# **4<sup>th</sup> UK SPACE BIOMEDICINE CONFERENCE 2009**

Downing College, University of Cambridge, UK



7<sup>th</sup> November 2009

Welcome

Introduction and a Tribute to Prof J. Ernsting OBE

Dr Gihan Ganesh BSc(Hons) MBBS Chairman, UKSBA Conference 2009

#### **BEST OF BRITISH**

"Recruitment of Key Stabilizer Muscles Using a New Exercise Device – Towards a More Effective Stabiliser Training for Astronauts"

Dr Dorothee Debuse BSc (Hons), PhD ESTEC Topical Team Lead on Stabiliser Training/Senior Lecturer Physiotherapy, Northumbria University

"Astrobiology: The Search for Life Beyond Earth"

Dr Lewis Dartnell BA(Hons), Mres, PhD Astrobiology Researcher, University College London

"Muscle Wasting and Weakness in Simulated Microgravity"

Prof Marco Narici MSc, PhD

Professor in Physiology of Ageing, Institute for Biomedical Research into Human Movement, Manchester Metropolitan
University

"Reproduction in Space - The Role of Gravity in Embryogenesis"

Dr Catherine Aitken BA MA(Cantab) MB ChB Senior House Officer, Addenbrooke's Hospital, Cambridge

# INTERNATIONAL ADVANCES

"Space Medicine Coordination – A European Perspective"

Dr Simon N Evetts, BA(Hons), PG Cert, MSc, PhD

Medical Projects & Technology Unit Lead, Crew Medical Support Office, European Astronaut Centre

"Basic Life Support in simulated Microgravity: Evaluation of a Novel Method and Perceived Exertion During External Chest Compressions"

Mr Lucas Rehnberg BSc(Hons), MSc King's College London/PUCRS

"NASA's Future Human Spaceflight Program – Project Constellation: and Ground Operations Projects"

Dr Philip Scarpa MSc MD

Flight Surgeon, Constellation Programme, NASA

"Concordia Station: A Mission to Mars via Antarctica"

Dr Alex Salam DiMM MRCP

Research MD in Human Biology and Medicine, European Space Agency
LIVE from Concordia Station, Antarctica

## THE FUTURE OF SPACE EXPLORATION

"Astronautical Hygiene - Application to Protect Astronaut's Health"

Dr John R Cain PhD, MSc, MBA, CBiol, FIBiol, FBIS, MFOH Dip OH HM National Specialist Inspector (Health Risk Management), Health and Safety Executive

"Exploring the Human Mind: Mission to Mars"

Dr Iya Whiteley, MClinPsy, PhD, MRAeS,

Human Factors/Cognitive Psychologist at European Astronaut Centre, ESA

"Commercial Space Flight: Challenges and Opportunities"

Dr Vernon McDonald, PhD Wyle Laboratories, Houston

"MarsTechcare - Biomedical Technologies for Crew Health on Long Missions"

Dr Patrick Magee MSc FRCA

Consultant in Anaesthesia, Royal United Hospital, Bath and Visiting Lecturer, Mechanical Engineering, University of Bath

### GET INVOLVED

"ESA Astronaut Selection" (Key Note Speech)

Dr Gehard Thiele, PhD Head of European Astronaut Division, ESA

"NASA Kennedy Space Centre Elective"

Dr Emma-Jane Smith, BSc MBBS Kennedy Space Centre Elective Co-ordinator

"The Vomit Comet: Parabolic Flight Campaigns"

Dr George Evetts BSc MBBS Anaesthetics, Medical Officer, Royal Air Force

"International Organisations in Space Biomedicine"

Ms Daniela Petrova Secretary, UKSBA

"Flights of fancy - Aviation/Aerospace courses at King's College London"

Dr David A Green, PhD

Lecturer of Human Cardiorespiratory and Aerospace Physiology, King's College London

**Closing Remarks**