

## 2017 Annual Lecturers

### 63rd Annual Louis H. Bauer Lecturer: **Michael R. Barratt, M.D.**

#### ***"N=1: Medical Debrief on an ISS Expedition"***

Michael R. Barratt, M.D., is a U.S. astronaut, currently serving in the International Space Station Operations and Integration branches or NASA handling medical issues and on orbit support. He graduated from the University of Washington in 1981 with a B.S. He earned his M.D. at Northwestern University in 1985 and completed a 3-year residency in internal medicine at Northwestern in 1988. He completed a year of Chief Residency at Veterans Administration Lakeside Hospital in Chicago in 1989 and a residency and Master's in aerospace medicine at Wright State University in 1991. He is board certified in internal and aerospace medicine.



In 1991, Dr. Barratt joined NASA Johnson Space Center as a project physician with KRUG Life Sciences working on medical systems for Space Station Freedom. In 1992 he was assigned as NASA Flight Surgeon working in Space Shuttle Medical Operations. He was assigned to the joint US/Russian Shuttle-Mir Program in 1994, working and training extensively in the Cosmonaut Training Center, Star City, Russia, in support of the Mir-18/STS-71 and subsequent missions. From 1995 through 1998, he served as Medical Operations lead for the ISS. He then served as lead crew surgeon for first expedition crew to ISS from 1998 until selection as an astronaut candidate.

Dr. Barratt was selected as an astronaut candidate-mission specialist in 2000. Following the completion of 2 years of training and evaluation, he was assigned technical duties in the ISS Operations Branch. Assigned to long-duration flight training in 2005, he subsequently launched on Soyuz TMA-14 on March 26, 2009, to the ISS and served as a member of Expeditions 19 and 20. This increment included the transition from three to six ISS crewmembers, two EVAs, two visiting Shuttles, and the arrival of the first Japanese HTV. Completing 199 days in space, he landed on the Kazakh Steppe on October 11, 2009. He was also assigned to the STS-133 mission in 2011 to deliver a logistics module to the ISS. From 2012 through 2013, he was Manager of the Human Research Program at NASA Johnson Space Center.

Dr. Barratt is a member of the American College of Physicians, the American Institute for the Advancement of Science, and the Aerospace Medical Association. He serves as Associate Editor for Space Medicine for the journal *Aerospace Medicine and Human Performance* and is senior editor of the textbook "Principles of Clinical Medicine for Space Flight." His awards include the W. Randolph Lovelace Award from the Society of NASA Flight Surgeons, the Melbourne W. Boynton Award from the American Astronautical Society, the Julian E. Ward Memorial Award from the Aerospace Medical Association, the Wright State University Outstanding Graduate Student in Aerospace Medicine award, and the first Joseph Kerwin Award from the Aerospace Medical Association.

*The Bauer Lecture will be held on Monday, May 1, 2017 8:30 a.m., during Opening Ceremonies in the PlazaBallroom. Educational Support is provided by Wyle.*

*The Reinhartz Lecture will be given on Tuesday, May 2, 2017, 8:30 a.m. in the Grand Ballroom. Support is provided by the Eugen Reinhartz Memorial Fund.*

### 4th Annual Reinartz Lecturer: **Michael A. Berry, M.D., M.S.**

#### ***"Have Flight Surgeons and Aerospace Medicine made Aviation Safer?"***

Michael A. Berry recently became Federal Air Surgeon at the Federal Aviation Administration in Washington, DC. He was born in San Francisco, CA. He received his M.D. degree from the University of Texas South-



western Medical School in Dallas in 1971. After a general surgery internship in the United States Air Force at Wilford Hall USAF Medical Center, Lackland AFB, TX, he took the primary course in aerospace medicine at the USAF School of Aerospace Medicine, Brooks AFB, TX. He then spent 4 years as a fighter squadron flight surgeon in Madrid, Spain, and England. While in Madrid, he was flight surgeon to both the 98th Strategic Wing and the 613th Tactical Fighter Squadron and Chief Physician for Remote Radar Sites in Spain. He was also a

member of a special accident investigation team, and commander of a transportable hospital during NATO exercises.

After a year as a flight surgeon at RAF Lakenheath, UK, in 1976, Dr. Berry entered his residency in Aerospace Medicine at Ohio State University in Columbus, OH, and received his Master's Degree in Preventive Medicine in 1977. In 1978, he was certified by the American Board of Preventive Medicine in Aerospace Medicine. Following his residency, he became the Chief of the Flight Medicine Clinic at the NASA Johnson Space Center in Houston, TX, where he was responsible for the screening and selection of new astronauts, clinical and preventive medicine for the astronauts and their dependents, and participated in the medical certification and training of astronauts for spaceflight, as well as medical monitoring during flight. In addition to participating in the extensive medical preparations for the first flight of the Space Shuttle, he served as a member of the Flight Control Team for the first two flights of the shuttle Columbia. Upon leaving NASA, he entered into private practice of aerospace medicine with his father, Dr. Charles Berry, forming Preventive & Aerospace Medicine Consultants in Houston, TX. He has been a Senior Aviation Medical Examiner for the FAA since 1979. He is also an Aviation Medical Examiner for Transport Canada. In 2006, he accepted a Senior Executive position with the FAA in Washington, DC, where he was the Manager of the Medical Specialties Division at FAA Headquarters. He was named Deputy Federal Air Surgeon in 2014 and served in that position until January 2017, when he was named Federal Air Surgeon.

Dr. Berry is a Past President and Fellow of the Aerospace Medical Association and a Fellow of the American College of Preventive Medicine. He was also past Vice-President of the Civil Aviation Medical Association and a past President of the International Academy of Aviation and Space Medicine. He served as a Board Member and Trustee of the American Board of Preventive Medicine and as the Vice-Chair for Aerospace Medicine for the Board from 1990 through 1998. He has also served as President of the Society of NASA Flight Surgeons. He is a member of the Space Medicine Association, the Society of U.S. Air Force Flight Surgeons, and the Wilderness Medical Society.

Dr. Berry is the recipient of numerous national awards, including the Air Force's National Defense Service Medal (1971); AsMA's Julian E. Ward Memorial Award (1979) and the John A. Tamisiea Award (2004); the Physician's Recognition Award of the American Medical Association (1979 and 1982); NASA's Special Achievement Award (1980); and the First Shuttle Flight Achievement Award (1981). He has several academic

appointments, including Adjunct Assistant Professor of Aerospace Medicine at the University of Texas School of Public Health in Houston, TX, and Visiting Lecturer in Space Medicine at the USAF School of Aerospace Medicine at Brooks AFB, TX. He has published numerous articles in professional journals and chapters in major textbooks including a chapter on Civil Aviation Medicine in the standard textbook “Fundamentals of Aerospace Medicine.”

**52nd Annual Harry G. Armstrong Lecturer:  
Kevin Fong, B.Sc., M.Sc., M.B.B.S.**

**“Extremes: The Fastest Century”**

Kevin Fong, B.Sc., M.Sc., M.B.B.S., MRCP, FRCA, FFICM, is a doctor at University College Hospital in London specializing in anesthesia and intensive care medicine and a pre-hospital physician with Kent Surrey Sussex Air Ambulance. He holds degrees in Astrophysics, Medicine, and Aerospace Engineering, and has worked with NASA’s Human Adaptation and Countermeasures Office at Johnson Space Center in Houston. He first visited Johnson Space Center as a medical student in 1997 when he took part in NASA’s aerospace medicine internship. At the time, the UK was excluded from human space exploration programs at policy level. Nevertheless, Kevin participated in and supported a number of high profile reviews of UK space strategy and policy in an attempt to renew interest in this area.



Photo: Anthony Cullen ©ACPO812

In 1999 Dr. Fong organized the Futures in UK Space Biomedical Research conference at University College London, which drew together representatives from ESA, NASA, the NSBRI, and the British National Space Center and proposed a strategy for the UK’s re-engagement in international programs of human space exploration.

As part of this strategy, in 2000, he founded the Centre for Altitude, Space and Extreme Environment (CASE) Medicine at UCL—a group with a special interest in the parallels that exist between critical illness and the physiology of extreme environments. In parallel, he launched the UK’s first undergraduate course in Space Medicine and Extreme Environment physiology and secured research placements for British students at NASA and ESA field centers. The award of a 5-year fellowship from NESTA (National Endowment for Science Technology and the Arts) in 2003 allowed Dr. Fong to continue his work with NASA and further his interest in human space exploration. During this time, he participated in the NASA Artificial Gravity Pilot Study under the supervision of Professor Bill Paloski.

Currently Dr. Fong is an honorary senior lecturer in physiology at University College London and continues to run his course in space medicine and extreme environment physiology. In 2011 he became one of the Wellcome Trust’s inaugural Public Engagement Fellows and through this award developed skills in science communication and broadcast journalism. He has since authored and presented a number of radio and television documentaries for the BBC and the BBC World Service. These have included “Trauma: The Fight for Life” in 2014, which saw him travel to Afghanistan to witness the work of the British Military’s trauma unit at Camp Bastion, and “Space Shuttle: The Final Mission” in 2011, which documented the final month of the space shuttle program and the launch of STS 135.

In 2015 Dr. Fong was honored to be invited to give the Royal Institution’s Christmas Lectures. This series of public lectures have been delivered each Christmas for 185 years and have in the past been given by the likes of Michael Faraday, Carl Sagan, Richard Dawkins, and David Attenborough. Dr. Fong’s first book—about the relationship between medicine, exploration, and survival in the 20th century—won an award from the American Association for the Advancement of Science and is titled Extreme Medicine.

*The Armstrong Lecture will be held on Thursday, May 4, 2017, 8:15 a.m., in the Grand Ballroom. Educational support is provided by Environmental Tectonics Corp.*

**Hello, Naples.**

**UHMS 2017 Annual Scientific Meeting**

• June 29-July 1 •

Pre-Courses June 28 • Post-Course July 2

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