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

Mission
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

Exercise Clinical Trials Facility (ECTF)
- 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

<table>
<thead>
<tr>
<th>Principle Investigator</th>
<th>Department</th>
<th>Title</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thomas Buford, PhD</td>
<td>Gerontology, Geriatrics, and Palliative Care</td>
<td>Antihypertensives Combined with Exercise for Seniors with Hypertension (ACES)</td>
<td>NIA</td>
</tr>
<tr>
<td>James Hill, PhD</td>
<td>Nutrition</td>
<td>Number of Preschoolers (NPRE)</td>
<td>NIH</td>
</tr>
<tr>
<td>Thomas Buford, PhD</td>
<td>Gerontology, Geriatrics, and Palliative Care</td>
<td>Feasibility of Long-term Intensive Training in Older Adults with CVD and co-morbidities (MCVH)</td>
<td>NIH</td>
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<tr>
<td>Jane Allendorfer, PhD</td>
<td>Neurology</td>
<td>Effects of Exercise on Memory Decline in Patients with Alzheimer’s Disease (MBI)</td>
<td>NIA</td>
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<tr>
<td>Helen-Lan Wang, PhD</td>
<td>Nursing Family, Community and Health Sciences</td>
<td>Reducing Health Disparity of Physical Functioning Among Young Adult Cancer Patients of Color (PAfitME-Strong)</td>
<td>Oncology Nursing Foundation</td>
</tr>
<tr>
<td>Pankaj Anns, MD</td>
<td>Cardiology</td>
<td>Genetically Based Nutritional Marginal Cardiometabolic Health (GEMINCH)</td>
<td>NIA</td>
</tr>
<tr>
<td></td>
<td>Cardiology</td>
<td>Effect of Nutriional Interventions on Cardiometabolic Health (PANTHER-C)</td>
<td>NIH</td>
</tr>
</tbody>
</table>

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