The University of Texas at Arlington
The Department of Kinesiology
Presents
39th Semi-Annual Lecture

Texas American College Of Sports Medicine

With
Craig G. Crandall, Ph.D.
Institute for Exercise and Environmental Medicine
Presbyterian Hospital of Dallas

LECTURE:
“Skin, the Human Radiator; Implications in Health and Disease”

Wednesday, March 22, 2006 – 12:00 Noon
Activities Building Lone Star Auditorium

PREVIOUS UTA ACSM LECTURERS

Spring, 1987 Russell R. Pate, Ph.D. University of South Carolina
“Physiologic Determinants of Endurance Performance”

Fall, 1987 Eddie F. Coyle, Ph. D. The University of Texas at Austin, “Adaptations to Endurance Training Maintained During Periods of Physical Inactivity”

Spring, 1988 Brian J. Whipp, Ph.D., Harbor-UCLA Medical Center
“Coupling of Ventilation to Metabolism During Exercise”

Fall, 1988 George A. Ordway, Ph.D., The University of Texas Southwestern Medical School, “Adaptation of the Peripheral Vasculature as a Function of Exercise Training”

Spring, 1989 Charlotte A. Tate, Ph.D., Baylor College of Medicine
“Adaptation of the Heart to Exercise During Old Age”

Fall, 1989 Robert B. Armstrong, Ph.D., University of Georgia
“Mechanisms Underlying Exercise-Induced Muscle injury”

Spring, 1990 William J. Gonyea, Ph.D., The University of Texas Southwestern Medical School
“Skeletal Muscle Adaptation to Heavy Resistance Training”

Fall, 1990 Victor A. Convertino, Ph.D., NASA, Kennedy Space Center
“Considerations for Use of Exercise as Countermeasures for Space Adaptation”

Spring, 1991 Steven N. Blair, P.E.D., Institute for Aerobics Research
“Physical Activity, Physical Fitness, and the Public’s Health”

Fall, 1991 Benjamin D. Levine, M.D., The University of Texas Southwestern Medical Center
“Human Performance Physiology: At the Top of the World and Above”

Spring, 1992 John L. Ivy, Ph.D., The University of Texas
“Enhancement of Muscle Glycogen Resynthesis Post Exercise”

Fall, 1992 Charles J. Dillman, Ph.D., Steadman Sports Medicine Institute
“Overview of New U.S. Olympic Program”

Spring, 1993 Jere H. Mitchell, M.D., The University of Texas Southwestern Medical Center
“An athlete’s heart”

Fall, 1993 Charles M. Tipton, Ph.D., University of Arizona
“The Role of Exercise Training in the Management of Hypertension”

Spring, 1994 James M. Pivarnik, Ph.D., Baylor College of Medicine, Houston
“Exercise Pregnancy: Current Findings vs. Historical Guidelines”

Fall, 1994 James A. Pawelczyk, Ph.D., Presbyterian Hospital of Dallas, Institute for Exercise and Environmental Medicine, “Neural Control of Circulation During Exercise”

Spring, 1995 F. Marty Ivey, M.D., The University of Texas Medical Branch at Galveston, “Diagnosis and Treatment of Acute Knee Ligament Injuries”

Fall, 1995 Eric Poehlman, Ph.D., University of Maryland at Baltimore, “Metabolic Control and Aging”

Spring, 1996 James Stray-Gundersen, M.D., The University of Texas Southwestern Medical Center, “Living High, Training Low: A Method to Improve Sea Level Performance”

Fall, 1996 Rod K. Dishman, Ph.D., University of Georgia, “Fighting Sloth: Factors Related to Adherence to Exercise and Wellness Programs”

Spring, 1997 Suzanne M. Fortney, Ph.D., NASA—Johnson Space Center, “Exercise Countermeasures for Long Duration Space Flights”

Fall, 1997 W. Larry Kenney, Ph.D., The Pennsylvania State University, “Age, Fitness and Temperature Regulation”
PREVIOUS UTA ACSM LECTURERS

Spring 1998  
John M. Johnson, Ph.D., Ph.D., UT Health Science Center at San Antonio  
“Regulation of Cutaneous Circulation in Humans”

Fall, 1998  
Michael J. Joyner, M.D., Mayo Foundation, Rochester, MN “Regulation of Muscle Blood Flow and Implications for Aging and the Limits of Human Performance”

Spring, 1999  
Peter B. Raven, Ph.D., University of North Texas Health Science Center, “Baroreflex Control of Blood Pressure During Exercise”

Fall, 1999  
George A. Brooks, Ph.D., University of California, Berkeley “Pathways to Carbohydrate Utilization During Exercise: Intracellular and Cell-Cell Lactate Shuttles”

Spring, 2000  
Benjamin D. Levine, M.D., The University of Texas Southwestern Medical Center at Dallas. “Critical Appraisals of Modern Approach to Altitude Training!”

Fall, 2000  
James M. Hagberg, Ph.D., University of Maryland “Exercise Training and Aging”

Spring, 2001  
Michael D. Delp, Ph.D., Texas A & M University, “Space Exploration: Expanding Our Understanding of the Human Body on Earth”

Fall, 2001  
M. Harold Laughtlin, Ph.D., Professor and Chair, Department of Veterinary Biomedical Science, University of Missouri, “Ethics and Cheating in Research: Is Science Dispassionate Pursuit of Truth?”

Spring, 2002  
Jon W. Williamson, Ph.D., Assistant Dean for Research at The University of Texas Southwestern Medical Center, Allied Health Sciences School, “Brain Activation During Exercise In Humans”

Fall, 2002  
Michael N. Sawka, Ph.D., Chief, Thermal & Mountain Medicine Division, US Army Research Institute of Environmental Medicine, Natick, MA, “Human Adaptations to Heat Stress”

Spring, 2003  
Barry W. Scheuermann, Ph.D., Texas Tech University, “Integrating Metabolic Responses with Muscle Recruitment Patterns During Moderate and Intense Exercise”

Fall, 2003  
Tony G. Babb, Ph.D., Institute for Exercise and Environmental Medicine of Presbyterian Hospital of Dallas, “Is it the Fat or Where it’s At: Obesity, Fat Distribution, Weight Loss, and Breathing”

Spring, 2004  
Terry J. Housh, Ph.D., University of Nebraska-Lincoln, “Electromyographic and Mecanohymnographic Aspects of Muscle Function”

Fall 2004  
J. Larry Durstine, Ph.D., Professor and Chair, Department of Exercise Science University of South Carolina, “Physical Activity: Chronic Diseases and Disabilities”

Spring, 2005  
Ross G. Querry, PT, Ph.D., Assistant Professor, Department of Physical Therapy, The University of Texas Southwestern Medical Center, “Advancing Technology In Exercise for Rehabilitation”

Fall 2005  
Melody D. Phillips, Ph.D., Assistant Professor, Texas Christian University, “Exercise neuro-immuno-endocrinology, Where the immune system and metabolism meet”

Dr. Craig G. Crandall

Dr. Craig G. Crandall is a Research Scientist with the Institute for Exercise and Environmental Medicine in Presbyterian Hospital at Dallas. Dr. Crandall is also an Associate Professor in the Division of Cardiology of the Department of Internal Medicine at The University of Texas Southwestern Medical Center at Dallas.

Craig G. Crandall earned his Bachelor of Science in Physical Education from Brigham Young University in 1987, his Master of Science in Physical Education with an Exercise Physiology emphasis from the University of Oregon in 1989, and his Ph.D. in Biological Sciences with a Physiology emphasis from the University of North Texas Health Science Center at Fort Worth in 1993 with Dr. Peter B. Raven as his mentor. Dr. Crandall was awarded a Postdoctoral Fellowship with Dr. John M. Johnson in the Department of Physiology at The University of Texas Health Science Center at San Antonio from 1993 – 1996. He was a Visiting Fellow with Dr. Gunnar Wallin in the Department of Clinical Neurophysiology in the Sahlgren Hospital at the University of Goteborg in Sweden in 1997. Dr. Crandall was also a Visiting Scientist with Dr. Niels Secher in the Department of Anesthesia at Rigshospitalet in Copenhagen, Denmark in the Summers of 2002 and 2004.

Dr. Crandall has been at the Institute for Exercise and Environmental Medicine since 1996. Dr. Crandall has maintained an active research agenda by publishing 73 peer reviewed scientific articles in journals such as the Journal of Applied Physiology, Medicine and Science in Sports and Exercise, Aviation Space and Environmental Medicine, American Journal of Physiology, Circulatory Research, Microvascular Research, Journal of Physiology (London), Annals of Internal Medicine, Autonomic Neuroscience: Basic and Clinical, Acta Physiologica Scandinavica, Circulation and Anesthesia & Analgesia. He also has seven published review articles, 105 published abstracts and 38 invited presentations at sites including NASA (Ames Research Center), Noll Physiological Research Center at Pennsylvania State University, University of Goteborg, Yale University, The University of Texas Southwestern Medical School, Navy Experimental Underwater Diving Unit, University of California at Davis, University of Iowa, University of Oregon, Texas A&M University, Copenhagen Muscle Research Center in Denmark, Nara Women’s University in Japan, Shinshu University School of Medicine in Japan, Kansas State University, Brigham Young University, University of Missouri and numerous national and regional professional conference sites.

Dr. Crandall has received numerous honors and awards including the NASA pre-doctoral fellowship, NIS-Individual National Research Service Award, American College of Sports Medicine Visiting Scholar Award, Visiting Scientist at the University of Kobe, Japan, Foreign Funded Fellowship from NIH-Fogarty International Center and Swedish Medical Research Council, Wennergren Foundation Award to conduct research in Sweden, American College of Sports Medicine Young Investigator Award, Fellow status in the American College of Sports Medicine, Short-Term Fellowship from the Human Frontier Science Program to conduct research at the Copenhagen Muscle Research Center in Denmark, and an Associate Editor of Medicine and Science in Sports and Exercise. Dr. Crandall's professional service activities include a journal referee (typically reviews 12 – 15 manuscripts per year) for the American Journal of Physiology Heart and Circulatory Physiology, American Journal of Physiology Regulatory, Integrative and Comparative Physiology, Journal of Physiology (London), Journal of Applied Physiology, Medicine and Science in Sports and Exercise, Exercise and Sports Science Reviews, Acta Physiologica Scandinavica, Physiology & Behavior, Aging: Clinical and Experimental Research, Microvascular Research, Aviation Space and Environmental Medicine, Kidney International, Aging: Clinical and Experimental Research, Journal of Diabetes and its Complications, and Clinical Autonomic Research.

Dr. Crandall currently is conducting research with four grants as a Principal Investigator for a total of $2,680,147 in addition to one grant pending for $1,150,000 from the National Heart, Lung, and Blood Institute. Dr. Crandall has eight additional prior grants listed for a total of $2,366,274. His research has been conducted in the areas of heat stress, circulatory control, mechanisms of skin cooling, control of skin blood flow, and neural and non-neural modulators of skin blood flow and sweating in humans.

Dr. Crandall has mentored 14 students including two UTA graduates (Dr. David Keller and Danny Farr). He is a member of four professional societies including the American College of Sports Medicine (Fellow), Texas Regional Chapter of the American College of Sports Medicine, American Physiological Society, and the American Autonomic Society.

There will be a brief question and answer period at the end of the presentation. Please welcome Dr. Crandall to UTA and give your attention until the end of the question and answer session.