



STANFORD
CENTER ON
LONGEVITY



REDESIGNING LONG LIFE

FY 09-10 Annual Report of the Stanford Center on Longevity

September 1, 2009 - August 31, 2010

<http://longevity.stanford.edu>

MISSION

Established in 2006 by a group of Stanford faculty, led by psychologist **Laura Carstensen** and neurologist **Thomas Rando**, the Stanford Center on Longevity is the only organization of its kind. Our mission is to foster innovations in science and technology, public policy and social norms that impact the challenges and opportunities of longer life spans. We accomplish this mission by engaging in interdisciplinary collaborations and research and by linking Stanford scholars with government, business and the media. Our ultimate goal is to redesign long life.

Table of Contents

Director's Note	1
About the Center	3
Mind Division	4
Mobility Division	8
Financial Security Division	12
Global Aging Program	16
Politics, Scholars & the Public Program	20
Research	24
Faculty Seed Grants	24
Postdoctoral Fellowships	26
People	27
On Campus	39
Working Together	40

Distinguished Lecture Series

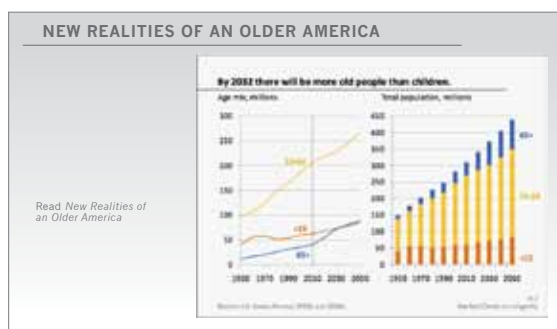
In 2010, the Center began its Distinguished Lecture Series. The inaugural lecture was delivered by **Dr. John (Jack) Rowe**. Dr. Rowe chairs the External Advisory Council for the Center.



New Realities of an Older America

Throughout this report, we feature the Center's most recent report from the Global Aging program, which highlights demographic changes in the United States.

New Realities of an Older America: Challenges, Changes and Questions



DIRECTOR'S NOTE

With gifts from individual supporters, foundation grants and core operating support from Stanford, the Center on Longevity completed a very successful fourth year. The Center is creating a vibrant community of longevity scholars on campus. Senior academic staff members are working closely with faculty affiliates, graduate students, and post-doctoral fellows to establish and fund research programs focused on solutions to challenges of long-lived individuals and aging societies. Importantly, Stanford undergraduates have gained a clear presence in the Center's work as they pursue answers to questions that will help them navigate their own futures.

We are building bridges outside of the university as well. Dr. John (Jack) Rowe, distinguished scientist and chair of the External Advisory Council for the Center, drew researchers, students and community members to a lecture entitled "Myths and Realities of an Aging Society," and award-winning author, Stephen Hall, gave a thought-provoking lecture about "Wisdom." We have been inspired by companies, like Steelcase, who are supporting our research efforts on sedentary behavior, and by the Financial Industry Regulatory Authority (FINRA), who formed a partnership with the Center to stimulate research that helps to prevent financial fraud.

As you read the following information about the Center's programs, we hope that you will imagine projects, questions, and solutions that will help to make longevity a benefit to humankind.

Laura L. Carstensen, Founding Director



ABOUT THE CENTER

The Stanford Center on Longevity studies the nature and development of the entire human life span, looking for innovative ways to use science and technology to solve the problems of people over 50 and improve the well-being of people of all ages. In partnership with over 130 Stanford faculty affiliates, the Center's staff pursues an interdisciplinary research agenda focused on practical solutions to longevity-related challenges. We seek to engage the best minds in academia, business and government to come together in conversation and collaboration, to target the most important challenges and solutions for older populations. We focus on key areas of Stanford's academic strengths as we develop our research agenda.

DIVISIONS & PROGRAMS

Divisions



MIND

The prospect of mental decline associated with aging threatens the well-being of individuals and families. Research in the Mind division on early detection of decline, behavioral and biological interventions, and decision aids is aimed at improving cognitive functioning across the life span. The division also offers state-of-the-art information about normal and abnormal aging, and provides statements from the world's experts about potential remedies.



MOBILITY

The Mobility division encourages research that promotes lifelong mobility by preventing or reducing barriers to physical movement. The Center places special emphasis on the promotion, development and translation of Stanford expertise and technologies (such as devices, drugs, biologics and behavior) that encourage or restore physical movement.



FINANCIAL SECURITY

Personal saving rates declined from the mid-1980s through 2008, even while life expectancy and number of years in retirement continued to increase. The Financial Security division supports research on products, technologies, and financial education that will help people better plan, save for their futures and guard against financial fraud.



Programs



POLITICS, SCHOLARS AND THE PUBLIC

The Politics, Scholars and the Public program aims to inform policy decisions that impact longevity with empirical findings and research-driven proposals. The program brings together political experts, scholars and voters in a search for sensible solutions to current societal challenges. Work to date has focused on health care issues facing the United States, and on the issues facing individuals and communities as greater numbers of Americans “age in place.”



GLOBAL AGING

The Global Aging program focuses on the economic and political implications of population aging around the world as people live longer and have fewer children. Large variations in the timing and pace of fertility declines and longevity gains create dramatic differences across countries. Understanding these developments and trends is critical for addressing them wisely. Through its research and publications, the program stimulates public discourse on the challenges and opportunities associated with population aging.

MIND

2009 – 2010 Projects



UNDERSTANDING THE ROLE OF ESTROGEN IN ALZHEIMER'S PREVENTION, January 2010

Incidence rates of Alzheimer's disease are expected to more than double by 2050 as baby boomers age – a substantial increase that is expected to create a devastating global burden.

Because Alzheimer's is primarily a disease of the elderly, interventions that prevent or delay disease onset would have a significant impact on reducing the burden

of this debilitating disorder. Estrogen hormone therapy in some circumstances may help protect the brains of postmenopausal women from decline, although findings have been inconsistent and controversial. Based on a number of studies, several researchers have postulated that hormone therapy during a critical midlife period or “window of opportunity” in a woman's life could provide protection.

The Center on Longevity teamed with the [Stanford Center for Neuroscience in Women's Health](#) and the National Institute on Aging, to move the understanding of this important issue forward. Top experts presented and reviewed the newest science available in January 2010 and, using the Center on Longevity's launch conference model,



focused on reaching agreement on key issues and defining next steps. The meeting resulted in a multi-university team to identify the profile of women most at risk for Alzheimer's disease and determine the window of time when treatment is most likely to have protective effects. This team will examine basic biology, genetic factors and the public health impact on women as they age. Results from the conference will be published in a special issue of *Brain Research* in February 2011.

Read more about this project ►

MEASUREMENT OF COGNITIVE ABILITY IN AGING POPULATIONS, April 2010

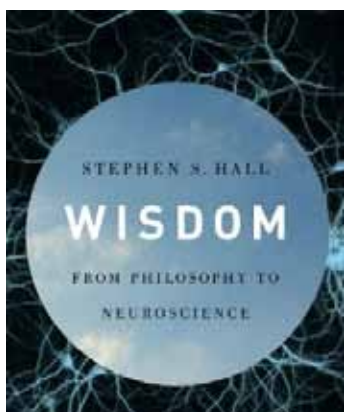
In April 2010, as a part of her sabbatical year at the [Center for the Advanced Study in the Behavioral Sciences](#) at Stanford, Laura Carstensen convened a launch conference on the subject of measuring cognitive ability in large-scale surveys of aging populations. Participants were drawn from Stanford as well as from peer institutions of higher education, the National Institutes of Health, and think tanks such as RAND. The meeting had three main goals:



- To critically examine what is known about the role of cognitive ability in important decision about health and finances;
- To consider whether the relevant dimensions of cognition are assessed in standard online batteries; and
- To identify decision aids that may improve decision quality in older adults.

Related to this conference, the Center collaborated with Stanford faculty affiliate [Sam McClure](#) (Department of Psychology) on a grant application to the NIH to create a national research network on decision neuroscience and aging. The five-year grant was awarded in the summer of 2010, and will begin in FY 10 – 11.

Events, Lectures, Forums:



WISDOM AND LONG LIFE, March 2010

When the Center on Longevity hosted a forum with award-winning science writer [Stephen S. Hall](#), two questions dominated the discussion:

Does wisdom inevitably come with old age? Not necessarily, Hall said, but a long and full life increases the odds of having the kind of knowledge base and emotional experiences that contribute to wisdom.

How can we encourage wisdom in our children? Hall said there's obviously no formula, but a little adversity early in life can improve abilities to regulate emotion, and challenging children to think about smart, ethical and altruistic decisions probably helps, too.

Hall is author of *WISDOM: From Philosophy to Neuroscience*, which examines ancient concepts of wisdom through the lens of modern brain science.

A selection of Laura Carstensen's recent presentations

October 2009 – Invited participant in a workshop co-sponsored by the NIA and NIDA, “Aging, Motivation, and Addiction,” Carstensen spoke about “The Positivity Effect: Older Adults Favor Positive Over Negative Information in Attention and Memory,” Washington, D.C.

January 2010 – Featured on “This Emotional Life,” a new PBS television series on the subject of “Rethinking Happiness.”

June 2010 – Recipient of the Matilda White Riley Lecture award that honors an individual whose research has contributed to behavioral and social scientific knowledge and the application of such knowledge relevant to the mission of the NIH. The recipient's work also reflects Riley's commitment to research that includes the emphasis on the potential for improving the lives of people and society.

June 2010 – Invited to present at the Council on Foreign Relations Roundtable to set the stage for discussion on “Aging and the Public: 21st Century Public Policy reforms for G-20 Nations,” Washington D.C.

Stanford Affiliate Research Contributions

MOLECULAR MECHANISM TRIGGERING PARKINSON'S DISEASE, July 2010



Scientists at the Stanford University School of Medicine led by Center on Longevity Affiliate **Bingwei Lu** have identified a molecular pathway responsible for the death of key nerve cells whose loss causes Parkinson's disease. This discovery not only may explain how a genetic mutation linked to Parkinson's causes cells to die, but could also open the door to new therapeutic approaches for the malady.

In a study published July 29, 2010 in *Nature*, the investigators used an animal model, the common fruit fly, to show that the mutation results in impaired activity of recently discovered molecules called microRNAs, which fine-tune protein production in cells. This impairment, in turn, leads to the premature death of nerve cells specifically involved in the secretion of the brain chemical dopamine. The degeneration of these so-called dopaminergic nerve cells in the brain is a hallmark of Parkinson's disease.



GETTING OLDER LEADS TO HAPPINESS

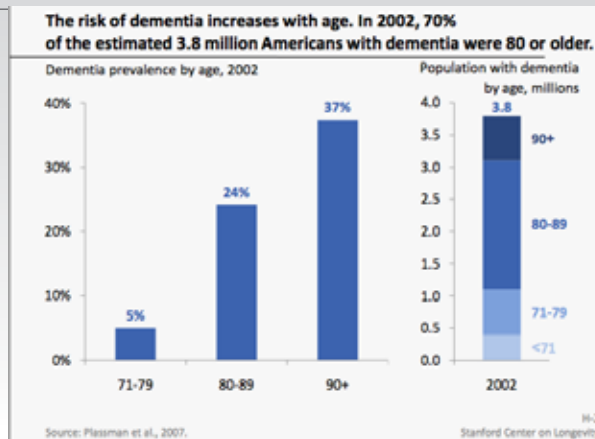
A study headed by Laura Carstensen, the Fairleigh S. Dickenson, Jr. Professor in Public Policy and director of the Center on Longevity, shows that, as we grow older, we tend to become more emotionally stable.

And that may translate into longer, more productive lives that offer more benefits than problems.

The study, published in the journal *Psychology and Aging*, involved tracking Americans between ages 18 and 94 for more than ten years, from 1993 to 2005. For one week every five years, participants carried pagers and responded to periodic quizzes intended to reflect how happy, satisfied and comfortable they were at any given time. Age was associated with a decline in the frequency of negative emotions.

NEW REALITIES OF AN OLDER AMERICA: Dementia

Read *New Realities of an Older America*



LOOKING FORWARD

Research Network on Decision Neuroscience and Aging –As mentioned previously, this project is a collaboration with Stanford faculty affiliate **Sam McClure** (Department of Psychology) which will begin in FY 2010-11.

Longevity, Music and Memory – In collaboration with the Stanford Center for **Computer Research in Music and Acoustics** (CCRMA), the Center obtained funding from the **Stanford Institute for Creativity and the Arts** (SiCA) for a launch conference on the topic of “Longevity, Music and Memory” in September-October 2010.

MOBILITY

2009 – 2010 Projects

THE DANGERS – AND SCIENCE – OF SEDENTARY BEHAVIOR, July 2010

Exercise balls, standing tables and a conference culture that encouraged pacing during presentations enhanced the serious research discussed during a launch conference about the potential dangers of prolonged sitting.



The emerging field of “inactivity physiology” suggests that the hours people spend sitting – time spent on email, around a meeting table, using the Internet, wrestling with and writing computer applications, stuck in traffic – may be linked to increasing rates of obesity and chronic disease.



The key may be in the function of muscles in the legs, back and neck that help maintain posture during standing and light exercise. These postural muscles seem to have a larger role in the processing of fat and cholesterol than was previously understood. As a result, people who sit for a long time without getting up and exercising these postural muscles may experience health problems – despite getting regular exercise during other parts of the day. This hypothesis has been pieced together from sources as varied as animal testing, measurements of TV viewing, bed-rest studies and zero-gravity experiments by NASA.

To identify areas and techniques for additional research, the Center on Longevity and [Stanford Prevention Research Center](#) convened 30 physicians, physiologists, engineers, social scientists and industry experts on the Stanford campus in July 2010. A Stanford team of faculty affiliates is working with the Center to implement the project. The team includes [Cathy Heaney](#) (Psychology and Medicine), [Abby King](#) (Health Research and Policy), and [Mark Cullen](#) (Chief of General Internal Medicine.) Faculty Affiliate [Bill Haskell](#) (Stanford Prevention Center) was the conference chair and is continuing to work with the team in an advisory role. This research team is exploring public health guidelines for sitting – similar to the federal government’s Physical Activity Guidelines – and is exploring pilot studies that lay the groundwork for more extensive studies with potential partners

[Read more about this project](#) ►

OSTEOARTHRITIS GRANT PROPOSAL - 2010



As a result of the Center's Osteoarthritis Launch conference convened in January 2009, a program project grant application "A System Biology-Mechanical Framework to Study the Aging Joint and Osteoarthritis" was submitted to the NIH in January 2010. Faculty affiliate **Tom Andriacchi**, the program Principal Investigator, continues to lead this project.

Events, Lectures, Forums:

A selection of Tom Rando's recent presentations

October 2009 – "Reversing the Aging Process: A stem Cell Fountain of Youth" – Invited lecture at Stanford President John Hennesy's Panel and Discussion on Life Changing Technologies, Stanford, CA

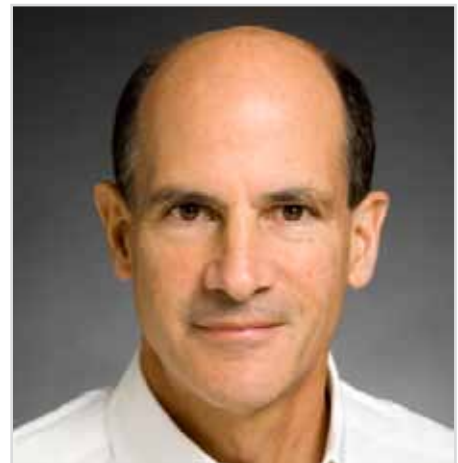
February 2010 – Keystone Symposium, "New Insights into Healthspan and Diseases of Aging: From Molecular to Functional Senescence," Tahoe City, CA

March 2010 – Roy Huffington Distinguished Lecture, Huffington Center on Aging and the Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX

June 2010 – Royal Society Discussion Meeting, "The New Biology of Ageing," London, UK

August 2010 – Keynote Lecture, Eleventh International Workshop on Scleroderma Research, Boston, MA

Ken Smith gave a talk to the Stanford Product Realization Network looking at the way in which aging populations will affect the way designers create new products.



Tom Rando, Deputy Director

Stanford Affiliate Research Contributions

SCIENTISTS DISCOVER NEW MECHANISM BEHIND AGING IN MICE, January 2010



Two previously identified pathways associated with aging in mice are connected, say Center on Longevity affiliates from the School of Medicine. The finding reinforces what researchers have recently begun to suspect: that the age-related degeneration of tissues, organs and, yes, even facial skin is an active process rather than a gradual failure of tired cells. Derailing or slowing this molecular betrayal, although still far in the future, may enable us to one day tack years onto our lives—or at least delay the appearance of that

next wrinkle.

The study, published January 9 in *Cell*, grew out of a three-year collaboration between Center on Longevity Affiliate **Katrin Chua**, MD, PhD, assistant professor of endocrinology, gerontology and metabolism and **Howard Chang**, MD, PhD, associate professor of dermatology. Chang and Chua are co-senior authors of the research.

“There is a genetic process that has to be on, and enforced, in order for aging to happen,” said Chang. “It’s possible that those rare individuals who live beyond 100 years have a less-efficient version of this master pathway, just as children with progeria—a genetic aging disease—may have components of this pathway that are more active.”

UNDERSTANDING THE SOCIAL CONTEXT BEHIND HEAVY TV VIEWING, June 2010



Extensive TV viewing has long been linked to obesity and related diseases. Research by Center on Longevity affiliate **Abby King** into the social context of viewing may help influence people to moderate TV time and lead healthier lives.

Social context, King found, can be a strong predictor of viewing habits. She found that prolonged TV viewing was associated with lower household incomes, poorer rated overall physical and mental health and negative neighborhood environments (heavy traffic and crime, lack of neighborhood lighting and poor scenery.)

REMOVING A BARRIER TO REGROWING ORGANS, August 9, 2010



Disabling an evolutionary backup plan for protecting against cancer could be part of a future means to regrow lost limbs or regenerate damaged organs.

Scientists have known for many years that some animals, including some fish and amphibians, can regenerate organs and limbs, but mammals can't. Therefore, at some point in evolution, mammals must have acquired proteins that halt regeneration, reasoned Stanford University researchers led by Center on Longevity Affiliate [Helen Blau](#) and [Jason Pomerantz](#), who is now a professor at the University of California, San Francisco. This research might one day lead to better and new treatment for injuries.

STUDY IDENTIFIES PROTEINS THAT EXTEND LIFE SPAN IN WORMS, June 2010

Through epigenetics, and by examining the life span of fertile worms, Center on Longevity affiliate [Anne Brunet](#) PhD and colleagues are exploring an intriguing link between longevity and fertility. Their findings were published online in Nature.

This research has identified a new group of proteins involved in determining the life span of laboratory roundworms. Blocking the expression of one member of the group can extend the worm's life span by up to 30 percent. Because the proteins work in the worm's

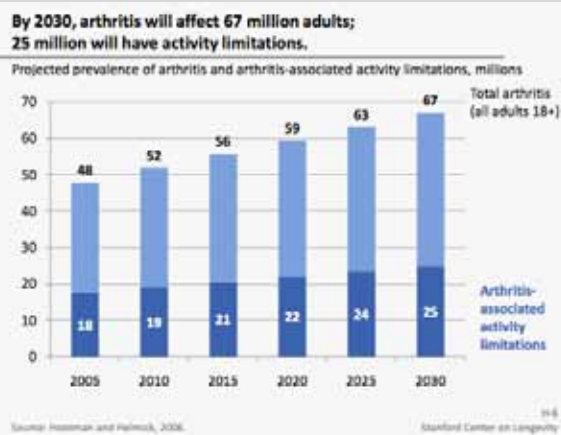
LOOKING FORWARD

Sedentary Behavior

Work on the subject of sedentary behavior did not end with the closure of the conference. The research team has set itself a goal of developing public health guidelines for sitting similar to the exercise guidelines available from the U.S. Center for Disease Control (CDC.) Such guidelines require large, carefully designed studies to assure that recommendations have a strong scientific basis. The team is now in discussions with potential partners and funders for pilot studies to test this hypothesis. While the team recommends that people should try to minimize the long periods they sit at work and elsewhere, a definitive answer to "how long is too long?" requires further research.

NEW REALITIES OF AN OLDER AMERICA: Mobility

Read *New Realities of an Older America*



FINANCIAL SECURITY

2009 – 2010 Projects

FINANCIAL FRAUD LAUNCH CONFERENCE, October 2009

Financial fraud – and how to stop it – continues to be an issue involving people of all ages, with particular challenges for older Americans.

The Center on Longevity engaged in a **launch conference** on financial fraud in collaboration with the AARP Foundation in October 2009, where experts in the social sciences, law enforcement and advocacy sectors addressed such questions as:

- What is known about the nature of financial fraud?
- What conditions make people most susceptible to scams?
- What psychological tendencies might make particular groups of people especially vulnerable?
- What questions, if answered, might lead to practical solutions to prevent fraud?

Participants identified a number of follow-up steps, including the need to bring together research, which has often been viewed in isolation, and to explore new ideas to attack the problem.



RESEARCH CENTER ON THE PREVENTION OF FINANCIAL FRAUD

As a direct result of the Fraud Launch conference, and in collaboration with the Financial Industry Regulatory Authority (**FINRA**), the largest independent regulator for all securities firms doing business in the United States, the Center on Longevity developed a research center to promote research that can help prevent financial fraud.

This center, known as the **Research Center for the Prevention of Financial Fraud**, provides an online clearinghouse for news and research about financial fraud. It will allow researchers, advocates, and law enforcement agents to access the tools they need to prevent, prosecute and protect against financial fraud.

AARP FRAUD PREVENTION RESEARCH



In collaboration with the [AARP Foundation](#) and the [AARP Fraud Fighter Call Center Network](#), the Center has led two research projects focused on the effectiveness of peer-to-peer counseling in educating older persons to recognize and avoid fraud.

The first experiment involved testing the effectiveness of the call centers that have been designed to warn older adults, especially prior victims, about financial scams. The experiment tested the messages that were being delivered by call center volunteers and then tested two variations in prevention messages based on social psychological research to determine if resistance to fraud was improved using one method versus another. The findings indicated that the messages based on research about specific versus general warnings heightened vigilance and resulted in greater resistance to fraud (as measured by stings) than the messages originally being used. These results are being presented at the meetings of the Gerontological Society of America in Fall 2010 and will be submitted for publication.

The second experiment, which is underway, is designed to test additional elements of the peer-to-peer counseling process; the use of follow-up reminder cues (delivered automatically) and the use of language in the fraud prevention message scripts, asking the caller to listen to marketing messages with an analytical versus emotional mindset.

Events, Lectures, Forums:

June 2010 – The Center was an invited participant in an expert meeting on Research Issues in Elder Mistreatment and Abuse and Financial Fraud, convened by the National Academies of Sciences' Committee on National Statistics, sponsored by the National Institute on Aging. Laura Carstensen and Martha Deevy, along with collaborators from AARP and FINRA, presented the state of current research efforts in the area of Financial Fraud as well as incidence rates and intervention/prevention techniques. NIA's primary interest is to advance research in the field and the final report noted that financial fraud was one area warranting further research attention. "Financial fraud was identified as a significant problem with too little research being conducted on determining detection and prevention strategies." Bethesda, MD

June 2010 – Margaret Dyer-Chamberlain participated in an invited FINRA symposium on "Using Social Media and Social Marketing to Improve Financial Education" at the Amos Tuck School of Business Administration at Dartmouth College, Hanover, NH

Stanford Affiliate Research Contributions

OLDER INVESTORS PRONE TO MARKET MENTAL MISFIRES, February 2010



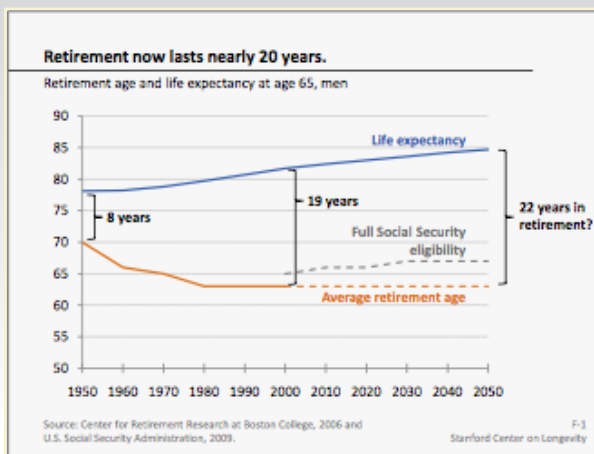
When it comes to making risky financial investments, an older mind is likely to make more mistakes than a younger one, psychologists say in a paper in the *Journal of Neuroscience*.

Researchers led by **Brian Knutson**, Center on Longevity Affiliate and associate professor of psychology, show that older investors make more errors when picking stocks compared to younger people playing the market. And that's

not because of senility, memory lapses or other cognitive declines often associated with growing older. Instead, the problem rests with seniors' ability to estimate value, according to functional magnetic resonance imaging results.

NEW REALITIES OF AN OLDER AMERICA: Financial Security

Read New Realities of an Older America



LAY OFF THE LAYOFFS, February 2010

Center on Longevity faculty affiliate **Jeffrey Pfeffer** wrote in Newsweek about overreliance on layoffs, including their impact on longevity.



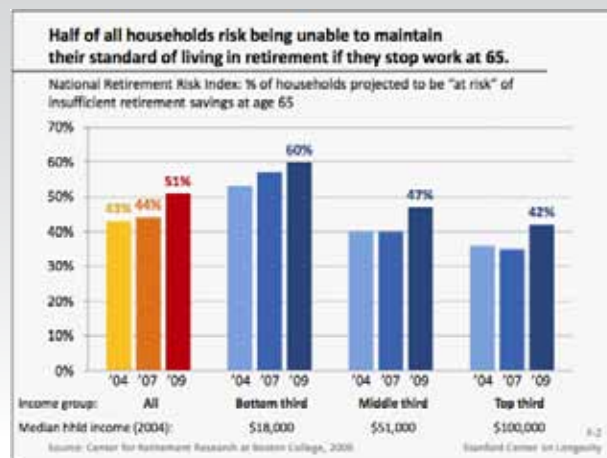
Companies have always cut back on workers during economic downturns, but over the last two decades layoffs have become an increasingly common part of corporate life—in good times as well as bad. Companies now routinely cut workers even when profits are rising. Some troubled industries seem to be in perpetual downsizing mode; the U.S. auto industry, to take just one example, has been shedding employees consistently for decades.

LOOKING FORWARD

In FY 2010-11, the Research Center for the Prevention of Financial Fraud will formally launch its website and convene its inaugural conference. The conference will focus on the identification of the ongoing research agenda for the Center, as the collaboration works to solve financial fraud issues.

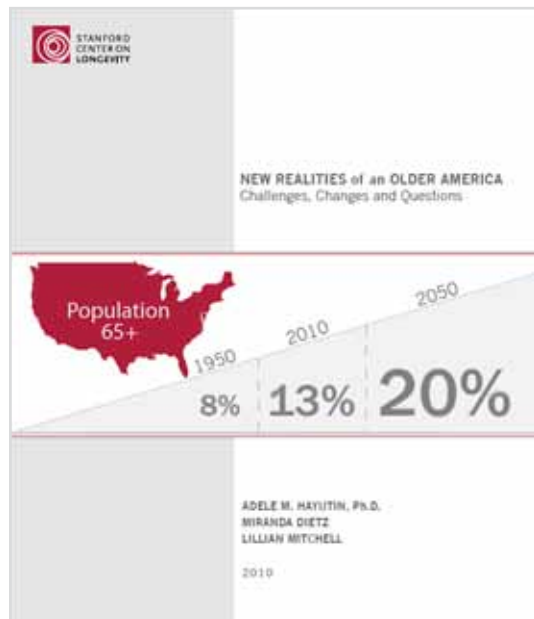
NEW REALITIES OF AN OLDER AMERICA: Financial Security

Read *New Realities of an Older America*



GLOBAL AGING

2009 – 2010 Projects



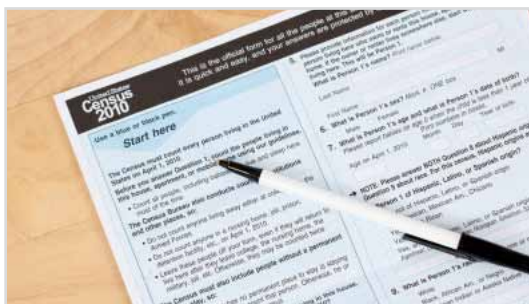
NEW REALITIES OF AN OLDER AMERICA PUBLICATION, July 2010

The challenges of baby boomers reaching old age, combined with a growing, more diverse population, will drive major changes, challenges and decisions in U.S. families, workplaces and communities. Even though many of these changes could have been anticipated, the United States has continued to rely on social and economic policies and practices that were designed for a more youthful population.

NEW REALITIES OF AN OLDER AMERICA: Challenges, Changes, and Questions provides an overview, a framework for thinking about each trend, and comparative perspectives on changes over time and across age groups. This comparative perspective raises many questions about how these changes might unfold in unexpected ways.

“As someone who spends a lot of time poring over research studies, it is invaluable to have the major trends captured in a single report,” said U.S. News and World Report’s Phillip Moeller. “Better still, its authors – Adele M. Hayutin, Miranda Dietz, and Lillian Mitchell – not only summarize what we know about these new realities but pose a lot of the big questions asking how we’re going to deal with them.”

“Soon, our nation will have more old people than children,” said Adele M. Hayutin PhD, senior research scholar and director of the Center’s Global Aging Program, which developed the report. “Our economic prospects depend, in large measure, on how well our leaders – in government, business and communities across the nation – incorporate these tremendous population shifts into their policies and business plans.”



LOOKING FORWARD FROM THE CENSUS – San Jose Mercury News Op-Ed by Adele Hayutin – March 2010

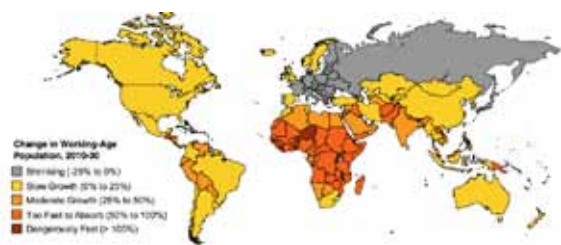
Many people think the U.S. is in trouble because of aging baby boomers. Actually, Global Aging Program director and economist Adele Hayutin argued in a San Jose Mercury News op-ed, the country is younger than other large economies, but needs to be prepared to capitalize on this competitive advantage.

“For sure, the American baby boomers turning 65 will compel enormous and potentially disruptive changes. But our relatively stable age structure should be able to support necessary economic and social adjustments,” she wrote.

[Read the op-ed](#) ►

POPULATION REFERENCE BUREAU COLLABORATION - Index of Elderly Well-Being

The Center continued its collaboration with the Population Reference Bureau (PRB) to develop an index that will provide a cross-national comparative measure of well-being for older people. Initially this index and underlying indicators and sub-indices will facilitate comparison across more than a dozen countries for which data are currently available, with other countries added as data become available. The methodology for the index was designed by PRB, with extensive input from an interdisciplinary advisory committee providing both expertise in index creation and an important “user perspective.” The index, sub-indices, and indicators will all be released in downloadable spreadsheets complete with technical documentation. Data allowing within country and sub-population comparisons will also be made available wherever such data exist. In addition to creation of this database, other important outputs of the project will include factsheets, various reports and journal articles, a policy seminar, and presentations to academic, business and policy audiences.



George P. Shultz

STRATEGIC CHALLENGES OF DEMOGRAPHIC SHIFTS

The Global Aging program continues to collaborate with [George Shultz](#), former U.S. Secretary of State and current Distinguished Fellow at Stanford’s [Hoover Institution](#), analyzing particular political and economic challenges related to demographic shifts, especially aging workforces and potentially shrinking workforces. Issues to be addressed include the role of immigration, science and technology education, and innovation policy as “solutions” to mitigate the economic impacts of slower growing workforces.

Other Reports

The Global Aging program also completed the following reports in 2009-10:

“Population Age Shifts Will Reshape Global Workforce,”
July 2010

Four-page graphic display including world maps and individual country charts comparing workforce growth around the world.

“Population Aging Will Reshape Global Economics and Geopolitics,” May 2010

Four-page graphic overview of how population aging differs around the world.



Adele Hayutin

Events, Lectures and Forums

A selection of Adele Hayutin’s recent presentations

May 2010 – Presentations at interdisciplinary conference on Health Care & the Elderly: “Immigration and Increasing Diversity in the Older U.S. Population” and “Global Aging and the Challenges Ahead.” Organized by the Stanford Geriatric Education Center of the Stanford School of Medicine and sponsored by the Catalan Observatory at Stanford and the Silicon Valley Council on Aging, Stanford, CA

August 2010 – Participation in two Institute for the Future Expert Workshops, one on the Future of Science, Technology and Well-Being (April 2010) and one on the Future of Diversity and Healthcare, Palo Alto, CA

August 2010 – Lecture titled “Aging as a Feminist Issue,” San Francisco, Commonwealth Club Forum, San Francisco, CA

Stanford Affiliate Research Contributions

STANFORD CENTER FOR POPULATION RESEARCH

The **Stanford Center for Population Research** facilitates research and training in population studies. Core research themes include formal demography, biodemography (including genetics), economic demography, human evolution, cultural and intergenerational processes, and mortality and international health. The center supports collaborations among Stanford researchers in the social and biological sciences that advance demographic research and fosters links and collaborations in population studies between researchers at Stanford and at population centers around the world. This Center was formally created in 2008 as an affiliate of the Stanford Institute for Research in the Social Sciences (IRiSS). Faculty director and Center on Longevity Affiliate **Shripad Tuljapurkar** is Morrison Professor of Population Studies and Professor of Biology.



Shripad Tuljapurkar

will

AMERICANS MAY LIVE LONGER AND COST MORE, December 2009

Americans may live significantly longer in the future than current U.S. government projections, and that could mean sharply higher costs than anticipated for Medicare and other programs.

In a report published by the **MacArthur Research Network on an Aging Society**, researchers say that by 2050 Americans may live as much as eight years longer than government forecasts and that spending by Medicare and Social Security could rise by \$3.2 trillion to \$8.3 trillion above current projections.

"If we're right, we've got a problem," Dr. Jack Rowe, Chair of the MacArthur Network and Chair of the Center on Longevity's Advisory Board, indicated.

U.S. government projections understate increases in life expectancy because they assume improvements in mortality in the coming decades will decelerate, the researchers said.

LOOKING FORWARD

A paper on the Index of Elderly Well-Being has been accepted for presentation at three professional association annual meetings being held in Fall 2010: the Gerontological Society of America (GSA), the Association of Public Policy and Management (APPAM) and the Southern Demographic Association (SDA). The final report will be completed by early 2011.

THE MACARTHUR FOUNDATION
RESEARCH NETWORK
ON AN AGING SOCIETY

POLITICS, SCHOLARS & THE PUBLIC

2009 – 2010 Projects

LISTENING TO OLDER AMERICANS – Health Security Project on Medicare

With funding from the Stephen Bechtel Fund, this project was the second in the Center's Health Security series. The project was a collaboration with **Alan Garber**, Center on Longevity Faculty Steering Committee member and Professor of Medicine, and the staff of the Stanford Center for Health Policy, as well as Geoff Garin and Molly O'Rourke from Peter D. Hart and Associates and Vince Breglio of Wirthlin Worldwide. This project focused on the views of older American voters on health care reform and Medicare.



It began with a thorough analysis of the 2008-2010 health care debate as it related to older Americans. Next, focus groups with older voters in Cleveland, Ohio were used to refine and revise the framing of substantive questions related to Medicare. In September 2010, an online research survey was administered to a representative sample of 600 Americans aged 55 to 79.

Not surprisingly, high numbers of participants expressed concern about Medicare solvency. The respondents were queried about whether they thought the new health care bill would improve solvency in the Medicare program. Only a small minority thought that the bill would help with this challenge. The survey asked three questions about managing health care for seniors, and three questions about controlling Medicare costs. Responses to these questions indicated that older Americans are interested in new ideas about how to better manage health care, particularly in terms of developing “medical team shops” (where physicians coordinate patient treatments) and about options with other health care professionals to increase home health care. Respondents were far less approving of options that included raising the Medicare eligibility age to 67, using income means testing for Medicare benefits or providing Medicare benefits through a health care voucher system.



PLANNING TO STAY: NEW VISIONS FOR AGING IN PLACE

Over the last year, the **Communities** project has been defining a research agenda surrounding aging in place issues, community indicators, and integrated delivery of services. In December of 2009, the Center embarked on a book project entitled **Planning to Stay: New Visions for Aging in Place**, which was submitted to the University of Texas Press in October 2010. This

multi-author volume was edited by Henry Cisneros, Margaret Dyer-Chamberlain and Jane Hickie; it features chapters by Laura Carstensen and Adele Hayutin. The forward was written by Jack Rowe.

The book project focuses on the fact that we do not have enough affordable, appropriate housing or supportive communities to meet the needs of the projected population of older Americans. The intersection of demographic, financial and political realities ensures difficult choices and new opportunities. The issues to be resolved are vast, complex and unavoidable. Lead funding for the project was provided by the MacArthur Foundation Research Network on an Aging Society. Additional support was provided by the MetLife Foundation, the Home Depot Foundation and the Federal Home Loan Mortgage Corporation. All proceeds from the sale of the book will be directed to the Stanford Center on Longevity.

Events, Lectures, Forums:

May 2010 – Jane Hickie attended the Congress on New Urbanism, Atlanta, GA

May 2010 – Margaret Dyer-Chamberlain was an invited presenter to the Stanford Professionals in Real Estate (SPIRE) related to the Planning to Stay project, as well as to the TIPS staff group at Stanford, Stanford, CA



From left: Henry Cisneros and Jack Rowe

Stanford Affiliate Research Contributions

LETTER TO PRESIDENT OBAMA, November 2009



Health reform legislation should include provisions to lower costs and reduce long-term deficits, said a letter to President Obama from a group of the nation's leading health economists, including four Center on Longevity faculty affiliates.

"... we write as economists to stress the potential benefits of health reform for our nation's fiscal health, and the importance of those features of the bill that can help keep health care costs under control," the affiliates wrote.

Center on Longevity Affiliates **Victor Fuchs**, PhD, **Alan Garber**, MD, PhD, and **John Shoven**, PhD, joined with 20 other economists from across the nation signing the letter.

One feature they endorsed was a creation of an independent Medicare commission to develop and recommend plans to extend the program's solvency and improve quality of care. "Rising Medicare expenditures pose one of the most difficult fiscal challenges facing the federal government," the letter states. "Medicare is technically complex and the benefits it underwrites are of critical importance to tens of millions of seniors and Americans with disabilities."

WHO SUPPORTS HEALTH REFORM? January 2010

Center on Longevity faculty affiliates **David Brady** and **Daniel Kessler** reported on their study that surveyed Americans about their willingness to pay for health reform.



From left: Daniel Kessler and David Brady

In this article, they reported results from a new study that surveyed a large, national sample of American adults about their willingness to pay for health reform. As in previous work, they found that self-identified Republicans, older Americans, and high-income Americans are less supportive of reform. However, these basic findings mask three important features of public opinion. First, income has a substantial effect on support for reform, even holding political affiliation constant. Indeed, income is the most important determinant of support for reform. Second, the negative effects of income on support for reform begin early in the income distribution, at annual family income levels of \$25,000 to \$50,000. Third, although older Americans have a less favorable view of reform than the young, much of their opposition is due more to dislike of large policy changes than to reform per se.

NEW PRIORITIES FOR FUTURE BIOMEDICAL INNOVATIONS, August 2010

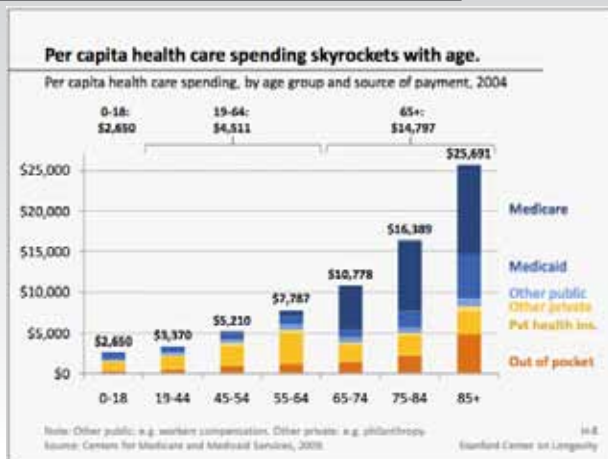


Americans' quality of life. As Americans live longer and collect more entitlements, Fuchs writes, the United States needs to shift its focus to value-conscious biomedical innovation that aims to improve the quality of life.

Commentary in the New England Journal of Medicine by Center on Longevity affiliate Victor Fuchs PhD focused on making biomedical innovation value-conscious and committed to improving older

NEW REALITIES OF AN OLDER AMERICA: Health Care Costs

Read *New Realities of an Older America*



LOOKING FORWARD

Planning to Stay Project

The Planning to Stay manuscript is planned for submission in October 2010, and for publication in 2012. Plans are underway to broadly communicate the important themes of the book, and to advance the research agenda that it defines.

Health Security Project

The Medicare Project's findings will be communicated widely in Spring 2011, and results will be used to plan further projects in the health security area. Generous support of the Stephen Bechtel fund makes this work possible.

RESEARCH

Faculty Research and Postdoctoral Fellows: Seeding the Future

Faculty Seed Grants

Through seed grants to Stanford faculty, the Center on Longevity provides university research awards of as much as \$50,000 for a year. These research projects, which are selected from applications from across Stanford, focus on solutions to improve life at all ages. The Center's goal is for studies funded by these awards to attract support from external sponsors or have tangible impacts in the public or private sector. Like the Center itself, these seed grants span a wide spectrum – and serve as building blocks for strengthening mind, mobility and financial security.

SEEDING THE FUTURE: MIND

LONGEVITY AND HEALTH IMPACT OF GARDENING

Jay Bhattacharya, School of Medicine

Dena Bravata, School of Medicine



COGNITIVE EFFECTS OF DISRUPTED STRUCTURAL AND FUNCTIONAL CONNECTIVITY IN THE AGING BRAIN

Michael Greicius, School of Medicine

Brian Wandell, Department of Psychology

Robert Dougherty, Department of Psychology



SLEEP APNEA AND INSULIN RESISTANCE: A ROLE IN COGNITIVE DECLINE

Ruth O'Hara, School of Medicine

Natalie Rasgon, School of Medicine

Heather Kenna, School of Medicine



PATHOGENESIS OF ACCELERATED VASCULAR AGING: INSULIN RESISTANCE AND CHRONIC KIDNEY DISEASE AS MODEL SYSTEMS

Alan Pao, School of Medicine

Sun Kim, School of Medicine

Glenn Chertow, School of Medicine

Gerald Reaven, School of Medicine



SEEDING THE FUTURE: MOBILITY

DEVELOPING AND TESTING A DEVICE TO REDUCE FALLING

Thomas Andriacchi, School of Engineering



RESTORING FITNESS AND EXTENDING LIFE SPAN IN A MAMMALIAN MODEL OF AGING

Steven Artandi, School of Medicine



DRUG DELIVERY MICROPUMP FOR REJUVENATION OF MUSCLE STEM CELL FUNCTION ON OLD MICE

Helen Blau, School of Medicine

Juan Santiago, School of Engineering



ROLE OF MIRNA'S IN T-CELL AGING AND THYMIC INVOLUTION

Chang-Zheng Chen, School of Medicine

AN INVESTIGATION OF PHYSIOLOGICAL MECHANISMS UNDERLYING HEALTH BENEFITS OF TAI CHI

Jessica Rose, School of Medicine

Scott Atlas, School of Medicine

Gary Glover, School of Medicine

Catherine Chang, School of Engineering

Dennis Grahn, School of Medicine

Vinh Cao, School of Medicine



SEEDING THE FUTURE: FINANCIAL SECURITY

FINANCIAL IMPLICATIONS OF HEALTH PLAN CHOICES: THE CASE OF MEDICARE PART D PRESCRIPTION DRUG PLANS

Kate Bundorf, School of Medicine

Jay Bhattacharya, School of Medicine

Rui Mata, Department of Psychology

Michael Schoenbaum, National Institute of Mental Health



HEALTH REFORM IN THE U.S. FROM THE 1990S TO 2009-2010

Daniel Kessler, School of Law

David Brady, Graduate School of Business



Postdoctoral Fellowships

The Center's post-doctoral fellowships reflect the complex, interrelated challenges of aging. New medical treatments will have limited impact if most people cannot afford them. Therefore, research on longevity must encompass different fields of study and encourage cooperation among experts who may not have worked together in the past.

Accelerating longevity research depends on supporting up-and-coming young scientists. The Center currently has six postdoctoral fellows. Fellows are selected based on overall scientific merit of their projects, as well as clarity and persuasiveness. Training potential is assessed based on the opportunity for Fellows to experience strong mentoring, an excellent training environment, and engagement in interdisciplinary research relevant to longevity.

ENGINEERING A CELL CYCLE COUNTER TO STUDY REPLICATIVE AGING

Jerome Bonnet, School of Medicine

OWING IT TO YOURSELF: EXPLORING THE EFFECTIVENESS OF DUTY-BASED ARGUMENTS IN MOTIVATING RETIREMENT SAVING

Christopher Bryan, Department of Psychology

ADDRESSING THE CHALLENGE OF GLOBAL POPULATION AGING: THE EFFECT OF AGE ON IMMUNE RESPONSE TO TB INFECTION

Alicia Chang, School of Medicine

HIGH THROUGHPUT MULTIPARAMETER ANALYSIS OF HUMAN IMMUNE RESPONSES TO INFLUENZA VACCINATION

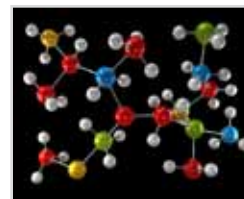
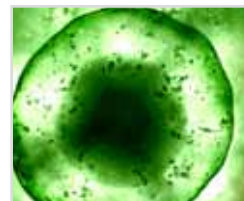
David Furman, School of Medicine

A MOLECULAR ODOMETER FOR AGING

Adolfo Sanchez-Blanco, School of Medicine

UNDERSTANDING CELLULAR RENEWAL AND AGING IN KIDNEY EPITHELIUM

Marina Shkreli, School of Medicine



PEOPLE

Leadership

Laura L. Carstensen, PhD, Director

Laura Carstensen is Professor of Psychology at Stanford, where she is also the Fairleigh S. Dickinson Jr. Professor in Public Policy. For more than 20 years her research has been supported by The National Institute on Aging, and in 2005 she was honored with a MERIT award. Carstensen is best known for socioemotional selectivity theory, a life-span theory of motivation. With her students and colleagues, she has published well over 125 articles on life-span development. In 2009, she authored *A Long Bright Future: An Action Plan for a Lifetime of Happiness, Health, and Financial Security*.

Dr. Carstensen's most current research focuses on ways in which motivational changes influence cognitive processing. She is a fellow in a number of professional organizations, including the Association for Psychological Science, the American Psychological Association and the Gerontological Society of America. She serves on the Board of Science Advisors to the Max Planck Institute for Human Development in Germany and has chaired two studies for the National Academy of Sciences, resulting in *The Aging Mind* and *When I'm 64*. She is a member of the MacArthur Foundation's Research Network on an Aging Society.

She has been selected as a Guggenheim Fellow and received the Richard Kalish Award for Innovative Research, the Distinguished Career Award from the Gerontological Society of America, and Stanford's Dean's Award for Distinguished Teaching. She received a BS from the University of Rochester and PhD in Clinical Psychology from West Virginia University.

Thomas A. Rando, MD, PhD, Deputy Director

Tom Rando is Professor of Neurology and Neurological Sciences at Stanford. He is also Chief of Neurology and Director of the Rehabilitation Research & Development Center of Excellence at the Veterans Affairs Palo Alto Health Care System. He is a founding director of the Muscular Dystrophy Association clinic at the Stanford Medical Center.

Dr. Rando's research focuses on tissue-specific stem cells in aging and disease, and on pathogenetic mechanisms and gene therapy for muscular dystrophies. His research on aging has demonstrated that it is possible to identify biochemical stimuli that can induce stem cells in old tissues to repair injuries as effectively as in young tissues, and this work has broad implications for the fields of regenerative medicine and stem cell transplantation.

He is a member of several professional societies, including the American Neurological Association. He is a former Paul Beeson Physician Faculty Scholar in Aging awarded by the American Federation for Aging Research and a former Ellison Medical Foundation Senior Scholar in Aging. In 2005, he received an NIH Director's Pioneer Award for his groundbreaking research in stem cell biology. He received a BA from Harvard College, MD from Harvard Medical School and PhD in Cell and Developmental Biology from Harvard University.



Staff

Jill Chinen, Assistant to the Director

Jill Chinen coordinates the logistics for the Director's speaking engagements, conference, and events. She joined Stanford University's administrative staff in 2003. She has a Master's degree in education as well as a Certificate from the Japan-America Institute of Management Science.

Martha Deevy, MBA, Senior Research Scholar

Martha Deevy focuses on the Center's business strategy and key partnerships, and leads the Center's financial security work. She has more than 20 years of management experience in Silicon Valley technology and financial services companies in senior executive positions at Apple, Charles Schwab and Intuit. She received a BA from the University of Illinois and MBA in finance and management information systems from the University of Minnesota.

Miranda Dietz, Research Assistant

Miranda Dietz works primarily with the Global Aging team researching demographic and economic trends, analyzing data, and writing and editing reports and briefings. She was a co-author of the Center's New Realities of an Older America: Challenges, Changes and Questions report. She received a BA in government from Harvard.

Margaret Dyer-Chamberlain, MALD, Managing Director & Senior Research Scholar

Margaret Dyer-Chamberlain develops research and educational programs, securing funding for Center programs, assisting in cultivation of donors, and overseeing staff and consultants. She is former senior director of capital planning and space management at Stanford and associate provost at Dartmouth College. She received a BA from Smith College and Master of Arts in Law & Diplomacy from the Fletcher School of Law and Diplomacy at Tufts University.

Jill Fattor, Research Assistant

Jill Fattor works primarily on mobility-related issues, conducting background research, organizing conferences, and assisting with studies. She has extensive background in human performance, with a BS from University of Colorado at Boulder in Kinesiology and an MS in Exercise and Sports Science from the University of Utah.

Adele Hayutin, PhD, Director, Global Aging Program & Senior Research Scholar

Adele Hayutin focuses on economic and policy implications of global demographic change. During a 20-year career as a business economist, she specialized in trends affecting business investment strategy. She was chief economist of the Fremont Group (formerly Bechtel Investments), senior real estate analyst at Salomon Brothers and director of research at RREEF. She received a BA from Wellesley College, and MPP in public policy and PhD in economics from the University of California, Berkeley.

Jane Hickie, JD, Director, Politics, Scholars and the Public Program & Senior Research Scholar
Jane Hickie leads the Center's work to inform policy decisions that impact longevity. She formerly led the government relations practice at Public Strategies Inc., was a partner in the law firm of Verner, Lipfert, Bernhard, McPherson and Hand, and served as director of the Texas Office of State and Federal Relations and director of Appointments to Boards, Commissions and the Judiciary for the Office of the Governor. She received a BA from Mount Holyoke College and JD from the University of Texas.

Lillian Mitchell, Research Assistant

Lillian Mitchell supports the Global Aging and the Politics, Scholars, and the Public programs. In 2009 and 2010 she worked on the New Realities report and Planning to Stay book project. Her contributions range from policy analysis to data visualization. She joined the Center in 2008 after receiving a BA in human biology from Stanford.

David Pagano, Webmaster

David Pagano manages the Center website, coordinates online outreach efforts and designs materials that help inform audiences about the Center's work and longevity issues. He joined the Center in 2006. He studied at the University of Oregon and San Francisco State University.

Chris Peacock, Director, Communications and Public Affairs

Chris Peacock is responsible for communicating with media, opinion leaders and policy makers about the Center. He has developed communications and marketing programs in the corporate, foundation and government worlds, including serving as a communications advisor to the secretaries of Treasury and Health & Human Services, the Henry J. Kaiser Family Foundation, Silicon Valley Community Foundation and Cisco Systems Inc. He received a BA from Washington & Lee University.

Ken Smith, MS, Director, Academic and Research Support & Senior Research Scholar

Ken Smith focuses on the identification and management of key research areas and opportunities for the Center, and works closely with faculty affiliates to determine where Stanford expertise can best be used to drive change. He has more than 20 years of management and engineering experience encompassing positions in the computing, aerospace and solar energy industries, including Intel Corporation's network of university research labs. He received a BS from the University of Illinois and MS in engineering from the University of Washington.

Sharon Vazquez, Administrative Assistant

Sharon Vazquez is the administrative associate for the Center on Longevity. She has been at Stanford since 1995, working at the Hoover Institution and the Graduate School of Business School before arriving at the Center in June 2007. She attended Ohlone College in Fremont, CA.



External Advisory Council

The External Advisory Council helps advise and guide the Center by providing informed external perspective on goals, priorities and programs, and by advocating on the Center's behalf beyond the Stanford community. The Council meets annually on the Stanford campus.

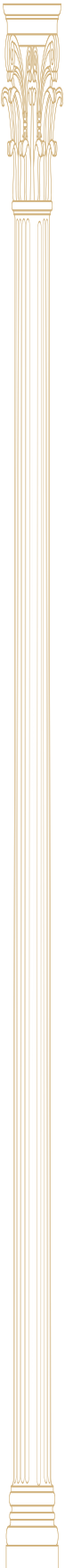
John W. Rowe, Council Chair, Professor, Columbia University Mailman School of Public Health
Jack Rowe is a professor in the Department of Health Policy and Management at the Columbia University Mailman School of Public Health. Previously, he served as chairman and CEO of Aetna Inc., one of the nation's leading health care and related benefits organizations, from 2000-2006. He received an MD from the University of Rochester School of Medicine and Dentistry and BS from Canisius College.

Katherine August-deWilde, President and Chief Operating Officer, First Republic Bank
Katherine August-deWilde has been an executive with First Republic Bank since 1985. First Republic, a private bank and wealth management company, is a wholly owned subsidiary of Merrill Lynch Bank and Trust. She received an AB from Goucher College and MBA from Stanford.

Pat Christen, President and CEO, HopeLab
At HopeLab, Pat Christen engages a multidisciplinary team developing products and practices that improve the lives of young people with chronic illness. She has written, studied and lectured on social and health issues in the United States and abroad, and is a member of the Young Presidents' Organization. She received a BA from Stanford.

Lawrence Hershfield, Chief Executive Officer, Ranch Capital
Larry Hershfield is chief executive officer of Ranch Capital, a private equity firm he founded in 2002, and is chairman of Hawaiian Holdings, the parent company of Hawaiian Airlines, and chairman of Premier Entertainment Biloxi, which owns the Hard Rock Hotel and Casino in Biloxi, MS. He received a BS from Bucknell University and MBA from Stanford.

Donald Kennedy, President Emeritus, Stanford University
In addition to serving as President Emeritus of Stanford, Donald Kennedy is Bing Professor of Environmental Science, Emeritus and, by courtesy, a senior fellow of the Center for Environmental Science and Policy. He received an AB and PhD in biology from Harvard University.



Scott W. Kerslake, President, prAna

Scott W. Kerslake is president of prAna, a leading consumer brand in yoga, rock climbing and active outdoor living, and maintains ownership of Carrot Centers for Brain and Body Vitality, a progressive wellness organization focused on helping people over 50 age optimally. He received a BA from Boston College.

Irene Mecchi, Writer

Irene Mecchi is an American writer who has written for print, television, live-action film and theatre. Her feature film writing credits include Disney's *The Lion King*, *The Hunchback of Notre Dame* and *Hercules*. Mecchi received a BA from the University of California, Berkeley and continued her studies at the American Conservatory Theatre in San Francisco.

Thomas E. Moore III, Director, Barclays Wealth

Thomas Moore is a director with Barclays Wealth, specializing in advising wealthy families, foundations and charitable organizations on investment and financial matters. He has more than 25 years of banking and investment experience. He received a BA from Stanford University.

George P. Shultz, Former U.S. Secretary of State

George Shultz has had a distinguished career in government, academia and business. He held four different cabinet posts, taught at three of United States' greatest universities, and was president of a major engineering and construction company. He received a BA from Princeton University and PhD in industrial economics from MIT.

Norman H. Volk, Chairman, The John A. Hartford Foundation

Norman Volk has been a member of the board of The John A. Hartford Foundation, the nation's leading private funder of education and training in aging and health, since 1979, and was elected president in 1997 and chairman in 2002. He has been president of Chamberlain & Steward Associates, Ltd., an asset advisory firm, since 1985. He received a BA from Indiana's Valparaiso University, MA from Marquette University in Milwaukee and Honorary Doctor of Law Degree from Valparaiso.

David A. Wise, Professor Emeritus, Harvard University Kennedy School of Government

David Wise is John F. Stambaugh Professor of Political Economy, Kennedy School of Government at Harvard University, and he directs a large project on the economics of aging and health care at the National Bureau of Economic Research. He has an MA in statistics and PhD in economics from the University of California, Berkeley.



Faculty Steering Committee

The Faculty Steering Committee provides guidance for the Center's research agenda and helps identify and engage faculty from across Stanford whose research can help meet the challenges of an aging population.

Thomas Andriacchi, PhD, Professor of Mechanical Engineering and Orthopaedic Surgery

Tom Andriacchi's research focuses on the biomechanics of human locomotion and its biomedical applications to artificial joints, sports injury, osteoarthritis and neuromuscular disorders.

William Damon, PhD, Professor of Education

Bill Damon, director of the Stanford Center on Adolescence, studies moral development through the life-span. He has begun a study on the development of purpose during adolescence and is conducting research on how young professionals can learn to do work that is both highly masterful and highly moral.

Alan M. Garber, MD, PhD, Professor of Medicine/Economics/Health and Research Policy

Alan Garber is director of the Center for Health Policy/Center for Primary Care and Outcomes Research. His research focuses on methods for improving health care delivery and financing, particularly for the elderly, in settings of limited resources.

Larry Kramer, JD, Dean, Stanford Law School/Professor of Law

Larry Kramer's work is directed toward state-state and state-federal conflict of laws, federalism and its history, and the role of courts in society.

Iris F. Litt, MD, Professor Emerita of Pediatrics

Iris Litt is director of the Center for Advanced Study in the Behavioral Sciences. Her research focuses on health problems of adolescent women, in particular the interaction of psychosocial phenomena with biologic features of the second decade of life, including the effects of eating disorders.

Pamela Matson, PhD, Dean, School of Earth Sciences/Professor of Environmental Studies

Pam Matson's research focuses on biogeochemical cycling and land/water interactions in tropical forests and agricultural systems, and on sustainability science.

Margaret Neale, PhD, Professor of Organizations and Dispute Resolution, Graduate School of Business

Maggie Neale studies negotiation and team performance; judgment and decision-making research from cognitive psychology to the field of negotiation; cognitive and social processes that produce departures from effective negotiating behavior.

John Shoven, PhD, Professor of Economics

John Shoven is director of the Stanford Institute for Economic Policy Research. His research focuses on tax policy, Social Security and savings patterns, focusing on private and public sector policies that can be changed for the better.





Faculty Affiliates

Jennifer Aaker, PhD - Professor of Marketing
Hamid Aghajan, PhD - Professor of Electrical Engineering
Scott Atlas, MD - Professor of Radiology
Thomas Andriacchi, PhD - Professor of Mechanical Engineering/Orthopaedic Surgery
Steve Artandi, MD, PhD - Assistant Professor of Medicine
Jeremy Bailenson, PhD - Assistant Professor of Communication
Albert Bandura, PhD - Professor Emeritus of Psychology
Clifford Barnett, PhD - Professor Emeritus of Anthropological Science
Jonathan Berger, PhD - Professor in Music
B. Douglas Bernheim, PhD - Professor of Economics
Jay Bhattacharya, MD, PhD - Associate Professor of Medicine
Coit Blacker, PhD - Professor of Political Science
Helen Blau, PhD - Professor of Medicine
Walter Bortz, MD - Adjunct Clinical Associate Professor of Medicine
Gordon Bower, PhD - Professor Emeritus of Psychology
David Brady, PhD - Professor of Political Science
Anne Brunet, PhD - Assistant Professor of Genetics
Kate Bundorf, MBA, MPH, PhD - Assistant Professor of Health Research and Policy
Chang-Zheng Chen, PhD - Professor of Microbiology/Immunology
C. Page Chamberlain, PhD - Professor of Environmental Earth System Science
Glenn Chertow, MD, MPH - Professor of Nephrology
Katrín Chua, MD, PhD - Assistant Professor of Medicine
Karen Cook, PhD - Professor of Sociology
Linda Cork, PhD - Professor of Comparative Medicine
William Damon, PhD - Professor of Education
Scott Delp, PhD - Professor of Mechanical Engineering/Orthopaedic Surgery
Carol Dweck, PhD - Professor of Psychology
Harry Elam, Jr., PhD - Professor of Drama
Alain Enthoven, PhD - Professor Emeritus of Public and Private Management
James Fishkin, PhD - Professor of International Communication/Political Science
Mike Fredericson, MD - Professor of Orthopaedic Surgery

Lawrence Friedman, JD - Professor of Law
James Fries, MD - Professor of Immunology and Rheumatology
Victor Fuchs, PhD - Professor Emeritus of Economics
Dolores Gallagher Thompson, MD - Professor of Medicine Alan Garber, MD, PhD - Professor of Medicine/Economics/Health and Research
Christopher Gardner, PhD - Associate Professor of Medicine
Gary Glover, PhD - Professor of Radiology/Electrical Engineering/Psychology
Garry Gold, MD - Associate Professor of Radiology
Jeremy Goldhaber-Fiebert, PhD - Assistant Professor of Medicine
Mary Goldstein, MD - Professor of Medicine
Stuart Goodman, MD - Professor of Orthopaedic Surgery/Orthopaedics
Ian Gotlib, PhD - Professor of Psychology
Hank Greely, JD - Professor of Law
Harry Greenberg, MD - Professor of Medicine
Michael Greicius, MD, MPH - Assistant Professor of Neurosurgery
James Gross, PhD - Professor of Psychology
William Haskell, MD - Professor of Medicine
Albert Hastorf, PhD - Professor Emeritus of Human Biology and Psychology
Cathy Heaney, PhD - Associate Professor of Psychology and Medicine
H. Craig Heller, PhD - Professor of Biological Sciences
Stefan Heller, PhD - Professor of Otolaryngology
Victor Henderson, MD - Professor of Health Research and Policy/Neurology/Neurological Sciences
Andrew Hoffman, MD - Professor of Medicine
Ron Howard, PhD - Professor of Management Science/Engineering
Ting-Ting Huang, PhD - Assistant Professor of Neurology and Neurological Sciences
James Holland Jones, PhD - Assistant Professor of Anthropological Sciences
Laurence Katznelson, MD - Assistant Professor of Neurosurgery/Medicine
Daniel Kessler, JD, PhD - Professor of Management/Law/Health Research and Policy
Mark Kelman, JD - Professor in Law
Stuart Kim, PhD - Professor of Developmental Biology/Genetics/Chemical and Systems Biology



Sun Kim, MD - Assistant Professor of Medicine
Abby King, PhD - Professor of Health Research and Policy/Medicine
Scott Klemmer, PhD - Assistant Professor of Computer Science
Brian Knutson, PhD - Associate Professor of Psychology
Frederic Kraemer, MD - Professor of Endocrinology
Larry Kramer, JD - Dean, School of Law
Roderick Kramer, PhD - Professor of Organizational Behavior
Eswar Krishnan, MD, M.Phil - Assistant Professor of Medicine
Jon Krosnick, PhD - Professor of Communication
John Krumboltz, PhD - Professor of Education/Psychology
Larry Leifer, PhD - Professor of Mechanical Engineering
Marc Levenston, PhD - Associate Professor of Mechanical Engineering
Iris Litt, PhD - Professor Emerita of Pediatrics
James Lock, MD, PhD - Professor of Psychiatry and Behavioral Sciences
Kate Lorig, PhD - Professor of Medicine
Bingwei Lu, PhD - Assistant Professor of Medicine
Tanya Luhrmann, PhD - Professor of Anthropology/Psychology
William Maloney, MD - Professor of Orthopaedics
Ellen Markman, PhD - Professor of Psychology
Pamela Matson, PhD - Dean, School of Earth Sciences
Yoshiko Matsumoto, PhD - Associate Professor of Japanese Language and Linguistics
Samuel McClure, PhD - Assistant Professor of Psychology
Debra Meyerson, PhD - Associate Professor of Education
Margaret Neale, PhD - Professor of Organizational Behavior
Lorene Nelson, PhD - Associate Professor of Health Research and Policy
Ruth O'Hara, PhD - Assistant Professor of Psychiatry/Behavioral Sciences
Ingram Olkin, PhD - Professor of Statistics/Education
Alan Pao, MD - Professor of Nephrology
John Pencavel, PhD - Professor of Economics
John Perry, PhD - Professor of Philosophy
Jeffrey Pfeffer, PhD - Professor of Organizational Behavior
James Phills, PhD - Associate Professor of Organizational Behavior
Peter Pompei, MD - Associate Professor of Medicine
Beth Pruitt, PhD - Assistant Professor of Mechanical Engineering
Natalie Rasgon, MD, PhD - Professor of Psychiatry and Behavioral Sciences/Obstetrics and Gynecology

Gerald Reaven, MD · Professor Emeritus of Medicine
Byron Reeves, PhD · Professor of Communication
Tony Ricci, PhD · Associate Professor of Otolaryngology
Tom Robinson, PhD · Associate Professor of Pediatrics/Medicine
William Robinson, PhD · Assistant Professor of Medicine
Jessica Rose, PhD · Professor of Orthopaedic Surgery
Lee Ross, PhD · Professor of Psychology
Kenneth Salisbury, PhD · Professor of Computer Science/Surgery
Richard Saller, PhD · Dean, School of Humanities and Sciences
Juan Santiago, PhD · Assistant Professor of Mechanical Engineering
Robert Sapolsky, PhD · Professor of Biological Sciences/Neurosciences
William F. Sharpe, PhD · Professor of Finance
Kathryn Shaw, PhD · Professor of Economics
Baba Shiv, PhD · Associate Professor of Marketing
John Shoven, PhD · Professor of Economics
Robert Lane Smith, MD · Professor of Orthopaedic Surgery/Mechanical Engineering
Samuel So, MD · Professor of General Surgery
Jeanne Tsai, PhD · Associate Professor of Psychology
Shripad Tuljapurkar, PhD · Professor of Population Studies and Biological Sciences
Anthony Wagner, PhD · Associate Professor Psychology
Michael Wald, JD · Professor of Law
Brian Wandell, PhD · Professor of Psychology/Electrical Engineering
Carol Winograd, PhD · Professor Emeritus of Medicine
Terry Winograd, PhD · Professor of Computer Science
Paul Wise, MD, PhD · Professor of Medicine
Tony Wyss-Coray, PhD · Associate Professor of Neurology/Neurological Sciences
Jerome Yesavage, MD · Professor of Psychiatry and Behavioral Sciences
Paul Yock, MD · Professor of Medicine
Jamie Zeitzer, PhD · Assistant Professor of Psychiatry and Behavioral Sciences
Stefanos Zenios, PhD · Professor of Operations, Information and Technology

Additional Academic Affiliates

Wesley Alles, MD - Senior Research Scholar

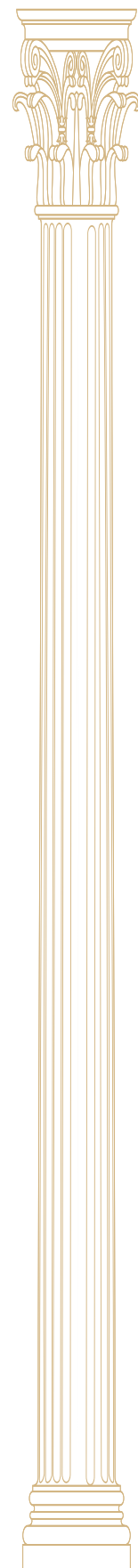
Dena Bravata, MD - Stanford Health Policy Affiliate

Karen Eggleston, PhD - Center Fellow, Freeman Spogli Institute for International Studies

Leah Friedman, MD - Senior Research Scholar

Rita Ghatak, PhD - Director, Aging Adult Services, Stanford University Medical Center

Kathryn M. McDonald - Executive Director & Senior Scholar, Center for Health Policy



ON CAMPUS



UNDERGRADUATE COURSE ON LONGEVITY

Center on Longevity Director Laura Carstensen and Deputy Director Tom Rando co-teach the Longevity course at Stanford. In this course, more than 140 students learn about the personal and societal implications of people living longer. The course explores myths and misconceptions surrounding the aging process and provides students with an informed grasp of the conceptual issues, empirical findings and current controversies in the field.

The course has three central aims:

- Help students understand why, from a biological/biomedical perspective, the population is aging and what to expect in the coming decades. Will current trends continue? How long can future generations expect to live? How are lifestyles, families and work likely to change?
- Provide students with a more realistic vision of their own futures so they can make informed life choices and plans.
- Educate future generations of citizens, who will live out their lives in societies where older people outnumber children and who will have a central hand in shaping the consequences of these unprecedented changes.

The course's multidisciplinary approach helps students understand new challenges to health care, financial markets, families, work and politics as they relate to aging and longevity. It includes lectures by Carstensen, a psychologist and life-span developmentalist, Rando, a neurologist and biogerontologist, and a range of faculty affiliates of the Center on Longevity.

UNDERGRADUATE STUDENT PRACTICUM

The Center offers a variety of projects through its student practicum, which enables students to obtain hands-on experience. The practicum is structured as an internship that involves the student in day-to-day work on Center projects. Assignments include completing literature searches, compiling articles and documents, writing summaries, and collecting and organizing data. Students work approximately nine hours per week during the 10-week quarter in the practicum and receive three credits.

WORKING TOGETHER...



The remarkable speed with which the Stanford Center on Longevity was established reflects generous seed funds from Stanford alumnus Richard Rainwater, who recognized one of the most urgent needs of our time: adapting our society to a rapidly aging population. His gift enabled the Center to begin immediately with a core staff and with key programs in place.

Going forward, the Center's work continues to benefit from individuals and organizations that recognize the importance and urgency of redesigning long life. During 2009-2010, the Center received generous funding from individual donors as well as from the AARP Foundation, the Stephen F. Bechtel Fund, the FINRA Investor Education Foundation, the MacArthur Network on an Aging Society, the Home Depot Foundation, Steelcase, the Federal Home Loan Mortgage Corporation and the MetLife Foundation. An internal Stanford grant was awarded to the Center from the Stanford Initiative on Creativity and the Arts (SiCA).

TO MEET THE CHALLENGE

Gifts help the Center embark on new research projects, develop educational programs, collaborate with faculty and disseminate research findings so they can be put into practice. To discuss opportunities for partnering with the Center, please contact:

Margaret Dyer-Chamberlain, Managing Director

Email: mdyerc@stanford.edu

Phone: (650) 736-9085

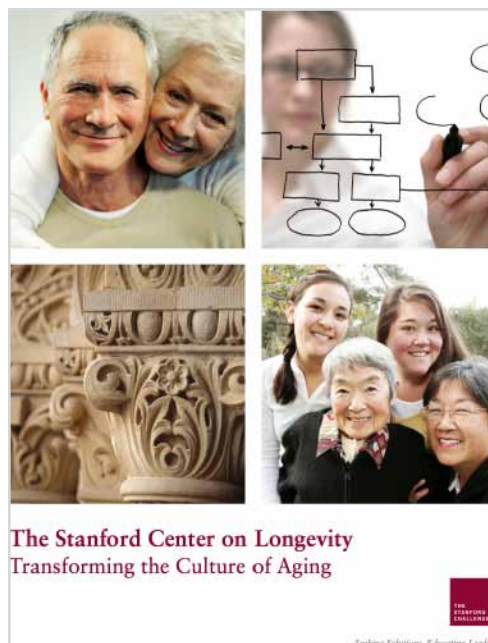
Mailing Address:

Stanford Center on Longevity

Mail Code: 6053

Stanford, CA 94305

Gifts to the Stanford Center on Longevity are tax-deductible under applicable rules. The Center is part of Stanford University's tax-exempt status as a Section 501 (c) (3) public charity.



[Download Development Brochure](#)



STANFORD
CENTER ON
LONGEVITY

By the time today's children grow old, living to **100** will be commonplace.

To the extent that individuals arrive at old age
mentally sharp, physically fit and financially secure,
societies will thrive.

The Stanford Center on Longevity
asks the **questions**, convenes the **experts** and conducts the **research**
that will help all of us – **young and old alike – prepare.**

longevity.stanford.edu

