

# The CHAnge Project

## – Center for Healthy Aging

**What if** we could develop wearable sensors to monitor your heart health at home?

**What if** we could develop technology to enhance memory in early-stage dementia?

**What if** we could revolutionise rehab programmes for managing cardiac and respiratory disease?

**What if** our youth educated our ageing relatives about at-home technology for improving health?



Innovative health technologies and behaviorally focused programs being developed in the CHAnge project will make these a reality.

One of the biggest global challenges is the higher incidence in chronic disease due to an increasing aging population. The economic costs of managing chronic diseases, such as cancer, dementia, diabetes and cardiovascular disease, are unsustainable and even the most modern healthcare systems cannot cope with the rising number of patients. Of equal importance is the societal cost that extends beyond healthcare as chronic disease decreases independence and increases the reliance on family members and social infrastructure.

ASU and DCU's solution to this challenge is to focus on developing innovative disease intervention and management strategies that improve the quality of life of those living with chronic disease. This requires the combination of sensor technology, health data acquisition, data analytics, and behavioral/lifestyle intervention and education. The two universities propose developing unique infrastructures on our campuses that will facilitate the creation of health technologies and the examination of the sociocultural context and health-related behaviors of those who will benefit from the technology. Integral to our plans are collaborations with the local community across all generations, leading to the founding of The Center for Healthy Aging (CHAnge).

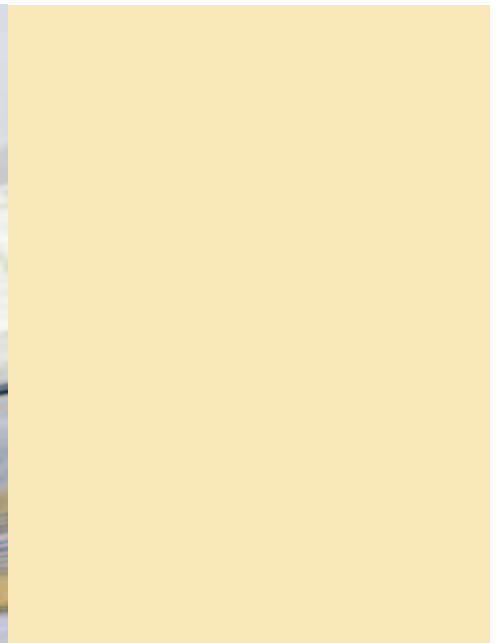
The CHAnge project will focus our cutting-edge sensor and information and communications technology to real-life, personalized, person-focused applications in our diverse societies. The objective will be to create an

environment where we can collect and analyze health data from our communities (old and young) and will act as a living lab on both university campuses.

DCU already has begun creating its living lab, which will operate as a direct outreach to the community through a community café on the ground floor, which will also serve as a primary data collection point. It will house a community clinical assessment facility for early detection of diseases such as dementia. There will be space on the first floor to showcase technology being developed for health intervention management and also to serve as an education and training facility for the older community. This showcase will also contribute to engaging with potential industry partners for funding of research and licensing of ASU and DCU technologies for use in the community.

ASU is exploring ways to bring a living laboratory to the ASU community. Drawing upon goals that complement those of DCU, ASU will seek use-inspired spaces that reflect the diversity of the population and capitalize on the social embeddedness that is a cornerstone of ASU's mission. ASU can also galvanize an array of resources, such as the College of Health Solutions, the College of Nursing & Health Innovation, the Biodesign Institute, Arizona Technology Enterprises and others, so that the CHAnge project has its desired impact.

The CHAnge project will be a catalytic activity that will leverage additional income, leading to a self-sustaining, international twinned-center of excellence that will provide solutions to the global challenge of aging.



**Dr. David Coon**

Associate Vice Provost & Professor  
College of Nursing & Health Innovation

Dr. Coon designs and evaluates interventions, such as CarePRO and EPIC, that focus on culturally diverse groups of midlife and older adults facing chronic illnesses (e.g. Alzheimer’s disease, cancer, depression) and their family caregivers. Several of these empirically based treatments are recognized by the American Psychological Association, SAMHSA and other entities to help treat late-life depression and caregiver distress.

After receiving his Ph.D. from Stanford University, Dr. Coon was the associate director of the Older Adult Center of the VA Palo Alto Health Care System and Stanford University School of Medicine and research scientist at UCSF/Mt. Zion Institute on Aging. He is a fellow of the Gerontological Society of America. His work has been funded through federal and foundation grants and he and his community partners received the Rosalynn Carter Institute’s 2013 National Leadership Award in Caregiving for CarePRO.

---

**Contact Details**

Phone: + 1-602-496-0763  
Email: david.w.coon@asu.edu



**Professor Christine Loscher**

Director and Associate Professor  
Health Technologies and the Healthy & Ageing Society Hub

Professor Loscher directs the Health Technologies Research & Enterprise Hub, which focuses on the development and application of technologies to address the challenge of an ageing society in an innovative and holistic way.

Professor Loscher’s own research is in the area of immunology. Her main focus is on translating the modulation of the immune response into health benefits. She is a principal investigator in the Food for Health Ireland research consortium and also has a significant commercialisation programme in novel marine compounds as anti-inflammatories.

Professor Loscher also has significant expertise in commercial research working with many industry partners. Her research has impact in the area of inflammatory disease, diabetes and cancer. She is currently an associate professor in the School of Biotechnology at DCU, and holds a number of important leadership roles within DCU, including: director of the Nano-Bioanalytical Research Facility, director of the multi-institutional BioAnalysis & Therapeutic PhD programme, and academic coordinator of the Targeted Therapeutics & Theranostics training programme.

---

**Contact Details**

Phone: + 353-1-700-5244  
Email: christine.loscher@dcu.ie