

JHU Introductions, Symposium Goals

- 12:00-12:20** Mark Shelhamer
12:20-12:30 Larry Nagahara
12:30-12:45 Jason Kalirai
Space Exploration at Johns Hopkins APL
12:45-12:50 Lori Graham-Brady
Civil and Systems Engineering at JHU
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BREAK (12:50-1:00pm)

Opening Keynote

- 1:00-1:30** Wayne Hale

External Perspectives

- 1:30-1:40** Gary Riccio
NASA's Leadership in Metascience
1:40-1:55 Erik Antonsen
Ending Siloes: The Need to Paint the Big Picture of Human System Risks in Human Spaceflight
1:55-2:10 Jeff Chancellor
Space Radiation: Where is the Risk?
2:10-2:20 David Klaus
Bioastronautics at UC Boulder
2:20-2:35 Aenor Sawyer
The Health Sense Matrix for Space
2:35-2:45 Cheryl Nickerson
ASU Space Life Sciences Efforts
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BREAK (2:45 - 3 PM)

JHU Investigators

- 3:00-3:10** Michael Schubert
Autonomous Rehab to Reduce Motion Sickness and Improve Balance
3:10-3:20 Mike Rosen
Team Physiological Dynamics and Communication Measurement Strategies for LDSE Competencies
3:20-3:30 Sharon Gerecht
3D Human Vascular Models to Study Responses to Radiation and Hypoxia
3:30-3:40 Deok-Ho Kim
A Human IPSC-Based 3D Microphysiological System for Modeling Cardiac Dysfunction in Microgravity
3:40-3:50 Radames Cordero
Melanin in Space

3:50-4:00 **Greg Falco**
Smart Cities for Resilient Space Habitats

Closing Keynote with Discussion (introduction by Mallika Sarma and Serena Tang)

4:00-4:05 ***Mallika Sarma***
Intro to the Lab

4:05-4:40: **Serena Auñón-Chancellor**

4:40-5:00: **Serena Tang**
Q&A with Serena Aunon-Chancellor

END

Speakers

Mark Shelhamer
Professor, Department of Otolaryngology – Head and Neck Surgery
Johns Hopkins University School of Medicine
Chief Scientist, NASA Human Research Program (2013-2016)

Larry Nagahara
Associate Dean of Research
Whiting School of Engineering
Johns Hopkins University

Jason Kalirai
Mission Area Executive, Civil Space
Johns Hopkins University Applied Physics Laboratory (APL)

Lori Graham-Brady
Professor and Chair, Department of Civil and Systems Engineering
Johns Hopkins University

Wayne Hale
Director of Human Spaceflight for Special Aerospace Services of Boulder, Colorado
Retired NASA Deputy Associate Administrator for Strategic Partnership
Retired NASA Space Shuttle Flight Director and Space Shuttle Program Manager

Gary Riccio
Founder, Nascent Science & Technology LLC

Erik Antonsen

Assistant Professor of Medicine, Baylor College of Medicine
Assistant Director, Human Systems Risk Management, NASA (2018-2021)
Element Scientist for Exploration Medical Capabilities, NASA (2015-2018)

Jeff Chancellor

Assistant Professor, Department of Physics & Astronomy, Louisiana State University
Assistant Professor, Department of Preventive Medicine & Population Health, UTMB

David Klaus

Professor, Aerospace Engineering Sciences
University of Colorado Boulder

Aenor Sawyer

Director, UC Space Health
Co-Director, Center for Advanced 3D + Technologies
Director, UCSF Skeletal Health Service, Dept. Orthopaedic Surgery, UCSF

Cheryl Nickerson

Professor of Life Sciences, School of Life Sciences
Biodesign Center for Fundamental and Applied Microbiomics
Laboratory for Infectious Disease Dynamics
The Biodesign Institute, Arizona State University

Michael Schubert

Professor, Department of Otolaryngology – Head and Neck Surgery
Johns Hopkins University School of Medicine

Michael Rosen

Associate Professor of Anesthesiology and Critical Care Medicine
Johns Hopkins University School of Medicine

Sharon Gerecht

Edward J. Schaefer Professor in Engineering
Director, Institute for NanoBio Technology (INBT)
Department of Chemical and Biomolecular Engineering
Johns Hopkins University

Deok-Ho Kim

Associate Professor, Department of Biomedical Engineering
Johns Hopkins University

Radames Cordero

Research Associate, Department of Molecular Microbiology and Immunology

Johns Hopkins University Bloomberg School of Public Health

Gregory Falco

Assistant Research Professor

Department of Civil and Systems Engineering and the Institute for Assured Autonomy

Johns Hopkins University

Serena Auñón-Chancellor

Associate Professor of Clinical Medicine, Louisiana State University Health Sciences Center

Associate Program Director - Aerospace Medicine Residency Program, UTMB

NASA Astronaut