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Aging for All

While it’s a universal truth, aging is also an innately diverse experience; everything that makes us unique affects how we age as well.

Clockwise from upper left: in this issue, read about a new portrait exhibit that shares wisdom from older Angeleno immigrants and people of color (page 22), a volunteer group that enriches research at USC (page 28), a community leader who spearheaded a support group for caregivers (page 18), and alumna Laura Trejo’s compassion and service as general manager of the Los Angeles Department of Aging (page 20).

On the cover: Stella Guzman, a descendant of the Native American settlers of Los Angeles, was photographed by Barry Shaffer for the "Quiet Heroes - Over Eighty" project.
Welcome to the Spring 2018 issue of Vitality!

In this issue, we explore how diversity affects and enhances not only our research and teaching but also our community as a whole. USC Provost and Senior Vice President for Academic Affairs Michael Quick has noted that USC’s commitment to diversity and inclusion “reflects our desire to enrich learning by embracing a broad range of ideas and perspectives, our support for the cause of social justice, and our realization that, in today’s increasingly global context, the more diverse the community, the greater its potential for economic and cultural prosperity.”

These sentiments are especially pertinent for us here at the USC Leonard Davis School. While aging is a universal human constant, no two people age in the exact same way; our background, our birthplace, and many other characteristics can affect how we age in profound ways. The diversity inherent in the aging experience itself is amazing.

Photographer and USC alumnus Barry Shaffer has beautifully captured the diversity of older adults right here in Los Angeles through his incredible portrait project, “Quiet Heroes - Over Eighty,” which is currently on exhibit here in the school in our Sophie Davis Gallery. This powerful exhibition features the portraits, stories, and quotes of older Angeleno immigrants and members of minority groups and illustrates both the incredible individuality of the aging experience and the common dreams that unite us all. Learn more about Shaffer’s work, his subjects, and their families in our cover story on page 22.

This issue also profiles extraordinary students, alumni, and supporters who have made it their mission to serve our school and our community with compassion and empathy. We also discuss the how we collect and analyze high-quality data from populations around the world and how a remarkable research volunteer group helps us to better represent our community in our scientific work.

For more on how studying diversity is a critical part of aging research, I invite everyone to our annual What’s Hot in Aging Research event on Monday, April 16. Researchers from across the university will present their work on how race, ethnicity, gender, socioeconomic status, sexual orientation, and other characteristics are all factors in the aging process. It promises to be a day filled with not only cutting-edge knowledge but also thought-provoking conversations about how our differences can shape the way we age.

Fight on!

Pinchas Cohen MD
Dean, USC Leonard Davis School of Gerontology
Holder, William and Sylvia Kugel Dean’s Chair in Gerontology
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Cover Story:
Quiet Heroes – Over Eighty
New photo exhibit in the Sophie Davis Gallery showcases powerful stories of a diverse group of older Angelenos
In the Media

Older couples unable to escape wildfires embrace a last time
“Couples who have been living together for 30, 40, 50 years, especially in their 80s and 90s, definitely might have just realized this is the end. ‘There is nothing we can do, so we’ll go out together,’ which is a beautiful thing. But it’s tragic for those left behind.”
– Instructional Assistant Professor Caroline Cicero

The Simple Reason People Make Bad Money Decisions
Time; December 5, 2017
“Under stress, people might be more likely to pay attention to positive feedback and disregard negative feedback.”
– Professor Mara Mather

The Surprising Secrets to Living Longer—And Better
Time; February 16, 2018
“We all long to bump into each other. The ranges of places where this can happen in cities tend to create more options and opportunities.”
– Distinguished Scholar in Residence Paul Irving

Will Age Become An Issue In Dianne Feinstein’s Re-Election Campaign?
NPR; February 7, 2018
“Some older adults are quite frail, while others are incredibly robust... Rather than focus on someone's age, we should be focusing on their biological age, which is the age of their cells, tissues, and organs.”
– Assistant Professor Jennifer Ailshire

Tom Petty and Your End-of-Life Wishes
PBS Next Avenue; October 24, 2017
“This is one of the most important conversations you'll ever have with your loved ones... It doesn’t have to be scary; it can be a thoughtful exchange and an ongoing conversation as health conditions change.”
– Associate Professor Susan Enguidanos

More benefits of hormone therapy
Daily Mail (UK); November 3, 2017
“Our study suggests that estrogen treatment after menopause protects working memory needed for short-term cognitive tasks from the effects of stress.”
– Postdoctoral researcher Alexandra Ycaza-Herrera
Visitor helps seniors “connect with Judaism” after Harvey

*Jewish Herald-Voice; Houston, Texas; October 12, 2017*

“I’ve seen a lot of resilience in this community... Even though the residents are in an unexpected situation and have made a lot of sacrifices in order to accommodate each, they are staying positive.”

– *David Markovich, MSG/MHA ’18*

Why California is not prepared to deal with a large aging population

*KPCC-FM’s Take Two; November 21, 2017*

“Right now we have about eight counties that have one in four people who are over the age of 65. By 2030, 20 counties will have one in every four people over the age of 65.”

– *Research Assistant Professor Donna Benton*

Soaring overdose deaths cut US life expectancy for 2nd year

*New York Times, Associated Press; December 22, 2017*

“The fact that U.S. has basically stagnated over the past seven years — and now we’re seeing small declines — is a real sign that the U.S. is doing badly.”

– *Assistant Professor Jessica Ho*

How breathing even clean air can kill you

*KPCC-FM; December 29, 2017*

“I always wonder if the standard that’s set for the entire population is perhaps a little too high for what we would want for older populations.”

– *Assistant Professor Jennifer Ailshire*

The Grandparenting Generation

*New Republic; January 8, 2018*

“Even though it may be tough for a grandparent to take care of a toddler or play football with a 10 year old or stay up late for a teenager to come home, there’s a stability there, and the experience of being a grandparent who’s done this before is very helpful.”

– *Instructional Assistant Professor Caroline Cicero*

Naked mole rats defy the biological law of aging

*Science; January 26, 2018*

“At advanced ages, their mortality rate remains lower than any other mammal that has been documented.”

– *University Professor Caleb Finch*
The Longevity Diet
and how what we eat shapes the way we age

Valter Longo, the Edna M. Jones Professor of Gerontology and director of the USC Longevity Institute, published a new book, The Longevity Diet: Discover the New Science Behind Stem Cell Activation and Regeneration to Slow Aging, Fight Disease, and Optimize Weight, in January 2018. Longo and his colleagues shared insights on diet and lifespan in several major media outlets, including the Today Show, The Times (UK), and CNBC. Longo was also interviewed by Maria Shriver (at right) on her Facebook Live program “Architects of Change.”

“Historically most of the medical community was pretty solidly against fasting... Now, it is much more accepted in a subgroup of doctors. The majority are starting to be interested in it and want to know more about it.”

– Professor Valter Longo to The Times (UK) January 27, 2018

“Influencers in Aging” recognizes visionaries from USC Leonard Davis School

PBS Next Avenue named USC Leonard Davis School Dean Pinchas Cohen and alumnae Gretchen Alkema PhD ’07 and Kathy Black MSG/MSW ’88 to its 2017 list of the top 50 “Influencers in Aging.” The list noted that Cohen is one of the leading researchers in the biology of aging and is a champion of the “personalized aging” concept. Alkema is the vice president of policy and communications for The SCAN Foundation, a nonprofit that promotes independent, dignified aging, and Black is professor of aging studies and social work at the University of South Florida, Sarasota-Manatee.

(Top to bottom): Pinchas Cohen, Gretchen Alkema, Kathy Black
In 1982, high school student Mary Ann Morato led science experiments on Vitamin C’s effects on blood cells in the lab of Kelvin Davies—currently USC Leonard Davis School of Gerontology vice dean and professor—who was then an assistant professor in USC’s Institute for Toxicology and School of Medicine.

This first pairing of a high school student with a USC faculty member went so well that Davies sought to expand the pilot project by requesting that Morato’s Lincoln High School teacher, Dorothy Moote, send him more students like Mary Ann. Moote, along with fellow teacher and magnet coordinator Rosa Maria Hernandez, found more students, and Davies enlisted additional USC professors. The trio also worked with USC and Los Angeles Unified School District administrators to formalize the program. Davies named it STAR (for Student Tutoring and Research) and got NIH funding to help support it. By 1990, more than 25 students were taking part.

Today the STAR program (now Science, Technology and Research), has provided more than 800 students, particularly underrepresented minorities, the opportunity to conduct hands-on research at USC. The STEM-focused program, which recently merged with the USC Viterbi School of Engineering’s Engineering for Health Academy, is now run by Daryl Davies (no relation) of the USC School of Pharmacy and is funded by the USC Good Neighbors Campaign.

“STAR’s tremendous success can be traced to its humble beginnings,” said USC President C. L. Max Nikias at the 2017 Good Neighbors Campaign dinner, where Davies, Morato, Moote, and Hernandez were honored as pioneers of the program.

“This grew into something much more than I ever expected,” Davies said. “It is gratifying to see that what we started so long ago continues to make a difference for students today.”

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**PhD Student Honored for Minority Health Research**

USC Leonard Davis School of Gerontology PhD student Lauren Brown was honored for her poster presentation on telomeres, aging, and minority health by the Interdisciplinary Association for Population Health Science (IAPHS).

From a blog post on the IAPHS website written by USC Leonard Davis Assistant Professor Jennifer Ailshire:

“Lauren Brown made the case with her poster, “Does Telomere Length Indicate Biological, Physical, and Cognitive Health Among White, Black & Hispanic Older Adults?” that population health scientists should consider whether new biomarkers improve our understanding of health among minority populations. Telomeres are repeating DNA sequences that cap the ends of chromosomes and gradually shorten with age. In a national study of adults over age 50, Lauren found that among older blacks and Hispanics, telomere length was not associated with any of the health indicators she examined. She examines racial and ethnic health disparities through a critical lens and through her work hopes to communicate the importance of using measures in population health research that can inform our understanding of minority health and health disparities.”
The USC Leonard Davis School of Gerontology signed a Memorandum of Understanding (MOU) with King’s College, London University in October 2017 to encourage scholarly interaction, cultural interchange, cooperative research, and other forms of academic collaboration, including possible student and staff exchanges between the Leonard Davis School and the Ageing Research at King’s (ARK) program.

The MOU between the Leonard Davis School and King’s was arranged through contacts between Professor Kelvin J. A. Davies, Vice Dean of the USC Leonard Davis School, and Professor Richard C. M. Siow, Vice Dean for International Affairs, Faculty of Life Science and Medicine and Director of the ARK Program at King’s.

The ARK program is a cross-faculty multidisciplinary consortium of investigators which brings together scholarship and research in aging in several complementary areas. The ARK program includes all eight faculties at King’s and its Francis Crick Institute, a joint venture with University College London and Imperial College London. Among its official international partners, ARK now lists the National University of Singapore; the Technical University of Dresden; the Karolinska Institute and Stockholm University; Keio University; Singapore Agency for Science, Technology, and Research; Freie Universität Berlin; Charite Universitätsmedizin; Deutsche Institut für Ernährungsforschung; Harvard University and Harvard Medical School; and the USC Leonard Davis School of Gerontology.
Dean Pinchas Cohen receives grant for mitochondrial protein research

Pinchas Cohen, dean of the USC Leonard Davis School of Gerontology, has been awarded a two-year, $200,000 Glenn Foundation for Medical Research Breakthroughs in Gerontology (BIG) Award. The award provides $200,000 for research aimed at discoveries to address human aging and healthspan.

With the support of the award, Cohen will investigate a mitochondrial protein, humanin (HN), that plays a role in aging and longevity.

Upon receiving the BIG Award, Cohen said, “This grant provides unique support for my research, along with recognition of the importance of such investigations. We’ve identified molecules derived from mitochondria that may be important diagnostic and potentially therapeutic targets for diseases of aging. This research is exciting because it is part of a larger effort focused on understanding the activity of these peptides and how they may reveal new methods for drug development for age-related diseases.”

New Collaboration Targets Air Pollution as a Potential Trigger for Parkinson’s

The U.S. Department of Defense has awarded a multi-institutional team of scientists, including researchers at the USC Leonard Davis School of Gerontology, a series of grants totaling $4.37 million to investigate the potential role of airborne pollutants as triggers of Parkinson’s disease via the nose.

To undertake the four-year study, study lead and director of the Van Andel Research Institute Center for Neurodegenerative Science Patrik Brundin has teamed up with collaborators Caleb Finch, USC University Professor and ARCO/F. Kieschnick Professor in the Neurobiology of Aging at the USC Leonard Davis School; Honglei Chen, professor of epidemiology and biostatistics at Michigan State University College of Human Medicine; and Research Professor Todd Morgan at the USC Leonard Davis School.

The team will investigate how long-term exposure to airborne particulates relates to Parkinson’s onset later in life. Increasing evidence suggests that inflammation in the nose, which is directly connected to the brain’s olfactory region, could be among the first triggers of the disease. The project will be supported by three Department of Defense grants—$1.4 million to Brundin, $1.45 million to Finch, and $1.5 million to Chen.

Postdoc award supports research into how diet takes aim at aging cells

With a new research award, USC Leonard Davis School of Gerontology Postdoctoral Researcher Sebastian Brandhorst will investigate how a “fasting-mimicking” diet could target cells that show signs of aging for removal and potentially restore more youthful function.

Senescent cells that show signs of aging are known to express a telltale protein called p16INK4a. Prior research shows that calorie restriction targets cells expressing the protein and reduces the amount of the protein, possibly by making old cells more prone to die. Brandhorst will investigate how the fasting-mimicking diet, during which a small amount of food is eaten but is nutritionally balanced in order to mirror the benefits of fasting, targets p16INK4a-positive cells for removal and thus improves tissue function.

“My studies will contribute to the identification of dietary interventions to not only treat but also prevent multiple diseases of aging by acting on the aging process and promoting multi-system rejuvenation,” he said.

Brandhorst has been awarded a $120,000 Postdoctoral Transition Award in Aging by the American Federation for Aging Research, a non-profit organization dedicated to advancing biomedical research on aging, with support from the Irene Diamond Fund. The goal of the program is to provide portable and flexible transitional funding for senior postdoctoral fellows as they develop and negotiate for junior faculty appointments and independent research programs.
EDUCATION

Unforgettable
EDUCATIONAL JOURNEYS

This summer, students from the USC Leonard Davis School and across the university will travel across the world to explore aging! Course topics range from how nutrition and food culture affect longevity to how psychology changes with aging and how death customs and ceremonies vary throughout ancient and modern societies.

Want to join students on these exciting and educational adventures? Courses are available to outside individuals (requires enrolling as a limited-status student). Contact Sara Robinson at sararobi@usc.edu to learn more!

GERO 493: Longevity and Death Among Ancient and Modern European Populations
May 14 - June 12, 2018
Italy and Germany
This course is led by USC Leonard Davis School Associate Professor Susan Enguídanos and explores the discoveries of ancient humans and bodies that have been preserved to illuminate the connection between diet, health, and disease. The class will travel through Italy and Germany and explore the role of religion and culture in determining and defining death practices, ceremonies, and other customs. Class discussions and field trips will demonstrate the strong connection between religious and afterlife beliefs and body disposal practices. Cities on the itinerary include Milan, Bolzano, Florence, Volterra, Rome, Munich, and more.

GERO 494: Psychology of Adult Development
May 14 - June 1, 2018
Herzliya, Israel
This course, led by USC Leonard Davis School Professor Mara Mather and presented in conjunction with IDC Herzliya, examines how psychologists study thinking, memory, emotions, personality, and behavior and how people change throughout the adult lifespan. Students will learn about research and theory bearing on cognitive, personality, adaptive, and social processes throughout the adult life span and about applications of current research and theory to practical matters in the field of gerontology.

GERO 498: Nutrition, Genes, Longevity and Diseases
May 14 - June 8, 2018; Genoa, Italy
This course examines the role of nutrition and genes and the impact each has on longevity and diseases, particularly diseases related to aging. It provides the opportunity to learn directly from internationally renowned expert and USC Leonard Davis School Professor Valter Longo, gain a global perspective on genetics and cultural attitudes toward aging, and experience a month-long immersion in the Mediterranean lifestyle.

GERO 499: Food, Culture, Disease and Longevity in Italy and the Mediterranean
June 11-29, 2018
Florence, Italy
Led by USC Leonard Davis School Professor and USC Longevity Institute Director Valter Longo, the course examines the history of food in the Mediterranean from the Roman times to the present with references to the rich and various historical, political, economic, social, and artistic past of the peninsula.
Students Take Steps to Make Los Angeles More Livable for Older Adults

From keeping pedestrians safe in Glendale to connecting people to social opportunities in Cudahy, USC students developed interactive tools to help improve quality of life for seniors across the Los Angeles region, home to one of the world’s largest concentrations of older adults—a population expected to exceed 2.1 million individuals by 2030.

Students from the USC Leonard Davis School of Gerontology, the Keck School of Medicine of USC, the USC Sol Price School of Public Policy, and the Spatial Sciences Institute at the USC Dana and David Dornsife College of Letters, Arts and Sciences were challenged to create applications to help people age well in the communities in which they live. They identified Lifespan Improvement Districts and developed websites featuring resources—such as reporting a broken sidewalk or finding a senior center—for improving walkability, social connectedness, and other livability measures.

Their cross-disciplinary work will make an impact in the field, said Laura Trejo ’82, MSG/MPA ’86, general manager for the City of Los Angeles Department of Aging.

“I am grateful to have these very unique perspectives come together to help us think about, ‘How do we use data, and how do we present information, and therefore how do we implement innovations in our community?’” she said, speaking at a course event at Town and Gown on January 31, 2018.

The students said the experience taught them lessons around the importance of collaboration, investing in data, long-term policy planning, and throwing out any preconceived assumptions about populations they are trying to help.

“We must listen to the older adults,” said Corrine Jones, a Master of Arts in Gerontology student at the Leonard Davis School.

The applications were produced in the fall course “Age-Friendly L.A.,” a Wicked Problems Practicum sponsored by USC Provost Michael Quick, that is part of two efforts underway to help prepare for a rapidly aging society. USC Leonard Davis School Dean Pinchas Cohen is leading Provost Quick’s university-wide Ensuring Lifespan Health initiative, and the USC Leonard Davis School is a partner in Mayor Eric Garcetti’s Purposeful Aging Los Angeles initiative, a multi-agency drive to make Los Angeles the most age-friendly region in the world.

Both endeavors share an aim to show benefits for all Angelenos.

“A community that works for older people works for all ages,” Trejo said.

- Orli Belman

Above: an interactive map created by students highlights concentrations of seniors and resources for them in the neighborhood around USC.

Watch a video about this project: tinyurl.com/USCAgeFriendlyLA
SERVICE TO MINORITIES SHAPES THE HEALTH AND AGING RESEARCH OF A

First-Generation Trojan
USC Leonard Davis PhD in Gerontology candidate Catherine Pérez goes beyond conducting research on social determinants of health and health disparities in minority communities; she addresses the needs of others directly through her extensive service to fellow students and community members. “I am actively involved because I want to do my part in improving the lives of people in my community and beyond,” Pérez explains. “As a Puerto Rican, Honduran, and Arawak Indian female, and the first in my family to pursue a college education, I am attuned to the scale of social and economic challenges that impact disadvantaged individuals and communities. I genuinely want to do my part to lessen the challenges faced by others because I have learned many things on the way but have also been supported by many great people, so it’s my way of paying it forward.”

Pérez, who first came to USC in 2014, says her time at USC and the opportunities found here have “shaped [her] into the scholar [she is] today.” “While at USC, I have been afforded many opportunities and received tremendous support that has enhanced my understanding of Latinx aging and health,” she says. “I have great mentors, Assistant Professor Jennifer Ailshire and University Professor Eileen Crimmins, that support me, encourage me, and endorse me, and I take their advice sincerely. Their mentoring over the years has motivated me to seek opportunities to assist others.”

Pérez’s service to fellow USC students includes teaching workshops for students learning to use statistical software and to apply methods for analyzing quantitative data in social science research. She has also discussed social determinants of health with Cal State L.A. students considering health professions and has volunteered at her alma mater, UCLA, as an alumni mentor for undergraduate students from disadvantaged backgrounds. “I have always expressed an ardent desire and commitment in helping others to succeed by removing obstacles that hinder success,” Pérez says. “For as long as I can remember, I have sought every opportunity to facilitate the learning experience of our students.”

She also represents the USC Leonard Davis student body on the school’s diversity and inclusion committee, which “allows me to represent the student body to ensure that there is change related to race and racism and ameliorating disparities in higher education for minority students,” she says. This semester, Pérez also started volunteering at the USC Gould School of Law Project Citizenship Clinic, where she assists Latinx migrants completing their applications for U.S. citizenship.

Pérez has been named the 2018 recipient of the Association for Gerontology in Higher Education Student Leadership Award. She says she is “extremely humbled and honored” by the recognition. “This allows me to highlight my leadership and research aimed at ameliorating health disparities among older minority and immigrant Latinxs,” Pérez says. “This award is an affirmation of my unwavering determination to continue to do my research while also instructing, motivating, and supporting others to be courageous in their attempts to achieve their goals.”

- Beth Newcomb

"I genuinely want to do my part to lessen the challenges faced by others because I have learned many things on the way but have also been supported by many great people, so it’s my way of paying it forward."
A robust economy, increased life expectancy, and changing consumer demands are spurring new trends in how and where adults will live as they age, according to experts at the USC Senior Living Executive Course.

“The senior living industry is entering an era of disruption,” said USC Leonard Davis School Dean Emeritus and Professor Edward L. Schneider. “The USC Senior Living Executive Course assists the leadership of this industry in meeting the current and future needs of a rapidly aging nation.”

The number of Americans ages 65 and older is projected to more than double from 46 million today to over 98 million by 2060. Now in its fourth year, the three-day course from the USC Leonard Davis School of Gerontology, in partnership with the USC Marshall School of Business, draws working professionals from across the country for education on a range of key industry issues.

USC Leonard Davis School Dean Pinchas Cohen offered new insights into Alzheimer’s disease and discussed the implications for memory care units and other senior living facilities.

USC Marshall School Professor Greg Patton shared principles to enhance communication, interpersonal, and leadership skills.

Tony Wang, CEO of Watermark Senior Living China, provided examples of successful senior living communities in China and Victor Regnier, professor at the USC School of Architecture and the Leonard Davis School discussed developments in Europe.

Mark Andrews, CEO of Greystone, noted an increasing interest in basing retirement communities on or near university campuses, building office space so people can still work, and providing opportunities to volunteer at schools or libraries or with other service organizations.

“Today’s seniors want to remain purposeful and engaged,” he said. “We are trying to create many point of connectedness between our residents and the local community so that they feel like they have a place and purpose.”

The event was sponsored by Welltower, HCP, Argentum, Greystone, NIC, The American Seniors Housing Association, Sabra, and Silverado.
Gerson Galdamez, a PhD in Gerontology student at the USC Leonard Davis School of Gerontology, is among 40 graduate students joining the national Health Policy Research Scholars program.

Galdamez will focus on elder abuse interventions and the prevention of financial exploitation among older adults. The research program is led by George Washington University with support from the Robert Wood Johnson Foundation.

Galdamez currently conducts elder abuse research with Mary Pickford Professor of Gerontology Kate Wilber and Research Assistant Professor Zach Gassoumis in the USC Leonard Davis School's Secure Old Age laboratory.

“This new cohort of scholars is committed to research that challenges long-held notions about the health of our communities,” said Harolyn M.E. Belcher, Health Policy Research Scholars program director, director of the Center for Diversity in Public Health Leadership Training, and professor at Johns Hopkins University. “I am thrilled to work alongside them as they continue to develop into the kind of leaders that can enact real change and ultimately build a culture of health.”

DIVERSITY AND ADVANCEMENT

Along the way, Galdamez aims to develop high-level leadership skills through professional coaching, mentoring, networking, and an advanced leadership curriculum. While participating in the program, he will continue studying full time and applying new knowledge and leadership within the USC Leonard Davis School to advance a culture of health—one that places well-being at the center of every aspect of life.

He also hopes to encourage other students from diverse backgrounds to advance their studies.

“I feel it is important to represent the Latino community in academia and health policy,” Galdamez said. “In supporting my work and connecting me to a larger group of scholars, I feel so fortunate to be part of this program and hope more people from underprivileged backgrounds will feel encouraged to pursue their goals.”

Additional partners providing training and coaching to scholars include AcademyHealth, Mayo Clinic, UCLA, and the University of Michigan. Health Policy Research Scholars is one of a number of leadership development programs supported by the Robert Wood Johnson Foundation. These programs continue the foundation’s legacy of supporting the development and diversity of leaders. Initially focused on health and health care, the programs have been expanded because the foundation knows that building a culture of health requires all of us in every sector, profession and discipline to work together.

- Orli Belman
It's 11:30 a.m. on a Tuesday morning, and women are filtering into First African Methodist Episcopal Church of Los Angeles' Allen House. They sit around a large, wooden table and exchange greetings, catching up on family matters and recent news. For many, this is precious time, as it's among the only moments they get to themselves. Though their circumstances may differ, they share a common journey—that of caregiver for a friend or family member, a commitment that can be equal parts rewarding and frustrating.

At the head of the table sits Bobbe Akalonu, 83, facilitator and founder of this twice-monthly Family Caregiver Support Group that works in collaboration with the USC Family Caregiver Support Center (FCSC). “They come through that door and say, ‘I can exhale,’” Akalonu says.

Akalonu is well versed in the challenges of caregiving. After her father and husband passed away, she moved in with her mother, who suffered from dementia following a vascular stroke. Ill prepared for the role, relief came during a trip to a senior center where she noticed literature about the USC FCSC. The center provides services such as support groups, education, training, consultations, and long-term planning to caregivers of anyone with brain-impairing or long-term health conditions.

“Our focus is on the family caregiver,” says Donna Benton, research associate professor at the USC Leonard Davis School of Gerontology and director of the USC FCSC. “We help them understand how to manage their time and stress levels so they can be there in the long run to care for their relatives or friends.”

Akalonu took advantage of anything she thought would help—from seminars to workshops and support groups. “It was 100 percent of my education on caregiving and changed my perspective on responsibility,” she says.

In 2002, Akalonu’s mother passed away, but instead of walking away from the world of caregiving, she decided to share her vast knowledge with others. “I knew there was a need in our community,” she says. Together with Benton, Akalonu drafted a proposal for a caregiver support group in conjunction with the FCSC to take place at First AME Church of Los Angeles, the city’s oldest African American-founded church, presented it to Senior Minister J. Edgar Boyd, and was met with his full support.

"We are indebted to Sister Bobbe and her work, her dedication, and her consistent commitment for what she has been doing out of her heart for a long time, and I think if you listen to her long enough, you will become as dedicated as she is," Boyd says.

“We needed a trusted gatekeeper for the First AME community, and that was Bobbe,” Benton adds, who advised the church’s steering committee on how to discuss caregiving issues, how to identify caregivers within the church, and how to refer them back to FCSC for additional resources and expertise.

In January 2015, the Family Caregiver Support Group at the Allen House held its first gathering. Over the past three years, it has assisted approximately 75 families by offering an opportunity to find support, learn from common experiences, discuss solutions to shared issues, and learn more about resources.

“One of the biggest challenges of being a caregiver is balancing personal needs with full-time responsibilities,” Benton says. “Many are working caregivers. We find that 40 to 50 percent of family caregivers exhibit symptoms of major depression.”

Group member Erliene L. Kelley cared for her...
mother, who had dementia, and says it was a full-time job. “I took her to all of her appointments—doctor, dental, foot doctor, everything,” she says. “I neglected myself by not going to my mammogram appointments and ended up with breast cancer.” Though her mother passed last year, Kelley still attends the meetings. “It’s a group of people I love being with. If I’m able to help them, I will.”

Nannette Gueye took care of her mother and is now caring for a 99-year-old veteran. She says the meetings provide a wealth of information, whether through printed material or conversation. “Sometimes it’s just a blessing to share my experience and hear someone else’s testimony,” she says.

In addition to helping the community, the support group often assists caregiving researchers. “Many times when we are developing new programs, we will invite the members to participate in focus groups for researchers at USC,” Benton says. “They’re asked about caregiving and stress, legal issues, or nutrition.”

Over the past hour and a half, the members of the Family Caregiver Support Group have shared, vented, commiserated, and even shed a few tears. This is their safe space where they can always find love and support. As the meeting comes to a close and the women gather their belongings and say their goodbyes, you can hear one of them utter a single phrase: “This group is priceless.”

The Family Caregiver Support Group meets every second and fourth Tuesday of the month from 11:30 am to 1:00 pm at First AME Church of Los Angeles’ Allen House. Attendance is free and open to everyone. For more information, contact the USC Family Caregiver Support Center at (855) 872-6060.

- Michelle McCarthy
REACHING OUT AND BUILDING BRIDGES

Laura Trejo
listens and communicates across disciplines and cultures as general manager of the L.A. Department of Aging.

After more than 30 years as a gerontologist, Laura Trejo has learned that making a difference in issues facing older adults is often about meeting people where they are, whether that means bridging cultural divides or working with people in vastly different disciplines.

Trejo, general manager for the City of Los Angeles Department of Aging, is a three-degree University of Southern California alumna, having earned her Bachelor of Arts in Psychology in 1982 and a Master of Science in Gerontology and a Master of Public Administration in 1986. Studying aging wasn’t part of her initial plan, she says; she originally wanted to be a child psychologist. However, encouragement from her friend Valentine Villa (who would graduate from the USC Leonard Davis School with the nation’s first PhD in Gerontology in 1993) led Trejo to take her first gerontology class as an elective during her senior undergraduate year.

“I totally fell in love with gerontology and the idea of making a difference in the lives of older people,” she says. “I’ve never regretted it for one minute; that was the best thing that ever happened to me. It’s been a wonderful journey of learning, of self-discovery, meeting amazing people, and hopefully along the way helping and supporting others.”

While the academic field of gerontology was new to Trejo at the time, it gave her the vocabulary for feelings and experiences she’d had for years as the grandchild of strong grandparents whom she adored. After one of her grandmothers suffered strokes and became unable to communicate, Trejo became very involved in caring and advocating for her as a teen. Supporting older family members in this manner may not be something that comes naturally to many adolescents, but for a bilingual teen helping older family members span cultural divides, it’s not unusual at all, she explains.

“Bilingual kids tend to be bridges in their families; I was that in my family and in my neighborhood,” she says. “I was a bridge between my grandmother and the English-speaking world.”
Ever since, stepping up to be an advocate for others and making connections with individuals have become hallmarks of Trejo’s career.

“My standard is, ‘I want proof of one.’ If I can find one person who tells me what I did helped, then I’m in, because you don’t need big numbers to know you matter;” Trejo says. “Throughout different parts of my career, when I set to looking for my ‘one,’ I can find it, and it’s extremely rewarding.”

She recounts with ease several instances from her career where the simple act of reaching out and listening effectively has made monumental differences in people’s lives. In one striking example from a visit to a memory care facility, Trejo taking the time to say “Buenos días, mi nombre es Laura” to a resident and ask her how she was revealed that the resident didn’t have dementia after all—instead, she could only speak Spanish and thus couldn’t communicate with staff. With that simple greeting, the resident was then transferred to a more appropriate facility, ending a needlessly confusing and frightening situation.

At the Department of Aging, Trejo’s team works with scores of departments throughout the City and County of Los Angeles to help better serve Angelenos of all ages. These partnerships have become especially important with the launch of the Purposeful Aging Los Angeles initiative in 2016, which aims to prepare the Los Angeles region for a rapidly aging population. The number of L.A. adults age 65 and over is expected to rise from 1.1 million to more than 2.2 million by 2030.

Some departments’ connections to aging issues don’t seem obvious at first, but earning trust and being respectful of others’ responsibilities has helped Trejo effectively highlight opportunities for cooperation between the Department of Aging and various groups. Trejo and her team have worked with dozens of city and county departments, including the Los Angeles Police Department, to provide training and tools to help the city better serve older adults.

For instance, rather than trying to add to the numerous responsibilities of law enforcement officers, Trejo says training is more about “making sure people have the tools to do the right thing. It has a multiplying effect that money can’t buy.” The training provided to police officers has helped first responders to better identify instances of elder abuse and other seniors in need of immediate help, she recalls.

“It’s an evolutionary process,” Trejo says. “Some people didn’t know why we needed to work together, but once you work with an officer in a situation, they can’t understand how we weren’t always working attached at the waist with us as a primary resource.”

Trejo says this illustrates a unique quality about the field of gerontology—with aging as a truly universal truth, gerontologists can provide useful insights on better serving people of all ages to people in disparate fields. It’s a skill that will only become more in demand as Los Angeles’ population continues to become both older and more diverse, and it highlights the need for today’s and tomorrow’s gerontologists to become more engaged with policy and public service.

“We walk into different rooms and we can talk to different disciplines with the goal of a shared view,” Trejo says. “We’re a team; together is the answer.”

- Beth Newcomb
Veda Joshi left his home in Nepal to provide a better education for his children.

Rachel Lapin fled from persecution in Russia.

Guy Pasquini stowed away on a ship from Italy in search of a new beginning.

All of them settled in Los Angeles and are featured in “Quiet Heroes - Over Eighty”, a photojournalism exhibit that showcases the region’s older immigrants and members of minority groups and shares their advice on how to overcome adversity and live a meaningful life.
“I was curious why war and hatred were so prevalent throughout the world, and I thought, 'who better to ask than people who could look back over their lives, who had experienced lack of opportunity and intolerance, and left their homes for a better life?'” said photographer Barry Shaffer ’70, DDS ’74, who created the exhibit with his wife Barbara.

The collection is currently displayed in the USC Leonard Davis School of Gerontology Sophie Davis Art Gallery, a venue that celebrates older artists and aims to illuminate topics related to aging across the life course.

"Quiet Heroes - Over Eighty" portrays the diversity and contributions of older adults across Los Angeles and contains 31 portraits, including a woman who hid Jews in Poland during the Holocaust and another who survived the bombing of Hiroshima. Other “Quiet Heroes” include a truck driver, housekeeper, professor, filmmaker, and farmer. In poses and prose they express themes of freedom, generosity, faith, education, forgiveness, hope, love, and loss.
OPPOSITE PAGE
Top left: J. Michael Hagopian PhD, Armenia
Top right: Veda B. Joshi and Barry Shaffer
Middle Left: Kaz Suyeishi, Japan
Middle Right: Family of Stella Guzman, descendant of Native American settlers of Los Angeles
Bottom Left: Rachel Lapin, Israel

THIS PAGE
Right: “The Quiet Heroes - Over Eighty” exhibit at the Sophie Davis Gallery
Bottom: Louis-Marie Garnier, France
“It is fascinating to be able to share so many different human beings' experiences from different parts of the world and to hear their values and to see how much those values align,” said Barry Shaffer, who has traveled extensively as a dentist and in his second career as a photographer. His fine art photography book, *Echoes of Bhutan* (EBS Editoriale Bortolazzi Stei, 2017), was recently released.

Barbara Shaffer says “Quiet Heroes” is a tribute to seniors, aging, immigration, diversity, and the wisdom of our elders. That wisdom includes the following guidance from 104-year-old Shih-Yin Dai from China: “Step back from arguments, look at things differently so you can get to a solution.”

The Shaffers began this project in 2007 and spent years connecting with participants to profile. They started their search by knocking on the door of a Boyle Heights church, a fitting location because Barry’s Los Angeles roots began in that neighborhood. A connection to people and culture remained a strong part of the project, particularly as they were invited into people’s homes and lives.

“We would sit down with them, and they opened their hearts,” Barbara said. “I think they were honored that someone wanted to ask questions about their lives.”

*CLOCKWISE FROM TOP LEFT:*
*Barry and Barbara Shaffer at the exhibit*
*Gatot-Kusumo Sujanto, Indonesia*
*Veda B. Joshi, Nepal*
The project ultimately included close to 70 people for the full collection. They came from Argentina, Armenia, Ghana, Germany, and more. Stella Guzman, a descendant of the original settlers of Los Angeles, was one of them. During a recent gallery visit, Mark Lucero gazed at the appropriately larger-than-life portrait of his late grandmother, the matriarch of his Native American family who died just before turning 101. He recalled a feisty woman who lit sage, prayed, and fought for her children to attend their local public school instead of an Indian school set up by the federal government.

“This is history being acknowledged, and it makes me proud and happy,” Lucero said.

Five of the 31 individuals featured in the gallery photos, along with family members paying tribute to six participants who have since passed away and one who returned to his native Mongolia, came to reunite with Barbara and Barry and view the exhibit.

“I think I look younger than the picture,” joked 86-year-old Veda Joshi, who indeed educated four children in the United States and is now raising money to pay tuition for school children in his native Nepal. He makes yearly trips there and is active on Facebook promoting his cause. His granddaughter, Stephanie Ano, says he is a quiet hero indeed.

“I’ve done my best to give something so people can make their lives better,” Joshi said. “But my work is not done.”

- Orli Belman

"Quiet Heroes - Over Eighty" gives voice to those Angelenos so often forgotten in today’s bustle and testifies to the beauty and dignity of age. Shaffer’s marriage of image and word forges a bond between the subjects and the viewer, encouraging us to examine our own lives, values, and place in the world.

The Sophie Davis Gallery is open to the public Monday through Friday, 9:00 am to 5:00 pm. For more information about the gallery, contact Emily Nabors at emily.nabors@usc.edu.
Research that Reflects the Community

When USC Professor of Psychology Daniel Nation designs a research study, he knows he has one significant advantage over colleagues at many other institutions: a vast, diverse pool of eager potential participants. That’s thanks to the Healthy Minds Research Volunteer Corps, a database of people who’ve volunteered to participate in research at USC.

“It’s hard to overstate the importance of it, really,” he says.

Created and managed by USC Leonard Davis School of Gerontology Professor Mara Mather, the Healthy Minds database is intended for scientists doing research on aging and the brain. It includes about 1,000 potential research participants of varying racial and socioeconomic backgrounds from across the greater Los Angeles area. Anyone doing research at USC can apply to access it on a study-by-study basis, and, if given the green light by a peer review committee and approval from the USC institutional review board to conduct a study using this pool, he or she can search for potential participants by a number of variables, including age and how frequently they’ve been contacted by other researchers in the past.

Mather, who’s also a psychology professor, started the database when she came to USC in 2007 and needed subjects for her research. She studies how aging affects emotion and cognition and was looking for a varied group of participants.

“For various reasons, many existing study pools of older adults are fairly homogenous in terms of race and socioeconomic status,” she says. “When we test older people who are mostly white or largely middle- and upper-class, for example, it might not provide us with accurate data that will help us address challenges for tomorrow’s older Americans, who are projected to be more diverse than previous generations.”

Naysayers told her accessing people from the Los Angeles community would be an uphill battle because of traffic and other challenges, Mather says. But she persevered, advertising “everywhere we can think of,” she says, including senior centers, local newspapers, online, informational volunteer fairs, and AARP websites. People began signing up from around the area.

“Our work is more generalizable to the public because it more accurately reflects our population,” Mather says. “It’s also helpful in getting National Institutes of Health grant money; they want ethnic and racial diversity in our research participants because it improves the science we publish.”

Nation says it’s transformed his research by shrinking the time needed to hunt down willing subjects.

“If you go into the community and recruit, that’s very hard to do,” Nation says, who studies how changes in the cardiovascular system impact the aging brain. “You can make 2,000 phone calls and get two people.”

One frequent study participant is Jim Yee, a 74-year-old retired teacher who lives with his wife, Candy, in Cerritos. Yee and his wife, who has also taken part in numerous studies, first heard of Healthy Minds when they attended a talk at the USC Leonard Davis School a few years ago. He’s since participated in four studies, including one conducted by Mather’s lab this past fall.

In the latest study, Yee was asked to meditate while hooked up to a monitor that tracked arousal. He found value in learning to quiet his mind, and he also liked knowing he was being useful.

“I’m always anxious for more,” Yee says. “I’m hoping that I’m helping [researchers] … learn something that would help people in general.”

- Constance Sommer
Rates of disability and morbidity vary widely between nations of the world—and because of economic, social, and policy contexts, according to an analysis by University of Southern California researchers.

International comparisons and the subsequent ranking of countries can be useful in understanding the success and failure of public policies and can be used to inform potential policy interventions. Well-harmonized data with common standards of definitions and thorough documentation are prerequisites for such comparisons.

The Gateway to Global Aging Data (g2aging.org) is a data and information platform developed to facilitate cross-country analyses using the Health and Retirement Study family of surveys. The Gateway has compiled and indexed metadata enabling users to quickly attain consistent information across surveys for more than 30 countries and across waves of individual surveys. The harmonized data files have been built to significantly reduce such costs and to minimize errors for researchers, therefore increasing replicability of scientific findings.

"Using the Gateway to Global Aging Data and information platform will make analysis more accurate and help us develop better public health policies," said Jinkook Lee, a research professor of economics at the Center for Social and Economic Research at USC.

Using the harmonized measures available from the Gateway, researchers describe health outcomes in both newly developing economies and well-developed ones, including China, Denmark, England, Finland, France, Japan, Luxembourg, Mexico, Slovenia, Sweden, Switzerland, and the United States. Focusing on older adults between the ages of 55 and 74, the reported disability rate is highest in England for men and in China for women, among many other differences across countries highlighted using the new data platform.

"This is a unique opportunity for us to understand much more about how the context affects the aging experience," said University Professor Eileen Crimmins of the USC Leonard Davis School of Gerontology, a coauthor on the study. "It will allow us to separate what is universal from what is unique and potentially malleable."

"Cross-Country Comparisons of Disability and Morbidity: Evidence from the Gateway to Global Aging Data” appeared in The Journals of Gerontology, Series A: Biological Sciences and Medical Sciences on December 4, 2017 and was also coauthored by Drystan Phillips, Jenny Wilkens, Sandy Chien, Yu-Chen Lin, and Marco Angrisani of the USC Center for Economic and Social Research. The Gateway to Global Aging Data is supported by the National Institute on Aging, National Institutes of Health (Grant No. R01 AG030153).
The stars are not aligned when it comes to online reviews of nursing homes. A study by the USC Leonard Davis School of Gerontology shows that Yelp reviewers give nursing homes significantly less favorable ratings than those found on the federal website Nursing Home Compare, which is run by the Centers for Medicare and Medicaid Services (CMS).

Both the Nursing Home Compare website and Yelp, the popular online business ratings site, feature five-star rating systems to help consumers evaluate nursing homes. The study, published in the journal BMJ Quality and Safety on November 13, 2017, showed that a nursing home’s Yelp rating differed from the Nursing Home Compare rating more than 75 percent of the time, and it was significantly lower in three of four categories reviewed.

Anna Rahman, a co-author of the report and an assistant research professor of gerontology at the USC Leonard Davis School, said both ratings systems have weaknesses and strengths.

“Many Americans are now familiar with how Yelp works and evaluate Yelp reviews with a critical eye. They know not to believe everything they read on the site,” Rahman said.

By contrast, consumers have reported difficulty with understanding Nursing Home Compare ratings, she added. This is problematic because prior research indicates that some nursing homes listed on the federal website are gaming their ratings.

“Regrettably, there is no easy or highly intuitive way to spot fake ratings on NHC [Nursing Home Compare],” Rahman said. “However, we cannot say that Yelp is a better resource than Nursing Home Compare... Our best recommendation is that consumers consult both resources, with the caveat that they must understand how each source generates its ratings.”

DIFFERENT INPUTS

Nursing Home Compare’s overall rating combines scores from three areas: health inspections, staffing levels, and quality measures, such as changes in physical, functional, psychosocial, and cognitive well-being. Health inspections was the only category that rated significantly higher when compared to the Yelp star ratings.
Yelp reviews generally describe a consumer’s personal experience with the provider. Previous research in hospitals shows that Yelp reviewers tend to focus on subjective experiences of health care, such as a reviewer’s personal assessment of staff attitudes, the physical setting, or the cost of care.

“Choosing a nursing home for oneself or a loved one is a complex, challenging, often emotionally charged task,” said the study’s co-author, Susan Enguidanos, associate professor of gerontology at the USC Leonard Davis School. “Our study results highlight the need for further research to improve and strengthen the ratings systems used by nursing home consumers.”

**GAMING CONCERNS**

Both Nursing Home Compare and Yelp have faced charges of artificially manipulated ratings. Previous research estimated that faked reviews and ratings on Yelp range from 16 percent to 40 percent. However, the USC researchers say that since gamed Yelp ratings may encompass either or both extremes of the five-star rating scale, this bi-directional practice, coupled with increasingly savvy consumers and Yelp’s efforts to weed out fake reviews, likely cancels out their ability to impact ratings.

Recent reviews of the Nursing Home Compare system concluded that the rating system provides a financial incentive for gaming and that the practice of nursing homes reporting purposefully inflated data continues despite modifications designed to discourage it. These findings may shed light on why the Nursing Home Compare ratings are mostly higher than the Yelp ones, according to the study authors.

The authors also noted that Yelp recently partnered with the New York-based news nonprofit ProPublica to report government data about nursing home fines, serious deficiencies, and payment suspensions on its review pages. Future studies will aim to analyze the content of Yelp reviews and compare the themes and topics consumers identify to those reported by CMS.

- **Orli Belman; additional reporting by Emily Gersema**
A tiny part of the brain plays a big role in what we successfully remember during stressful or emotional situations, according to a USC study.

Researchers at the USC Leonard Davis School of Gerontology found that the locus coeruleus, a small region in the brainstem, helps to select and form what are known as “adaptive memories,” which are important for survival.

“This area in the brainstem is helping us catalog the memories of experiences that are exciting or traumatic,” said senior author Mara Mather, a professor at the USC Leonard Davis School of Gerontology. “During these experiences, it is sorting which information is important to remember to help us avoid similar negative situations in the future.”

The locus coeruleus is highly connected to the rest of the brain. This small nucleus releases norepinephrine, a neurotransmitter and hormone responsible for regulating heart rate, attention, memory, and cognition.

The memories that get preserved during arousing or frightening events may seem random. For instance, a witness to a robbery may recall what they were wearing that day but forget the perpetrator’s face.

“A surge in locus coeruleus activity during highly emotional or arousing events, such as a car crash or a scene of violence, helps to transform those experiences into vivid and lasting memories,” said David Clewett, the study’s lead author and a New York University postdoctoral fellow who completed a PhD in neuroscience at USC in 2016.

The study was published February 7, 2017 in the Journal of Neuroscience.

**BRAIN SCANS, PUPIL DILATION SHED LIGHT ON LC ACTIVITY**

For the study, the researchers sought to uncover how processes in the brain govern which memories get preserved during highly emotional situations, especially when an individual is faced with a threat.

The researchers recorded arousal and locus coeruleus activity in 22 participants using both brain scans and the measurement of pupil dilation in participants’ eyes—an outwardly visible marker for emotional arousal and locus coeruleus activity.

While undergoing functional magnetic resonance imaging, or fMRI, participants were shown images of scenes with photos of objects superimposed over them. The participants’ task was to focus on and memorize each scene while ignoring the distracting objects.
On some trials, participants were given a punishment threat—a sharp buzzer sound signaling that they would lose money if they failed to accurately remember the appropriate scene image. Following the scans, subjects took a memory test to see if they remembered the relevant background images and the less important foreground images.

**GOAL-RELATED MEMORIES STRENGTHEN UNDER THREAT**

The threat of losing money led to higher levels of activity in the locus coeruleus on fMRI scans as well as more pupil dilation on average at the time of scanning, indicating a higher level of emotional arousal when additional focus was needed.

Subjects also showed better memory for the background images relevant to the monetary goal but worse recollection for the irrelevant foreground images, indicating that the threat-based emotional arousal led to the enhancement of important memories—and the suppression of memories not relevant to protecting against the threat.

Clewett said that this process would potentially enable individuals to draw upon strengthened memories to avoid unpleasant outcomes in the future.

Previous research by Mather, director of the USC Emotion and Cognition Laboratory, has highlighted the locus coeruleus and its roles in cognition and memory. Current research in the lab focuses on how locus coeruleus function changes in aging and Alzheimer’s disease. “Becoming more easily distracted by irrelevant information is one hallmark of aging, and we are especially interested in how changes in the locus coeruleus might contribute to attention and memory changes in aging,” Mather said.

This project was funded by federal NIH grant R01AG025340 and was also funded by a USC Endowed Fellowship to Clewett. Coauthors included Ringo Huang and Rico Velasco of the USC Leonard Davis School and Tae-Ho Lee of the University of North Carolina.

- Beth Newcomb

“This area in the brainstem is helping us catalog the memories of experiences that are exciting or traumatic.”
A type of hormone replacement therapy may protect memory for some women, according to a USC-led study.

The findings by USC researchers are the latest to indicate that hormone replacement therapy may have some benefits, deepening scientific discussions about the pros and cons of the menopausal treatment.

“Our study suggests that estrogen treatment after menopause protects the memory that is needed for short-term cognitive tasks from the effects of stress,” said Alexandra Ycaza Herrera, the study’s lead author and a postdoctoral researcher at the USC Leonard Davis School of Gerontology.

Earlier studies have pointed to potential health risks of the treatment. A combination therapy that uses both estrogen and progesterone has been linked to a higher risk of breast cancer, heart disease, stroke, and blood clots.

The study was published November 2, 2017 in the Journal of Clinical Endocrinology and Metabolism.

STRESS HINDERS RECALL

The researchers found that women taking estrogen-only therapy had lower levels of the stress hormone cortisol and performed better on tests of “working memory” following exposure to stress compared to women taking a placebo.

Working memory allows the brain to keep information immediately available for processing, such as when a shopper uses a mental grocery list to pick up items or when a student keeps specific numbers in mind as a teacher reads a word problem aloud in math class. Studies have documented that stress can impair working memory.

To measure the effect of estrogen therapy on working memory under stress, Ycaza Herrera recruited 42 women with an average age of 66 from the USC Early versus Late Intervention Trial with Estradiol led by Howard Hodis, a professor at the Keck School of Medicine of USC and a co-author of the study.

Half of the postmenopausal women had been on estradiol, a type of estrogen therapy, for approximately five years, while the others had received a placebo.

Each participant visited USC twice. To induce a stress response during one visit, researchers asked participants to submerge their hand in ice water for about three minutes. For the control condition conducted during the other visit, the participants submerged their hand in warm water.

Before and after each visit, the researchers collected saliva to measure the women’s levels of cortisol, estrogen, and progesterone. The researchers also ran a test of working memory called a “sentence span task,” in which the women were each given a series of sentences and then asked whether each sentence made sense. They also were asked to recall the last word of each one.
"Our study suggests that estrogen treatment after menopause protects the memory that is needed for short-term cognitive tasks from the effects of stress."

**NOT RIGHT FOR EVERY WOMAN**

All women performed equally well on the sentence span task after the warm water condition. But after the ice bath, women taking the placebo experienced a spike in cortisol levels. They also demonstrated a decrease in working memory function.

By contrast, women receiving estrogen therapy had a smaller increase in cortisol and showed no decrease in working memory function.

“Hormone replacement therapy may not be right for every woman, but women need to be able to have the conversation with their doctors,” Ycaza Herrera said.

The study was also co-authored by Keck School Professor of Preventive Medicine Wendy Mack and USC Leonard Davis School Professor of Gerontology Mara Mather.

The study, along with the larger ELITE trial and other studies investigating stress-hormone relationships, was funded by a combined $2 million in grant funds from the National Institute on Aging (grant numbers R01AG-024154, R01AG-038043 and R21AG-048463).

- Beth Newcomb and Emily Gersema
Can Feeling Helpful Help Caregivers Stay Healthy?

Caregivers who have a better sense of generativity—the feeling of contributing meaningfully to another’s well-being—appear to experience fewer negative effects of caregiving-related stress, according to an award-winning USC study.

Molli Grossman, the study’s lead author and a PhD in Gerontology candidate at the USC Leonard Davis School of Gerontology, examined data from nearly 4,000 participants age 30 to 84 in the National Survey of Midlife Development in the United States (MIDUS) and compared individuals who provided care for older or disabled family members or friends to those who did not. In the study, Grossman noted how much of the prior research on caregiving and caregiver well-being has focused on the stress of caregiving and its negative consequences.

CAREGIVERS, STRESS, AND DEPRESSION

In general, caregivers as a whole have been found to fare worse than non-caregivers in measures of depression, stress, subjective well-being, self-efficacy, and physical health, and caregivers have also been found to exhibit higher levels of psychological distress and anxiety. The time-consuming nature of caregiving also puts caregivers at risk of less time to engage in social interaction and other personal activities, upping caregivers’ risk for social isolation.

However, some of the negative effects associated with caregiving appear to be lessened when caregivers perceive themselves as more generative, Grossman said. Caregivers who reported feeling more generative had better self-reported mental health than caregivers who didn’t report as much generativity, and perceiving more generativity was also associated with fewer health-related cutbacks in work or household productivity among caregivers. She also noted that in general, compared to non-caregivers, caregivers reported significantly higher levels of generativity.

The study’s findings suggest that stress-related issues in caregivers could be lessened by helping the caregivers feel more generative, Grossman said, explaining that feeling generative might provide caregivers with a “buffer” against some negative effects of stress.

“Greater self-perceptions of generativity may help explain why some caregivers may fare better than others, despite similar care demands,” Molli Grossman

Molli Grossman
she said. “It’s possible that we could one day provide positive psychology-style interventions to enhance perceptions of generativity and potentially mitigate some of the negative effects of caregiving stress.”

**CHANGING PERSPECTIVE**

There’s evidence that trying to look at stressful situations in a more positive light can be helpful for caregivers’ well-being, Grossman added. “Caregivers may be able to use cognitive restructuring techniques to focus more on the important contributions they’re making to their loved ones,” she said. “This might help relieve some of their burden.”

The study was recognized by the journal *Clinical Gerontologist* as 2017’s Best Paper by a New and Emerging Scholar. “I’m honored they felt the paper made a significant contribution to the literature, and I really appreciate the recognition,” Grossman said. She added that she hopes to expand on her current research in generativity, explore the issue in a more diverse sample of caregivers, and ultimately examine how opportunities to be generative might benefit individuals with dementia.

“Caregiving and Perceived Generativity: A Positive and Protective Aspect of Providing Care?” was coauthored by Tara Gruenewald of Chapman University and first appeared online in *Clinical Gerontologist* in April 2017. The study was supported by the National Institutes on Aging Multidisciplinary Training Grant (T32 AG000037) and the University of Southern California Graduate Provost Fellowship.

_Beth Newcomb_
USC Leonard Davis School of Gerontology donors and students joined members of the school faculty, staff, and Board of Councilors at the Scholars and Benefactors Luncheon, an annual gathering that articulated the dean’s vision for the future of healthy aging and recognized the donor support that makes achieving it a reality.

“Your contributions help us extend healthspans, purpose and meaning at every stage of life,” said Dean Pinchas Cohen, noting that more than one third of USC Leonard Davis students receive school scholarships to support their studies. The dean also announced the establishment of a record number of new scholarships, which will allow the school to make its academic programs more accessible to students. “These scholarships are incredibly important for us and for our students, and we all want to say thank you,” he said.

Noting that gratitude is actually a powerful agent of health, Associate Professor John Walsh thanked the benefactors for their support and the students for seeking to improve aging for everyone. “People will turn to you in their times of need,” he said. “Thank you for pursuing the noble cause of helping people lead healthy and rewarding lives.”

Top photo: Dean Pinchas Cohen and Dean’s Medallion honoree and Board of Councilors member Mei-Lee Ney
Middle: Roberta Peterson MSG ’18
Bottom: (left to right) Board of Councilors Chair Shari Thorell, Associate Professor John Walsh, Mei-Lee Ney, Pinchas Cohen, and Roberta Peterson
Desire to Protect Vulnerable Citizens Leads Student to USC Leonard Davis School

Roberta Peterson grew up wanting to join the Chicago Police Department. She decided instead to become a gerontologist, but the motivation behind both career choices is the same.

“I’d always wanted to protect and help the vulnerable and be an advocate for those unable to speak for themselves,” said the second-year USC Leonard Davis School of Gerontology Master of Science in Gerontology student who spoke at the school’s 2017 Scholars and Benefactors luncheon. Peterson shared that it was an undergraduate assignment to analyze media portrayals of older adults that steered her toward gerontology as a career choice.

“I found that older women were generalized as frail and dependent,” Peterson said. “The unfair generalizations opened up my eyes to other issues related to the aging population and I knew I wanted to be involved with making the lives of older adults fairer, safer or better in some way.”

She interned at a skilled nursing facility as part of her schooling and became a nursing assistant after graduation. These experiences—along with helping her family manage her grandmother’s transition to an assisted living facility—made her aware of many of the challenges around providing long-term care to older adults. She says some of her work experiences also exposed her to the ways older adults can be victims of fraud or abuse.

“I saw all these things that can go wrong,” she said. “I came to the USC Leonard Davis School so that I could acquire the tools to make them right.”

Peterson is grateful for the knowledge and opportunities made available to her as a USC Leonard Davis School student. She’s spoken at gerontology conferences, traveled overseas to learn about aging in other countries, gained access to experts in the field, been mentored by faculty members, and formed close bonds with fellow students.

Although she did not choose a career in law enforcement, she is still passionate about a career that protects and serves those in need. When she graduates, she wants to advocate for improvements in policy, education and awareness around issues of elder abuse.

“Because of the encouragement and support I’ve received these past two years, I now have the education and experience to be part of making the changes I want to see that can help make life better for older adults.”
SC Leonard Davis School of Gerontology supporter and Board of Councilors member Keith Renken’s story is a classic rags-to-riches tale, but the successful businessman and generous philanthropist is far too humble to ever admit it. Born in the small town of Le Mars, Iowa, he spent his childhood learning the meaning of hard work on his family’s farm and attended a rural school with only nine other students. Money was tight back then, and sharing hand-me-down shoes amongst his five siblings was simply sensible living.

“Even if you had a good crop, it didn’t mean you had a lot of money in the bank,” Renken says.

In high school, where his father worked as a janitor, Renken developed a love for playing sports (especially basketball), something that would pay off in the form of an athletic scholarship to the University of Arizona. Although he had plans of pursuing a career in coaching/teaching, an accounting class piqued his interest and he ended up graduating with a Bachelor of Science in Business Administration degree in 1957 and his master’s in 1959. Renken also served active duty in the United States Army from 1958-1959 and in the Reserves for an additional five years.

After graduation, Renken was hired at Deloitte & Touche as an accountant and moved to Los Angeles, where he worked his way up to managing partner of Los Angeles and the Southwest region before retiring in 1992. Never one to sit back and relax, he decided to go after his previous goal of teaching and became an executive in residence in the graduate program at the USC Leventhal School of Accounting from 1992 to 2006.

Over the years, as Renken’s career gained momentum, so did his calling to give back to the community, including to students. The USC Leonard Davis School of Gerontology has been a recipient of his support through the establishment of a scholarship fund, the Renken Family Scholarship, as well as his leadership as former chair of the school’s Board of Councilors.

“I was drawn to the subject due to my age and curiosity about what life was like after 60,” Renken says. “Knowing that the USC Leonard Davis School of Gerontology is the best in the country and under [Dean Emeritus and Professor] Ed Schneider’s leadership made it enjoyable to participate in.”

The AS&F Foundation recently
donated an additional $1 million to the Renken Family Scholarship to further support gerontology students and recognize Renken’s contributions to the USC Leonard Davis School.

Renken also serves on the boards of the Unihealth Foundation, Annenberg Foundation, Whittier Trust Foundations, Autry Museum, Children’s Bureau of Los Angeles, and California Science Center, to name a few. Sharing Renken’s charitable nature, his wife of 53 years, Joanie, took a special interest in assisting young people through her volunteer work with Friends of Foster Children. “A half dozen of those kids are now in their thirties and forties and she still keeps track of them,” he says.

Renken has come a long way from his time on the farm wearing his older brothers’ shoes. His family has grown to include five children and 16 grandchildren, and he has never lost sight of helping others. For Renken, it’s just something that comes naturally.

“I don’t look at it as a sacrifice,” he says. “I get more out of it than I give.”

– Michelle McCarthy

“I don’t look at it as a sacrifice. I get more out of it than I give.”

Above: Board of Councilors member Keith Renken spoke during the 2016 USC Leonard Davis Scholars and Benefactors Luncheon.

Left: Keith Renken and his wife Joanie.
Ross W. Cortese, a former fruit seller-turned-real estate developer, is remembered as a builder who helped shape the future of retirement living and education by laying foundations for Leisure World and the USC Leonard Davis School of Gerontology.

His daughter Heidi Cortese recalls the signature brick wall her father erected outside his Rossmoor planned community and how his continued innovations set the standard for the way tens of thousands of seniors now live across the United States.

“My dad always emphasized bringing in something extra that could stand the test of time,” said Heidi Cortese, CEO and chairman of RCC, Inc. “The intention of Leisure World was to create a community capable of adapting to the nuances of residents, where yoga and tai chi could go along with golf.”

In addition to creating Leisure World, the senior Cortese is credited with the concept of the model home and for conducting surveys to learn about residents’ needs and preferences. In fact, it was his desire for data about older adults that helped bring about the USC Leonard Davis School of Gerontology.

“Ross W. Cortese played a critical role in conceiving the Leonard Davis School of Gerontology,” said Pinchas Cohen, Dean of the USC Leonard Davis School of Gerontology. “We are grateful for his contributions then and for his family’s continued support.”

Known as the oldest and largest institution of its kind, the USC Leonard Davis School of Gerontology traces its origins to Cortese’s 1964 gift to establish the Rossmoor-Cortese Institute for the Study of Retirement and Aging at USC.

“That gift was instrumental in attracting the leading expert in aging at that time, Dr. James Birren,” said Leonard Davis School Dean Emeritus and Professor Edward L. Schneider. “The recruitment of Dr. Birren led to the gift from AARP that built the Andrus Gerontology Center which in turn led Leonard Davis to endow our school.”

Despite his having to drop out of school, her father’s support of scholarship is no surprise to his second daughter Jade Cortese, who herself became a teacher.

“My father did not have a formal education, but he believed it is a must,” she said.

The two sisters recently gathered in the Leonard Davis School courtyard, along with Ross Cortese’s grandchildren and Dean Cohen and Dean Emeritus Schneider, to unveil a plaque recognizing their father’s vision, leadership and foresight.

It is installed on a brick wall outside the school, a symbolic tribute to all he helped build.

- Orli Belman
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Donna Benton, PhD
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USC Leonard Davis
School of Gerontology
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| 16 April 2018 | **What’s Hot in Aging Research at USC: Diversity and Aging**  
**USC Leonard Davis School**  
Scientists from across USC discuss the importance of diversity in aging research and how race and ethnicity, socioeconomic status, sex and sexual orientation, and other characteristics factor into the science of gerontology. For more information and to register, visit gero.usc.edu/uscagingresearch. |
| 11-13 May 2018 | **135th USC Commencement**  
**USC Campus**  
Congratulations to this year’s outstanding graduates! The main USC Commencement Ceremony begins at 8:30 am at Alumni Memorial Park, followed by the USC Leonard Davis School of Gerontology Ceremony at 11:00 am in the Ronald Tutor Campus Center. For more information about the USC Leonard Davis ceremony, please contact Linda Broder at lbroder@usc.edu or (213) 740-5156. |
| 20 April 2018 | **Top Secret Mission: Alumni Dinner 2018**  
**USC Leonard Davis School**  
The mission for USC Leonard Davis alumni: enjoy a night of food, drinks, and friendship hosted by the USC Student Gerontology Association! To learn more and RSVP, visit gero.usc.edu/event/top-secret-mission-alumni-dinner-2018. |
| 11-14 October 2018 | **USC Trojan Family Weekend**  
**USC Campus**  
This annual celebration is a great opportunity for families of USC students to visit campus, get a first-hand look at life as a Trojan, and see all that USC has to offer. For more information and to register, visit tfw.usc.edu. |