch the Stein Institute’s monthly lecture series.

Lectures air on

Cox (digital) Ch.135
Time Warner San Diego and Del Mar (digital) Ch. 135
Time Warner Del Mar (analog) Ch. 19
AT&T Ch. 99
UHF (no cable) Ch. 35

Standing Tall as We Age: Latest Advances in Understanding the Aging Spine

What happens to bones as we age? What is kyphosis (also called roundback or dowager’s hump)? What are its causes, symptoms, and treatment options? Join Deborah Kado, MD, MS, an associate professor in the Departments of Family and Preventive Medicine and Internal Medicine at UC San Diego, as she makes sense of it all. Dr. Kado served on the UCLA faculty in geriatrics and orthopaedic surgery before joining UC San Diego in 2012. Her primary research interest is understanding the pathogenesis and adverse health outcomes associated with age-related changes in spinal posture. She is a successful researcher and is internationally recognized in her field.

This lecture will air at the following dates and times (Pacific time):

February 13 8:00 p.m.
February 14 10:00 p.m

You may view our lectures at http://ucsd.tv/stein. For additional information on viewing past lectures online or any other questions, please visit our website at http://aging.ucsd.edu or call (858) 534-6299. To purchase a video copy of a specific lecture seen on UCSD-TV, please visit http://ucsd.tv/stein or call (800) 742-5117.
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older people, either free of symptoms or diagnosed with late-stage mild cognitive disorder and early Alzheimer’s disease.

“Our aim is for the Down Syndrome Biomarker Initiative to mirror ADNI’s successes,” Dr. Rafii said. “ADNI has helped the international Alzheimer’s research community learn significant lessons about the pathology and biomarkers of AD, which in turn has driven new ways of looking at the disease and new studies that we hope will lead to viable treatments. We are confident we can do the same thing for Down syndrome.”

The twelve-subject pilot study at UC San Diego is funded by Janssen Research & Development, LLC. The research is projected to expand into a five-year, one-thousand-subject international study.