Stanford



Dr Lynn J. Rothschild

Affiliate, Earth & Planetary Sciences

Bio

BIO

Lynn J. Rothschild, a research scientist at NASA Ames and Adjunct Professor at Stanford, is a passionate astrobiologist focusing on the origin and evolution of life on Earth and elsewhere especially in the context of the physical environment, while at the same time pioneering the use of synthetic biology to enable space exploration. A graduate of Yale, Indiana University and Brown, she has brought her imagination and creativity to the burgeoning field of synthetic biology, articulating a vision for the future of synthetic biology as an enabling technology for NASA's missions, including human space exploration and astrobiology. From 2011 through 2019 she served as the faculty advisor of the award-winning Stanford-Brown iGEM (international Genetically Engineered Machine Competition) team, which has pioneered the use of synthetic biology to accomplish NASA's missions, particularly focusing on the human settlement of Mars, and such innovative technologies as biomining, mycotecture, BioWires, making a biodegradable UAS (drone) and an Astropharmacy. Current funded projects include developing an on-demand, personalized Astropharmacy, mycotecture and a detoxification system for perchlorates. Her lab tested select plans in space on in the PowerCell secondary payload on the DLR EuCROPIS satellite. A past-president of the Society of Protozoologists, she is a fellow of the Linnean Society of London, The California Academy of Sciences and the Explorer's Club. She was awarded the Isaac Asimov Award from the American Humanist Association, and the Horace Mann Award from Brown University. She has been a NASA Innovative Advanced Concepts (NIAC) fellow five times. Lynn is an Adjunct Professor in Molecular Biology, Cell Biology and Biochemistry at Brown University. She frequently appears on documentaries, TV and radio, and lectures worldwide, including Windsor Castle, Comi Con, TechFestival and the Vatican, and debated de-extinction for an Intelligence Squared USA debate.