



JUNE 2025

GLOBAL AGING E-BRIEF

Newsletter from the Global Aging & Community Initiative

Global Aging & Community Initiative Update

BY ZACHARY ZIMMER, DIRECTOR, GACI

Probably the most gratifying aspect of my job as a Tier I Canada Research Chair is being able to work and collaborate with so many bright and interesting people here in Halifax and around the world. The GACI has been lucky enough to have had a number of really good junior scholars come through as research assistants and associates. They have inspired the work I and others do as part of our research mission. Junior scholars that have come through GACI tend to people jump into projects on their path between things, often between earning their degrees at MSVU or Dalhousie University and a more permanent job or higher-level schooling. While it's hard to say good-bye to those that have become part of and have integrated into our world, it's satisfying to be part of the process of developing skills and advancing careers. As an example, this month we say good-bye to Sara Hamm who has worked as a Research Assistant and then Research Associate at GACI for a few years. Sara was first hired to do some analysis for a paper that looked at the connection between religiosity in early and later life, and how the life-long structure of religiosity associated with later-life health. This paper was long overdue as part of a Templeton Foundation grant that I had some years ago aimed at studying religiosity and health in older age, and the data for that paper came from a special module on lifelong religiosity that I and my colleagues were able to get inserted into the 2016 wave of the Health and Retirement Study. (If anyone out there is interested, there is still more research to be done using that module.) Then Sara became an important member of the Vietnam Health and Aging Study (VHAS) team.

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The Global Aging and Community Initiative (GACI) is a research organization at Mount Saint Vincent University (MSVU), located within the Nova Scotia Center on Aging. It is directed by Dr. Zachary Zimmer, a Tier I Canada Research Chair and Professor of Family Studies and Gerontology. The GACI aims to create knowledge on issues related to the quality of life of older persons worldwide through collaborative research across a broad global scientific community. GACI is currently working on a number of research projects focusing on the health and well-being of older persons in different areas around the world. We currently list 32 collaborators from eight countries.

Collaborator Profile: Hannah-Ruth

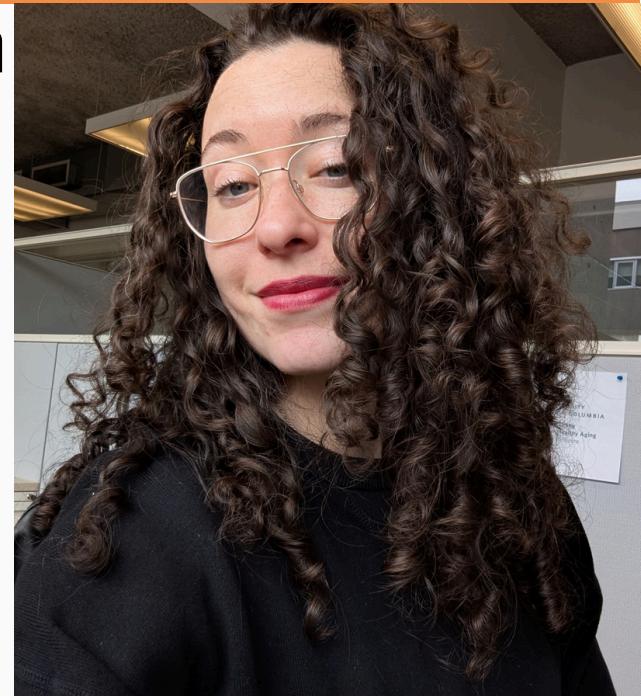
The Joys of Epigenetic Research

Hannah-Ruth Engelbrecht is a dedicated PhD candidate at the University of British Columbia (UBC), where her research focuses on understanding healthy aging through the lens of DNA methylation—a key epigenetic mechanism that influences cellular function and changes over time. By leveraging epigenetic clocks, she investigates variations in biological aging across different populations, including Blue Zones (regions known for exceptional longevity), normative aging cohorts, and veterans exposed to war-related trauma. Her work aims to uncover molecular signatures of healthy aging, providing insights into how environmental and genetic factors shape longevity.

Her passion for genetics and epigenetics traces back to high school, further fueled by personal experiences, including her father's work with an NGO supporting elderly communities and her great-grandmother's remarkable health into her mid-nineties. These influences cultivated an early appreciation for the complexities of aging, driving her to explore its biological underpinnings.

With a strong academic foundation in human physiology and genetics, she earned her Bachelor of Science and Medical Science Honours, followed by a Master of Medical Science from the University of Cape Town. Her graduate research examined genetic polymorphisms linked to chemotherapy adverse effects and the genetics of familial bipolar and schizoaffective disorders in South African populations. Later, as a medical scientist, she implemented next-generation sequencing for HLA typing in clinical settings; these molecules are used to match people for tissue donation. This transition sparked her interest in biostatistics, allowing her to merge biological inquiry with quantitative methods.

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“I have always been drawn to complex biological processes – bodies are incredible!” says Hannah-Ruth.

RESEARCH UPDATE

In addition to collecting structured survey, biomarker and anthropometric information from a sample of over 2,000 older Vietnamese, the Vietnam Health and Aging Study (VHAS) conducted in-depth qualitative interviews with 36 of these subjects. The sample was specifically and carefully chosen as individuals that experienced a high degree of wartime trauma but exhibited a variety of health outcomes in later age. Recently, investigators Sara Hamm, Deborah Norris, Toan Tran Khan and Zachary Zimmer put together a manuscript reporting on the analysis of this qualitative data. The paper, entitled, “Beyond conflict: A bioecological perspective on health and resilience among North Vietnamese war survivors,” is now under consideration for publication. The paper investigates the physical and psychological health impacts of early-life wartime trauma, with a particular focus on how resilience moderates the outcomes. The analysis highlights cumulative physical health challenges reported by respondents, including musculoskeletal degeneration and persistent consequences of chemical exposure. Many survivors continue to experience psychological distress, including recurring nightmares, anxiety, and unresolved grief. Participants describe various coping strategies, including proactive health management, expressions of gratitude, acceptance of uncertainty, maintaining a forward-focused mindset, and, in some cases, deliberately avoiding contemplation of painful memories.

These coping mechanisms are shaped and reinforced by family and community support systems. Although many survivors still draw strength from a collective wartime identity, there is also growing concern about declining community connectedness, raising critical questions regarding the sustainability of traditional resilience strategies. In the end, the findings in this analysis underscore the intricate interplay between personal experiences and broader socio-cultural and economic forces and highlight the necessity for integrated and culturally responsive interventions that simultaneously address chronic health conditions and the underlying social determinants of resilience in post-conflict environments.



Recently, the GACI was invited to participate in the Research Connect Forum which was part of the “Our Future is Aging” conference organized by the Nova Scotia Centre on Aging at MSVU, on June 3. Sara Hamm, GACI Research Associate, highlighted what the GACI does with many students and fellow researchers at the event.

Collaborator Profile continued

Beyond research, Hannah-Ruth embraces a balanced lifestyle, enjoying dance, crochet, and powerlifting. She unwinds by watching reality TV with her partner and dog, finding humor and fascination in human behavior. Living in Vancouver, she takes advantage of the coastal landscape, whether walking along the beach or hiking through forests. Her curiosity about aging, and zest for life reflects her commitment to both professional excellence and her pursuit of science

GACI update continued

In that capacity Sara worked with VHAS colleagues around the world, managed and cleaned our second wave of data, and did analysis and published several manuscripts. In particular, I want to highlight Sara's work using VHAS qualitative data. A paper using that data called "Beyond Conflict: A Bioecological Perspective on Health and Resilience Among North Vietnamese War Survivors," is now under review. Thanks, Sara for your contribution to GACI and VHAS and all the best of luck on your next endeavours. Find more about that analysis and paper in the Research Update part of this newsletter.

SELECTED PUBLICATIONS

Sara Hamm, Bussarawan Teerwichtchainan, Zachary Zimmer and Minh Huu Nguyen. 2025. Patterns of productive aging among Vietnamese war survivors: The influential role of early-life war exposure and past military service. *Journal of Gerontology: Social Sciences*. Available online June 10, 2025. <https://doi.org/10.1093/geronb/gbaf108>.

Timothy Qing Ying Low, Bussarawan Teerwichtchainan, Zachary Zimmer and Tran Khanh Toan. 2024. Later-life social network profiles of male war survivors in Vietnam: Implications for health behaviors. *Social Science and Medicine*. 362 (117465). Available online October 30, 2024. <https://doi.org/10.1016/j.socscimed.2024.117465>.

A 50-YEAR SHADOW: To understand the lasting effects of conflict, researchers look to those who lived through the Vietnam War as teens by By Jyoti Madhusoodanan, a VHAS feature in *Science*, April 26, 2025, Vol.388 Issue 6745.

Jared M. Poff, Kim Korinek & Tran Khanh Toan (2025) Cognitive function in Vietnam: the effects of war exposure and social engagement, *Aging & Mental Health*, 29:2, 212-219, DOI: 10.1080/13607863.2024.2379404

Markus Schafer, Anna Zajacova, Where Does it Hurt? A 4-S Model of Pain Onset and Recovery across Body Sites among Older Adults, *The Journals of Gerontology: Series B*, 2025;, gbaf061, <https://doi.org/10.1093/geronb/gbaf061>

Hanna Grol-Prokopczyk. 2025. Why Are There So Many Ways to Measure Pain? Epistemological and Professional Challenges in Medical Standardization. *Qualitative Sociology Review* 21(1):46-72. <https://doi.org/10.18778/1733-8077.21.1.03>