

1996 Intersociety Meeting
The Integrative Biology of Exercise
 October 16–19, 1996 • Vancouver, British Columbia

Muscular exercise in both health and disease is perhaps the most integrated of all biological functions, requiring often prolonged coordination among the central nervous, respiratory, cardiovascular, musculoskeletal, cutaneous, renal, and hormonal systems. Understanding the scientific basis of exercise therefore requires crossing interdisciplinary boundaries in ways few investigators normally achieve. To facilitate this, we propose an integrative, interdisciplinary scientific conference on muscular exercise.

In one meeting, symposia will offer integration on several fronts: from molecular to whole organism function, from health to disease, from biochemical to biophysical processes, across species, and between organs. Such depth and breadth in the scientific basis of exercise are not available through regular national or special meetings of either the APS or the American College of Sports Medicine. The need for such a meeting can be appreciated by the success of its predecessor in 1992 and the eagerness with which participants have agreed to be involved in 1996.

The backbone of the conference is a series of 12 research symposia and 3 tutorial lectures. Contributed poster presentations by attendees will be unopposed by symposia and prominently featured. Six awards will be made to graduate students presenting outstanding original research. With an aging population living longer with chronic disease as well as a national focus on wellness in part via exercise, it is ever more important to develop a sound scientific foundation for medical recommendations. This conference will contribute to this goal.

Organizing Committee

Peter D. Wagner, University of California, San Diego
 Frank Booth, University of Texas Medical School; James H. Jones, University of California, Davis; Harold Laughlin, University of Missouri; Ethan R. Nadel, John B. Pierce Laboratory; Ronald Terjung, SUNY Health Sciences Center, Syracuse; Tony Waldrop, University of Illinois; David Wasserman, Vanderbilt University Medical Center

Wednesday, October 16

Registration

Reception

Thursday, October 17

Comparative Exercise Physiology: Insights on Human Performance From Animals

David R. Jones, University of British Columbia

David R. Jones, University of British Columbia; Robert J. Full, University of California, Berkeley; Richard Brill, University of Hawaii; William K. Milsom, University of British Columbia; Patrick J. Butler, University of Birmingham; James H. Jones, University of California, Davis, and Stan L. Lindstedt, Northern Arizona University

Central Neural Control of the Cardiorespiratory System During Exercise

Tony G. Waldrop, University of Illinois

Tony G. Waldrop, University of Illinois; Marc P. Kaufman, University of California at Davis; L. Britt Wilson, University of South Alabama School of Medicine; Gary A. Iwamoto, University of Illinois; Lewis Adams, Charing Cross and Westminster Medical School; Edgar Garcia-Rill, University of Arkansas for Medical Sciences

Plasticity of Muscle

Susan Kandarian, PhD, Boston University

Brenda Russell, University of Illinois at Chicago; Donald B. Thomason, University of Tennessee Health Science Center; Karyn Esser, University of Illinois Chicago; James A. Carson, University of Texas Health Science Center, Houston; Richard W. Tsika, University of Illinois Urbana-Champaign

Regulation of Glucose Utilization by Working Muscle

John L. Ivy, University of Texas, Austin

John L. Ivy, University of Texas, Austin; Laurie J. Goodyear, Harvard Medical School; Arend Bonen, University of Waterloo, Ontario, Canada; David H. Wasserman, Vanderbilt University School of Medicine; Alain D. Baron, University of Indiana School of Medicine; John L. Ivy, University of Texas, Austin

Hyperventilatory Response to Heavy Exercise: Causes and Consequences

Jerome L. Dempsey, John Rankin Laboratory of Pulmonary Medicine, University of Wisconsin, Madison

Magnetic Resonance Approaches in Exercise Physiology

Robert Balaban, Laboratory of Cardiac Energetics, NHLBI, Bethesda

Friday, October 18

Linking Muscle Mechanics and Energetics: From Cross-Bridge to Locomotion

Kevin E. Conley, University of Washington, and Stan L. Lindstedt, Northern Arizona University

Kevin E. Conley, University of Washington; Earl Homsher, University of California, Los Angeles; Thomas L. Daniel, University of Washington; Martin J. Kushmerick, University of Washington; Lawrence C. Rome, University of Pennsylvania; Stan L. Lindstedt, Northern Arizona University

Cardiovascular Plasticity/Exercise

M. Harold Laughlin, University of Missouri

Russell L. Moore, University of Colorado; Charlotte A. Tate, University of Houston; Leslie Leinwand, University of Colorado, Boulder; Julia M. Lash, Indiana University School of Medicine; Thomas H. Hintze, New York Medical College

Force Modulation in Skeletal Muscle: Molecules to Motor Units

Brian R. MacIntosh, University of Calgary, and Jean-Marc Renaud, University of Ottawa

David G. Allen, University of Sydney; H. Lee Sweeney, Pennsylvania State University; Brian R. MacIntosh, University of Calgary; Jean-Marc Renaud, University of Ottawa; Carlo J. de Luca, Boston University; Phillip F. Gardiner, University of Montreal

Adaptations in Body Fluid Regulation to Physical Activity

Ethan R. Nadel, John B. Pierce Laboratory and Yale University School of Medicine

Ethan Nadel, John B. Pierce Laboratory and Yale University School of Medicine; Sheldon Weinbaum, City University of New York; Phil Watson, University of South Carolina Medical School; Hiroshi Nose, Kyoto Prefectural University School of Medicine; Gary W. Mack, John B. Pierce Laboratory; Peter D. Wagner, University of California, San Diego

Molecular Approaches in Exercise Physiology

Frank Booth, University of Texas, Houston

Saturday, October 19

Anabolic Effect of Exercise: A Systems Approach

Dan M. Cooper, Harbor-UCLA Medical Center

Dan M. Cooper, Harbor-UCLA Medical Center; Charles T. Roberts, Jr., Oregon Health Sciences University; Subburaman Mohan, Loma Linda University Medical School; Gabriel Haddad, Yale University School of Medicine; Giuseppe A. Hardi, California Institute of

Technology; Frank Booth, University of Texas, Houston
Fatigue

Robert Fitts, Marquette University

Robert Fitts, Marquette University; Roger Enoka, Cleveland Clinic Foundation; Jack K. Barclay, University of Guelph; A. Wagenmaker; Robert B. Godt, Medical College of Georgia

Vascular Remodeling: Angiogenic Growth Factors, Ischemia, and Exercise

Ronald Terjung, SUNY Health Science Center Syracuse

Olga Hudlicka, University of Birmingham School of Medicine, England; P.A. D'Amore, Children's Hospital, Boston; Ellis F. Unger, Cardiology Branch, NHLBI; Jeffrey M. Isner, Tufts University School of Medicine, Boston; Ronald Terjung, SUNY Health Science Center Syracuse

Muscle Use and Overuse

Brenda Russell, University of Illinois at Chicago

Robert B. Armstrong, Texas A&M University; Roger A. Fielding, Tufts University; Richard Lieber, University of California, San Diego; M. Jackson; Susan C. Kandarian, Boston University

**An invitation to submit
proposals to the
1997 FASEB Summer
Research Conferences**

**Saxtons River, Vermont
Snowmass Village, Colorado**

◆ **Deadline: January 10, 1996** ◆

To obtain a copy of the guidelines for submitting a proposal, please contact:

**FASEB Summer Research Conferences
9650 Rockville Pike
Bethesda, MD 20814-3998
tel: 301-530-7093 fax: 301-571-0650
Email: src@faseb.org**