Promoting the health and well-being of older adults

Contact Information:
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History: founded in 1998 as an interdisciplinary Center of excellence to promote and support research and training in aging.

Faculty: 36 faculty from Johns Hopkins, coming from 17 different Divisions or Departments across the Schools of Medicine (18), Public Health (14), and Nursing (4).

Research: Center faculty are leaders or collaborative partners on extramural grants that bring in over $15,000,000 each year in funding for aging-related research projects.

Training: Epidemiology and Biostatistics of Aging (EBA) program; Gerontology Certificate program

More information: Visit us on the web: http://coah.jhu.edu/
Email: coah@jhu.edu
Center Partnerships in Aging Research
Johns Hopkins University

Center on Aging & Health

- Roybal Center for Translational Research
- Older Americans Independence (Pepper) Center
- Center for Innovative Care in Aging
- Center for Transformative Geriatric Research
- Alzheimer’s Disease Research Center
- Lipitz Center for Integrated Health Care

NOTE: Soon will add new Research Center in Minority and Aging Research (RCMAR) led by Drs. Rebok and Thorpe
Healthy Aging

Cognitive Vitality & Avoiding Dementia

Maintaining Physical Mobility & Activity

Keeping Socially Engaged & Productive

Health Resource Utilization/Mortality
Age Brings Variability in Functioning

Measures of Function

GREEN
RED
RED
GREEN
BLUE
BLUE
GREEN
My lab = intersection of DMH and COAH, asks whether we can train aging adults to navigate the real world using multiple methods.

Stimulation With Intricate Movements (SWIM) study

**AIM:** To assess the feasibility and short-term impact of an immersive, interactive computer game, called Bandit the Dolphin, on the cognitive and functional health of aging adults living in the community.

**Bandit the Dolphin**

- Developed by the KATA team in the Brain, Learning, Animation, and Movement Lab at Johns Hopkins for post-stroke rehabilitation.
- The Carlson Lab has adapted Bandit for cognitive and physical training using Microsoft’s Kinect, a motion-sensing input platform to track the participant’s arm movements.
- SWIM provides an oceanic environment in which the individual’s arm movements control a simulated dolphin.
  - The game requires the player to perform a complex combination of skilled arm movements to accomplish varying levels of cognitive challenges—such as eating fish or sharks that are moving swiftly.

www.carlsonlab.org

Adam et al., 2018
Dataset Resources

- Women’s Health and Aging Studies (WHAS) – Dr. Karen Bandeen-Roche
- WHAS II Cognitive Pathways Study – Dr. Michelle Carlson
- Cardiovascular Health Study (CHS) – Dr. Carlson
- Health, Aging and Body Composition Study (HealthABC) – Dr. Eleanor Simonsick
- Baltimore Experience Corps Trial– Drs. Rebok and Carlson
- Brain Health Substudy– Dr. Carlson
- Ginkgo Evaluation of Memory (GEMS) – Michelle Carlson
- Baltimore Memory Study – Dr. Bandeen-Roche
- Alzheimer’s Disease Research Center (ADRC) Data – Dr. Marilyn Albert
- Advanced Cognitive Training for Independent and Vital Elderly (ACTIVE) Study – GR
- ACHIEVE Hearing trial-newly started – Dr. Frank Lin
Active Working Groups

1. Frailty and Multisystem Dysregulation
2. Cognitive and Sensory Functions
3. Family and Social Resources
4. Falls and Physical Functioning
5. Administrative Claims (e.g., Medicare) Analyses
6. Biostatistics and Research Design
Disciplinary emphases in **epidemiology** and **biostatistics**

**Aging** emphases in **mental** & **physical** health

Program leadership represents **Biostatistics, Epidemiology, Medicine/Geriatrics, and Mental Health** Departments
Education - Focus areas

• **Data Intensive Measurement and Analysis in Aging:**
  – Molecular, epidemiological and statistical genetics of aging
  – Neuroimaging
  – Wearable computing / real time monitoring

• **Epidemiology of chronic disease, disability and frailty in older adults**
  – Epidemiology and course of late-life disability and frailty
  – Epidemiology of chronic diseases common in late life
  – Physiology and frailty, disability and health

• **Statistical and translational methods for gerontology:**
  – Measurement and analysis of complex gerontological outcomes
  – Analysis of longitudinal and survival data
  – Causal inference
  – Clinical trials for older adults
  – Comparative effectiveness research
  – Community-based participatory research

• **Cognitive, psychological, and social epidemiology of late life:**
  – Cognition
  – Epidemiology of psychopathology in aging
  – Social epidemiology
Center for Innovative Care in Aging

Johns Hopkins School of Nursing
Working Research Groups

► Activity & well-being – Jeanine M. Parisi, PhD
► Community health workers – Hae-Ra Han, PhD, RN
► Interventions – Sarah L. Szanton, PhD, ANP, FAAN
► Dementia, behaviors, caregiving– Rebecca J. Wright, PhD, BSC (HONS), RN
► Discrimination– Lauren J. Parker, PhD, MPH & Sarah L. Szanton, PhD, ANP, FAAN
The Issue Is...

SERIES ON INTERVENTION & IMPLEMENTATION SCIENCE IN AGING

► Each session will have a designated convener who articulates the identified issue or challenge provides brief background information and a recommended reading(s) concerning the issue and leads the discussion

► Held on the first Tuesday of (selected) months from 9-10 AM at SON; join remotely via Adobe Connect

► Contact AgingCenter@jhu.edu to be added to our mailing list