

AGING EXCHANGE

Tracking the Way We Age

1965 1975 1985 1995 2005 2015 2025 2035 2045
1970 1980 1990 2000 2010 2020 2030 2040
CALC
Center on Aging and the Life Course
Optimal Aging - For Life

FALL 2017

INSIDE: SCHOLARS IN THE SPOTLIGHT & NEW RESEARCH ASSISTANTSHIP

When Personal Experience Prompts Research

Every student has a different reason for choosing his or her field of study. For Mary Marshall, CALC graduate student and PhD candidate, her dissertation research is personal. She is studying communication between patients with advanced cancer and their physicians.

Mary knows all too well the importance of effective communication for cancer patients. She was doing her undergraduate work in Human Development and Family Studies (HDFS) at Bowling Green State University in Ohio when she learned that her mom, Karen, had advanced pancreatic cancer. Her first instinct was to take the semester off and go home to be with her mom, but her mom insisted she continue her studies. Mary did her best to ask questions and offer support, and spent her weekends at home with her family in Oxford, Ohio.

During her undergraduate years, Mary worked closely with her adviser, Dr. Laura Landry-Meyer, who studied gerontology. Professor Landry-Meyer allowed Mary to work on several manuscripts as an undergraduate student. Inspired by her mom's battle, Mary also completed two internships at the American Cancer Society.

After graduation, Mary accepted a full time position with American Cancer Society. After a few years, she took Professor Landry-Meyer's advice and

began her search for the right graduate program. She wanted a school that would focus on research and academia where she could pursue her interest in cancer research and gerontology. She was not interested primarily in the biological component of the disease, but instead wanted to study how the family dealt with the diagnosis and illness. She found what she was looking for at Purdue. Mary joined Dr. Cleve Shields to examine communication during cancer through a large-scale National Cancer Institute research study.

Mary joined CALC during her first semester at Purdue. She recognized the growing importance of interdisciplinary research and knew she could gain new

perspectives by taking courses in other departments. She shares, "My CALC relationships have opened up opportunities for research, lab experience, friendship, and career advice." Ironically, Biology of Aging was one of Mary's favorite courses. She was apprehensive about the content because of her non-science interest and background, but she learned to think critically and garnered many transferable skills including the ability to read biological research and evaluate it.



Mary and her mom, Karen Rucker

Continued on Page 2

Mary was instrumental in launching *Tech Team* at University Place, a local continuing care retirement community. CALC students and interested undergraduate students visit with the community's residents to help them tackle issues with their computers, phones and tablets. Residents learn how to Facetime their grandchildren, check email on a cell phone, change a printer cartridge, and everything in between. *Tech Team* is an extremely successful service learning opportunity benefitting both the residents and the students.

As she goes on the job market, Mary is looking for the perfect triad: students, service learning, and research. She hopes to find a position that will allow her to truly engage with her students and help them discover the possibilities of gerontology through intergenerational service learning experiences.

Karen put up a good fight, but eleven short months after her diagnosis, Mary's mom succumbed to her disease. Mary shares, "Now that I've done research – it is interesting to reflect back on the positives and negatives of our personal experience. There is a lot of sheltering and shielding going on. This is why I am looking at how the patient and family members communicate with the doctor." Mary adds, "The path has been more challenging than I expected. You must have perseverance and creativity, and push your knowledge beyond what you thought possible."

Learn more information about Mary's research on Page 5.



Something About Mary

STATUS	PhD Candidate in HDFS & Gerontology On the Job Market
FAVORITE COURSE(S)	Biology of Aging Multidisciplinary Gerontology
AWARDS	Bilsland Dissertation Fellowship Compton Research Award
ADVICE	The interdisciplinary nature of CALC is very beneficial so take gerontology courses earlier in your study plan and get involved with CALC as soon as possible to take advantage of CALC extra learning opportunities.

2017-2018 CALC STEERING COMMITTEE

Gregory Arling, PhD

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Associate Professor of Nutrition Science

Shawn Bauldry, PhD

Assistant Professor of Sociology

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Traci Robison, BS

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David Waters, PhD, DVM

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WELCOME

New Faculty Associates



Chad Carroll, PhD

Assistant Professor, Health & Kinesiology

Dr. Carroll received his PhD from University of Arkansas for Medical Sciences. The long-term goal of his research is to contribute to the development of effective treatments for tendon problems. He wants to better understand the mechanisms regulating tendon adaptations to exercise, particularly with the aging population.



Brandon Pitts, PhD

Assistant Professor, Industrial Engineering

Dr. Pitts received his PhD in Industrial and Operations Engineering from University of Michigan. His research interests are in the areas of human factors engineering, cognitive ergonomics, human-automation interaction, multimodal display design, aging and technology, and aging and driving.



Libby Richards, PhD, MSN, RN, CHES

Assistant Professor, Nursing

Dr. Richards received her PhD in Health Promotion from Purdue University. Her research is focused on population-based physical activity promotion and describes the individual, interpersonal, and environmental influences of physical activity.



Vicki Simpson, PhD, MSN, RN, CHES

Assistant Professor, Nursing

Dr. Simpson received her PhD from Purdue University. Her research examines the impact of health risk appraisals on behavior change. Additionally, Dr. Simpson conducts research concerning the impact of innovative nursing education designs.

In Memoriam: Shalon Irving



It is with a heavy heart that CALC mourns the passing of Shalon Irving. Shalon graduated with a dual-title PhD in Sociology and Gerontology in 2006. She worked for the Centers for Disease Control in Atlanta. A few weeks prior to her death, Shalon gave birth to a healthy baby girl, Soleil Meena Daniela Irving. Shalon suffered complications from the birth after release from the hospital and died on January 28, 2017. A college fund has been established for Soleil. Please send contributions to Shalon's mother: Wanda Irving, 354 The Chace NE, Sandy Springs, GA 30328.

SCHOLARS IN THE SPOTLIGHT

The Center on Aging and the Life Course hosted Scholars in the Spotlight on Friday, March 3. The annual event features graduate student presentations highlighting CALC's research proficiency and a keynote address by a faculty scholar. This year, four CALC students presented, including two students who shared their findings from research and another two who shared the research questions that they are currently seeking to answer.

STUDENT PRESENTATIONS

Between and Within-Family Differences in Older Mothers' Use of Technology to Maintain Contact with Adult Children

Siyun Peng

It is commonly believed that skill-deficit and high costs are blamed for older adults' limited use of technology, but recent research found that it is the *lack of* motivation and interest that deters older adults from using technologies. Socioemotional selectivity theory suggests communication technology use *within the family* may be most appealing to older adults. Therefore, in the pursuit of increasing older adults' technology use, it is important to understand older adults' communication technology use within the family.

In this study, Peng and his research team address two research goals regarding technology use in later-life families. First, they identify family-level predictors of older mothers' use of text-based technology—including emailing, text messaging and instant messaging—to maintain contact with their adult



children. Second, they explored with whom mothers used text-based technology. Results showed that 29.2% of 395 mothers used text-based technology to maintain contact with their children and of those, only 53.8% used this form of contact with all of their children. Mixed logistic regression revealed that, in family-level predictors, mothers who were White, lived far away from adult children, had higher levels of education, and better health were more likely to use text-based technology to contact their adult children. In child-level predictors, mothers were more likely to use text-based technology with married children, children with shared values, higher education, and those who lived far away.

Prodigal Children: How Reformed Deviants Become Mothers' Favorite Children

Marissa Rurka

Although the “prodigal child” is a common character in historical and contemporary literature and is a focus of many books on self-help for parents, there has been little scholarly attention to why some children who engage in problematic behaviors are welcomed back into the fold whereas others are not. Marissa and her lab used longitudinal data collected from 82 older mothers regarding their adult children to shed light on why some adult siblings who reformed their deviant behaviors between T1 and T2 became mothers' “favorite children,” whereas other “reformed deviants” did not. (Deviant behavior defined as substance abuse and/or problems with the law.)

Qualitative analyses revealed that mothers who became “most close” to their formerly deviant offspring did so



because they felt that the children were not entirely culpable for their deviant acts and because the children's reformed behaviors included meeting their mothers' needs in times of crisis, especially providing emotional support in the face of mothers' health crises.

"Good" Aging and Caregiving in San Francisco's Oldest Neighborhood

Erika Carrillo

Erika's research draws upon anthropological theories of caregiving, aging and food studies to examine everyday ethics and morality involved in dementia caregiving and food provisioning in San Francisco's Mission District. The primary research objective is to identify what is "good" dementia caregiving for aging Latinos in a changing social and urban landscape, and how eating and feeding practices in care contexts characterize "good" caregiving for this group.

For a 12-month period, Erika will use ethnographic methods to explore forms of caregiving for Latino elders in a San Francisco senior center, in their homes, and other spaces of social significance. She will conduct participant observation as a volunteer in the food program and in other meaningful locations such as the center's community garden, homes, and grocery stores. She will also conduct in-depth interviews with thirty seniors and ask them about their experiences as caregivers and aging in the city in order to learn about ways that care is provided through the food program and beyond. The project connects contemporary theorizing about how broader caregiving ethics are formed, local morals are enacted, and examines how socioeconomic transitions impact the aging experience.

"Oh Dear": Addressing Psychosocial Health in Advanced Cancer Patients

Mary Marshall

Psychological distress in advanced cancer patients is associated with lower quality of life, poorer health outcomes, and in some cases, a decreased desire to live.



When patients share psychological distress with their physicians, they report lower somatic symptoms, reduced stress,

and fewer additional appointments. Thus, addressing psychological distress during medical appointments is a vital part of patient-centered care.

Patients report that they do not spend enough time discussing their own emotional concerns with oncologists because although they consider their physician an important source of emotional support, *initiating the conversation* is difficult. Addressing these concerns may be particularly relevant for advanced cancer patients because they have emotional and existential distress as well as medical threats; therefore, it is imperative that physicians initiate the conversation about potential psychological distress. Mary's dissertation will examine how physicians engage in and initiate conversations regarding psychosocial health, as well as how communication varies by physician factors, such as gender or specialty.

KEYNOTE ADDRESS

Through the Looking Glass at Early Life Exposures and Health: Prioritizing Prevention

Michele Forman, PhD

Michele Forman, Professor and Department Head of Nutrition Sciences, delivered the keynote address on the topic of intergenerational health. In her research, Dr. Forman studies early life exposures in order to prevent chronic disease and identify expected vulnerabilities during the life course. She reviewed several studies including the Mother's Cohort Study of the Nurses' Health Studies.

One of her studies examined maternal pre-pregnancy body mass index (BMI), physical activity during pregnancy, and gestational weight gain and their effects on the daughter. Findings indicate that the maternal pre-pregnancy BMI increases the daughter's risk of obesity at age 18 (see chart). In addition, there are



Continued on Page 6

several factors that affect age of menarche for the daughter, which is meaningful because early menarche (under 11 years old) is linked to a greater risk for breast cancer, heart disease, and diabetes.

Gestational weight gain is associated with a risk for early menarche. In the United States, only 30% of women gain the recommended amount of weight while pregnant. The other 70% gain too little or too much weight, and both categories increase the likelihood of early menarche. Physical activity during pregnancy also correlates with the onset of menarche. The study found that age of menarche is delayed for daughters of mothers who are highly active during their pregnancy. The results indicate that we need effective approaches to help pregnant woman adhere to gestational weight guidelines, including an emphasis on physical activity.



Mother's pre-pregnancy BMI predicts daughter's chance for being overweight and obese at age 18

Maternal pre-pregnancy BMI	Odds Ratios and 95% Confidence Intervals	
	Daughter Overweight	Daughter Obese
21 (normal)	1.0 (ref)	1.0 (ref)
23 (normal)	1.40 (1.44-1.56)	1.72 (1.59-1.86)
25 (normal)	2.09 (1.96-2.24)	2.77 (2.40-3.20)
27 (overweight)	2.73 (2.50-2.99)	4.21 (3.46-5.11)
29 (overweight)	3.34 (2.95-3.79)	5.99 (4.69-7.66)
(Stuebe A, Forman MR, Michels KB: Internat J Obesity 2009)		

Learn more about the impact of health from generation to generation at the 2017 CALC Symposium: Health across Generations on Friday, Sept. 15

(see page 8 for more details)

Congratulations Melanie Morgan



Melanie Morgan with Joel Ebarb, Associate Dean in the College of Liberal Arts (Purdue University photo/Mark Simons)

Melanie Morgan, PhD, Associate Professor in the Brian Lamb School of Communication and CALC Faculty Associate, has been named a recipient of the 2017 Outstanding Undergraduate Teaching Award in Memory of Charles B. Murphy. The Murphy Award is the University's highest undergraduate teaching honor and is accompanied by a \$10,000 cash award and induction in the Purdue's Teaching Academy, which provides leadership for the improvement of undergraduate, graduate and outreach teaching.

Charles Murphy was a history professor at Purdue from 1927 to 1970.

READY for LAUNCH

CALC Research Assistantship

Purdue's fourth annual Day of Giving was held on April 26, 2017. The one-day fundraising event was a huge success – both for the university and for CALC. While Purdue raised a record-breaking \$28.2 million, CALC also reached its fundraising goal.

Due to the generosity of several Faculty Associates, alumni, and staff (see box to the right), CALC raised just over \$3100 during the 2017 Day of Giving and has secured the funds to offer a *competitive summer research assistantship/summer research fellowship* during summer 2018. A call for applications will occur during January 2018.

CALC would like to be able to offer this research opportunity well into the future. In order to do so, it will take committed resources. It is never too late to give. Every dollar donated will be used to strengthen the interdisciplinary inquiry on aging. Please consider a gift to CALC. Together, we can build a stronger Purdue; and a better future for all older adults.

THANK YOU

Steve Amireault
Regan Bailey & Weston Schempf
Kathy Berlin
Wayne Campbell
Ken & Linda Ferraro
Min-Ah Lee
Yunqing Li
Shelley MacDermid Wadsworth
Shirley Rietdyk
Andy & Traci Robison
Joy Steele-Morris
Ya-ping Su & Jon Hung
Patti Thomas
Nick Turiano
Lindsay Wilkinson

Your contribution helps us further our mission: optimal aging - for life.

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MAIL TO:

Center on Aging and the Life Course
Purdue University
Bill and Sally Hanley Hall
1202 W State St
West Lafayette, IN 47907-2055



Health across Generations

CALC SYMPOSIUM
September 15, 2017
8:00 am
Faculty Lounges
Purdue Memorial Union

Schedule of Events

- 8:00 am Poster Session and Continental Breakfast
9:00 am Welcoming Remarks
9:10 am *Maternal Capital and the Metabolic Ghetto: an Evolutionary Perspective on How Society Shapes the Intergenerational Transmission of Health*— Jonathan Wells, PhD
10:10 am Break
10:30 am *The Role of Intergenerational Studies in Informing Cancer Prevention*— Mary Beth Terry, PhD
11:30 am Award Presentation and Closing Remarks

Keynote Speakers

Jonathan Wells, PhD

Professor of Anthropology and Pediatric Nutrition, Institute of Child Health, University College London

Dr. Wells received his PhD in Biological Anthropology and Nutrition at the University of Cambridge and completed post-doctoral research at the MRC Dunn Nutrition Unit in Cambridge. Dr. Wells' research focuses on pediatric body composition and energy metabolism. He is involved in numerous collaborative projects worldwide to understand the links between early-life nutrition and later health. To aid the interpretation of these data and their application to public health nutrition policies, he also works extensively on evolutionary theory, addressing the association between developmental plasticity and health. Finally, he supports clinical work at Great Ormond Street Hospital, enabling the measurement of energy metabolism and body composition in patients.

Mary Beth Terry, PhD

Professor of Epidemiology, Mailman School of Public Health, Columbia University

Dr. Terry received her PhD in Epidemiology from Columbia University. Her research focuses on breast cancer and in the molecular epidemiology and life course methods of the disease. She is a cancer epidemiologist with more than 15 years of leading studies of breast cancer etiology specifically focused on the role genetics, epigenetics, and other biomarkers play in modifying the effects of environmental exposure. Dr. Terry has authored or co-authored over 200 scientific publications. She currently leads four NIH grants and is funded through the Breast Cancer Research Foundation.

The symposium is free and open to the public, but registration is required. To register, email calc@purdue.edu.

Special thanks to Purdue University Retirees Association and Purdue University Anthropology
for their support of the 2017 symposium.

Congratulations!

Erica Hegland, PhD



Erica Hegland received her bachelors of science in biology from Elmhurst College in Illinois. After completing her degree, she attended Rush University in Chicago and was in their clinical audiology program. While there, she also worked as a Research

Assistant. Her research focused on hearing recognition in noise and prompted her desire to further her education in the area of hearing sciences.

Erica will graduate from Purdue in August 2017 with a dual-title PhD in Speech, Language and Hearing Sciences and Gerontology. Her dissertation is titled "Aging effects on suppression and gain reduction estimates and their relationship to speech perception in noise." Erica will begin a post-doctoral program at The Medical University of South Carolina in Charleston, South Carolina this fall.



In Search Of... A Good Night's Sleep

When your children are babies, you expect to lose sleep. Midnight feedings and diaper changes are plentiful. Then after a few restful years, those babies are old enough to drive and again, you lose sleep awaiting their safe return each night. But once they are out on their own, you can rest easily, right? According to Amber Seidel, PhD, Assistant Professor of Human Development and Family Studies at Penn State York and CALC Alumnae, it is unlikely. Moreover, the reasons parents lie awake may be different for men and women.

In her research, Amber found the giving of support itself affected the men's sleep, while stress over the support was what affected the women. The husbands sleep more when their wives reported providing support for their kids. The reason behind the results may be due to how involved many parents are with their grown children's lives these days. According to Amber, parents should reflect on their level of involvement in their adult child's life and find healthy ways to cope with the stress to avoid problems associated with lack of adequate restful sleep.

THANK YOU

CALC is truly grateful for its 2016-2017 graduate student volunteers (*listed to the right*). Their efforts helped provide exceptional intellectual experiences and ensured that CALC sustains its efforts to give back to the community. Whether the students were picking up guests from the airport, helping residents at University Place with technology issues, or a myriad of other tasks, they always did so enthusiastically and with grateful hearts.

GULCIN CON
Sociology

CHUYI CUI
Health & Kinesiology

KIA HASTINGS
Sociology

ERICA HEGLAND
Speech, Language & Hearing
Sciences

BLAKELEE KEMP
Sociology

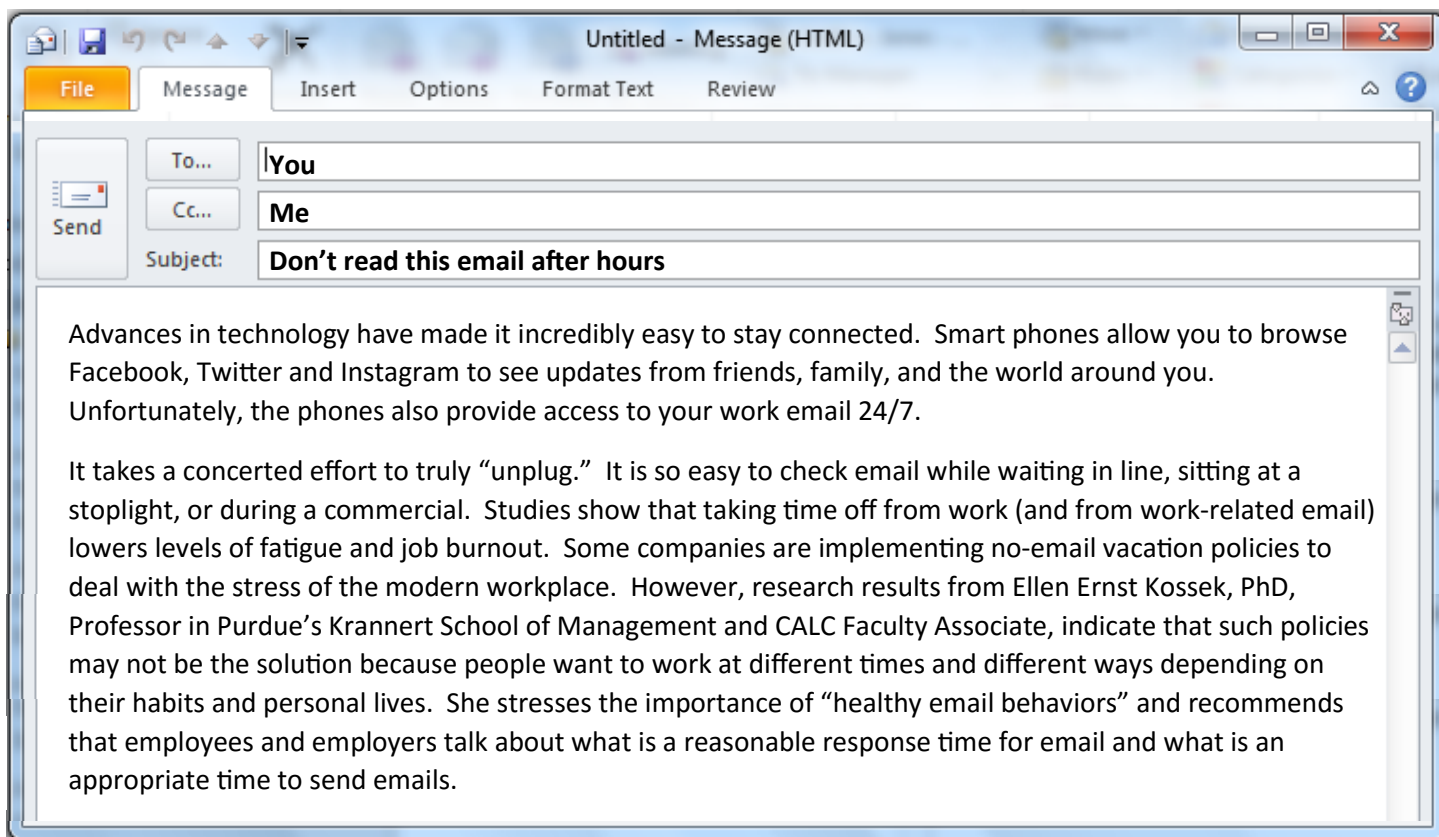
SIYUN PENG
Sociology

MARY MARSHALL
Human Development & Family
Studies

MARISSA RURKA
Sociology

MONICA WILLIAMS
Sociology

CALLIE ZABORENKO
Sociology



Heat Therapy Could Help Those with Peripheral Artery Disease



Dr. Bruno Roseguini

According to the American Heart Association, 8.5 million Americans suffer from Peripheral Artery Disease (PAD). Due to poor blood flow to legs, or feet, patients experience pain and cramping when walking, climbing stairs, or exercising. The pain often leads to inactivity, which can lead to further impairment and more functional decline.

Bruno Roseguini, PhD, Assistant Professor of Health & Kinesiology and CALC Faculty Associate, is studying heat therapy and its effect on PAD symptoms using pants that circulate warm water over the patients' legs. The pants are made of elastic fabric and used by astronauts to regulate body temperature while in space. Roseguini found that a single session of leg heating reduced blood pressure and increased leg blood flow in patients with symptomatic PAD. "Based on our initial findings, it is conceivable that repeated exposures to heat therapy might enhance the ability of the arteries in the legs to vasodilate" states Roseguini. "That means there would be more blood flow and greater oxygen delivery to calf muscles during exercise, and we anticipate this will prolong the time they can walk before they feel pain."

The clinical trial is being conducted at Indiana University School of Medicine in Indianapolis.

AGING EXCHANGE CONTRIBUTORS

CO-EDITORS

Ken Ferraro, Director
Traci Robison, Assistant Director

WEB SUPPORT

Brooks Van Buren

SOCIAL MEDIA ADMINISTRATOR

Marissa Rurka

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**Purdue University's Center on
Aging and the Life Course**

Office of Interdisciplinary Graduate Programs (OIGP)

Spring Reception

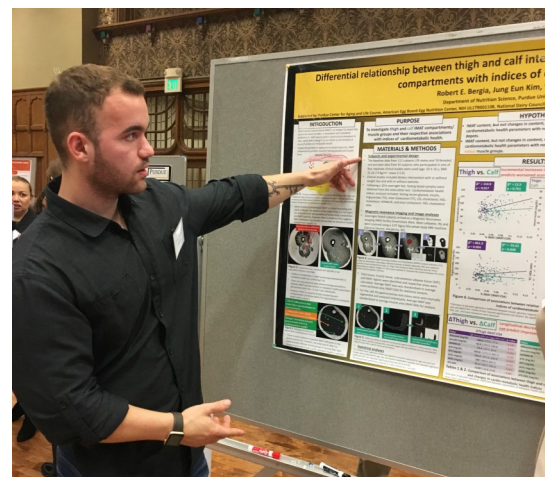
May 3, 2017



Several CALC students participated in the OIGP Spring Poster Reception.

TOP LEFT
Marissa Rurka

Prodigal Children: How Reformed Deviants Become Mothers' Favorite Children



MIDDLE LEFT
Callie Zaborenko

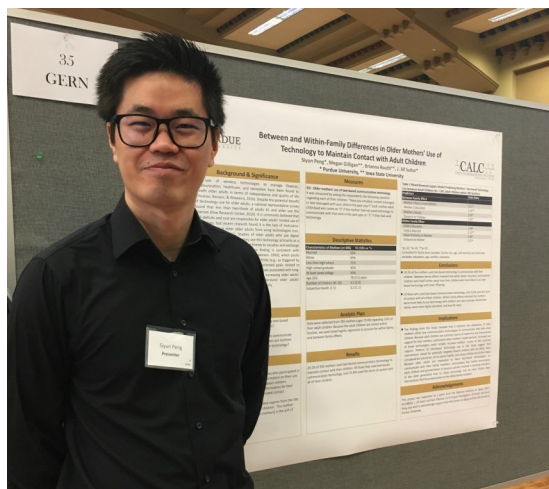
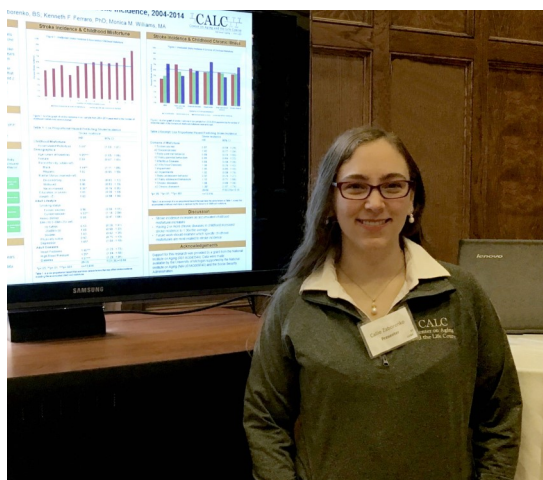
Childhood Misfortune and Late-life Stroke Incidence

BOTTOM LEFT
Siyun Peng

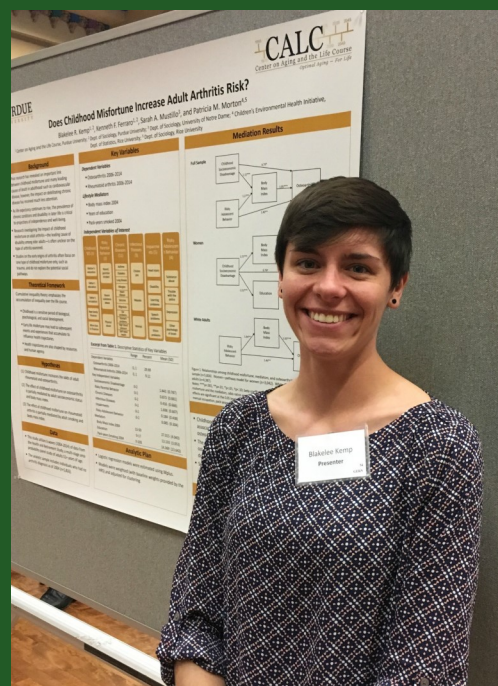
Between and Within-Family Differences in Older Mothers' Use of Technology to Maintain Contact with Adult Children

TOP RIGHT
Robert Bergia

Differential Relationship between Thigh and Calf Intermuscular Adipose Tissue Depots and Muscle Compartments with Indices of Cardio-metabolic Health



CERTIFICATE OF EXCELLENCE AWARD WINNER



Blakelee Kemp

Does Childhood Misfortune Increase Adult Arthritis Risk?

PURDUE

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When & Where	Featuring	Presentation
September 15, 2017 8 am— noon Faculty Lounge Purdue Memorial Union	Jonathan Wells, PhD Professor of Anthropology and Pediatric Nutrition, University College London Mary Beth Terry, PhD Professor of Epidemiology Columbia University	Maternal Capital and the Metabolic Ghetto: an Evolutionary Perspective on How Society Shapes the Intergenerational Transmission of Health The Role of Intergenerational Studies in Informing Cancer Prevention
October 20, 2017 12:30-1:25 pm HAAS 111	Blakelee Kemp CALC Graduate Student	Early Social Origins of Premature Aging
November 10, 2017 12:30-1:25 pm HAAS 111	Katie Hill Gallant, PhD Assistant Professor & Director, Didactic Program in Dietetics	Intestinal Phosphorus Absorption in Aging and Chronic Kidney Disease
December 8, 2017 12:30-1:25 pm HAAS 111	Dan Ritchie, PhD CALC Alumni Owner, Miracles Fitness	How the Functional Aging Institute is Retraining and Redesigning the Fitness Industry to Serve our Growing Aging Population