

***Man in Extreme Environments:
Applied Physiology from Subsea to Space***

December 16-17, 2010

**Presented by NTNU Baromedical and Environmental Physiology Group
Trondheim, Norway**

THURSDAY, 16 DECEMBER 2010

SESSION A: MEDICAL TECHNOLOGY

Session Chair: t.b.d, Andreas Møllerløykken, Co-Chair

Norges Teknisk-Naturvitenskapelige Universitet, Norway

- 0900-0920** **Andreas Møllerløykken**, Norges Teknisk-Naturvitenskapelige Universitet,
Norway
INTRODUCTORY REMARKS
Torbjørn Digernes, Rector, Norges Teknisk-Naturvitenskapelige Universitet,
Norway
WELCOMING REMARKS
- 0920-0930** **Paul Rose**, United Kingdom
Title: t.b.d
- 0930-1000** Plenary presentation
Rune Aaslid, Hemodynamics, Switzerland
NONINVASIVE METHODS IN CLINICAL NEUROPHYSIOLOGY AND
CARDIOVASCULAR MEDICINE.
- 1000-1020** **Ingrid Gribbestad**, Norges Teknisk-Naturvitenskapelige Universitet, Norway
MRI - FUNCTIONAL AND METABOLIC POSSIBILITIES
- 1020-1040** **Bjørn Angelsen**, Norges Teknisk-Naturvitenskapelige Universitet, Norway
ULTRASOUND IMAGING – FROM EARLY IDEAS TO TODAY’S
POSSIBILITIES
- 1040-1100** **BREAK**
- 1100-1130** **Student presentations**
- 1130-1230** **LUNCH**

SESSION B: EXERCISE PHYSIOLOGY

Session chair: Morten Høydal,

Norges Teknisk-Naturvitenskapelige Universitet, Norway

- 1230-1300** Plenary presentation
Steve L. Britton, University of Michigan, USA
AEROBIC CAPACITY IS THE MAJOR DETERMINANT OF THE
CONTINUUM BETWEEN HEALTH AND DISEASE
- 1300–1320** **Martin Halle**, University of München, Germany
THE FUTURE OF HEALTH CARE
- 1320–1340** **Martin Gibbala**, McMaster University, Canada
HIGH INTENSITY INTERVAL EXERCISE
- 1340–1400** **Ulrik Wisløff**, Norges Teknisk-Naturvitenskapelige Universitet, Norway
AIMING AT THE HEART THROUGH EXERCISE
- 1400-1420** **BREAK**

SESSION C: ALTITUDE AND TEMPERATURE

- 1420–1510** Plenary presentation
Bengt Saltin, University of Copenhagen, Denmark
ADAPTATION AND SURVIVAL AT HIGH ALTITUDE
- 1510-1530** **Russell S. Richardson**, University of Utah, USA
EXERCISE AT ALTITUDE: FROM BASIC SCIENCE TO CLINICAL
OBSERVATIONS
- 1530-1550** **Hannu Rintamäki**, Finnish Institute of Occupational Health, Finland
PHYSICAL CONSEQUENCES OF EXPOSURE TO COLD
- 1550-1610** **Torkjel Tveita**, University of Tromsø, Norway
EFFECTS OF HYPOTHERMIA/REWARMING ON CARDIAC FUNCTION
- 1610–1630** **Godfrey Smith**, University of Glasgow, United Kingdom
t.b.d.
- 1630-1700** **Student Presentations**
- 1900-2200** **Lavvo dinner at Frøseth Gård (NB! By invitation only)**

FRIDAY, 17 DECEMBER 2010

SESSION D: ENVIRONMENTAL PHYSIOLOGY

Session Chair, t.b.d.

- 0830–0900** Plenary presentation
David Elliott, United Kingdom
IS SATURATION DIVING SAFE? FACTS AND MYTHS
- 0900-0920** **Wayne Gerth**, Navy Experimental Diving Unit, USA
Title: t.b.d.
- 0920-0940** **Stephen Thom**, University of Pennsylvania Medical Center, USA
DECOMPRESSION SICKNESS IS AN INFLAMMATORY DISEASE
- 0940-1000** **Richard Moon**, Duke University Medical Center, USA
HOW DOES DIVING AFFECT PULMONARY GAS EXCHANGE?
- 1000-1020** **BREAK**
- 1020-1050** Plenary Presentation
Bruce Butler, University of Texas Medical School at Houston, USA
THE CHRONOBIOLOGY OF DECOMPRESSION SICKNESS
- 1050-1110** **Željko Đujić**, University of Split School of Medicine, Croatia
CARDIOPULMONARY EFFECTS OF BREATH HOLD DIVING
- 1110-1140** **Igor Mekjavić**, Jozef Stefan Institute, Slovenia
HUMAN THERMOREGULATORY FUNCTION DURING EXERCISE AND DIVING
- 1140-1150** **Michael A. Lang**, Smithsonian Institution, USA
THE REVOLUTION OF SCIENCE THROUGH SCUBA
- 1150-1210** **Drew Richardson**, PADI Worldwide, USA
TRAINING SCUBA DIVERS: A FATALITY AND RISK ASSESSMENT
- 1210-1310** **LUNCH**
- 1310-1340** Plenary presentation
Michael L. Gernhardt, National Aeronautics and Space Administration, USA
DIVING IN SPACE

SESSION E: PHYSIOLOGICAL GENOMICS AND SYSTEMS BIOLOGY

Session Chair: Ingrid Eftedal

- 1340-1410** **Plenary presentation**
Randy Jirtle, Duke University, USA
YOU ARE WHAT YOUR MOTHER ATE
- 1410–1430** **Allen Cowley**, Medical College of Wisconsin, USA
PHYSIOLOGICAL GENOMICS
- 1430-1500** **Student presentations**
- 1500-1530** **Alf O. Brubakk**, Norges Teknisk-Naturvitenskapelige Universitet, Norway
IT`S NEVER TOO LATE TO GIVE UP
- 1530-1545** **Andreas Møllerløyken**, Norges Teknisk-Naturvitenskapelige Universitet,
Norway
CLOSING REMARKS
- 1600-1730** **Tapas**

SESSION F: EXPLORER`S NIGHT

- 1800-2200** **HOW TO FACE THE EXTREMES IN A PRACTICAL WAY**
- Herbert Nitsch** - The deepest man on Earth
Tanya Streeter - The deepest woman on Earth
Børge Ousland - Crossing the poles
Sir Chris Bonington - On top of the world
Jay Buckley - When the world is not enough – Going into space