James M. Hagberg, Ph.D.
Professor
hagberg@umd.edu

Dr. Hagberg is currently investigating the effects of acute and chronic exercise on novel cardiovascular disease risk factors, focusing on circulating angiogenic cells, a specific subset of circulating adult stem cells. Dr. Hagberg is a Professor in the Department of Kinesiology. He is currently funded by the NIH. He has previously been funded by the VA, NIH, AHA, and the US Olympic Committee. His graduate students, both Masters and Doctoral, are intimately involved in his research projects. Dr. Hagberg is one of the UMCP Distinguished Scholar-Teachers and was awarded the University System of Maryland Regent's Award for Research in 2002.

Stephen M. Roth, Ph.D.
Associate Professor
sroth1@umd.edu

Dr. Roth has formal training in both exercise physiology and genetics. The work of the NIH-funded laboratory is focused on two areas: 1) Understanding the role of genetic variation (and environmental interaction) in determining inter-individual differences in skeletal muscle traits, exercise adaptations, and other health-related phenotypes. 2) Exploring the role of physical activity in altering DNA structure, including investigations of both telomere length and epigenetics (e.g., DNA methylation).

Ben F. Hurley, Ph.D.
Professor
benhur@umd.edu

Dr. Hurley’s research interests consist of the effects of aging and exercise training on risk of age related diseases and disability, with emphasis on the prevention and treatment of chronic disease. He is also interested in the development of exercise prescription tools for allied medical and health professionals and the use of exercise as a countermeasure for the side effects of common medications.

Espen E. Spangenburg, Ph.D.
Assistant Professor
espen@umd.edu

The primary goal of Dr. Spangenburg’s NIH-funded laboratory is to understand the molecular and cellular signaling mechanisms that regulate adipose tissue and skeletal muscle function. Dr. Spangenburg’s laboratory utilizes an integrative approach to address these questions, which includes the use of cell culture, animal models, and human studies. Ultimately, the laboratory is attempting to understand how physical activity and various hormones/growth factors interact to enhance human function.

Eva R. Chin, Ph.D.
Assistant Professor
erchin@umd.edu

Dr. Chin’s research focuses on the molecular and cellular mechanisms that regulate skeletal muscle function. In particular, she is interested in the signals responsible for the decrease in force output during muscle fatigue and those involved in communicating to the muscle an increase in size (i.e. hypertrophy) or an increase in oxidative capacity in response to exercise training. In addition to an interest in muscle adaptation to exercise, her research aims to delineate the underlying causes of the decreased force output and altered metabolism with aging and muscular dystrophy. A long-term goal of Dr. Chin’s research is to understand how muscle signals generated during exercise can best be used in combination with drug treatments for improving muscle function and quality of life in the frail elderly and in children with muscular dystrophy.
Research Group
Our faculty research interests cover a broad range of areas, including genetic, molecular, cellular and whole-body aspects of exercise physiology in both animal models and humans.

Our faculty are incorporating state of the art techniques into their studies of skeletal muscle, cardiovascular physiology, and metabolism.

Graduate Studies
We are seeking excellent and highly motivated graduate students to apply to our program and join our research teams.

Our admission requirements are at least an undergraduate GPA of 3.0, strong GRE scores, and excellent recommendations.

Graduate teaching assistantships, research assistantships, and fellowships are available for outstanding students.

Contact Information
Dr. Stephen Roth
Director of Graduate Studies
(301)405-2504
sroth1@umd.edu

Polly Sebastian Schurer
Graduate Coordinator
(301)405-2453
knes-grad@umd.edu

www.sph.umd.edu/KNES

University of Maryland Graduate School:
www.gradschool.umd.edu

www.sph.umd.edu