

# VITALITY

A PUBLICATION OF THE USC LEONARD DAVIS SCHOOL OF GERONTOLOGY

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PIONEERS THEN, LEADERS NOW: THE USC LEONARD DAVIS SCHOOL OF GERONTOLOGY HAS BEEN AT THE FOREFRONT OF AGING RESEARCH AND EDUCATION FOR THE LAST FOUR DECADES.

## BETTER WITH AGE: 40 YEARS OF THE USC LEONARD DAVIS SCHOOL OF GERONTOLOGY

BY BETH NEWCOMB

The arrival of 2015 brings a significant milestone for the USC Davis School of Gerontology: this year, the Davis School begins celebrating four decades since its creation as the first school of gerontology in the world. The Davis School and the Ethel Percy Andrus Gerontology Center, now 50 years old, have not only witnessed but have often been the setting for immense changes in the gerontology field.

### Aging Research Pioneers

Compared to today, both the world and the aging field were markedly different when USC's gerontology center was first formed. Nations were not yet directly wrestling with the issues of rapidly aging populations on their current scale, though average lifespans would skyrocket throughout the 20th century. The first retirement communities had only recently been created, and opportunities to research aging and retirement issues had just started to appear.

USC recognized these unique opportunities and created the center in 1964, with USC

sociologist James Peterson serving as interim director. The following year, National Institute of Mental Health Aging Program Director James E. Birren was tapped to become the gerontology center's first permanent director. Birren immediately began obtaining valuable training grants for the center and, believing in the importance of multi- and interdisciplinary study, worked to pique the curiosity of faculty members from various USC units: biology, psychology, public policy, social work, and more. What resulted was a diverse group of minds all exploring aging from unique yet interrelated angles.

In a 2003 *Contemporary Gerontology* article reflecting on the center's early history, Birren and Phoebe Liebig wrote, "The idea was to 'infect' various university units with the 'aging bug.'"

"You don't get vision without passion," Liebig, now a professor emerita, reiterates today. "That's why this school has been successful. Faculty members catch the bug and care enormously."

From its inception, the center's spectrum

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## MISSION STATEMENT

The USC Leonard Davis School of Gerontology is devoted to improving the lives of older persons through education and research.

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## Message From the Dean



Welcome to the Spring 2015 issue of Vitality! I hope all of our readers are having a wonderful start to a healthy and prosperous New Year.

The start of the New Year often encourages us to take time to reflect and think about the journey we've experienced thus far. This is especially true for the USC Leonard Davis School of Gerontology: this year, we celebrate the 40th year of our school and the 50th anniversary of the Ethel Percy Andrus Gerontology Center's creation.

In this issue's cover story, Davis School veterans share their perspectives and stories regarding the creation and growth of the school over the last four decades. From its small but ambitious beginnings to its celebrated status as the oldest and largest school of gerontology in the world, the USC Davis School and its students, alumni, faculty, and staff have taken part in a journey that has yet to be paralleled anywhere else in the field.

This journey is far from over, and we have so much more to look forward to in the coming decades. The genomics revolution and other huge scientific advances have ushered in new discoveries and questions for us to tackle: how our mitochondria affect diabetes and other diseases, the ways in which diet can influence cell regeneration and longevity, how lifespans and healthspans have changed across the world, and more.

The New Year also offers us an opportunity for us to contemplate our future and strive for goals that will improve our health, wealth, and happiness. We at the USC Davis School are proud to help older adults identify and work toward their own dreams, no matter where they are in their life course.

In this issue, readers can learn about how we're encouraging mayors to make their cities safer and healthier for older adults and how a new Davis School curriculum teaches financial advisors how to better help their older clients realize financial goals. In addition, our upcoming Vibrant Living Retreat is a great opportunity for anyone hoping to make positive changes and craft a healthier future. I invite everyone to join us for this revitalizing and educational event, which will be held March 20-22 at the Rancho Valencia Resort and Spa in Rancho Santa Fe, Calif.

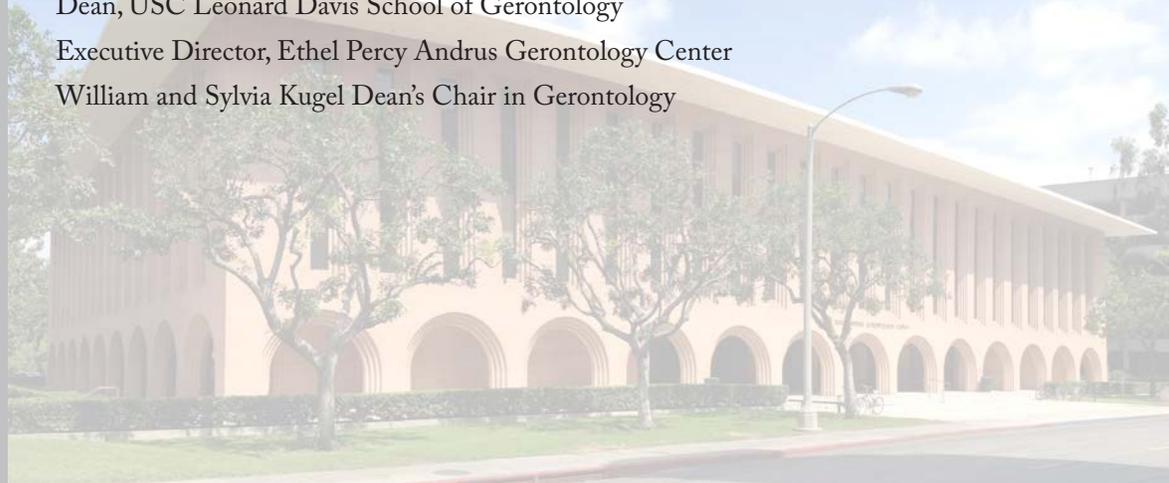
Here's to a happy and healthy 2015, and Fight On!

Pinchas Cohen, M.D.

Dean, USC Leonard Davis School of Gerontology

Executive Director, Ethel Percy Andrus Gerontology Center

William and Sylvia Kugel Dean's Chair in Gerontology



## MILKEN INSTITUTE ENCOURAGES MAYORS TO COMMIT TO HELPING OLDER RESIDENTS

BY BETH NEWCOMB

The Milken Institute, a nonprofit, nonpartisan think tank dedicated to solving urgent social and economic challenges, is asking mayors across the U.S. to commit to improving the lives of older people in their cities.

More than 135 U.S. mayors from across the political spectrum have signed the Milken Institute's Best Cities for Successful Aging Mayor's Pledge, committing to not only make their cities better for older residents but also to enable older adults to strengthen their cities and improve lives through work and volunteerism.

"Change begins at home—that's what drives the Milken Institute's focus on Best Cities for Successful Aging. We're pleased that so many forward-thinking mayors have demonstrated their commitment to making their cities better places for aging," Milken Institute President Paul Irving said in a press release. "Cities can be engines of innovation and change. That's why we are asking these urban leaders to make their cities work better for older adults and to enable older adults to help their cities create a brighter future for all ages."

The pledge, part of the Institute's Best Cities for Successful Aging initiative, was developed by the initiative's advisory

committee, which includes USC Leonard Davis School of Gerontology Dean Pinchas Cohen.

"Aging is an issue that touches all of us, and as our population ages we will need to band together to create better environments for our older friends and neighbors," Cohen said. "I am proud to see so many city leaders, including Los Angeles Mayor Eric Garcetti, commit to making our nation's cities places where safe, healthy, and happy older adults thrive."

To read the full pledge and see the list of mayors who have signed it, as well as explore the latest Best Cities for Successful Aging rankings, visit [successfulaging.milkeninstitute.org](http://successfulaging.milkeninstitute.org).



## DAVIS SCHOOL OFFERS NEW FULL-TUITION SCHOLARSHIP FOR ASSISTED LIVING PROFESSIONALS

BY BETH NEWCOMB

A new USC Leonard Davis School of Gerontology scholarship offers full tuition support for a master's degree to an outstanding member of the California Assisted Living Association (CALA).

The scholarship was awarded for the first time to Merryn Oliveira, administrator at Waters Edge Lodge, an assisted living community in Alameda, Calif. Davis School Associate Dean Maria Henke presented Oliveira with the scholarship certificate during the 2014 CALA Fall Conference and Trade Show, held October 27-29 in Pomona, Calif.

The award provides the recipient with full tuition support for any of the Davis School's master's degree programs, which include the Master of Science in Gerontology, Master of Arts in Gerontology, Master of Aging Services Management, Master of Long Term Care Administration, and Master of Science in Nutrition, Healthspan, and Longevity degrees. Offered both on campus and online, the programs all provide thorough, evidence-based education in gerontology and specialized knowledge from leaders in the field. Professionals who have prior experience working with, caring for, or offering products and services for older adults can learn valuable new skills that are immediately applicable to their careers when they advance their education at the Davis School.

USC Davis School Dean Pinchas Cohen said the new scholarship will not only help talented professionals further their careers but will also positively affect the more than 176,000 older



MERRYN OLIVEIRA (LEFT) RECEIVES THE SCHOLARSHIP CERTIFICATE FROM USC DAVIS SCHOOL ASSOCIATE DEAN MARIA HENKE DURING THE 2014 CALA FALL CONFERENCE.

Californians in assisted living communities throughout the state.

"As the USC Davis School provides the current and future leaders of California's assisted living communities with state-of-the-art gerontology education, they will use their skills and expertise to increase care quality and improve the lives of thousands of older adults across the state," Cohen said. "Educating one person can make a world of difference when they apply their knowledge to the individuals and communities they serve."

## RESEARCH SYMPOSIUM ON ASIA'S AGING POPULATION HIGHLIGHTS BOTH IMPROVEMENTS AND CHALLENGES

BY BETH NEWCOMB



DAVIS SCHOOL DEAN PINCHAS COHEN (LEFT) AND PROGRAM DIRECTOR OF APRU RESEARCH & ENTERPRISE PARTNERSHIPS ANDRÉ EDELHOFF (RIGHT) PRESENT A COMMEMORATIVE PLATE TO SPEAKER AND USC PROVOST ELIZABETH GARRETT.

Several Asian nations have some of the most rapidly aging populations in the world, and the dramatic change in demographics is creating many new public health, economic, and societal challenges, according to several researchers from member universities of the Association of Pacific Rim Universities (APRU).

The USC Leonard Davis School of Gerontology hosted the 2014 APRU Research Symposium on Aging, which focused specifically on aging in Asia, at the Ethel Percy Andrus Gerontology Center September 14-17. The symposium's presenters included several faculty members, postdoctoral associates, and doctoral students from the USC Davis School as well as researchers from elsewhere at USC and other APRU universities.

Following an evening welcome reception at the USC Pacific Asia Museum on September 14, the conference featured presentations on a number of issues, including health and demographics of the aging population throughout Asia; needs and adaptations for an aging world; the interplay of policy, aging, and health outcomes; and the creation of an APRU population aging research hub. In addition, the USC Davis School hosted a Global Aging Data Workshop for symposium attendees on September 17, which provided participants hands-on training for

accessing and using population survey data on aging from around the world.

"It is time for us to address very thoughtfully the issues raised by these different demographics... it affects every person from newborns to centenarians," said USC Provost and Senior Vice President for Academic Affairs Elizabeth Garrett in her welcome address to symposium attendees. "The USC Davis School of Gerontology is leading the way both on campus and in the world."

USC Davis School Dean Pinchas Cohen described USC and the Davis School's efforts to bring a "trans-disciplinary and interdisciplinary approach" to aging research.

"USC has a strategic vision that includes the study of aging across the lifespan," Cohen said.

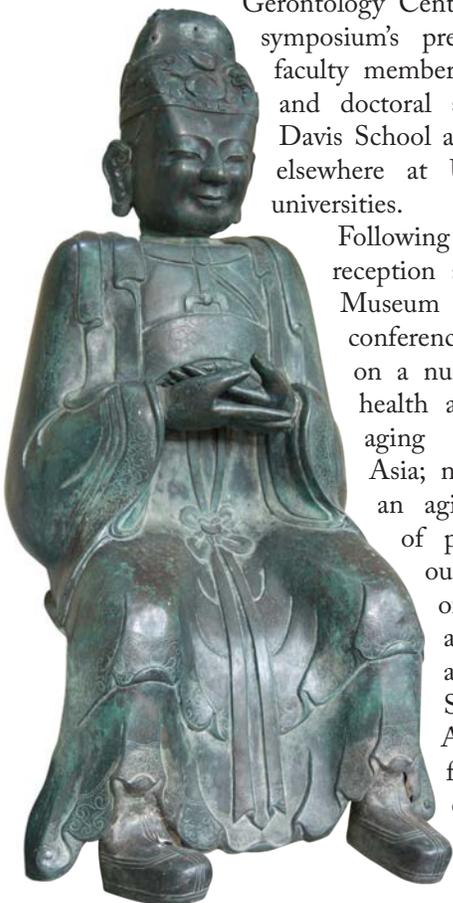
Increases in average lifespan and declining birthrates have brought about the rapid aging seen in many nations throughout the world during the last few decades, and the effect is extremely pronounced in many Asian countries. However, getting older can bring vastly different changes for people in varying circumstances, as several large-scale cross-sectional and longitudinal studies throughout the region have shown, said University Professor and AARP Chair in Gerontology Eileen Crimmins.

With regard to aging, "my hypothesis is that major physiological changes accompanied the epidemiology revolution and the technology revolution," said Crimmins, one of the conference's organizers and a world-renowned expert on biodemography. "As we look across nations, people of different ages with differing access to technology and epidemiology have different physiological characteristics."

For example, in areas where infectious diseases have become better controlled, less childhood infection and inflammation can mean less organ damage that contributes to complications later in life, while more access to technology can result in less physical labor and more obesity within the population, Crimmins said. With rapidly changing societies, older adults are "living in an environment that we did not evolve in, and we may need to adapt with changes in lifestyle and habits," she added.

Several speakers' presentations reiterated the idea that as Asian nations continue to age and become more centered in urban areas, challenges are evolving and becoming more entwined with the region's social and economic policies. Public health efforts are rapidly shifting from stopping the spread of infectious diseases to helping those with physical disabilities or chronic medical conditions, such as diabetes, metabolic syndrome, and mental health issues, live productive and independent lives as they age.

As the presenters and attendees discussed the challenges facing Asia's aging population, the group also looked to the future of their efforts. Representatives of the APRU and Australia's University of New South Wales took part in a panel discussion on the creation of an APRU aging research hub to be headquartered at UNSW. The hub would bring researchers together for discussions and collaboration; engage in targeted partnerships with government, industry, and international organizations; and encourage



mentorship and career development for new researchers, said UNSW Pro-Vice Chancellor Fiona Docherty.

Near the end of the symposium, Mike Yamano, chancellor of Tokyo's Yamano College of Aesthetics and member of the USC Davis School Board of Councilors, spoke about the power of educational partnerships with the USC Davis School and the importance of gerontology education in Asia. Yamano College provides gerontology education through a partnership with USC Davis, which helps the school's future aestheticians better understand the needs of elderly clients and serve them through volunteer work, he said.

"Beauty is for all ages," Yamano said. "A sunset is as beautiful as a sunrise."



RECEPTION ATTENDEES ENJOYED LIVE TRADITIONAL MUSIC AT THE USC PACIFIC ASIA MUSEUM (MUSICIANS PICTURED WITH DEAN PINCHAS COHEN)

## KELVIN DAVIES HONORED BY ASIAN UNIVERSITIES BY BETH NEWCOMB

USC Leonard Davis School of Gerontology Professor Kelvin Davies received an honorary doctorate from Guangzhou University as well as honorary professorships from the University of Hong Kong and Shenzhen Clinical Medical College as part of a visit to China and Hong Kong in November 2014.

Davies is widely acknowledged as a leader in the field of free radicals, oxidative stress, and redox biology, and he is a pioneer in researching the roles of gene expression and signal transduction mechanisms in stress adaptation and how such protective systems gradually fail in humans as they age. During the trip, he was also the keynote speaker at the 2nd Chinese International Conference on Free Radical Research in Hong Kong.

Davies delivered his acceptance speeches and keynote lecture in Hong Kong and Shenzhen on the roles of the transcription factors Nrf2, Nrf1, and Bach1 in regulating gene expression during cells' adaptation to oxidative stress. In the remarks, he highlighted the key roles of the proteasome—a protein complex within cells that breaks down damaged or unnecessary proteins—and the Lon protease enzyme in such adaptive responses. He also discussed the potential mechanisms by which the failure of such factors may contribute to both the aging process and to various diseases of aging.

"It is a wonderful experience to be recognized by one's peers,"

Davies said. "As the fastest-growing world region for the scientific enterprise, it was especially exciting to receive this kind of acknowledgement from colleagues in mainland China and Hong Kong."

Davies is the James E. Birren Chair in Gerontology at the Davis School and Professor of Molecular & Computational Biology in the USC Dornsife College of Letters, Arts, and Sciences. He is also the Dean of Faculty and Research and Director of the Ethel Percy Andrus Gerontology Center at the Davis School.

Davies has two earned doctorates in Physiology and Biochemistry from the University of California at Berkeley. He also has five previous honorary D.Sc., M.D., D.U., D.Phil. and D.H.L. doctoral degrees from the University of Buenos Aires, the University of Moscow, Semmelweis University, the Russian State Medical University, and the University of Gdansk. He also holds honorary or distinguished professorships at the Universities of

Ancona, Camerino, Padova, and Pisa in Italy; at the University of Rennes and the European University of Brittany in France; and at Churchill College of Cambridge University in England. Davies holds numerous other academic medals, awards, and society fellowships, and in 2012 Davies was knighted and made a Chevalier de l'Ordre National du Mérite de France by then-President of France Nicolas Sarkozy for his services to science and international cooperation.



KELVIN DAVIES RECEIVES AN HONORARY DEGREE FROM GUANGZHOU UNIVERSITY PRESIDENT SHUNMIN LI.

## HELPING CAREGIVERS PROVIDE SAFE AND HEALTHY CARE

BY BETH NEWCOMB

Local community members learned more about taking care of both loved ones and themselves during the 15th annual Caregivers Are Learning More (CALM) Conference and Resource Fair held at the USC Leonard Davis School of Gerontology on November 1, 2014.

Organized by the USC Family Caregiver Support Center (FCSC), the conference featured valuable information on the basics of safely caring for an elderly or disabled family member as well as in-depth discussions of legal options and self-care for caregivers. In her opening remarks, FCSC Director Donna Benton noted that the conference marked the start of National Family Caregivers Month and that the day's discussions were all aimed at helping participants to "be 'calm' when care comes home."

"Helping a family member doesn't always come with an instruction manual," Benton said. "We know you're already strong; we want to help strengthen what you're doing."

Associate State Director for AARP California Adriana M. Mendoza described the average caregiver in California—a 49-year-old woman who works outside of the home and who will care for a parent for more than five years—and discussed the wider societal impact of caregiving. Currently, the estimated economic value of unpaid family caregiving in California is \$47 billion each year, which is more than the total yearly value of Medi-Cal, she said.

"Caring for an aging relative or friend is the new normal," Mendoza said. "Family caregivers are essential for our healthcare system."

Sheryl Flynn, president and CEO of Blue Marble Game Company, discussed the potential for virtual reality and video games to help aging patients exercise their bodies and minds while providing assessments of their abilities for their caregivers and doctors. Throughout the day, attendees had the opportunity to try several Blue Marble games, including one that guided players through exercises designed for fall prevention and another that used puzzles to measure cognitive ability.

"Healthcare is changing; there is more responsibility on the patients and caregivers," Flynn said. "A lot of that is going to require technology."

Keynote speaker Ernesto Quintero, a filmmaker who grew up in Lincoln Heights, shared the story of his brother Juan, who

was diagnosed with amyotrophic lateral sclerosis (ALS), or Lou Gehrig's disease, in 2005. Quintero's documentary film, "A Sacred Journey," follows Juan and the rest of his family as he is diagnosed, faces health challenges with the support of his whole family, and vows to give something back to the community: an inspirational mural for the local elementary school.

Quintero said the film, which is still in progress, will serve not only as a celebration of his brother and healing tool for him and his family but also as a way to spread awareness of ALS and caregiving.

"It's not easy to be a caregiver and deal with the day-to-day grind," Quintero said. "There are 66 million caregivers in the U.S., and we need to be there for them."

Other conference presenters also acknowledged the taxing challenges—mental, physical, and legal—of caregiving.

Skye Kelly, founder and executive director of the nonprofit organization Heal One World as well as a certified massage and

holistic health practitioner, shared tips for self-care and stress relief. After leading attendees through Tai Chi and stretching exercises, she emphasized the importance of working self-care techniques and free time into a caregiving schedule as well as readying a "self-care emergency kit" of people and resources to help with tough times.

"We often forget that we're only there for others as much as we're there for ourselves," Kelly said.

Caregiving for loved ones with mobility issues, especially adults who are taller or heavier than the caregiver, can pose serious physical challenges, said Nathan Drati, a nurse with in-home care company My CARE Professionals. Using audience volunteers, he demonstrated ways to safely help loved ones with walking, sitting, and getting in and out of bed.

Back injury, including overexertion and cumulative stress, is the most common and costly risk faced by caregivers, and "good body mechanics avoids undue strain on your back," Drati said.

Carlos Arcos, an elder care planning attorney based in Arcadia, Calif., discussed common sources of disagreements and options for families caring for an aging loved one. He described the important choices often faced by caregivers, stressing the need for open conversations that respect older adults' desire for independence as well as frank discussions regarding power of attorney responsibilities and how to efficiently transfer assets to loved ones.



REGISTERED NURSE NATHAN DRATI WORKS WITH A VOLUNTEER TO DEMONSTRATE THE SAFE WAY TO HELP A LOVED ONE OUT OF BED.

“No matter how much you have, you want it to go to the intended person quickly and efficiently,” Arcos said.

Attendee Patricia Lofland of Long Beach praised the conference, saying that the information about financial issues was especially helpful to her. As the primary caregiver for Trusten Lofland, her husband of 40 years and a sufferer of Alzheimer’s disease, having to make important financial decisions without his input has been the biggest change, she said.

“In matters of business and money, we were very good together,” she recalled. But while her husband still enjoys relatively good physical health, Lofland said it is now up to her to make the many financial and caregiving choices they face as a couple, and new, urgent decisions arise frequently.



DONNA BENTON, DIRECTOR OF THE USC FAMILY CAREGIVER SUPPORT CENTER:  
“CAREGIVERS FIGHT ON!”

## DAVIS SCHOOL PARTNERS WITH MERRILL LYNCH TO IMPROVE RETIREMENT PLANNING FOR OLDER ADULTS

Merrill Lynch and the USC Leonard Davis School of Gerontology today announced a ground-breaking training program designed to help Merrill Lynch financial advisors and retirement specialists better understand and address the evolving needs of the nation’s aging population and their families.

The new Merrill Lynch Longevity Training Program offers insights into the latest advances, research and experiences in the field of gerontology, which includes the sociological, psychological, and physiological aspects of aging. Participants in the program will learn about the importance of and issues associated with longevity through a deeper exploration of seven life priorities defined through Merrill Lynch Clear®, including health, home, family, giving, leisure, work, and finances.

“We’ve partnered with one of the nation’s most prestigious universities, and a pioneer in the study of gerontology, to help ensure that our advisors and specialists have a deeper understanding of the opportunities and challenges presented by increasing longevity,” said David Tyrie, head of Retirement and Personal Wealth Solutions for Bank of America Merrill Lynch. “Greater knowledge of and appreciation for various aspects of aging helps us better connect with our clients, address concerns, and achieve their desired outcomes leading up to and through retirement.”

Participants must complete approximately 12 hours of training over the course of four to eight weeks, delivered through a combination of on-demand videos featuring USC professors, online courses and reference materials, and web-based best practice presentations and knowledge sharing from Bank of America Merrill Lynch subject matter experts, including director of financial gerontology and USC Davis alumna Cyndi Hutchins.

Throughout the training, participants complete scored assessments of content knowledge and application skills and, at the conclusion, receive a Certificate of Completion from USC and up to nine continuing education credits for Certified Financial Planner (CFP), Certified Investment Management Analyst (CIMA), or Chartered Retirement Planning Counselor (CRPC) professional designations.

“As our society continues to rapidly age, anticipating and understanding the unique needs and dreams of older adults is more important than ever,” said Pinchas Cohen, dean of the USC Leonard Davis School of Gerontology. “Increasing longevity can bring longer retirements, changing health care choices, more housing transitions, and many other challenges to financial security and independence. By introducing gerontology knowledge to the financial advice they receive, we aim to help older individuals accomplish more of the goals they’ve set for themselves and their loved ones.”

An initial group of 50 Merrill Lynch financial advisors and specialists began participating in this first-of-its-kind training program last month. Starting in April, the program will be available to the firm’s more than 14,000 advisors and specialists. The program will then be expanded further beginning in May to include HR and benefit plan professionals at companies for whom Bank of America Merrill Lynch provides retirement and benefit plan services.

*Press release courtesy Bank of America Merrill Lynch. Additional reporting by Beth Newcomb.*



*Continued from cover*

of researchers pushed for innovative investigation, whether at the lab bench uncovering the cellular processes of aging or in the community determining the demographics of and best interventions for older adults. In the early '70s, immensely talented recruits such as Caleb "Tuck" Finch, now a University Professor and the ARCO/Kieschnick Professor of Gerontology and Biological Sciences, would eventually become some of the Davis School's first faculty members. Finch and his contemporaries would also develop the center and school into a research powerhouse through both incredible scientific achievements and trailblazing grantsmanship.

This reputation for both high-quality scholarship and research support has aided in the steady recruitment of the field's top faculty throughout the '80s, '90s, and beyond. Renowned research centers helmed by Davis School faculty continue to investigate Alzheimer's disease, the biology of longevity, biodemography, housing for older adults, long-term care, and more.

### Leaders in Gerontology Education

In just its first few years of existence, the center—including a library and a publications division that produced some of the first textbooks on gerontology—had become not only an

internationally known aging science hub but also became a driving force for gerontology education, leading USC to become the top source of aging-related Ph.D. dissertations in the nation. In addition, the center's summer institutes and continuing education programs gave students and professionals in other fields the chance to gain high-quality gerontology knowledge.

The current Ethel Percy Andrus Gerontology Center facility—named for the American Association of Retired Persons co-founder and supported by more than 400,000 AARP members—was dedicated in 1973. It would provide a comprehensive research and education venue for the center and subsequently the school, which was founded in 1975 with Birren serving as its first dean. AARP co-founder Leonard Davis, a friend and supporter of the center since the late 1960s, gifted a generous endowment to the school in 1976, which named the USC Leonard Davis School of Gerontology.

In the fall of 1975, an inaugural class of 55 students attended the first-of-its-kind institution. Among the course offerings was a brand-new Master of Science in Gerontology program; the innovative curriculum would heavily influence the way in which later gerontology programs throughout the nation were created and structured.



The school's proclivity for educational innovation wasn't done there. In 1989, the nation's first Ph.D. in Gerontology program was inaugurated at USC. Rather than have students pursue aging-related topics in other fields, including biology, psychology, and sociology, Birren had believed that the gerontology field was ready for its own doctoral program. Since then, the USC Ph.D. in Gerontology program has produced many of today's top leaders in the aging field, and in 2014 the Davis School added a revolutionary Ph.D. in the Biology of Aging to its doctoral offerings.

As technology progressed, the Davis School once again set educational precedents. In 2002, the first students of the school's groundbreaking online masters programs graduated. Today, all Davis School masters programs—including a brand-new Master of Science in Nutrition, Healthspan and Longevity program—as well as the Certificate in Gerontology program are available both on-campus and online. Professor and Dean Emeritus Edward Schneider says the unique push for online gerontology programs was a response to the needs of prospective students with heavy professional or family responsibilities, including those caring for children or older family members.

"I was concerned that there were students across the country

who wanted to come to USC but couldn't physically come here," he says. "The online program was developed to make the excellent education we provide here on campus accessible to people around the nation and the world."

### Looking to the Future

In the coming years, new focuses on creativity, genomics, and technology's roles in aging, as well as global aging outreach and study, will provide a wealth of new research questions and educational opportunities for USC gerontology researchers, educators, and students, says Davis School Dean and Andrus Center Executive Director Pinchas Cohen. The Andrus Center and the Davis School have not only stayed at the forefront of aging science and education but will also continue to grow and instigate some of the field's most revolutionary changes, he adds.

"There has been a substantial growth in both research grants obtained by faculty and student enrollment in all programs, representing the two major missions of the school," he says. "We conduct state-of-the-art scientific investigation, and our students further the exploration and implementation of that knowledge. We're not just producing scientific achievements; we're producing the next generation of gerontology leaders."

## WHEN SMALL STATURE MEANS BIG HEALTH BENEFITS BY ROBERT PERKINS

**H**ow and why could a gene that stunts growth also shut down cancer and diabetes?

USC biogerontologist Valter Longo and Ecuadorean endocrinologist Jaime Guevara-Aguirre are hoping to find the answer in a study of 30 individuals from Ecuador who visited Los Angeles.

“People looked at our earlier study and said, ‘Sure, it protects them from some things. But there must be downsides besides dwarfism, which would not be an issue if the intervention was applied to adults after they have reached normal size,’” Longo said. “And, so, we’re digging deeper.”

Sixteen of the study’s participants have Laron syndrome, while 14 of their close family members of normal stature agreed to participate in the tests as controls. By finding unaffected participants who have lived in the same region, eat the same diet, breathe the same air, and share a family heritage, Longo and Guevara-Aguirre hope to isolate Laron syndrome as the cause behind any differences in disease protection between the two groups.

Shuttling between the Andrus Gerontology Center, the Dornsife Cognitive Neuroscience Imaging Center, and the Atherosclerosis Research Unit at the Keck School of Medicine of USC, the Ecuadorean visitors participated in several cardiovascular, cognitive and neuroimaging trials. The study is being conducted in collaboration with Howard Hodis and Hooman Allayee at the Keck School of Medicine, Mara Mather and

Elizabeth Zelinski of USC Davis, and Paul Thompson from the Laboratory of Neuro Imaging.

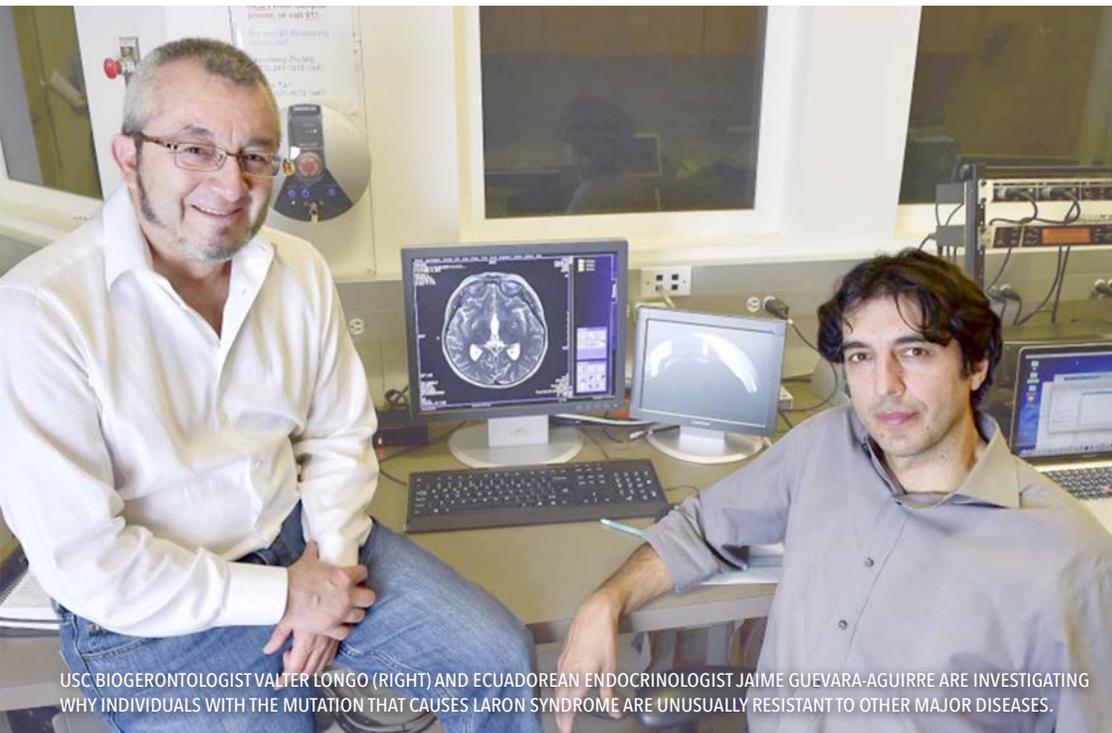
The resulting data should provide years of new insights for Longo and Guevara-Aguirre.

The researchers also took turns guiding the visitors to the sights and hotspots of Los Angeles and held a banquet with them.

“We wanted to make sure they had fun,” said Guevara-Aguirre, who has been working with his group for 27 years, the last decade of which has been in collaboration with Longo.

“The work of the best quality has been done with Valter,” Guevara-Aguirre said.

Other researchers involved in the study were Priya Balasubramanian, Kaoru Nashiro, Meredith Braskie, and Rico Velasco.



USC BIOGERONTOLOGIST VALTER LONGO (RIGHT) AND ECUADOREAN ENDOCRINOLOGIST JAIME GUEVARA-AGUIRRE ARE INVESTIGATING WHY INDIVIDUALS WITH THE MUTATION THAT CAUSES LARON SYNDROME ARE UNUSUALLY RESISTANT TO OTHER MAJOR DISEASES.

The researchers hope the results will lead medicine to pharmaceuticals or controlled diets achieving the same apparent protection from major diseases as Laron syndrome, the growth-stunting genetic mutation shared by 16 of the 30 visitors.

“If it does offer these benefits, then we can look for ways to mimic the effect,” said Longo, who directs the Longevity Institute of the USC Leonard Davis School of Gerontology and has a joint appointment at the USC Dornsife College of Letters, Arts, and Sciences.

Laron syndrome prevents the body from using growth hormone but also appears to stunt a variety of life-threatening conditions.

“For example, despite some participants having lived a while with obesity, we see none of the health problems that typically accompany the disease,” said Guevara-Aguirre of Universidad San Francisco de Quito.

Guevara-Aguirre’s previous study with Longo, which made international headlines in 2011, found zero cases of diabetes and one non-fatal case of cancer over 22 years in a large group of individuals with Laron syndrome.

Supported by a Zumberge Research and Innovation Fund grant from the USC Office of Research, Longo and Guevara now are testing whether Laron syndrome affects cardiovascular diseases and cognitive degeneration.

## LEADERS AND EXPERTS FROM ACROSS THE STATE SHARE IDEAS FOR HELPING CALIFORNIANS AGE IN PLACE

BY BETH NEWCOMB

California's rapidly aging population will need new design and policy innovations to help them live safely in their homes and communities, according to several experts who spoke during the 2014 Morton Kesten Summit, "Designing California's Future: Aging in Place Innovations," hosted by the USC Leonard Davis School of Gerontology on October 9, 2014.

The impact of a growing population of older Californians will be felt by everyone, not just our elders, said keynote speaker Henry Cisneros, CityView chairman, former U.S. Secretary of Housing and Urban Development, and former San Antonio, Texas mayor.

"There are 40 million Americans 65 or older, and by 2040, that will double to 80 million," he said, adding that two-thirds of the U.S.'s older adults depend on a family caregiver. "The life of every single American will be touched by these issues."

Sharing anecdotes of his mother's declining health and the risks she has faced by staying in a family home that has become unsuitable and unsafe for her, Cisneros advocated for a strong push for homes and living environments that are more appropriate for the aging process. With a majority of older Americans wanting to remain at home for as long as possible, he said that the nation is in for a wake-up call.

"The scale will be immense; this is not an easy issue to address," Cisneros said. "We're aging, we're not ready, and we're not preparing fast enough."

Lora Connolly, director of the California Department of Aging, discussed how state-level strategic planning and coordination for evidence-based social programs can also assist older adults who wish to age in place. For instance, education programs regarding disease prevention and nutrition can target areas with many low-income elderly individuals through the Supplemental Nutrition Assistance Program (SNAP), while health plans for low-income older adults could cover independent living assistance in addition to nursing home care.

"Fostering aging in place will require significant coordination and many partners," Connolly said.

Jon Pynoos, UPS Foundation Professor of Gerontology, Policy, and Planning at the Davis School and co-director of the Fall Prevention Center of Excellence, said making modifications to existing homes and employing universal design principles in the creation of new homes is critical for preserving independence for older adults.

"Home modifications and universal design can help promote aging in place, a concept whose time has come," Pynoos said.

### Inventors Showcase Universal Design Innovations

Universal design is a broad approach to design that maximizes accessibility for people of varying ages with and without disabilities. Several principles guide this process:



LEFT TO RIGHT: UNIVERSAL DESIGN CONTEST JUDGE ANNA NGUYEN, 1ST PLACE WINNER TREVOR MYERS, JUDGES MARY LOU DAURAY & ROBERTA NULL, & 2ND PLACE WINNERS LORI KENUK & STEVE BARBOUR.

- Is something simple and intuitive to use?
- Is it flexible and able to be used in various ways?
- Is it equally usable for a wide spectrum of people?
- Is it a proper size, or does it provide adequate space, for use?
- If it provides information, is it readily understandable?
- Does it take only a small amount of physical effort to use?
- If someone doesn't use it in the proper way, are negative consequences avoided or minimal?

Several teams of student and industry-based inventors submitted and demonstrated products utilizing these principles for the 2014 Kesten Summit Universal Design Competition. A multi-disciplinary panel of judges was chaired by Mary Lou Dauray, an artist and advocate for inclusive spaces and universal design, and included Pynoos, Common Place Design President Roberta Null, and Anna Quyen Do Nguyen, a research scientist in the Fall Prevention Center of Excellence and a universal design instructor at the Davis School.

First-place winner Trevor Myers, a Master of Arts in Industrial Arts student at San Francisco State University, presented a dramatic redesign of eye drops bottles, lids, and packaging in order to make self-administering eye drops easier for individuals with vision impairments, limited hand dexterity, and other difficulties. Bright colors, raised text, and ergonomic bottle shapes were proposed to improve ease of use and limit the confusion of eye drops with other small bottles.

Physical therapist Lori Kenuk and occupational therapist Steve Barbour, respectively the president and vice president of Evolve Therapy in Los Angeles, showcased the Intella-Bell, a doorbell system that provides both visual and tactile feedback when pressed by visitors and sends information to the occupant via a web app. The project won second place in the competition.

The third-place project was the Shower Cane by Naoya Nick Ogura. His presentation described an adjustable four-legged cane designed to both assist individuals getting in and out of the shower as well as store toiletries within easy reach during bathing.

## USC DAVIS FACULTY AND STUDENT RESEARCHERS PRESENT AT GSA MEETING

BY BETH NEWCOMB

More than 50 USC Leonard Davis School of Gerontology faculty members and students presented research at the 2014 Gerontological Society of America (GSA) Annual Scientific Meeting held November 5-9 at the Walter E. Washington Convention Center in Washington, D.C. From poster presentations to awards, all facets of the school's impressive scientific investigations were on display.

One of the highlights of the conference for the Davis School came when Assistant Professor Sean Curran received the 2014 Nathan Shock New Investigator Award. The Shock award, named after a gerontology research pioneer and GSA founding member, is a distinguished honor given for outstanding contributions and discoveries in basic aging biology research. Curran's research focuses on identifying mechanisms that regulate survival and longevity in cells and organisms and understanding the roles that metabolism plays in both healthy aging and age-related illnesses.

"This is an incredible honor, and I am thankful to the GSA for this recognition," Curran said.

The Davis School's role in the meeting included heavy participation from both faculty and students sharing their research on a wide variety of subjects. Morgan Levine, a Ph.D. student in Gerontology, chaired and gave a talk during the Human Genetics of Aging and Longevity Symposium, which discussed how the availability of large genetic data sets gives investigators the power to better research the role genes and gene-environment interactions play in aging.

During the symposium, Levine presented "The Whole Is Greater Than the Sum of Its Parts: Using Network Analysis to Identify Longevity Genes," which examined unique models for longevity and stress resistance: people who have lived into their 80s despite being smokers. After mapping the genes of 90 such older smokers and 730 younger smokers, an analysis pinpointed a network of gene variants possibly playing a role in the older smokers' longevity. The network was assembled into a polygenic risk score (PRS); further examination showed that this PRS was significantly associated with both increased lifespan and lower cancer odds in non-smokers.

"The next steps are to examine longevity gene networks using more sophisticated statistics-based approaches, including hierarchical clustering algorithms and weighted gene co-expression networks, which look for genes associated with multiple age-related conditions," Levine said.

Ph.D. student Nick Woodward was one of many Davis School students who presented research posters. During the Biological Sciences poster session, he discussed "Sexual Dimorphism in Neuroinflammation from Inhaled Particulate Matter in Older Mice," which showcased the sex- and age-related differences in inflamed brain tissue in mice who had been repeatedly exposed to nano-scale particulate matter (nPM) air pollution. Brain inflammation was measured by the presence of the protein GFAP.

After the animals inhaled nPM—particles small enough to possibly enter the brain through the bloodstream—young male mice showed an increase in brain inflammation, while young

female mice did not. Older mice of both sexes were found to have existing levels of brain inflammation even before inhaling the pollution, which caused a plateau in inflammatory responses. The older males had no additional immune response to the pollution, while the older females experienced a slight increase in inflammation in the corpus callosum portion of their brains.

"This is just the embryo of what I want to do," Woodward explained, adding that he hopes to learn more about the consequences of neuroinflammation, especially since humans are heavily exposed to this kind of pollution from vehicle exhaust. Such exposure could be causing chronic inflammation in human



DAVIS SCHOOL PROFESSOR KELVIN DAVIES (CENTER) AND GSA BIOLOGICAL SCIENCES SECTION CHAIR CHARLOTTE PETERSON (RIGHT) PRESENT THE NATHAN SHOCK NEW INVESTIGATOR AWARD TO ASSISTANT PROFESSOR SEAN CURRAN.

brains, and "there might be additive effects," he said.

As one of many Davis School faculty members discussing their work, USC Davis Associate Professor of Gerontology Susan Enguidanos gave a talk during the Epidemiology of Frailty, Disease Burden, and Late-Life Care: Insights for Health Care and Policy Symposium. Based on collaborative research with Assistant Professor Jennifer Ailshire, "Exploring the Goldilocks Phenomenon for Completing Advance Directives: Does Early Completion Matter?" discussed the role of timing in the creation of advance directives and its relationship to patients' care preferences.

Surprisingly, Enguidanos and Ailshire found that patients who developed advance directives during the last three months of their lives were more likely to prefer aggressive care compared to patients who developed directives further in advance of their deaths.

"Some have hypothesized that individuals developing advance directives very early—years before death—may be more likely to elect aggressive measures that would be reflective of their healthier condition," Enguidanos said. "We did not find this in our study. Rates of aggressive care preference were quite low and pretty consistent up until the last three months of life."

Enguidanos said she hopes to next examine whether care preferences themselves directly influence when patients create advance directives.

"Are those developing advance directives early those that prefer

less aggressive care, and are those developing advance directives late or not at all reflective of those who prefer more aggressive measures?” she said. “Is there a selection bias in who develops advance directives?”

USC University Professor and AARP Professor of Gerontology Eileen Crimmins spoke during a symposium on the history of the National Institute on Aging titled “From Cells to Society: NIA at 40 – Past, Present, and Future.” Her talk, “Forty Years of Progress in the Behavioral and Social Sciences at NIA,” discussed social science research regarding health outcomes and aging, its evolution over the last 40 years, and its increasingly close-knit relationship with big data as well as with aging biology research.

While the scientific and medical communities have made great progress in keeping up with disabling consequences and halting the progression of existing disease, the conversation has only recently turned to preventing the onset of disease, Crimmins said. With emerging fields, more multidisciplinary investigations, and a better understanding of the physical, biological, and social factors influencing individuals and communities, researchers can

now paint a clearer picture of how health behaviors are shaped and how they affect various health outcomes.

“We have not changed our basic questions. We still want to know why health changes with age and differs by social class, race, ethnicity, and gender, but we have changed the way we look at mechanisms and places to intervene,” Crimmins said. “We want to know how this is influenced by health behaviors, social support, health care usage, and personality and how social factors ‘get under the skin’ to change biology before the more downstream health changes related to aging.”

Along with sharing groundbreaking research throughout the week, students, faculty, alumni, and colleagues enjoyed a reception hosted by the Davis School on November 7 at the Washington Marriott Marquis Hotel.

To learn more about the dozens of USC Davis School posters and presentations, explore research abstracts from the meeting at [gerontologist.oxfordjournals.org/content/54/Suppl\\_2/NP.1.full.pdf+html](http://gerontologist.oxfordjournals.org/content/54/Suppl_2/NP.1.full.pdf+html).

## GENE DISCOVERY PREVENTS WEIGHT GAIN WITH A HIGH-SUGAR DIET

BY ROBERT PERKINS

Imagine being able to take a pill that lets you eat all of the ice cream, cookies, and cakes that you wanted—without gaining any weight.

New research from USC suggests that dream may not be impossible. A team of scientists led by Sean Curran of the USC Leonard Davis School of Gerontology and the Keck School of Medicine of USC found a new way to suppress the obesity that accompanies a high-sugar diet, pinning it down to a key gene that pharmaceutical companies have already developed drugs to target.

So far, Curran’s work has been solely on the worm *Caenorhabditis elegans* and human cells in a petri dish, but the genetic pathway he studied is found in almost all animals from yeast to humans. Next, he plans to test his findings in mice.

Curran’s research is outlined in a study that was published on Oct. 6 by *Nature Communications*.

Building on previous work with *C. elegans*, Curran and his colleagues found that certain genetic mutants – those with a hyperactive SKN-1 gene – could be fed incredibly high-sugar diets without gaining any weight, while regular *C. elegans* ballooned on the same diet.

“The high-sugar diet that the bacteria ate was the equivalent of a human eating the Western diet,” Curran said, referring to the diet favored by the Western world, characterized by high-fat and high-sugar foods like burgers, fries, and soda.

The SKN-1 gene also exists in humans, where it is called Nrf2,

suggesting that the findings might translate, he said. The Nrf2 protein, a “transcription factor” that binds to a specific sequence of DNA to control the ability of cells to detox or repair damage when exposed to chemically reactive oxygen (a common threat to cells’ well-being), has been well studied in mammals.

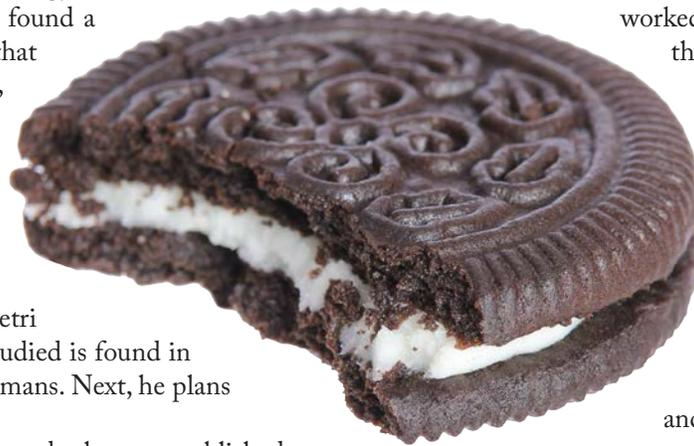
Pharmaceutical companies have already worked to develop small-molecule drugs that target Nrf2 in hopes that it will produce more antioxidants and slow aging.

Though the promise of a pill to help control your body’s response to food is enticing, it is not without risk, Curran said. Increased Nrf2 function has been linked to aggressive cancers.

“Perhaps it is a matter of timing and location,” Curran said. “If we can acutely activate Nrf2 in specific tissues when needed, then maybe we can take advantage of its potential benefits.”

Curran, the corresponding author on the study, collaborated with Shanshan Pang and Jennifer Paek of USC Davis and Dana Lynn and Jacqueline Lo of USC Davis and the USC Dornsife College of Letters, Arts and Sciences.

The research was funded by the National Institutes of Health (grant numbers P40 OD010440 and AG032308), the Ellison Medical Foundation, and the American Federation of Aging Research.



## “SWING FOR HEALTHY AGING” TOURNEY HONORS KEITH RENKEN

BY WHITNEY FOUNTAS

More than 150 friends and supporters of the USC Leonard Davis School of Gerontology participated in the 18th annual Rod Dedeaux Swing for Healthy Aging Golf Classic on September 22, 2014 at the Virginia Country Club in Long Beach, Calif. The event honored Keith Renken, former chairman of the golf tournament, current Board of Councilors member, and recipient of the Dean’s Medallion for his incredible service.

The golf tournament, named for USC “Coach of the Century” Rod Dedeaux, raises scholarship funds for USC Davis School students. This year’s tournament was one of the most successful in history, raising over \$350,000 in funds and establishing the Renken Scholars program, which will provide \$10,000 in support for the best and brightest gerontology students.

The scholarship program is a step towards honoring Renken’s years of support for the USC Leonard Davis School of Gerontology. He has served as a member of the Board of Councilors for over 18 years and as chairman of the golf committee for almost as long.

“We are so grateful for the support and generosity of Keith and his family and are eager to honor his legacy through the creation of the Renken Scholars program,” said Dean Pinchas Cohen.

USC Davis Dean Emeritus Edward L. Schneider also expressed his gratitude for Renken, saying, “Keith has impacted the Davis School in so many ways. He helped me build a strong Board of Councilors and was integral in preserving the Leonard Davis School of Gerontology’s future.”

### The USC Davis School is also greatly indebted to the generosity of Tournament Sponsors:

The UniHealth Foundation  
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# Vibrant Living Retreat

Dean Pinchas Cohen will expand upon his highly acclaimed discussion of **personalized aging** and describe how **technology** will change the way we view our remaining lifespans. There will be an emphasis on extending our *healthspans* through healthy behaviors with workshops on **exercise, wellness, creativity, & nutrition.**

Other activities include: **tennis, golf, yoga, walking, pilates,** and much, much more!

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## NEW GIFT SUPPORTS USC STUDENT INNOVATORS

BY BETH NEWCOMB

Alumnus and entrepreneur Kevin Xu and his wife Leah Yang have announced a commitment from the Xu family to the USC Leonard Davis School of Gerontology to establish the Brighten Award for Entrepreneurial Gerontology.

The award, named in honor of the couple's 2-year-old son, will provide \$20,000 each year on an ongoing basis to innovative students who exhibit entrepreneurship and aim to incorporate elder-friendly elements into their ideas. Xu and Yang are both USC alumni; Xu received his Bachelor of Arts in Neuroscience degree in 2011, and Yang received her Master of Aging Services Management degree in 2013.

The Davis School works to equip future aging professionals with the skills and knowledge necessary to respond effectively to the needs of an aging population, including the ability to introduce new aging-related innovations to the public. Many Davis School graduates have gone on to become entrepreneurs and leaders in the aging industry, and the school strongly supports projects with translational possibilities. In particular, the school's Centers for Digital Aging and Creativity in Aging focus on developing new technologies and programs for use by older adults in the real world.

As a young biotechnology entrepreneur as well as a member of the Davis School Asian Advisory Board, Xu said he believes that a huge potential market related to the elderly population is still hibernating and underestimated. He said he hopes that the Brighten Award will exist for the next 50 years, encouraging tomorrow's most promising innovators for decades to come.

"We rely on our future entrepreneur generation to fully uncover the hidden value and benefit the nation both economically and structurally," Xu said.

Kevin Xu is the CEO of MEBO International, a California-based intellectual property management company responsible for managing Human Body Regenerative Restoration Science; CEO of Skingenix, a California based company exclusively working on drug development in the field of damaged organ regeneration; honoree of EMPACT 100 in 2014; and founder of Regeneration 2014 Campus, an award-winning virtual educational platform for organ regeneration science.

Xu is also a member of the Young Entrepreneur Council, an appointee of the California-China Trade and Investment Advisory Board by Governor Jerry Brown, and the founder of the Regeneration X Foundation, a non-profit organization focusing on providing support for the

## A HAPPY DAVIS SCHOOL HOLIDAY

Board of Councilors member Mei-Lee Ney graciously hosted a holiday party for Davis School supporters and friends at her beautiful home in Pasadena on December 7, 2014.



establishment of *in situ* regenerative life science and related educational systems and research collaboration. In addition, he is a contributing author for *Wired*, *Business Insider* and *Forbes*.

Xu and Yang's pledge supports the Campaign for the University of Southern California, a multiyear effort that seeks to raise \$6 billion or more in private philanthropy to advance the university's mission of academic excellence and to advance research and scholarship that will address society's most pressing challenges. Three years after its launch, the campaign has raised more than \$3.7 billion.



USC ALUMNUS AND DAVIS SCHOOL ASIAN ADVISORY BOARD MEMBER KEVIN XU

## “WHY I HOPE TO DIE AT 75” MISSES THE MARK BY MORGAN LEVINE



MORGAN LEVINE, USC DAVIS  
PRE-DOCTORAL CANDIDATE

In October 2014, Ezekiel Emanuel, a noted bioethicist from the University of Pennsylvania, authored an op-ed piece in *The Atlantic* titled, “Why I Hope to Die at 75.” While Dr. Emanuel provides a clear argument to support his view, this controversial article—which takes a one-two punch at the field of gerontology—falls short in its misrepresentation of the goals of aging research and its damaging portrayal of individuals who have succeeded in surviving to old age.

Dr. Emanuel suggests that the desire to extend life, which he attributes to the aspirations of a cultural archetype he terms the “American Immortal,” is destructive. He describes living “too long” as a “loss” which “renders many of us, if not disabled, then faltering and declining, a state that may not be worse than death but is nonetheless deprived.”

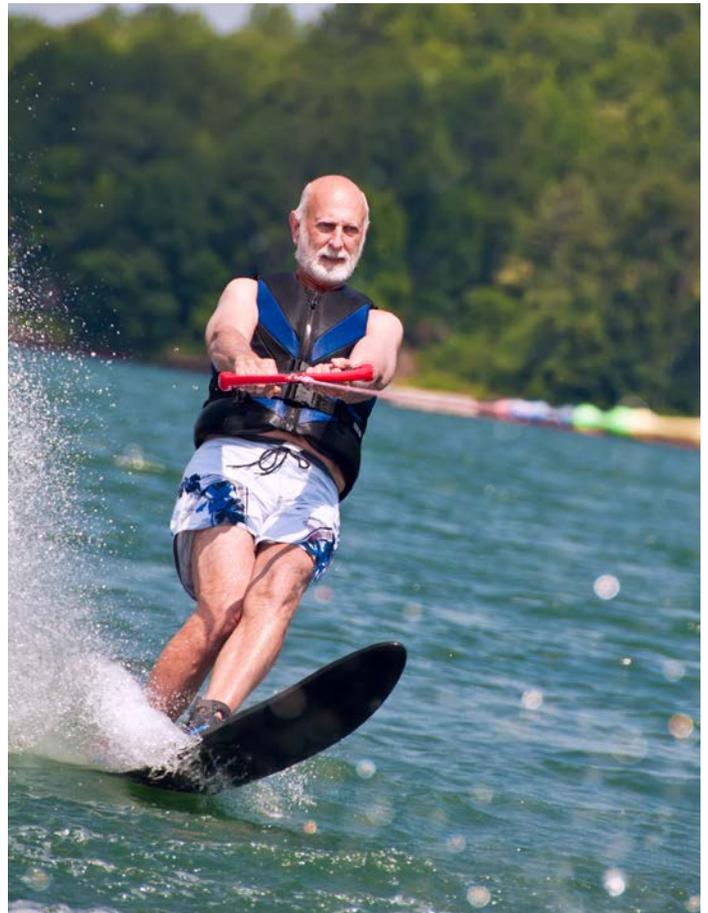
This statement is a quintessential example of what is commonly referred to as “ageism,” a damaging form of prejudice which unfortunately remains pervasive today. Ageism has been shown to reinforce discriminatory practices in the workplace and in social settings. There is also evidence to suggest that it may contribute to reductions in self-esteem and increased stereotype threat. While other forms of discrimination, such as sexism and racism, are viewed as morally inexcusable in modern day society, ageism has remained socially acceptable to the point where Dr. Emanuel uses it as the basis for his policy proposal.

In his article, Dr. Emanuel refers to a study published by Dr. Eileen Crimmins, a professor at the USC Leonard Davis School of Gerontology, and her former post-doc, Dr. Hiram Beltrán-Sánchez, to substantiate his negative depiction of older adulthood. Although he does rightfully acknowledge population variance and the existence of outliers, Dr. Emanuel’s interpretation and presentation of the demographic findings are misguided. He points out that Crimmins and Beltrán-Sánchez show that over the last two decades there has been an increase in life expectancy with disease and disability. Based on this finding, Dr. Emanuel proclaims, “American immortals may live longer than their parents, but they are likely to be more incapacitated.”

Yet what he fails to mention is that while the prevalence of heart disease, cancer, and diabetes among individuals aged 80 has increased, rates remain below 30%. Additionally, Crimmins and Beltrán-Sánchez note that while prevalence has increased, these diseases have also become less debilitating. Thus Dr. Emanuel’s scare tactic, claiming that most of us are likely to live out the majority of our golden years in a state of incapacitation, is unmerited.

In addition to presenting an argument for the cessation of healthcare at age 75, Dr. Emanuel also argues for limiting funding for research with the goal of extending lifespan and instead advocates for increasing investments in research on chronic diseases. What he fails to recognize is that the biological aging process is the largest risk factor for most major chronic conditions. The complex progressive decline that our bodies undergo with age contributes to a number of alterations in cellular structure and functioning. Subsequently, these are often directly responsible for the increasing susceptibility to a number of chronic conditions with age.

Ironically, Dr. Emanuel’s editorial is more an argument for, rather than against, longevity research. Instead of investing in disease-specific projects as Dr. Emanuel suggests, we need to devote more resources towards understanding the molecular and environmental mechanisms that regulate aging and lifespan. Like many other scientists, I propose that this is likely the only way we will have a chance at postponing or even eliminating the conditions which ultimately degrade our bodies and minds.



EZEKIEL EMANUEL’S CLAIM THAT MOST PEOPLE WILL SPEND THEIR GOLDEN YEARS IN A STATE OF INCAPACITATION IS UNMERITED, AND CONTINUED AGING RESEARCH IS NEEDED TO UNDERSTAND AND FIGHT CHRONIC CONDITIONS, LEVINE SAYS.

## JIM DE VERA: DAVIS SCHOOL "LIFESAVER" BY BETH NEWCOMB

No matter the subject, enrolling in a university degree program can be a daunting experience full of questions and tough choices. Fortunately for students of the USC Leonard Davis School of Gerontology, Jim De Vera is there to help them navigate the process.

De Vera, the Davis School's student advisor since 2007, is mainly responsible for helping students with academic advisement, course planning, and registration. However, he makes himself available for almost any student query and prides himself on knowing how each student is doing as they progress through their program.

"I try to treat each person as an individual instead of just another student in the program. I encourage students to keep in touch throughout the program so I know what they've been up to," De Vera says. "In my role as the academic advisor, if I notice something strange, I've been known to contact the student to make sure it's taken care of before it becomes an issue. Although I always tell students it's their responsibility to complete all the degree requirements, I try to be there as much as I can to help."

Over the years, De Vera has forged many lasting relationships with Davis School students, and he has stayed in touch with many graduates via Facebook. His care and assistance have made huge differences in the careers and lives of many students.

"If they ever need to talk to someone about something, I'm usually around and we can chat. If I need to, I can refer them to where they need to go for further help in whatever issue they are facing," De Vera adds. "I try to be more than their student advisor; I can be as many roles for the students as they need. I can be the academic advisor, the cheerleader, the coach, or the friend."

One of the many Davis School graduates who have expressed their deep appreciation for De Vera's service is Margo Tucker, a 2011 recipient of a graduate certificate in gerontology. In thanks for his help during her program and his continued friendship, Tucker sent De Vera a unique gift: a large box full of Lifesaver candies.

"The Lifesaver gift to Jim was inspired because I felt that Jim was my "lifesaver" as I was trying to navigate the challenges of academics as a distance learner," Tucker says. "He is an amazing individual, and I wanted to return the same amount of encouragement as was extended to me."



### VICTOR HUDSON: FAITH AND SERVICE BY BETH NEWCOMB

The entries on Victor Hudson's résumé are incredibly diverse, but his commitment to working hard and helping others has shone through at every point in his life.

Hudson was born in Chicago but grew up in Southern California; as a teenager, he lived just a few miles from the USC campus. Following nine years of service in the United States Marine Corps, Hudson received his Master of Business Administration degree from Regent University in 2001 and began working for the Neuroscience Division of Pfizer Pharmaceuticals, Inc. later that year. There, he learned more about issues facing older adults as he marketed the Alzheimer's disease drug Aricept and the neuropathic pain medication Neurontin.

"During that time, I became friends with a board-certified internist and geriatrician, Dr. Shekar Chakravarthi, who is a USC Marshall alum," Hudson says. "Dr. Chakravarthi saw my passion for helping the elderly, so he allowed me to participate in several preceptorships while he was medical director for a skilled nursing facility. It was during those hours together that Dr. Chakravarthi encouraged me to apply for the Master of Arts in Gerontology program."

In the meantime, Hudson had begun following another call to service, this time as a pastor and leadership coach. He served as a clergy advisor for the New Jersey Family Policy Council and developed a leadership course for incarcerated men before earning his Master of Arts in Religion from Liberty Baptist Theological Seminary in 2012. He has been a full-time faith leader and church founder ever since, and he is now completing his MA in Gerontology in concert with his clergy work.

Hudson says choosing the USC Leonard Davis School of Gerontology was easy for him.

"For starters, USC Davis is the largest and the oldest gerontology school in the country. Having served in the United States Marine Corps, it is obvious I believe in time-honored institutions—ones that have rich traditions like the USC Davis School of Gerontology," he says. "Moreover, USC is about helping the world become a better place for all mankind."

His passion for gerontology and his dedication to serving families as a clergy member have merged into a keen interest in caring for individuals at the end of their lives as well as their loved ones.

"In my second semester, I took an end of life course with [USC Davis Associate Professor of Gerontology] Susan Enguidanos, which was amazing; she has been a true mentor! It was during that course that it became clear that my work in gerontology would be centered around hospice and helping grieving families," he says. "After that course, I applied to a hospice agency and was hired to develop hospice for families. As a seminary trained pastor, I am well-versed in the grieving process, thus I am able to educate families on the benefits of hospice, its philosophy of care, and what the grieving process looks like once death occurs."

Upon graduation, Hudson hopes to use his background and his new skills to help others both in the U.S. and around the world.



"I believe my background in pastoral work and now gerontology work hand-in-hand, for they both integrate lifespan development. Thus, my hope is to continue to learn and be mentored by my professors as I carry on the USC tradition," he says. "Furthermore, as a pastor, I have participated in missions in the Dominican Republic, so developing a hospice program for their sick and their elderly is in line with the Trojan tradition of helping all people become better world citizens."

## TUCK FINCH: PIONEERING SCIENTIST AND EDUCATOR

BY BETH NEWCOMB

University Professor and ARCO/Kieschnick Professor of Gerontology and Biological Sciences Caleb “Tuck” Finch has spent more than 40 years at USC, arriving in 1972 prior to the USC Leonard Davis School of Gerontology’s founding in 1975. As USC’s first neurobiologist, he led several developments in the neurobiology of normal aging.

As a biophysics undergraduate student at Yale University, Finch was challenged by noted microbiologist Carl Woese to investigate the mysteries of aging, despite the view of many prominent academics at the time that aging was not much more than the study of vascular disease and cancer. Finch accepted the challenge, completing a groundbreaking Ph.D. thesis examining stress responses and aging in mice at Rockefeller University in 1969. His work revealed the possibility that nervous system hormones govern how cells age (the idea now known as the neuroendocrine hypothesis of aging), which was vastly different from the then-prevailing theory that cells simply deteriorated after undergoing a certain number of divisions. In addition, his research at Rockefeller and beyond sparked the genesis of the field now known as neurobiology of aging.

“It was not recognized as a subject you could work on or have a career in,” Finch says. “I was a pioneer in that—no one knew

what I was doing for the first five years.”

In 1972, USC’s life science environment was tremendously different from today’s powerhouse collection of renowned researchers, laboratories, and programs. Finch not only began setting a precedent for aging biology research but also initiated massive change in the wider university’s life science research and grant activity.

“When I came here, there were only a few really active labs by international standards on this campus in life sciences,” he says.

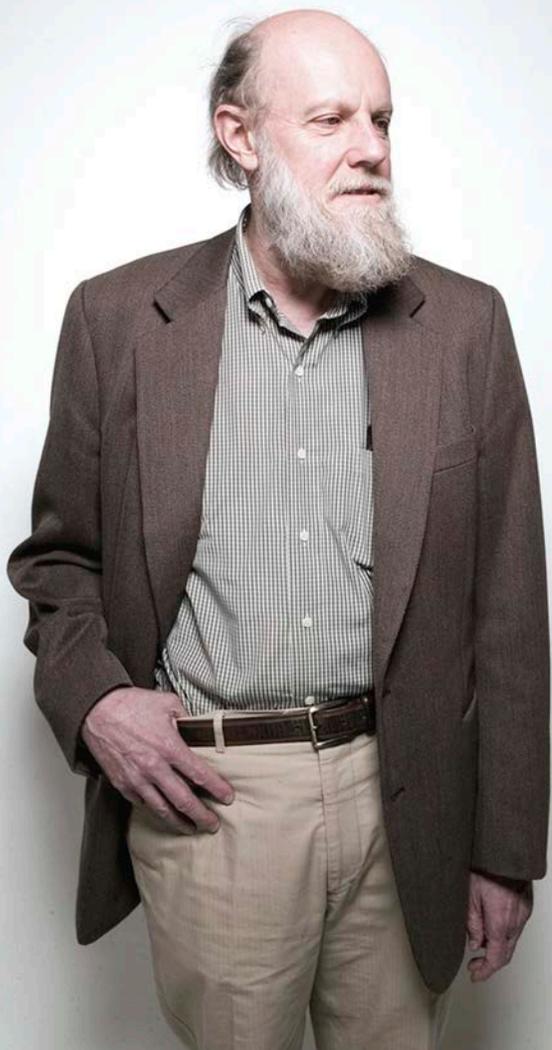
In 1984, Finch organized the USC Alzheimer’s Disease Research Center (ADRC), which was in the initial group of 5 centers funded by the National Institutes of Health. He served for 20 years as ADRC director and continues as its associate director. The ADRC grant served as a model for other USC research teams, demonstrated the role of large-scale grants in university life science research, and encouraged USC leaders to provide more resources to the then-fledgling neuroscience program.

Since then, Finch’s renowned scientific career has earned him most of the major awards in biomedical gerontology, including the Gerontological Society of America Robert W. Kleemeier Award in 1985, the International Geriatric Association Sandoz Premier Prize in 1995, and the American Federation for Aging Research Irving Wright Award and the American Aging Association Denham Harman Award in 1999.

After more than 40 years at USC, Finch is still tackling exciting new projects. Currently, he’s investigating the effects of air pollution on aging and brain development. He also studies the evolutionary history of the human lifespan and age-related disease in collaboration with fellow Davis School University Professor Eileen Crimmins.

Finch has also been a major driver of educational innovation at USC and has helped form four graduate programs: the biology of aging program in the Davis School and the molecular biology, neurobiology, and evolutionary biology programs in the Dornsife College of Letters, Arts, and Sciences. He teaches at all levels, having led both graduate and undergraduate courses in genetics, physiology, and neurobiology as well as a seminar for incoming freshmen. While he has educated and mentored many individuals who have gone on to become extremely successful researchers and academicians, Finch has continually recognized the importance of quality science education for all students, no matter their professional goals.

“Our responsibility in a research university is to communicate what science is about to people who are not going to be professional scientists,” he says. “They’re not going to be bench scientists, but at least they have a little more confidence that they can be conversant about reading papers in medical literature and understanding what the issues are. And they will themselves benefit by knowing the science their doctor knows, such as when they talk about their aging parents or their own choice of medication decisions.”





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## UPCOMING USC LEONARD DAVIS SCHOOL OF GERONTOLOGY EVENTS

**February 26**

### *2015 Kesten Memorial Lecture*

Linda Fried, dean of the Mailman School of Public Health at Columbia University, will present this year's Kesten Lecture in the Davis Auditorium at the Andrus Gerontology Center.

For more information: [lindah@usc.edu](mailto:lindah@usc.edu)

**March 20-22**

### *Vibrant Living Retreat 2015*

Renew your commitment to a healthy lifestyle at the Rancho Valencia Resort and Spa in Rancho Santa Fe, California.

For more information: [fountas@usc.edu](mailto:fountas@usc.edu)

**April 20**

### *What's Hot in Aging Research 2015*

Join USC Davis experts at the Andrus Gerontology Center for an interdisciplinary symposium on new topics in aging science.

For more information: [mhenke@usc.edu](mailto:mhenke@usc.edu)

**April 25**

### *Student Gerontology Association Alumni Dinner*

All students and alumni are invited to this year's dinner, "Back to the Future: Celebrating 40 Years of Excellence in Gerontological Education," in the Andrus Gerontology Center Courtyard.

For more information: [kariyawa@usc.edu](mailto:kariyawa@usc.edu)

**May 15**

### *USC Leonard Davis School of Gerontology Commencement Satellite Ceremony*

Following the main commencement ceremony, the Davis School celebration will take place in the Tutor Campus Center Ballroom (Tutor Campus Center lower level) at 11:00 AM.

For more information: (213) 740-5156

