



Roundtable V: Data and Research Ethics

*Bioethics in Commercial Space Travel:
Charting Humanity's Next Frontier*

**April 16, 2026
12:00–1:30 p.m. EST
Via Zoom**



DR. JACKSON BROUGHER
TRISH
Discussant

Dr. Jackson Brougher is a Space Health Research Scientist at the Translational Research Institute for Space Health (TRISH) and an Assistant Professor at the Center for Space Medicine at Baylor College of Medicine. Within his role at TRISH, Dr. Brougher supports the EXPAND database, including the release of data through an ongoing request for proposals and coordinating the efforts of TRISH's Data Privacy and Release Board. Prior to joining TRISH, Dr. Brougher co-founded Doloromics, a neurotherapeutics biotechnology company developing non-opiate treatments for neuropathic pain, where he utilized patient multi-omics and electronic medical records to identify novel drivers of pain.



DR. ALEX DUNLAP
SolaMed Solutions
Discussant

Alexander Dunlap, DVM, MD, NASA's Chief Veterinarian for over 16 years, was an Alternative Payload Specialist for the Space Shuttle (STS-90) NeuroLab. Dr. Dunlap practiced private veterinary medicine while serving as a BioSpecimen Sharing Program team member, a project veterinarian during SpaceLab Life Sciences-1 (STS-40), and as a veterinary surgeon at the Dryden Landing Site for NIH-R2 (STS-70). After graduating from the University of Tennessee School of Medicine in 1996, Dr. Dunlap began practicing Emergency Medicine in addition to serving as the Chief Veterinarian for NASA. He has provided biospecimen safety guidance and protection to the commercial space sector.



DR. JAMES GREEN
Space Science Endeavors,
Metavisionaries US
Discussant

Dr. James Green has worked at NASA for 42 years before retiring in December 2022. He received his Ph.D. in Physics from the University of Iowa in 1979 and worked at Marshall Space Flight Center, Goddard Space Flight Center, and NASA Headquarters. During Jim's distinguished career at NASA, he has been NASA's Chief Scientist and was the longest serving director of NASA's Planetary Science Division with the overall programmatic responsibility for 31 NASA missions and instrument contributions on other Space Agency spacecraft. Some of these mission highlights include the New Horizons spacecraft flyby of Pluto, the Juno spacecraft insertion at Jupiter, and the landing of the Curiosity rover on Mars, just to name a few. Jim has received NASA's Exceptional Achievement Medal and the Distinguished Service Medal. He has written over 125 scientific papers in refereed journals (h-index of 40) and over 125 technical and popular articles. In 2015, Jim coordinated NASA's involvement with the film *The Martian*. In 2017 Asteroid 25913 was renamed Jamesgreen in his honor. He now teaches students around the world about space and planetary science in the Metaverse.



HOLLY LYNCH, JD, MBE

University of Pennsylvania
Discussant

Holly Fernandez Lynch, JD, MBE, is Associate Professor of Medical Ethics and Law at the University of Pennsylvania. Her research focuses on FDA pharmaceutical and biotechnology policy, especially approaches to drug development and early approval pathways for diseases with unmet treatment needs. She also studies access to investigational medicines, clinical research ethics and regulation, and psychedelic science and policy. She is founder and co-chair of the Consortium to Advance Effective Research Ethics Oversight (www.AEREO.org), a collaborative endeavor to improve IRB quality. She is an emeritus board member of Public Responsibility in Medicine & Research (PRIM&R) and immediate past president of the board of the American Society for Law, Medicine, and Ethics. She has served as a member of the Secretary's Advisory Committee on Human Research Protection (SACHRP) and as the ethicist in residence at the Robert Wood Johnson Foundation. Professor Fernandez Lynch has previously worked as an attorney in private practice, a bioethicist serving NIH's Division of AIDS, an analyst with President Obama's Commission for the Study of Bioethical Issues, and executive director of Harvard Law School's bioethics and health law research program. She earned graduate degrees in law and bioethics at the University of Pennsylvania.



DR. SARALYN MARK
SolaMed Solutions
Moderator

Saralyn Mark, MD, FAMWA, is an endocrinologist and women's health specialist and the founder and CEO of **SolaMed Solutions**, including its space medicine subsidiary. She is also the founder of **iGIANT®**, a nonprofit focused on advancing sex- and gender-specific design.

Dr. Mark has served as a medical and scientific advisor to the White House Office of Science and Technology Policy, NASA, and other public- and private-sector organizations. She previously served as Senior Medical Advisor to the U.S. Department of Health and Human Services Office on Women's Health and to NASA, where she contributed to initiatives spanning public health, emerging technologies, and human performance in space.

She is an adjunct Associate Professor at Yale and Georgetown Universities and a Distinguished Senior Fellow at George Mason University. Dr. Mark is the author of *Stellar Medicine* and has received multiple awards for distinguished public service.



AMY MCGUIRE, JD, PHD

Baylor College of Medicine

Discussant

Amy McGuire, JD, PhD, is the Leon Jaworski Professor of Biomedical Ethics, Director of the Center for Medical Ethics and Health Policy at Baylor College of Medicine and founding director of the Ethical Legal Implications of Psychedelics in Society (ELIPSIS) program. She researches ethical and policy issues related to emerging technologies and innovative therapeutics, with a particular focus on genetics and genomics, neuropsychology, artificial intelligence, and the clinical integration of novel neurological devices.



DR. VASILIKI RAHIMZADEH
Baylor University College of
Medicine
Ethicist

Vasiliki Rahimzadeh, PhD, is an assistant professor of medical ethics and health policy at Baylor College of Medicine. Her National Institutes of Health-funded research program investigates the ethical, legal and social issues (ELSI) of sharing genomic and related health data on Earth and in space. She directs the Mission to Enhance Ethics Education, Outreach and Research in Space (METEORS) program where she contributes to evidence-based standards for human research protections in the commercial spaceflight industry and supports space medicine investigators navigate emerging ELSI in their work. She is also a standing member of the Bioethics Panel for the National Aeronautics and Space Administration and chairs the Astro-Ethics Affinity Group through the American Society for Bioethics and Humanities. Dr. Rahimzadeh has a BS in microbial biology from the University of California Berkeley and earned a PhD with specialization in biomedical ethics from McGill University before completing a postdoctoral fellowship at Stanford University.



DR. MICHAEL SCHMIDT

Sovaris Aerospace
Discussant

Dr. Michael A Schmidt, PhD, MPhil, FAsMA a Professor of Aerospace Medicine at the UCF College of Medicine and is the CEO and Chief Scientific Officer of Sovaris Aerospace in Boulder, CO. He is considered among those leading the advancement of precision (personalized) medicine in human spaceflight and high-performance operations on Earth. Dr. Schmidt has also been instrumental in development of the field of multiomics applied to human spaceflight (genomics, epigenomics, transcriptomics, proteomics, metabolomics, microbiomics, and pharmacogenomics), coupled with physiological and behavioral phenotyping in high performance environments. His work also includes leading development of the Astronaut Digital Twin Program.

Beyond spaceflight, Dr. Schmidt has three decades of experience working with elite performers in extreme environments, which includes molecular profiling and countermeasure efforts for humans ranging from wilderness medicine, SWAT, high altitude ascent, military Special Operations Forces, military aviators, Olympic athletes, and professional athletes (NFL, NBA, etc.). Among this work, he led the molecular profiling and countermeasures efforts for the Golden State Warriors when they set the NBA record for wins in a season (73-9) and Corvette Racing when they won the 24 Hours of Le Mans.

Dr. Schmidt is on the NFL Players Association (NFLPA) Mackey-White Health and Safety Committee and is a founding member of the NFLPA Scientific Advisory Board. He is also an advisor to the US Naval Special Warfare Group TWO (SEAL teams) and to the US Navy Strike Fighter Tactics Instructor Program (TOPGUN School).

Dr. Schmidt is co-editor of the textbook (2025), “Building a Space Faring Civilization” and the forthcoming (2027) “Fundamentals of Research for Human Spaceflight,” (Academic Press, Elsevier). He is a Fellow of the Aerospace Medical Association (FAsMA) and is the former President of the Life Sciences and Biomedical Engineering Branch of the Aerospace Medical Association (currently on the Board of Governors). Dr. Schmidt also currently leads the chapter development on the biomedical drivers of

space architecture for the American Institute of Aeronautics and Astronautics (AIAA) Space Architecture 2025-2034 Decadal Survey (AIAA Space Architecture Technical Committee).

Dr. Schmidt did his PhD research in Molecular Medicine and Biochemistry within the Space Biosciences Division at NASA Ames Research Center under the Chief Medical Officer. This also included work with the NASA Human Information Processing Research Branch, and a Fellowship at NASA's Human Systems Integration Division and the Psychophysiology Research Laboratory. He received a second Ph.D. in Neuroscience from Lancaster University focused on molecular modulators of neuroplasticity (with pilot work at the University of Cambridge, Addenbrookes Hospital) and did additional studies in data and models at MIT.



MEGAN SIEFFERT, ESQ.
Applied Materials
Discussant

Megan Sieffert is an aerospace, semiconductor, and advanced-technology attorney whose career bridges federal oversight, cutting-edge space programs, and high-growth commercial innovation. She currently serves as Segment Business Counsel at Applied Materials, guiding complex commercial, government, and technology transactions for global semiconductor and precision-manufacturing programs. Previously, she was Associate General Counsel at Vast and held senior in-house roles at Axiom Space and Slingshot Aerospace, supporting commercial space station development, astronaut missions, and national-security space software. Megan's foundation as an aerospace lawyer was forged at NASA's Office of Inspector General, where she helped safeguard federal resources by supporting investigations and oversight across NASA's Earth Science portfolio, launch services, and the Commercial Crew Program. She also maintains a robust pro bono practice advising scientific and aerospace startups at the pre-funding stage to accelerate innovation and expand access to space.



KONRAD SZOCIK
University of Information
Technology & Management
Ethicist

Konrad Szocik is a philosopher and bioethicist, and professor and vice-rector for research and international cooperation at the University of Information Technology and Management in Rzeszów, Poland. His research focuses on the philosophy, ethics, and bioethics of space exploration, human enhancement, feminist bioethics, population ethics, and selected issues at the intersection of futures studies, technology, and the environmental crisis. He is the author of *The Bioethics of Space Exploration* (Oxford University Press, 2023) and *Feminist Bioethics in Space: Gender Inequality in Space Exploration* (Oxford University Press, 2024), as well as numerous journal articles and book chapters on space ethics, space bioethics, antinatalism, and climate-related existential risk. Previously, he was a Visiting Fellow at the Yale Interdisciplinary Center for Bioethics (2021–2022).



DR. PAUL ROOT WOLPE
Emory University
Moderator

Paul Root Wolpe, Ph.D., is the Raymond Schinazi Distinguished Research Chair of Jewish Bioethics at Emory University and Professor of Medicine, Pediatrics, Psychiatry, Sociology, and Neuroscience and Behavioral Biology. After 16 years directing Emory's Center for Ethics, he is now building the university's Center for Peacebuilding and Conflict Transformation (PACT). Dr. Wolpe spent 17 years as NASA's first Senior Bioethicist, shaping policies for human health in spaceflight, and served as the first National Bioethics Advisor to Planned Parenthood Federation of America. He is Past President of both the Association of Bioethics Program Directors and the American Society for Bioethics and Humanities, and is a Fellow of the Hastings Center and the College of Physicians of Philadelphia. He received an Honorary Doctorate of Humane Letters in 2019.

A national thought leader, Dr. Wolpe's work examines the ethical, social, and ideological impact of medicine and biotechnology. A founder of neuroethics and former Editor-in-Chief of *AJOB Neuroscience*, he was named one of Trust Across America's "Top 100 Thought Leaders in Trustworthy Business Behavior" and received the 2011 World Technology Network Award in Ethics, the 2022 Tzedek Award, and the 2025 Humanitarian Award from the International Center for Missing and Exploited Children.

Author of more than 150 publications and over 500 invited presentations, Dr. Wolpe has been recognized as a Faculty Row "SuperProfessor" and a Teaching Company "Superstar Teacher." His TED Talk has over two million views, and he has been featured widely in media, including *60 Minutes* and a personal profile in the *New York Times Science Times*.



DR. MATTHEW WYNIA
University of Colorado
Ethicist

Dr. Wynia is a clinician-researcher and leader in bioethics with a history of exploring some of the most contentious ethical issues in health care, focusing on those related to the social roles of health professionals. He is a professor of medicine and of public health at the University of Colorado, where he directs the CU Center for Bioethics and Humanities.

Prior to his current role, he spent 18 years at the American Medical Association, where he led the AMA's Institute for Ethics and Center for Patient Safety, and he was the Director of Patient and Physician Engagement for the Improving Health Outcomes team. While there, he co-founded the Commission to End Health Care Disparities and he led the Project on the History of African-Americans and the Medical Profession that, in 2008, prompted the AMA's public apology for a legacy of racial discrimination and exclusion in organized medicine. He has served on advisory boards for the US DHHS Office of Minority, the Joint Commission, the American Board of Medical Specialties, American Board of Internal Medicine, and other national medical, public health and bioethics professional organizations. At the National Academies, he currently serves on the Board on Health Sciences Policy and has served on multiple consensus committees and chaired special projects on team-based care, transdisciplinary professionalism, and public health approaches to preventing ideologically-motivated violence.



LAURIE ZOLOTH
University of Chicago
Ethicist

Professor Laurie Zoloth holds the Margaret E. Burton Chair of Religion and Ethics at the University of Chicago. She has a distinguished career as a bioethicist and scholar of Jewish ethics, writing or editing 10 books, and over 350 articles. She was both President of the American Academy of Religion and President of the American Society for Bioethics and Humanities, receiving its Distinguished Service Award in 2007. She was a co-founder of the Society for Jewish Ethics and founding chair of the HHMI Bioethics Board. She served on the NASA National Advisory Council, for which she received the NASA National Public Service Award. She has served as both the dean of the Divinity School and as Senior Advisory on Social Ethics at the University of Chicago. Her honors include the Graduate Theological Union's alumna of the year, an honorary doctorate from the American Jewish University, the Engelhardt Award in Bioethics and the Borsch-Rast Book Award in Religion. She is a Fellow of the Hastings Center and a Life Member of Clare Hall, University of Cambridge. In addition to her 1999 book about justice and health care policy, The Ethics of Encounter, and five edited books, her most recent books (2022-2023) are Second Texts and Second Opinions: Essays toward a Jewish Bioethics and Ethics for the Coming Storm: Climate Change and Jewish Thought, both from Oxford University Press, and May We Make the World?: Gene Drives, Malaria, and the Future of Nature, from MIT.