

2006 SEMINAR COORDINATION

Bioastronautics Seminar Series

Steven A. Goldstein, Ph.D., Henry Ruppenthal Family Professor of Orthopaedic Surgery and Bioengineering and Associate Dean for Research and Graduate Studies, University of Michigan, presented "Mechanical and Biologic Influences on Bone Formation, Repair, and Adaptation," on January 31, 2006.

Mark Tarnopolsky, M.D., Ph.D., Professor of Pediatrics and Medicine, Hamilton Hospitals Assessment Center Endowed Chair in Neuromuscular Disorders, McMaster University Medical Center, Hamilton, Ontario Canada, presented "Potential Countermeasures for Loss of Muscle Mass and Function" on May 4, 2006.

Brown Bag Seminars

Dr. Robert R. Wolfe, University of Texas Medical Branch, Shriners Hospital for Children, presented "Regulation of Muscle Protein Metabolism: Effect of Bed Rest and Supplementation with Amino Acid" on January 26, 2006.

Dr. Ronald J. White, Senior Fellow, USRA DSLS, presented "A New Look at a Very Simple Steady-State Cardiovascular Model," on February 23, 2006.

Dr. Lawrence H. Kuznetz, Senior Research Scientist, USRA DSLS, presented "Biosensors, Mission Management, Crew Safety, and Lessons Learned during Project Apollo Lunar Surfaces EVAs," on March 23, 2006.

Dr. Sara Zwart, Research Scientist, USRA DSLS, presented "The Impact of Nutrition on Bone Loss Associated with Space Flight," April 27, 2006.

Dr. Max J. Kurz, University of Houston, Department of Health and Human Performance, presented "Chaos in Gait," May 26, 2006.

Gersh Zvi Taicher, Ph.D., President, EchoMedical Systems, LLC presented "EchoMRI Quantitative Magnetic Resonance Method for Bone Analysis" on July 20, 2006

Scott J. Wood, Ph.D., Senior Research Scientist, USRA DSLS, presented "Tactile Feedback as a Countermeasure for Sensorimotor Deficits: Clinical and Operational Applications" on August 24, 2006

J. David Holtzclaw, Ph.D., BFSB Postdoctoral Fellow, USRA DSLS, presented "TRP channels: A potential mechanosensitive (gravity-sensing) calcium channel in T cells" on September 21, 2006.

Jonathan A. Phillips, Ph.D., NASA Postdoctoral Fellow, Mechanobiology Research Group, NASA Ames Research Center presented "Role for β 1 Integrin in Response of Cortical Bone to Disuse" on October 26, 2006.

Aerospace Medicine Grand Rounds

Streaming video version of
["Psychosocial Issues During ISS Missions: Research and Ramifications"](#)

Nick Kanas, M.D., Ph.D.

Professor of Psychiatry, University of California San Francisco

January 24, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video version of
["Public Health and Medical Support During Hurricanes Katrina and Rita"](#)

W. S. "Chip" Riggins, M.D., M.P.H.

Col. Texas Air National Guard

Joint State Surgeon, Texas Military Forces

Resident in Aerospace Medicine

USAAD School of Aerospace Medicine

February 28, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video version of
["Biomedical Nanotechnologies and Space Medicine"](#)

[Slides in PDF format](#)

Mauro Ferrari, Ph.D.

Professor, Brown Institute of Molecular Medicine

Interim Chairman, Dept. Biomedical Engineering

University of Texas Health Science Center, Houston

Professor, Experimental Therapeutics, University of Texas MD Anderson Cancer Center

Professor, Bioengineering, Rice University

President, Texas Alliance for NanoHealth

March 28, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video not available

"South Pole Station: An Analogue for Lunar and Mars Outpost Medical Operations"

[Slides in PDF format](#)

Christian Otto, M.D.

2005 South Pole Station Physician

Visiting Professor, Department of Surgery and Emergency Medicine

University of Texas Medical Branch, Galveston

April 25, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video of
["Internist's Tumor in a Pilot"](#)

Serena Aunon, M.D.

["Cervical Spine Injury in Aviators and Astronauts"](#)

Eric Kerstman, M.D.

Residents, UTMB/NASA Aerospace Medicine Residency Program

Department of Preventive Medicine and Community Health

University of Texas Medical Branch

May 23, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video of

["Why Bubbles Form"](#)

Alf O. Brubakk, M.D.

Professor of Environmental Physiology

Norwegian University of Science and Technology

Trondheim, Norway

June 22, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video not available

Commercial Spaceflight

Richard Jennings, M.D.

Director, UTMB/NASA Aerospace Medicine Residency Program

July 25, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video of

["Contribution of the Respiratory Muscle to Orthostatic Tolerance and Preservation of Central Blood Volume"](#)

Victor Convertino, Ph.D.

US Army Institute of Surgical Research

Ft. Sam Houston, Texas

August 22, 2006

Lecture Hall, Center for Advanced Space Studies

Streaming video of

["Is There a Neurologist on This Flight?"](#)

[Slides in PDF format](#)

Joseph I. Sirven, M.D.

Mayo Clinic

Scottsdale, Arizona

September 26, 2006

**Patty H. Robertson Aerobic and Aviation Symposium
October 24, 2006**

Streaming video of

[Substance Dependence in Aviation Accidents](#)

Mitch Garber, MD, MPH, MSME, Medical Officer, National Transportation Safety Board

Streaming video of

[The Aerobic Flight Experience: From Getting Started to Unlimited Competition](#)

Debbie Rihn, Harvey & Rihn Aviation, Aerobic Pilot, Southwest Airlines Pilot

Streaming video of

[How Safe Is General Aviation?](#)

Col. Steve Nagel, Research Pilot, NASA/JSC Aircraft Operations, Astronaut

Streaming video of

[Aviator Physical Fitness and Nutrition in Aerobatics](#)

Ron Hansrote, M.D., (Ret.), Associate Professor, School of Aeronautics, Florida Institute of Technology

Streaming video of

[NASA/Haughton-Mars Project: 2006 Lunar Medical Contingency Simulation Devon Island, Nunavut,](#)

[Canadian High Arctic](#)

[Slides in PDF format](#)

Richard A. Scheuring, DO, MS
Advanced Projects/Flight Surgeon
UTMB/Wyle Laboratories
NASA Johnson Space Center
November 28, 2006

Research Seminars

Computational Study of Chemical Systems of Biological and Technological Interest

Claudio Carra, Ph.D.

University of Ottawa

January 19, 2006

Individual-based approach to radiation risk assessment

Olga Smirnova, Ph.D.

Federal State Unitary Enterprise Research and Technology Center of Radiation-Chemical Safety and Hygiene

Moscow, Russia

May 30, 2006

Analysis of Planetary Exploration Spacesuit Systems and Evaluation of a Modified Partial-Gravity Simulation Technique

Steven P. Chappell, Ph.D.

Laboratory for Atmospheric and Space Physics

University of Colorado

June 12, 2006

Use of propensity scores in observational studies

Myrna Khan, Ph.D.

Michael DeBakey VA Medical Center, Houston, Texas

July 5, 2006

Studies on Anticancer Active Compounds from Traditional Chinese Herbal Medicine

Shaoyu Yan, Ph.D.

Department of Surgery

Baylor College of Medicine

July 12, 2006

Pharmaceutical Formulation Development of Liquids and Semisolids

Cheryl Stevenson, Ph.D.

July 25, 2006

Comparing Self-reported Health Status and Diagnosis-based Risk Adjustment to Predict Short and Long-term Mortality

Kenneth Pietz, Ph.D.

Statistician, VA Medical Center and Assistant Professor of Medicine, Baylor College of Medicine, Houston, Texas

August 21, 2006

Cost-utility Analysis of HIV Prevention Interventions: Estimates and Uncertainties

Matthew Hayat, Ph.D.

Statistician, National Cancer Institute, National Institutes of Health

August 28, 2006

The Lungs and Microgravity: Are They at Risk?

Mark Olfert, Ph.D.

Department of Medicine

University of California San Diego

October 19, 2006

Selected Case Studies Focusing on Problems in Today's Drug Discovery/Development Environment

Peter Cheung, Ph.D.

Director of Research and Pre-Clinical Development

Y's Therapeutics,

Burlingame, California
October 27, 2006

Understanding the Size-Dependent Adsorption Characteristics of Small Elemental Clusters

William T. Wallace, PhD
Physical Chemistry
November 15, 2006

Detailing Protein Phosphorylation Changes after Low and High LET Exposures

Janice M. Pluth, Ph.D.
Molecular Biology Department
Life Sciences Division
Lawrence Berkeley National Laboratory
Berkeley, California
December 4, 2006