

Data Sensing, Science & Systems for Space

June 25, 2018

Texas Medical Center Innovation Institute, Houston, TX

2450 Holcombe Blvd, Houston, TX 77021

8:30-4:00 pm

8:30 Transportation from the BioScience Research Collaborative
& local hotels to TMCx

8:45 Introduction by French Consulate
Dr. Alain Mermet

8:55 Introduction to Conference & Speakers
Dr. Amina Ann Qutub

9-9:50 **Keynote Address:**

Dr. Julie Robinson
Chief Scientist

International Space Station /
NASA Johnson Space Center



9:50 Coffee Break

10:00 Sensors & Systems

10:00 **“Pushing the Limits of Space
Exploration One Antenna at a
Time”**

Dr. Nacer E. Chahat
Jet Propulsion Lab, NASA/Caltech



10:30 **“Computational Imaging: Going
beyond the limits of conventional
imaging”**

Dr. Ashok Veeraraghavan
Rice University, Electrical
Engineering



11:00 **“Tiny but Tough: Emerging Nanoelectronics for Space Exploration”**

Dr. Debbie Senesky

Stanford University, Aeronautics & Astronautics



Interactive Visualization of Satellite & Space Datasets
Alex Bisberg



11:30 **“Nanotechnology for Sensing and Stimulating Brain Activity”**

Dr. Jacob Robinson

Rice University, Electrical Engineering



1:30 **Biological Sensing & Data**

1:30 **“GeneLab: “Omics” Data Systems for Spaceflight and Simulated Spaceflight Environment”**

Dr. Sylvain Costes
Director, GeneLab, NASA Ames



12:00 Panel Discussion

12:15 Lunch & parallel TMC Data Workshop (TMCx classroom)

Introduction to Image Analysis & Deep Neural Networks

Drs. Cecilia Lantos and Byron Long



2:00 **“Nanopore Sequencing in the Search for Extraterrestrial Life”**

Dr. Aaron Burton
NASA Johnson Space Center



2:30 **“Human Behavioral and Fitness Predictions”**

Dr. Byron Long
Rice University, Bioengineering



2:45 **“Social Networks of Neural Progenitor Cells”**

Dr. Arun Mahadevan
Rice University, Bioengineering



3:00 Panel Discussion

3:15 **Keynote Address**

Dr. Ioannis Kakadiaris
Hugh Roy and Lillie Cranz Cullen
University Professor



University of Houston, Computer
Science, & Electrical and Computer
Engineering, & Biomedical
Engineering

4:00 Transport back to BioScience Research Collaborative & local hotels

7:00 Dinner for speakers at Third Coast
(<http://thirdcoasthouston.com/>)