Agenda

Evening: Wednesday, Sept. 21

7 to 7:15 p.m. Welcome Remarks
L. Bruce Gladden, Ph.D., FACSM
ACSM Past-President, 2021-22
Scott K. Powers, Ph.D., FACSM
Chair, IPE Program Committee

7:15 to 8 p.m. Keynote Lecture | To Endure is Everything: New Discoveries in the Science of Endurance Exercise
Andrew M. Jones, Ph.D., FACSM
University of Exeter
Exeter, U.K.

8 to 9:30 p.m. Social

Meeting Day 1: Thursday, Sept. 22

8 to 9:20 a.m. Symposium | Cardiovascular Physiology
High Dietary Salt and Altered Neurovascular Control: Exercise Blood Pressure, Women’s Health and Novel Therapeutic Targets
Session Chair: Austin Robinson, Ph.D.

Introduction
Austin Robinson, Ph.D.
Auburn University
Auburn, Alabama

The Effects of Dietary Salt on Blood Pressure Responses to Acute Aerobic Exercise
Matthew C. Babcock, Ph.D.
University of Colorado at Denver
Denver, Colorado

Salt Intake and Sympathetic Neural Control in Women
Qi Fu, M.D., Ph.D.
University of Texas Southwestern Medical Center
Dallas, Texas

Novel Mechanisms of Autophagy-Mediated Vasculoprotection
Cameron McCarthy, Ph.D.
University of South Carolina
School of Medicine
Columbia, South Carolina

8 to 9:20 a.m. Symposium | Exercise Metabolism
Exercise and Metabolic Modulation through the Microbiome
Session Chair: Laurie Goodyear, Ph.D., FACSM

Exercise, Microbiome and Skeletal Muscle
Taylor Valentino
University of Kentucky
Lexington, Kentucky

Exercise and the Gut-Liver Axis
Jonathan G. Stine, M.D.
Penn State University
State College, Pennsylvania

Lactate Fixation by the Gut Microbiome as a Strategy to Boost Exercise and its Metabolic Benefit
Alex Kostic, Ph.D.
Harvard University
Boston, Massachusetts

9:20 to 9:30 a.m. Break
9:30 to 10:50 a.m. **Symposium | Skeletal Muscle Hypertrophy**

**Session Chair: Michael Roberts, Ph.D.**

**Introduction**
Michael Roberts, Ph.D.
Auburn University
Auburn, Alabama

Integrin Signaling in Skeletal Muscle Hypertrophy
Marni Boppart, Ph.D., FACSM
University of Illinois at Urbana-Champaign
Urbana, Illinois

Intracellular Hypertrophic Signaling
Troy Hornberger, Ph.D.
University of Wisconsin-Madison
Madison, Wisconsin

Regional Loading Changes with Muscle Contractions
Martino Franchi, Ph.D.
University of Padua
Padua, Italy

9:30 to 10:50 a.m. **Symposium | Physical Activity and Health**

**Physical Activity and Cancer Survivorship**

**Session Chair: NiCole R. Keith, Ph.D., FACSM**

**Introduction**
NiCole R. Keith, Ph.D., FACSM
Indiana University-Purdue University
Indianapolis, Indiana

Effects of Exercise on Clinically Relevant Biomarkers of Inflammation on Adult Survivors of Cancer
Kathryn H. Schmitz, Ph.D., MPH, FACSM
Penn State Cancer Institute
Hershey, Pennsylvania

The Role of Exercise Oncology in Precision Medicine
Lee Jones, Ph.D.
Memorial Sloan Kettering Cancer Center
New York, New York

Exercise as a Therapeutic Strategy for Cancer — Biological Mechanisms and Clinical Outcomes
Allison Betof-Warner, M.D., Ph.D.
Memorial Sloan Kettering Cancer Center
New York, New York

10:50 to 11:0 a.m. Break

11:10 to Noon **Keynote Lecture | Exercise and Bone Health: All It’s Cracked Up to Be?**

Wendy Kohrt, Ph.D., FACSM
University of Colorado Health Sciences Center

Noon to 1 p.m. Break

1 to 3 p.m. Posters

3 to 4 p.m. Break

4 to 5:20 p.m. **Symposium | Environmental Physiology**

**Health, Productivity and Performance in a Warming Climate**

**Session Chair: Lacy Alexander, Ph.D., FACSM**

**Introduction**
Lacy Alexander, Ph.D., FACSM
Penn State University
University Park, Pennsylvania

Global Warming and Worker Productivity
George Havenith, Ph.D., FACSM
Loughborough University
Loughborough, UK.

Global Warming and Athlete Safety and Performance
Ollie Jay, Ph.D., FACSM
University of Sydney
Sydney, Australia

Global Warming in an Aging World
W. Larry Kenney, Ph.D., FACSM
Penn State University
University Park, Pennsylvania

4 to 5:20 p.m. **Symposium | Hot Topics in Integrated Physiology of Exercise**

**Molecular Bases of Exercise Adaptations**

**Session Chair: Ben Parker, Ph.D.**

The Use of Phosphoproteomics to Study Signaling across Exercise
Ben Parker, Ph.D.
University of Melbourne
Melbourne, Victoria, Australia

A Novel Role for Acetyltransferases in Skeletal Muscle Metabolism and Exercise
Simon Schenk, Ph.D.
University of California, San Diego
San Diego, California

Transcriptional and Post-Transcriptional Regulation of Mitochondrial Content in Muscle
David A. Hood, Ph.D., FACSM
York University
Toronto, Ontario, Canada
Meeting Day 2: Friday, Sept. 23

8 to 9:20 a.m.  Symposium | Hot Topics in Integrated Physiology of Exercise Using Technology to Augment Human Performance Physiology

Session Chair: Nisha Charkoudian, Ph.D., FACSM

Human Performance Augmentation for the Military: “Skin-In,” “Skin-Out” and Magnitude Considerations

Nisha Charkoudian, Ph.D., FACSM
U.S. Army Research Institute of Environmental Medicine
Natick, Massachusetts

The Biomechanics and Energetics of Record-Breaking Running Shoe Technology

Wouter Hoogkamer, Ph.D.
University of Massachusetts, Amherst
Amherst, Massachusetts

Human Performance Optimization: Are Sensors & Data Old News or a New Frontier

Brad Wilkins, Ph.D.
Gonzaga University
Spokane, Washington

8 to 9:20 a.m.  Symposium | Skeletal Muscle New Concepts in Muscle Biology

Session Chair: Karyn Esser, Ph.D., FACSM

Introduction

Karyn Esser, Ph.D., FACSM
University of Florida
Gainesville, Florida

Importance of RNA Transport in Skeletal Muscle

Eric Wang, Ph.D.
University of Florida
Gainesville, Florida

Looking at Mitochondria and Myofibrils in 3D

Brian Glancy, Ph.D.
NHLBI/NIAMS
Bethesda, Maryland

Muscle Macro 3D and Mechanics

Silvia Blemker, Ph.D.
University of Virginia
Charlottesville, Virginia

9:20 to 9:30 a.m.  Break

9:30 to 10:50 a.m.  Symposium | Exercise Metabolism Exercise and Lipid Metabolism

Session Chair: Jill Kanaley, Ph.D., FACSM

Exercise Induced Adaptations in White and Brown Adipose

Kristin Stanford, Ph.D.
The Ohio State University
Columbus, Ohio

Intermuscular Adipose Tissue, Insulin Sensitivity and Regulation with Exercise

Bryan Bergman, Ph.D.
University of Colorado Anschutz Medical Campus
Aurora, Colorado

Adipose Metabolism and Exercise in Metabolic Disease

Lauren Sparks, Ph.D.
Advent Health Research Institute
Orlando, Florida

10:50 to 11:10 a.m.  Break

11:10 a.m. to noon  Keynote Lecture | Sex Differences in Athletic Performance

Sandra Hunter, Ph.D., FACSM
Marquette University
Milwaukee, Wisconsin

Noon to 1 p.m.  Break

1 to 3 p.m.  Posters

3 to 4 p.m.  Break
4 to 5:20 p.m. Symposium | Cardiovascular Physiology
COVID-19 and Cardiovascular Health in Athletes and Highly Active People
Session Chairs: John Quindry, Ph.D., FACSM & Tracy Baynard, Ph.D., FACSM

Introduction
John Quindry, Ph.D., FACSM
University of Montana
Missoula, Montana
Tracy Baynard, Ph.D., FACSM
University of Illinois Chicago
Chicago, Illinois

Return to Play Following COVID Infection
Jonathan Kim, M.D.
Emory University
Atlanta, Georgia

Pathophysiology of Long COVID (PASC) and Implications
Benjamin Levine, M.D., FACSM
University of Texas Southwestern
Dallas, Texas

Myopericarditis Following COVID Infection
Matthew Martinez, M.D.
Atlantic Health System
Morristown, New Jersey

Meeting Day 3: Saturday, Sept. 24
8 to 9:20 a.m. Symposium | Environmental Physiology
Therapeutic and Performance Aspects of Cold
Session Chair: John Castellani, Ph.D.

Introduction
John Castellani, Ph.D.
U.S. Army Research Institute of Environmental Medicine
Natick, Massachusetts

Metabolic Responses to Cold Exposure — From Survival to Therapeutic Applications
Denis Blondin, Ph.D.
University of Sherbrooke
Sherbrooke, Quebec, Canada

Cold Impact on Military Performance
Billie Alba, Ph.D.
U.S. Army Research Institute of Environmental Medicine
Natick, Massachusetts

Cold Exposure and Muscular Performance
Heather Massey, Ph.D.
University of Portsmouth
Portsmouth, U.K.

8 to 9:20 a.m. Symposium | Physical Activity and Health
Sedentary Behavior and Health: Recent Insights
Session Chair: Peter T. Katzmarzyk, Ph.D., FACSM

Sedentary Behavior and Health: From Basic Science to Epidemiology and Back Again
Peter T. Katzmarzyk, Ph.D., FACSM
Pennington Biomedical Research Center
Baton Rouge, Louisiana

Mitochondrial and Metabolic Changes Induced by Acute Sedentary Behavior: Impact on Recovery
Paul M. Coen, Ph.D.
Advent Health Research Institute
Orlando, Florida

Transcriptomic, Phenotypic and Behavioral Characteristics Associated with Inherited Physical Inactivity
Frank W. Booth, Ph.D., FACSM
University of Missouri
Columbia, Missouri

9:20 to 9:30 a.m. Break

4 to 5:20 p.m. Symposium | Physical Activity and Health
Physical Activity, Exercise and the Brain
Session Chair: William E. Kraus, M.D., FACSM

Introduction
William E. Kraus, M.D., FACSM
Duke University School of Medicine
Durham, North Carolina

Irisin — Harnessing the Neuroprotective Effects of Exercise
Christiane Wrann, Ph.D.
Harvard Medical School
Boston, Massachusetts

Movement, Metabolic Function and Mental Flexibility: Examining Pathways and Profiles of Lifestyle Modification for Brain Health
Patrick Smith, Ph.D.
Duke University School of Medicine
Durham, North Carolina

Exercise, Brain and Cardiovascular Health (eBACH)
Kirk I. Erikson, Ph.D.
University of Pittsburgh
Pittsburgh, Pennsylvania
9:30 to 10:50 a.m.  Symposium | Exercise Metabolism
Ketogenic Diet and Exercise
Metabolism/Performance
Session Chair: Louise Burke, Ph.D., FACSM

Introduction
Louise Burke, Ph.D., FACSM
Australian Catholic University
Canberra, Australia

Shifting Muscle Acetylation and Mitochondrial
Function and Improving Learning and Memory
with a Ketogenic Diet
Keith Baar, Ph.D., FACSM
University of California, Davis
Davis, California

Impact of Combined Ketogenic Diet and
Exercise Training on Substrate Oxidative
Capacity in Mice
Robert Noland, Ph.D.
Pennington Biomedical Research Center
Baton Rouge, Louisiana

9:30 to 10:50 a.m.  Symposium | Cardiovascular Physiology
Extraordinary Exercise and
Cardiovascular Health: Can There Be too
Much of a Good Thing?
Session Chair: Benjamin Levine, M.D., FACSM

Introduction
Benjamin Levine, M.D., FACSM
University of Texas Southwestern
Medical Center
Dallas, Texas

Physical Activity and CAC: What’s the Signal?
Laura DeFina, M.D.
Cooper Institute for Aerobics Research
Dallas, Texas

The Right Ventricle: The Vulnerable One?
Bill Cornwell, M.D.
University of Colorado Medical School
Denver, Colorado

Atrial Fibrillation in the Athlete: What’s the Risk,
and What Can You Do about It?
Guido Claessen, M.D.
UZ Leuven
Leuven, Belgium

10:50 to 11:10 a.m.  Break

11:10 a.m. to Noon  Keynote Lecture | From the Gym to
the Lab: Lessons in Human Skeletal
Muscle Hypertrophy
Stuart Phillips, Ph.D., FACSM
McMaster University
Hamilton, Ontario, Canada

4 to 5:20 p.m.  Symposium | Exercise Metabolism
Connections between Systemic
Metabolism, Exercise and Neural/
Brain Health
Session Chair: John Thyfault, Ph.D., FACSM

Effects of Exercise and Lactate Metabolism on
the Brain in Aging and Disease
Jill Morris, Ph.D.
University of Kansas Medical Center
Kansas City, Kansas

Exercise and Connections to Brain
Metabolism and Cognition Through GD15
Anders Klein
University of Copenhagen
Copenhagen, Denmark

Exercise-Associated Pathways as Novel
Neuroprotectants against CNS Aging and
Alzheimer’s Disease
Constanza Cortes Rodriguez, Ph.D.
University of Alabama at Birmingham
Birmingham, Alabama

4 to 5:20 p.m.  Symposium | Skeletal Muscle
Muscle Health in Aging and Disease
Session Chair: Stuart Philips, Ph.D., FACSM

Introduction
Muscle Growth with Aging
Sue Bodine Ph.D.
University of Iowa
Iowa City, Iowa

Pathophysiology of Muscle with Aging
Beth Philips, Ph.D.
University of Nottingham
Nottingham, U.K.

Targeting Omega 3 Supplements to Preserve
Muscle in Aging/Disease
Chris McGlory, Ph.D.
Queen’s University
Kingston, Ontario, Canada

Schedule subject to change