



# Aging Research at UTMB

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*Vice President of Team Science*

*Professor, Internal Medicine, Microbiology, and Immunology*

# UTMB Consortium Steering Committee Members



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**Erin Hommel, MD, MS**

*Vice Chair for Quality Improvement  
Associate Professor, John Sealy School of Medicine  
Department of Internal Medicine*



**Soham Al Snih, MD, PhD**

*Associate Dean for Academic Programs  
Professor, School of Public & Population Health  
Department of Population Health & Health Disparities*



**Melissa (Missy) Morrow, PhD**

*Director, Sealy Center on Aging  
Professor, School of Health Professions  
Department of Physical Therapy & Rehabilitation Sciences*



**Alberto Aparicio, PhD**

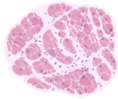
*Assistant Professor  
School of Public & Population Health  
Department of Bioethics & Health Humanities*

# Aging Enterprise at UTMB

## Research



Population Health and Health Disparities



Muscle Biology



Rehabilitation Sciences



Neurodegeneration



Infectious Diseases and Immunology

## Education and Training

### Training Programs



MSTAR NIA T35



WHO/PAHO Collaborating Center



NIA T32 for Health of Older Minorities

### Concentrations



Geriatric Track, Geriatric Medical Conference Series, and more

## Clinical Care



Inpatient Care  
(e.g. acute care for elders unit, geriatrics consultations)



Ambulatory Clinics  
(e.g. primary care pavilion, victory lakes town center, focused memory care)



Nursing Home & Skilled Nursing  
(e.g. Meridian Nursing Home, The Heights)



Home Based Primary Care  
(e.g. in-home visits and assisted living facilities)

## Community Engagement



Osher Lifelong Learning Institute (OLLI)



Quarterly Community Newsletter



Biweekly Caregiver Connection Group



Annual Lecture Series



# Two NIA P30 Research Centers at UTMB

## Claude D. Pepper Center for Older Americans Independence (OAIC)

MPIs: Melissa Morrow, PhD & James Goodwin, MD  
Funded since 2000, Refunded in 2025

15 current OAICs Nationwide

Establish centers of excellence in geriatrics research and research education to increase scientific knowledge leading to better ways to maintain and restore independence in older persons. SCOA funds \$200K in pilot projects per year to support aging research. SCOA provides administrative support for grant management

## Resource Center for Minority Aging Research (RCMAR)

MPIs: Kyriakos Markides, PhD, UTMB, Fernando Riosmena, PhD, UTSA Associate Leader: Soham Al Snih, MD, PhD  
Funded since 2018

18 current RCMARs Nationwide

Support behavioral and social research on aging, health disparities in older adults, and Alzheimer's disease and Alzheimer's disease-related dementia's (AD/ADRD) through the development of research infrastructure and the mentorship of early career scientists

**National  
Institute of Aging  
P30 Centers**

# Aging in Place - Instrumented Apartment

- Supports UTMB's Legislative Priority - Healthy Aging & Technology Initiative Non-Formula item request
- Design, develop, and evaluate assistive and smart-home technology to support healthy living for seniors, people with disabilities, and their caregivers
- SHP/SON 1<sup>st</sup> floor - Construction to begin summer 2025

Sensor for Fall Detection & Presence Monitoring

SenSights Application SOC2/ HIPPA Compliant  
Cloud Server & Machine Learning

Smartwatch Integration for Continuous Health Params Update

Smart Patch for Glucose Monitoring

Cardiac Monitoring Chip

VitalsOnline App for Remote Vitals Monitoring and Video Call with Caregiver/ Physician

veyetals		Other Health Params	
72 BPM	Heart Rate	75 BPM	Heart Rate
53 ms	Heart Rate Variability	54 ms	Heart Rate Variability
98%	Oxygen Saturation	98%	Oxygen Saturation
13 RPM	Respiratory Rate	13 RPM	Respiratory Rate
Low	Stress	---	Systolic Blood Pressure
110	Systolic Blood Pressure	---	Diastolic Blood Pressure
60	Diastolic Blood Pressure	8hrs	Sleep
		122	Step Count
		72 kg	Weight/ BMI

SenSights Mobile for Health Monitoring & Caregiver Assistance

Hey Abby Health

Glucose Monitor

Smart Scale for Weight Monitoring

Bluetooth Connected Devices for Continuous Update of Health Data

Continuous 4G Monitoring Device

Smart Socks

Smart Shoes

Smart Rug

Image Credit: Canva

# Building a geroscience laboratory focused systems-level biomarkers

- Geroscience focuses on the basic biological processes underlying aging and how those processes create the conditions for age-related disease
- Emerging opportunity with funding from Moody Foundation could fund an GLP-1 and aging study
- Developing a longitudinal cohort in Galveston called the Galveston Heart Study
  - 10,000 patients age  $\geq 30$
  - Goal is to connect clinical surveys with advanced biomarkers, machine learning, and community health programs

