

# BYU GERONTOLOGY

## CONTACT US

Gerontology Program  
Brigham Young University  
1065 JFSB  
Provo, UT 84602

801.422.1410  
[gerontology@byu.edu](mailto:gerontology@byu.edu)  
[gerontology.byu.edu](http://gerontology.byu.edu)  
[Student Club sign-up](#)



Director: Dr. Ray Merrill  
Office Manager: Janet Folsom



This summer, my wife and I spent a few days in the Netherlands. While there, I learned that in a country of 17 million people, there are 22 million bikes. The number of people riding bikes is impressive and consistent with a healthy lifestyle. Of course, we rented bikes and enjoyed a beautiful country from a unique perspective.

In his research of people who live the longest with exceptionally high quality of life, Dan Buettner identified five communities that he termed the Blue Zones. These

places have different climates and regions, without genetic similarities or a common superfood. Hence, the key to their longevity and high quality of life appears to be in their lifestyle behaviors. The important news is that many of these behaviors can be readily adopted. These behaviors involve movement, outlook, eating, and connection.

## Movement

Blue Zone communities do not have a specific type of physical activity, but they have nudges toward being physically active. People in these communities tend to walk (about 5 miles per day), take stairs, and garden. In the Netherlands, biking is a common form of transportation. Regular movement is crucial in controlling weight, keeping muscles strong, balance good, and brains healthy. A gentle 30-minute bike ride can burn 200 calories. Biking can help manage weight;<sup>1</sup> improve a person's balance, posture, and coordination;<sup>2,3</sup> promote better sleep;<sup>4</sup> increase good cholesterol;<sup>5</sup> and improve mental health and boost brain power.<sup>6</sup>

## Outlook

People in Blue Zone communities have a sense of purpose, such as spending time with family and friends, teaching, and serving. They are also able to naturally manage stress, with stress management built into their day (e.g., spending time outdoors, enjoying time with friends, having a faith base in which they can "let go" by turning things over to God).

The Dutch have a strong respect for individuals, sense of community and social responsibility. These and other factors have contributed to the Netherlands having among the highest life expectancy in the world.<sup>7</sup> In addition, the United Nations' World Happiness Report in 2022 places the country in fifth place.<sup>8</sup>



## HIGHLIGHTS

- 2021 Bronze Sponsor Award at the Huntsman Senior Games
- New Committee Members: Daniel Kay & Tyson Harmon
- New Student Association Advisor: Tyson Harmon



## Director's Message, continued

### Eating

Although the diets in these communities are somewhat different, they have a commonality of a foundation of vegetables and whole grains. Proteins are common at mealtime, but more often in the form of beans and lentils. Hence, the meals are high in anti-oxidants, along with probiotics, which supports gut health. There is also a notion of eating until satisfied instead of full. A good rule of thumb is to stop eating when 80% full.

People in the Netherlands are notoriously healthy, not just because of riding bikes but also due to their eating habits. Portions of food tend to be moderate, not supersized. There is a tendency to eat until satisfied rather than "stuffed." They drink a lot of milk, which is lower in calories than many other drinks, as well as an excellent source of Vitamin D, Calcium, and protein, which are linked to weight loss. The Dutch also tend to prefer low-fat snacks, eat their supper earlier than most Europeans, and consume a balanced lunch. A popular lunch is low-fat cheese and meat layered on fresh bread.

### Connection

People in Blue Zone communities tend to have a sense of belonging by staying active with family life and spending time with friends. Surrounding oneself with the "right" people can also help us make health habits related to movement and eating effortless and provide stress relief through laughter and a social support system. One study found that socially connected people live an average of 3.7 years longer than less socially connected people.<sup>9</sup> Social support can be critical for older adults who rely on family or friends for assistance in daily activities, providing companionship, and caring for their well-being.<sup>10</sup>

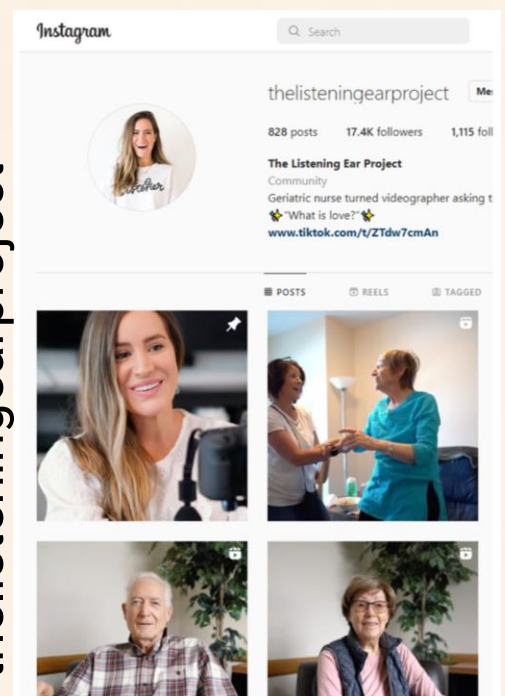
With the goal being to grow old in a healthy way, without chronic disease or mental decline, there are behaviors that should be adopted. We can learn from what people in other places have done to live longer, well. Certain behaviors related to movement, outlook, eating, and connection are key. A person desiring to improve their long-term health may want to consider taking up biking, spending more quality time with family and friends, adopting more of a plant-based diet, eating until satisfied rather than "stuffed," and surrounding oneself with the right people.

## Age-Related Content to Check Out:



## Understanding Elderspeak: An Evolutionary Concept Analysis

thelisteningearproject

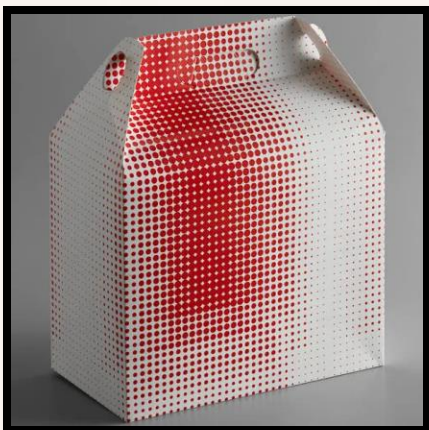




# PROGRAM FACULTY

## Faculty Affiliate Spotlight

Dr. Tyson Harmon is a clinical aphasiologist and assistant professor in the Department of Communication Disorders. After a year of generals at BYU followed by a two-year mission to Portugal, he discovered the Communication Disorders major. He graduated with his undergraduate from BYU in 2010 and immediately began the BYU Master's speech-language pathology program. In addition to being focused on helping people, what drew him to speech-language pathology was how it combined his eclectic interests, which included biology, linguistics, music, and psychology. Although speech-language pathologists are trained to work with speech and language disorders across the lifespan, Tyson became passionate about helping older adults after working with his first patient with aphasia in the BYU Speech and Language Clinic. Aphasia is an acquired neurogenic language disorder that results from damage to the part of the brain responsible for processing language. Because it most commonly occurs following stroke, it primarily affects older adults. After graduating with his master's degree in 2012, he completed a clinical fellowship at a regional hospital in northwest Texas where he split his time between acute care and outpatient settings. Wanting to answer questions that would help improve rehabilitation for patients with aphasia, he decided to return to school and complete a Ph.D., which he did at the University of North Carolina at Chapel Hill. After completing his Ph.D. in 2018, he was blessed to return to BYU as an assistant professor. In his Aphasia and Speech Learning Lab, Tyson and his research assistants are interested in understanding functioning and recovery in people with aphasia as well as developing interventions that simultaneously improve communication and psychosocial outcomes. Their current work emphasizes how attention and emotion affect language functioning and recovery. Specifically, they have investigated the effects of environmental distractors that elicit divided and focused attention and the effects of social stress and emotionally laden stimuli on language production for people with aphasia. They have also explored the subjective experiences of people with aphasia when communicating in cognitively and socially demanding environments. Through their research, they hope to inform and transform clinical practice to improve rehabilitation and quality of life for people with aphasia.



## Faculty Affiliates Luncheon

We look forward to meeting with all of the faculty affiliates at our Annual Gerontology Faculty Affiliates Luncheon. This will be held January 20, 2023. All Affiliates are invited to attend a catered lunch and presentation by the Program Director. The luncheon is a nice opportunity to connect with others who are conducting gerontology research and teaching courses on aging as well as learn more about the Gerontology Program.

# GERONTOLOGY STUDENTS

## Alumni Highlight

Sarah Skriloff graduated in 2018 with a major in Sociology and a minor in Gerontology. As a Product Manager at Microsoft, she leads accessibility efforts for her team to make Microsoft Office a delightful and accessible experience for aging users and users with disabilities.



## Student Social

The Gerontology Program Student Social was held on January 12<sup>th</sup>. Students gathered to mingle, grab a bite to eat, and hear from Lily Kim, a Master's of Public Health Student. Students were fortunate to hear about Lily's research with dementia after widowhood. Lily talked about her grandmother and how that sparked her interest in this research with improving the health of older adults by understanding the pathways leading to cognitive decline and dementia after one's spouse passes away. The students were able to get a better understanding of the types of research they can do with gerontology and how they can get more involved in activities.

## Scholarship and Award Recipients

2021 Service Award Recipients majored in Exercise & Wellness, Exercise Science, Human Development, Microbiology, Neuroscience, Nursing, and Public Health

2022 Academic Scholarship Recipients majored in Cell Biology and Physiology, Communication disorders, Exercise Science, Exercise and Wellness, Family Life-Human Development, Nursing, Neuroscience, Cell Biology and Public Health.

2022 Best Poster Awards at the Russell B. Clark Gerontology Conference went to Seth Otto from Public Health and Avalon White from Marriage, Family, & Human Development.

2022 Graduate Student Fellowships went to six students in the following fields: Communication Disorders, Exercise Physiology, Health Psychology, Marriage, Family & Human Development and Microbiology & Molecular Biology.





# FACULTY RESEARCH

## Current Internally Funded Research Projects

Mathew Seeley, Robert Hyldahl, Garritt Page, Adam Bergeson and Hyunwook Lee (Exercise Sciences, Statistics)  
*"Biomarkers of Knee Joint Health for Older Adults Undergoing Total Knee Arthroplasty"*

Brock Kirwan (Psychology)  
*"The Effects of Aging on Memory-Guided Decision Making"*

Bruce Bailey, Benjamin Bikman and James LeCheminant (Exercise Sciences, CELL, NDFS)  
*"The Effects of Initiating a 24-hour Fast with a Low Versus High Carbohydrate Shake on Biomarkers of Metabolism and Inflammation in the Elderly: A Randomized Crossover Study"*

Elizabeth Cutrer-Párraga, Jeremy Yorgason (Counseling Psychology and Special Education, Family Life)  
*"Grandmothers Exploring Books to Help Their Grandchildren in Grief: An Interpretative Phenomenological Analysis"*

Benjamin Bikman (Cell Biology & Physiology)  
*"The Effect of Ketones on Hippocampal Mitochondrial Physiology and Cognition: Relevance to Alzheimer's Disease Therapy"*

Lisa Argyle (Political Science)  
*"The Effect of Cable News on Later-Life Political Involvement of Silent and boomer Generations"*

## Recently Published by BYU Gerontology Faculty Affiliates

Christopher Mendoza and Dario Mizrachi  
[\*A biologic that prevents metastasis and engages CAR technology\*](#)

Hiroko Kukihara, Michiyo Ando and Niwako Yamawaki  
[\*The effects of yoga and mindfulness on elderly care worker's burnout\*](#)

Laura Harrington, Alexa Ehlert, **Evan Thacker**, Nancy Jenny, Oscar Lopez, Mary Cushman, Annette Fitzpatrick, Kenneth Mukamal and Majken Jensen  
[\*Hemostatic factor levels and cognitive decline in older adults: the Cardiovascular Health Study\*](#)

Jayson Gifford and Jessica Collins  
[\*Critical Speed through Aging: Insight from the World Masters Championships\*](#)

Jade Parker-Character, David R. Hager, Tanner B. Call, Zachary S. Pickup, Scott A. Turnbull, Evan M. Marshman, Shaleen B. Korch, **John M. Chaston** and Gerald B. Call  
[\*An altered microbiome in a Parkinson's disease model Drosophila melanogaster has negative effect on development\*](#)

Julianne Holt-Lunstad  
[\*Loneliness and Social Isolation as Risk Factors: The Power of Social Connection in Prevention\*](#)

Michael D. Barnes, Carl L. Hanson, **Len B. Novilla**, Brianna M. Magnusson, AliceAnn C. Crandall, and Gracie Bradford.  
[\*Family-Centered Health Promotion: Perspectives for Engaging Families and Achieving Better Health Outcomes\*](#)

Ray M Merrill and Aaron M Frutos.  
[\*Ecological evidence for lower risk of lymphoma with greater exposure to sunlight and higher altitude\*](#)

# PROGRAM EVENTS

## Russell B. Clark Gerontology Conference

This year's Gerontology Conference was held March 16<sup>th</sup>-17<sup>th</sup>, in the Hinckley Alumni Center. Keynote speaker, former Olympic marathon runner, Bill Rodgers, spoke about his journey to the Olympics and the relationship between health, nutrition, and aging. Dr. Iain Hunter of BYU spoke about the effects of aging on competitive runners compared to non-runners. Jared Ward of BYU presented data related to optimal marathon pace and its impact on aging and health.

Videos of these presentations are available on our website's [conference archives page](#).

The 32<sup>nd</sup> Annual BYU Gerontology Conference will be held March 14-15, 2023. Updates will be posted to the website as they become available.



## Huntsman World Senior Games

The Huntsman World Senior Games is the largest annual multi-sport event in the world for athletes over age 50. This event includes over 30 different sports from softball to swimming and from square dance to soccer.

Student volunteers travel to the Huntsman World Senior Games each fall in St. George, Utah. They administer various health screenings to ensure the health and safety of all senior athletes. In October 2021, more than 80 BYU student volunteers ran screening tests such as visual acuity, glucose, carotid ultrasound, body composition, blood pressure, and balance. The senior games give students the opportunity to receive volunteer experience and internship credit.



# CALENDAR & COMMITTEE MEMBERS

## DATES TO REMEMBER

[Huntsman World Senior Games](#): October 5-7 & 11-13, 2022

[Student Service Award Applications](#): due October 28, 2022

[Faculty Research Grant Proposals](#): due November 11, 2022

[Student Social](#): January 13, 2023

[Faculty Affiliates Luncheon](#): January 20, 2023

[Russell B. Clark Gerontology Conference](#): March 14-15, 2023

[Student Scholarship Applications](#): due March 24, 2023

[Fulton Mentored Research Conference](#): April 13, 2023



[Ray Merrill, PhD](#)  
Public Health  
Program Director



[Ron Hager, PhD](#)  
Exercise Sciences



[Sterling Sudweeks, PhD](#)  
PDBio



[Corinna Tanner, PhD, MSN, RN](#)  
Nursing



[Tyson Harmon, PhD](#)  
Communication Disorders  
Student Association Advisor



[Daniel Kay, PhD](#)  
Psychology



[Sam Tsugawa, DMA](#)  
Music Education



[Len Novilla, MPH](#)  
Public Health