

Orthopedic Specialties
Building, 3rd floor

1313 13th Street South
Birmingham, AL 35205

205-975-9042
exercise@uab.edu

UAB CENTER FOR EXERCISE MEDICINE

The University of Alabama at Birmingham

Mission

To promote the health and well-being of children and adults of all ages by:

- Fostering interdisciplinary research to optimize exercise treatment strategies for chronic conditions, disease prevention, and injury prevention and rehabilitation using a dose-response approach to exercise prescription
- Establishing prescription guidelines for health and fitness across the age span
- Training and educating the next wave of scientists and healthcare professionals on the physiology and clinical applicability of exercise treatments
- Recruiting established scientists and clinicians into exercise-based research programs
- Promoting community outreach and education based on findings through clinical exercise trials

2011
Established

>200
Members &
Trainees

10
UAB
Schools

36
UAB
Departments

Young Investigator Support

- Interdisciplinary Training in Pathobiology and Rehabilitation Medicine (T32)
 - Supporting pre- and postdoctoral trainees
- UCEM Research Roundtable
 - A resource for Center members to gain feedback on grant proposals, journal articles, etc. relating to exercise, rehabilitation, or muscle
- Student Internship Programs
- Pilot program

Faculty Leadership



Meet the Team



Exercise Clinical Trials Facility (ECTF)

Exercise Intervention Facilities

- 6000 square feet
- 24 resistant exercise stations
- Olympic barbells, dumbbells, and 2000 pounds of free weight
- 10 stationary cycle ergometers
- 9 treadmills
- 4 rowers



Cardiorespiratory Function Lab

- 12-lead ECG graded exercise testing
- Aerobic power, ie VO2Max
- Anaerobic power
- Steady state cardiorespiratory and metabolic during submaximal exercise

Neuromuscular Function Lab

- Joint kinematics (electrogoniometry) and kinetics
- Maximum voluntary strength (isometric and dynamic) testing
- Electrically evoked maximum force measurement
- Neuromuscular power assessment Muscle fatigue testing
- Muscle activation via surface electromyography (EMG)
- Computerized balance assessment
- Computerized gait analysis

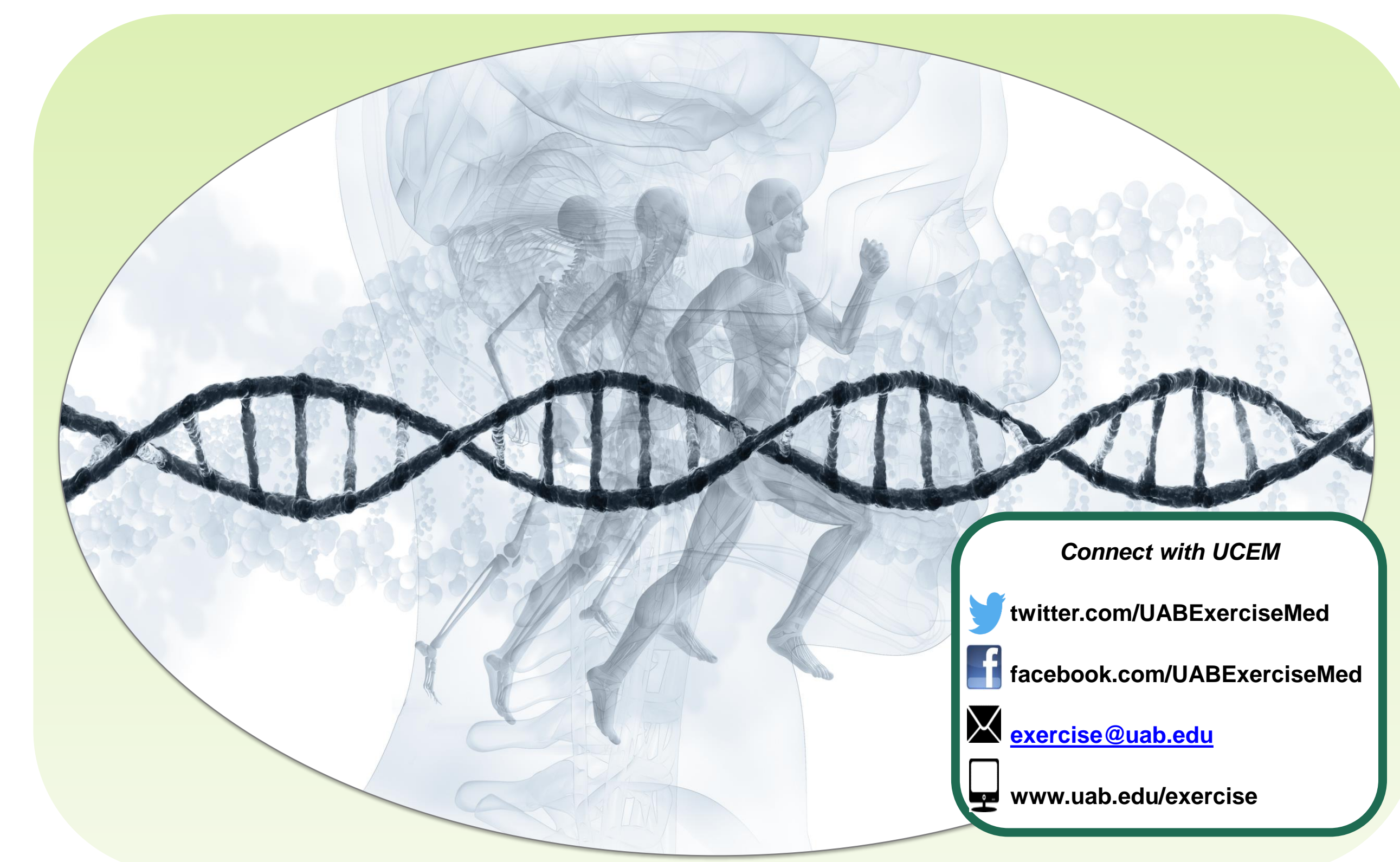


To request services: go.uab.edu/ucem-request-for-services or email Amy Miller at millera@uab.edu for more information.

Join our news list:
uab.edu/medicine/exercise/news-events

Recent Clinical Trials Supported

| Principle Investigator | Department | Title | Funding Source |
|--|--|---|---|
| Thomas Buford, PhD | Gerontology, Geriatrics, and Palliative Care | Antihypertensives Combined with Exercise for Seniors with Hypertension (ACES) | NIA |
| James Hill, PhD | Nutrition | Molecular Transducers of Physical Activity Consortium (MoT-PAC) | NIH |
| Thomas Buford, PhD Raymond Jones, PhD | Gerontology, Geriatrics, and Palliative Care | Nutrition for Precision Health (NPH) | NIH |
| Thomas Buford, PhD Raymond Jones, PhD | Gerontology, Geriatrics, and Palliative Care | Feasibility of High-intensity Interval Training in Older Adults with HIV and Co-Occurring Hypertension (HARC) | National Institute on Aging-HIV & Aging Research Consortium |
| Jane Allendorfer, PhD | Neurology | Effects of Exercise on Memory Deficits and Brain Network Connectivity in Epilepsy (MBI) | MBI Pilot, REACT, UAB Epilepsy Center |
| | | Exercise for Memory Rehabilitation in Epilepsy (EMemRE) | NCMRR |
| Hsiao-Lan Wang, PhD | Nursing Family, Community and Health Systems | Reducing Health Disparity of Physical Functioning Among Young Adult Cancer Patients of Color (PAFitME-Strong) | Oncology Nursing Foundation |
| Merry-Lynn McDonald Donnelly, PhD | Pulmonary/ Allergy/ Critical Care | COPD Cachexia Etiology of Low-Lean Muscle (Ccell 2.0) | NHLBI |
| Pankaj Arora, MD | Cardiology | Genotype Guided-Natriuretic Peptides-Cardiometabolic Health Study (GENESIS) | |
| | | Effect of Natriuretic Peptide Augmentation on Cardiometabolic Health in Black Individuals (NAUTICAL) | NIH |
| | | Race, Natriuretic Peptides and Physiological Perturbations (EBS) | |



Connect with UCEM

twitter.com/UABExerciseMed

facebook.com/UABExerciseMed

exercise@uab.edu

www.uab.edu/exercise