Celebrating 1,000 Birthdays
A Personal Testimony for the “Old at Heart”

Birthdays are associated with the welcoming of new life into the world. Later in life, we associate birthdays as milestones in the aging process.

One woman, a Costa Rican midwife, has celebrated over 1,000 birthdays by serving as a guardian and deliverer of young lives into this world. For decades, Dona has emulated an inspiring image of a life filled with caring.

Preceding Dona Miriam as a midwife was her mother and grandmother. While growing up, she remembers visitors traveling to see her mother for her nursing care. While her mother was busy caring for the people of the village, young Dona Miriam would lend a helping hand and, in return, learned the invaluable skills of a midwife.

By the time she was 14 years old, she was already married. The marriage was arranged and seemed destined to last as the couple had 19 children, all of which were delivered at home by Dona herself.

As she grew older, Dona gained the responsibility of taking care of the entire village. Eventually, she provided care to surrounding villages as well.

As Dona continued to serve as the primary health care provider and midwife in her community, the Costa Rican ministry of health took notice of what she was doing to impact the health of her people. The ministry therefore trained Dona Miriam and other midwives in the practices of primary care to better ensure safe, quality health care during childbirth, infancy, and childhood.

Despite her formal training, Dona reports the majority of
the training she received was gained through observing her grandmother and mother. When asked how she learned all her remedies for various ailments she stated, “I just know. I have never been taught. I just feel.” Her care is articulated into a skillful art as demonstrated by her unique medicinal practices.

One of her most skilled methods of care is the therapeutic massages she provides to expectant mothers. By merely the use of lotion and her hands, Dona has the uncanny capability to identify both the sex and position of the infant while massaging a mother’s stomach. Moreover, she also has the ability to reposition a breech infant, thus ensuring a safer delivery for both the mother and the child. Dona’s hands relieve potential childbirth complications, but also provide comfort and reassurance during one of the most delicate parts of life.

As we gathered into the modest home of the midwife, we found ourselves in the right place at the right time as we were about to witness the fulfillment of one of Dona Miriam’s therapeutic massages. While Dona recommends a woman visit her for a consultation three times prior to delivery to receive a massage, a traditional obstetrician does not emphasize this kind of therapeutic, non-pharmacologic treatment.

During Dona’s journey of practicing as a midwife she has learned various methods of healing.

In her backyard one will find plastic crates full of home-grown medicinal herbs. One specific herb that she always grows in abundance is a special plant that purportedly rids a mother of the pain of contractions during labor.

Over the years, Dona has had a hand in what some would consider miracles. A specific and special patient of Dona’s was unsuccessful in her attempts to become pregnant. After seeking out Dona’s care, she was given a remedy consisting of an indigenous Costa Rican red root to drink with milk every day. Soon after beginning Dona’s regimen, the woman conceived a child.

The people of Costa Rica seek Dona’s care even for the “sniffles” and the “aches”. Dona recommends using urine to treat an ear infection, black shoe polish to treat a callus, and fat from the kidneys of a cow and lemon juice to make an acne cream to be applied to the face!

In present day Costa Rica, midwives can legally provide care in emergency situations only. If a woman were to turn up at Dona Miriam’s house, under law, she would have to deny the person provision of care. While the traditional
ways of the midwives are dwindling, the impact Dona Miriam has made will survive.

After our visit, Dona proceeded to the kitchen and made all of her visitors homemade Costa Rican desserts. Not only did she take care of her patient but she continued to take care of her guests. The 92–year old shared her belief with us: “Give your life for any child.”

Caring, just as aging, is a continual process. Aging and caring are both a process in which the addition of years enhances beauty and insight.

Professor Elizabeth O’Neil, Johnson School of Nursing at Purdue University, remarks on her experiences with Dona Miriam developed over years of interaction and friendship.

“Dona is a reminder that pregnancy and birth generally require minimal intervention. An advantageous lifestyle, making healthy food choices, and exercising are essential to a successful birth. Midwives such as Dona Miriam have provided quality care for mothers and genuine caring support.”

Professor O’Neil remarked that the long history and tradition of the midwife is being lost throughout the world in favor of a model of birth management. Perhaps we should heed the ways of pioneers such as Dona Miriam.

Written and experienced by Megan Klotz

Steering Committee, 2014–15

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Speech, Language, and Hearing Sciences

Jill Suitor, Ph.D.  
Professor of Sociology
On September 5th, two internationally acclaimed scholars in gerontology, S. Jay Olshansky, and Rafael de Cabo, discussed strategies to add years to life—and life to years. Approximately 120 people attended the symposium entitled Avenues to Optimal Longevity.

Olshansky, Professor of Public Health at the University of Illinois at Chicago, engaged the gathering with “forthcoming advances in the field of aging science that will transform our concepts of aging health and longevity in this century.” Olshansky challenged the idea of major extensions in life span. Early theorists observed that as we age, our risk of death increases significantly. Although the rate of increase varies by society, Olshansky and his colleagues determined that duration of life is calibrated to reproduction related to the genetic timing of maturation and menopause among species. Species with late puberty-onset and long reproduction windows generally live longer.

For example, a mouse begins puberty around 30 days of life and lives approximately 1,000 days. A human begins puberty on average between ages 12-13 years and lives 29,000 days. A sea turtle experiences maturation near the age of 50 years and lives on average for 150 years or nearly 55,000 days.

Olshansky acknowledged that continual rise in life expectancy is a beneficial trend, but noted the limits to longevity in a variety of species—and argued for more attention to quality of life. Our goal should be to help people cope with joint deterioration, loss of muscle mass, and decreases in bone mass. Olshansky paints a portrait of the human body as a machine that experiences “wear and tear” over the life course. Routine maintenance of a car extends its function, and humans can enhance function with good “maintenance.”

Olshansky also argues that a basic message of evolutionary biology is that the design of the human body is not programmed for immortality. Most scientific evidence points to about 120 years as maximum life span.

He also stressed optimizing our genetic potential for active life expectancy and that the importance in the field of aging is not extending life span but furthering the expansion of quality of life.
Rafael de Cabo, Senior Investigator in the Laboratory of Experimental Gerontology at the National Institute of Aging (and Editor, Journal of Gerontology: Biological Sciences), identified how aging is the major driving force behind all chronic disease. He proposed nutritional interventions to positively impact health and function.

Previous studies on laboratory animals show that if total caloric intake is restricted by 30-40% there is an associated increase in the mean and maximal life span, which will help postpone the onset of disease. He documented that the effects of caloric restriction on health are not as universal as some scholars contend. He extrapolated that sex, genetics, and diet composition are key factors in calculating an individual’s desired caloric intake.

A remarkable feature of de Cabo’s research at the Laboratory of Experimental Gerontology is studying dietary interventions at various levels of analyses: molecules, cells, rodents, non-human primates, and humans.

Upon conclusion of the symposium, Kenneth Ferraro, Director of the CALC, conferred the Outstanding Teaching Award to Dr. Sharon Christ, recognizing her academic excellence and devotion to her students.

The symposium began with a poster session with graduate students and post-doctoral fellows displaying research projects. Topics of posters ranged from the effect of dietary protein quantity on sleep to mothers’ relationships with twins and other offspring in later life.

The Center on Aging and the Life Course appreciates the support and sponsorship of the Department of Nutrition Science and the Purdue University Retirees Association.

To access video recordings of the proceeding from the Symposium, please visit the YouTube channel on the CALC website (www.purdue.edu/aging).
The CALC Outstanding Professor Award recognizes faculty who are excellent instructors and mentors.

Dr. Sharon Christ was named this year’s honoree at the fall 2014 symposium.

Expertise, willingness to help students succeed, and dedication are three qualities that distinguish Sharon Christ as the 2014 CALC Outstanding Professor.

Since joining Purdue in 2010, Christ has distinguished herself as a prolific author and outstanding instructor and mentor. Her vast knowledge, use of innovative statistical methods, and guidance on how to skillfully analyze data make her remarkable in the eyes of CALC graduate students.

A recent survey of Purdue graduate students identified some of her qualities:

- “Dr. Sharon Christ is an outstanding teacher—and a devoted mentor.”
- “She always makes herself available to students. She is very generous to students and self-sacrificing.”
- “Professor Christ is extremely knowledgeable about the subject matter, and always willing to help students.”

The Center on Aging and the Life Course is both honored and privileged to have dedicated professors such as Dr. Sharon Christ.

**Transitions**

**John Apolzan** (PhD ‘09) became Assistant Professor at Pennington Biomedical Research Center, Louisiana State University.

**Wai Chan** (Dual-title PhD ‘14) became a Research Associate at the Waisman Center, University of Wisconsin-Madison.

**Gulcin Con**, Sociology, was named the 2014-2015 Office of Interdisciplinary Graduate Programs (OIGP) representative for CALC.

**Elliot Friedman** was promoted to Associate Professor of Human Development and Family Studies, Purdue University.

**Jennifer Freeman** was promoted to Associate Professor of Health Sciences, Purdue University.

**Jessica Huber** was promoted to Professor of Speech, Language, and Hearing Sciences, Purdue University.

**Sarah A. Mustillo** became Professor of Sociology, University of Notre Dame.

**Jori Sechrist** (PhD ‘08) became Assistant Professor of Sociology, McMurry University.

**Nicholas Turiano** (Dual-title PhD ‘12) became Assistant Professor of Psychology, West Virginia University.

**Lori Ward** (Dual-title PhD ‘13) became Assistant Professor of Pharmacy Administration, University of Mississippi.

**David J. Waters** retired from Purdue University but remains Executive Director of the Gerald P. Murphy Cancer Foundation.

**Hui-Ching Weng** (PhD ‘97) is now Professor in the graduate Institute of Gerontology in National Cheng-Kung University, Taiwan.

**Lindsay R. Wilkinson** (Dual-title PhD ‘14) became Assistant Professor of Sociology, Baylor University.
Nancy Edwards (PhD ’96), Nursing, was recognized as the 2014 Nurse Educator of the Year at the Indiana Salute to Nurses event in Indianapolis, Indiana.

Kenneth Ferraro, Sociology and Director, Center on Aging and the Life Course, received the “Matilda White Riley Distinguished Scholar Award” from the American Sociological Association Section on Aging and the Life Course.

Jennifer Freeman, Health Sciences, received the 2014 Purdue Exceptional Early Career Teaching Award.

Elliot M. Friedman, Human Development and Family Studies, was named a Fellow of the Gerontological Society of America.

Elliot M. Friedman was named the Berner Hanley Associate Professor of Gerontology at Purdue University.

Rong Fu won a Poster Award from the Emerging Scholar and Professional Organization, a unit of the Gerontological Society of America. The poster was entitled “Consequences of Early Parental Loss on Cognitive Impairment in Old Age: Does Gender Make a Difference?”

Susannah Gordon, Nutrition Science, completed a Lynn Fellowship under the mentorship of Professor Wayne Campbell.

Erica Hegland, Speech, Language, and Hearing Sciences, received a Predoctoral Individual National Research Service Award (F31) for her application entitled Aging Effects on Suppression and Correlations with Speech Understanding in Noise.

Jessica E. Huber, Speech, Language, and Hearing Sciences, is the recipient of the Outstanding Commercialization Award for Purdue University Faculty. She is also chief technology officer of SpeechVive, Inc., a company that markets a device to help people with Parkinson's disease speak effectively.

Patricia Morton, Sociology, received the Robert L. Eichhorn Fellowship in Medical Sociology.

Patricia Morton and Kenneth Ferraro received the 2014 Theoretical Development in Social Gerontology Award from the Gerontological Society of America for their paper entitled “What Do We Mean by Accumulation? Advancing Conceptual Precision for a Core Idea in Gerontology.”

Dan Ritchie (PhD ’09), owner of Miracles Fitness, received the Personal Fitness Professional Trainer of the Year Award.

Maria Maiz Rodriquez, Nutrition Science, was awarded a Lynn Fellowship under the mentorship of Professor Connie Weaver.

Jill Suitor, Sociology, received the 2014 GSA Distinguished Career Contribution to Gerontology Award from GSA.

Roland Thorpe (PhD ’04) was appointed to the Advisory Committee on Minority Health at the U.S. Department of Health and Human Services (HHS).

Lindsay R. Wilkinson (PhD ’14) won the Senior Service America, Inc., Junior Scholar Award for Research Related to Disadvantaged Older Adults. The manuscript is entitled “Financial Strain and Mental Health among Older Adults: Lingering Effects of the Recession?”

Karen Yehle, Nursing, received the 2014 Excellence in Innovation in Teaching Award from the American Association of Colleges of Nursing.

Howard Zelaznik, Health and Kinesiology, was named a Fellow of the American Association for the Advancement of Science.

The future belongs to those who believe in the beauty of their dreams.

Eleanor Roosevelt
“Motor Functioning in Older Adults” has been a very successful class at Purdue for upper-level Health and Kinesiology students with interest in gerontology and gaining some hands-on experiences working with older adults.

For this course, we, the students, meet twice a week with Dr. Rietdyk for lecture and then come to University Place once a week for the lab section and hands-on experience with University Place residents. Each student in the class has been assigned two residents whom they work one-on-one with for forty-five minutes each week.

We do a variety of strength-training, flexibility, aerobic, and cognitive tasks that are all aimed at improving balance. Some of the activities we have been working on with our residents include: weight lifting, agility ladder foot-work, Tai Chi, and dancing.

The exercises and activities we do with the older adults help to promote an active and healthy lifestyle. Exercise is a very important aspect of anyone’s lifestyle no matter what age. This class equips its participants with exercise tools as they work to attain an active and healthy lifestyle. Furthermore, it helps the community to recognize physical activity as an important aspect of daily life that can be done independently. We look forward every week to sharing our knowledge about proper exercise and exercise techniques.

In a study titled, “A Five-Week Exercise Program Can Reduce Falls and Improve Obstacle Avoidance in the Elderly,” a group tested whether the implementation of the Nijmegen Falls Prevention Program (a group education program focusing on balance, gait, coordination, walking in crowds, and falling techniques) affects balance in older adults. (Weerdesteyn et al. 2006).

Specifically, they used obstacle courses as part of the exercise program to train and test fall risk in the elderly. This has been a popular exercise with participants in our programs, and so the results of this study were beneficial in further implementing the use of obstacle courses with our residents at University Place.

To test this program, 113 older adults took part in the study, 76 in the exercise group and 28 in the control group. The exercise sessions were held twice weekly for five weeks and lasted 1.5 hours each. Scores for number of falls, standing balance, obstacle avoidance performance, and balance confidence were assessed at the beginning and end of the intervention.

Some of the elements that were used in the obstacle courses in this study were walking over doorsteps, stepping stones, uneven pavement, and over various kinds of ground surfaces. We used similar elements, but were somewhat limited in the ground surfaces we could provide. The main concepts of the obstacle courses, however, are very similar. The improvements that were seen in balance and fall risk in older adults in this study indicate that if we continue to use obstacle courses in our own exercise plans with our participants, we should see similar improvements in obstacle avoidance and risk of falls.

Obstacle courses deliver numerous opportunities for older adults to gain and expand on multiple skills as well as challenge their performance in gross and fine motor skills.
These courses provide cognitive factors, in which memory and sequence of events recalled is being challenged. As student instructors, we build on these aspects through the progressive increase in demands of the activity, such as switching up or adding rules to the course. Sensory input, such as proprioception and the vestibular system, is also incorporated through the use of obstacle courses.

Our participants engage in activities that permit various movements of the body such as sit-to-stand movements, side-to-side movements over barriers, and spinning 360 degrees on a foam pad (or around a barrier).

Having participants pick up craft supplies versus other materials adds a cognitive task to the obstacle course; the participant must decipher which object to pick up. Furthermore, the use of weights and having the participants avoid stepping on a rope placed on foam walk pads targets balance and endurance simultaneously.

Transitional movements from one obstruction to the next require motor planning of the participant, which is imperative for everyday movements. Focusing on this concept through obstacle courses can aid in the reduction of falls when maneuvering from one location to the next in everyday life.

These obstacle courses are tailored to suit the needs of the individual participants. In conclusion, various biological systems such as sequencing and memory, sensory information, balance, endurance, and motor planning, can be enhanced through the use of obstacle courses.

The obstacle course is an excellent way to involve many bodily systems, both gross and fine motor, in daily exercise plans. The ability to practice various movements that include stepping over objects, walking on uneven surfaces, and picking up different objects can help improve both balance and endurance. To make things more challenging for different skill levels a functional cognitive task (such as talking out loud while completing the task) can be utilized. The concept of dual tasks can be effective for balance and aerobic training for older adults, which is what we are striving to achieve in this course.

The aim of “Motor Functioning in Older Adults” is to promote successful aging by improving and maintaining their balance to impede the usage of assistive devices and keep quality of life at the highest possible level.

“We would like to thank the residents and staff of University Place. This experience has been one to remember and an invaluable learning opportunity. The hospitality has been unmatched and every participant will be sincerely missed.”

Written by:
Kyle Cardinal       Michaela O'Shaughnessey
Priscilla Gaona     Liz Sievers
Anna Goujon         Ashley Weiner

Regardless of the type of exercises completed by older adults, the benefits include being able to help bolster the confidence and health of each individual.

Sociologists Garner Major Awards
For Research on Aging

Two Purdue sociologists who are integral to the Center on Aging and the Life Course were honored by major professional societies in 2014 for their research contributions. The two professional societies, with a combined membership of about 20,000 scientists, selected Faculty Associates of Purdue’s Center on Aging and the Life Course for major awards. It is a remarkable coincidence—and a sign of CALC’s strength in the sociology of aging.

Ken Ferraro, CALC Director, was honored by the American Sociological Association (ASA) as the winner of the Matilda White Riley Distinguished Scholar Award.

J. Jill Suitor, Sociology Professor and CALC Faculty Associate was honored by the Gerontological Society of America (GSA) with the Distinguished Career Contribution to Gerontology Award.

According to Todd Kluss of GSA, the Distinguished Career Contribution to Gerontology Award “is given annually to an individual whose theoretical contributions have helped bring about a new synthesis and perspective or have yielded original and elegant research designs addressing a significant problem in literature.”

Early in her career, Suitor helped identify entry into caregiving as a status transition, similar to becoming a parent, entering employment, or becoming widowed. Since 2000, Suitor has led the Within-Family Differences Study, a 14-year panel investigation of predictors and parental favoritism in the middle and later years of life. She is widely recognized for her research on favoritism and ambivalence in families.

A recent article in The Gerontologist examines “Caregiving, Perceptions of Maternal Favoritism, and Tension Among Siblings.”

Suitor, a Fellow of GSA, joined Purdue in 2004, and regularly teaches graduate and undergraduate courses on family relationship across the life course, with particular interest in later life.

In conferring the award to Ferraro, Deborah Carr, Chair of the ASA’s Section on Aging and the Life Course, noted

Ferraro’s “methodological, theoretical, and substantive contributions to social gerontology and his dedicated mentorship of graduate students. We truly cannot think of a more deserving candidate.”

The annual award honors a scholar in the field of aging and the life course who has shown exceptional achievement in research, theory, or policy analysis to advance knowledge of aging and the life course. The award is named after Matilda Riley, 77th President of ASA and the first Director of Social Science Research at the National Institute of Aging.

Ferraro joined Purdue in 1990 and is the author of over 100 referred journal articles related to health, aging, and inequality. He led the development of cumulative inequality theory and is currently studying the early origins of adult health. A recent article in Social Science & Medicine asks: “Does Childhood Misfortune Raise the Risk of Acute Myocardial Infarction in Adulthood?”

Ken Ferraro is the founding Director of CALC and won the GSA Distinguished Mentor Award in 2011.

Old age is like everything else. To make a success of it, you’ve got to start young.

Fred Astaire
New Faculty Associates

**Greg Arling**, Professor of Nursing, Katherine Birck School of Nursing, received his Ph.D. from the University of Illinois. Before joining Purdue, he was Associate Professor at the Indiana University School of Medicine. His research interests include long term care, quality assessment, and care transitions. Arling has received grants from the Agency for Health Care Research and Quality and from the Veterans Health Administration. Arling is a Fellow of the Gerontological Society of America as well as the Association for Gerontology in Higher Education.

**Sherylyn Briller**, Associate Professor in the Department of Anthropology, College of Liberal Arts, received her Ph.D. in Anthropology from Case Western Reserve University. Prior to joining Purdue, she was on the faculty at Wayne State University. Her research interests focus on anthropology of aging, cross-cultural gerontology, applied anthropology, medical anthropology, and end-of-life issues. Briller has been awarded grants from the National Institute of Child Health and Human Development and the International Research and Exchanges Board (IREX). She has also received the honor of being named a Fellow of the Society for Applied Anthropology.

**Elizabeth A. Strickland**, Professor in the Department of Speech, Language, and Hearing Sciences, received her Ph.D. from the University of Minnesota. Her research interests include basic hearing processes related to normal cochlear physiology and the effects of hearing impairment on aging. Strickland has received grants from NIH (NIDCD) and has been named a Fellow of the Acoustical Society of America.

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Thanks to our 2014 Donors

- Dr. Wayne Campbell
- Dr. Kenneth and Linda Ferraro
- Dr. Alexander L. and Elaine Francis
- Dr. John O. Greene
- Mrs. Cathleen Layden  
  *in memory of Mrs. Mildred L. Ade*
- Dr. George and Linda McCabe
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- Mrs. Mary Perigo
- Drs. Laura and Timothy Sands
- Dr. Charlotte Joy Steele-Morris  
  *in memory of Mrs. Betty Neisler King*
- Dr. Nicholas Turiano

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Contributors to this Issue

**Co-Editors:** Megan Klotz  
Ken Ferraro, Director

**CALC Support:** Ann Howell, Secretary  
Kai Hu, Website Support

Comments? Email: calc@purdue.edu

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### UPCOMING EVENTS

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<tr>
<td>February 13, 2015</td>
<td>Matthews Hall 111</td>
<td><strong>Patti Thomas</strong>, Assistant Professor of Sociology</td>
<td><em>Does Relationship Strain Benefit Adult Health?</em></td>
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<td>March 27, 2015</td>
<td>Beering Hall 1222</td>
<td><strong>Greg Arling</strong>, Katherine Birch Professor of Nursing</td>
<td><em>Reducing Avoidable Hospitalizations of Nursing Home Residents: Findings from the OPTIMISTIC Demonstration Project</em></td>
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<td>April 1, 2015</td>
<td>North &amp; South Ballrooms, PMU</td>
<td>Graduate Students in Interdisciplinary Programs</td>
<td><em>Spring Reception, Graduate School’s Office of Interdisciplinary Graduate Programs (OIGP)</em></td>
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<td>April 17, 2015</td>
<td>Anniversary Drawing Room, PMU</td>
<td>Presentations by CALC graduate students Keynote: <strong>Jacqueline Angel</strong>, Professor of Sociology and Public Policy at the Lyndon B. Johnson School of Public Affairs, University of Texas at Austin</td>
<td><em>Scholars in the Spotlight and Spring Luncheon</em></td>
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