



UCF

# STAR NONA 2026

## Space Translational Advances & Research

### Space: The Final Frontier of Medicine

Exploring how space science, microgravity research,  
and commercial spaceflight are transforming  
the future of human health

#### DATE

April 10, 2026

8:45 am

#### LOCATION

Lake Nona Cancer Center

6400 Sanger Rd Suite A-1000

Orlando, FL 32827

#### FEATURED PLENARY SPEAKER



NASA Astronaut Robert Curbeam  
A legendary spacewalker and  
record holder for the most spacewalks  
performed on a single mission

Join us for a high-impact day of visionary talks,  
breakthrough research, and new insights into:

- Commercial spaceflight
- Microgravity science
- Next-generation biomedical  
and clinical applications



[Register Here](#)

[med.ucf.edu/biomed/star\\_nona/](https://med.ucf.edu/biomed/star_nona/)

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**TAVISTOCK**  
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Hydrocephalus and  
Neuroscience Institute



# CONNECT COLLABORATE LAUNCH

## THE FUTURE OF HUMAN HEALTH

### Agenda

- 8:15-8:45 Arrival & Registration
- 8:45-9:00 Welcome and Opening Remarks**  
Dean Deborah German, Vice President for Health Affairs and Dean of the College of Medicine  
Edward Ross, Professor and Chair, Department of Medicine, COM  
Ally Silverton, Chief Medical Officer, Tavistock Development Company
- 9:00-9:45 Plenary Session- Living, Spacewalking, and Researching in Space**  
Robert L. Curbeam, Jr/ former NASA Astronaut and Navy Captain  
Moderator: Smith Johnston / Professor of Medicine UCF COM  
and former NASA JSC Flight Surgeon
- 9:50-11:00 Understanding Microgravity and the Next Era of Commercial Space Platforms**
- 9:50-10:10 Microgravity: What is it?  
Alain Berinstain / Director of Florida Space Institute, UCF
- 10:10-10:30 Vast: The Next-Generation Commercial Space Station  
Ken Shields / Vast Space
- 10:30-10:45 The Role of UCF in Synchronizing and Developing a Manual for Biospecimen Collection,  
Biobanking, and Omics Data Generation from Commercial Space Missions  
Michal Masternak Professor of Medicine at BSBS, UCF, COM
- 10:45-11:00 Space Odyssey  
Senator Bill Nelson
- 11:05-11:50 Cognitive and Neuro-Sciences in the Space Travel**
- 11:05-11:30 How the Social and Cognitive Sciences are Exploring Collaboration in and for Long Duration  
Space Travel  
Stephen Fiore / Pegasus Professor, Institute for Simulation and Training and College of Arts  
and Humanities, and Shawn Burke / Professor, Institute for Simulation and Training, UCF.
- 11:30-11:50 Neurological and Neurosurgical Aspects of Space Travel  
Jogi V. Pattisapu / Hydrocephalus and Neuroscience Institute
- 11:50-1:30 Poster session & Lunch**
- 1:30-2:30 Protecting the Muscle in Space and on Earth**
- 1:30- 1:50 Countering Muscle Atrophy with Essential Amino Acids -  
Arny A. Ferrando & Robert R Wolfe, Uni of Arkansas for Medical Sciences
- 1:50-2:10 Recovery Of Muscle Volume But Not Peak Torque or Power After 10 Days Of Bed Rest in Older  
Individuals With Pre-Diabetes Or Type 2 Diabetes:  
Christian J. Elliehausen, Paul M. Coen / AdventHealth, Orlando
- 2:10-2:30 Tissue Chips in Space: What Microgravity Reveals About Human Muscle Aging  
Siobhan Malany / College of Pharmacy, UF

**2:40- 3:10 Innovations in Space-Based Tissue Engineering and Cellular Systems**

2:40 - 2:55 Mini-brain to Study the Impact of Space Travel on Neural Function  
Kiminobu Sugaya / Professor and Head of Neuroscience, BSBS, UCF COM

2:55 - 3:10 Development of Novel Approaches for Cell Culture  
Bill McLamb /Professor, UCF COM

**3:10- 3:30 Afternoon Coffee Break**

**3:30 - 4:15 Musculoskeletal Countermeasure in Extreme Environments**

3:30 -3:45 Minimal Load, Maximal Signal:  
A Translational Countermeasure Framework for Musculoskeletal Preservation in  
Extreme Environments

Ethan Hill / Associate Professor, School of Kinesiology and Rehabilitation Sciences,  
3:45 - 4:00 UCF Estimating joint torque and movement using a reduced number of wearable  
IMU sensors to monitor the level of dynamic activities in space  
Hwan Choi / Professor, Mechanical & Aerospace Engineering, UCF

4:00 - 4:15 Preventing Radiation- and Microgravity-Induced Injury:  
A Novel Countermeasure to Protect Bone  
Melanie Coathup / Professor, UCF COM

**4:15 - 4:30 Closing remarks**

Michal Masternak, Professor of Medicine, BSBS, UCF, COM  
Kiminobu Sugaya, Professor and Head of Neuroscience, BSBS, UCF COM

**4:30-5:30 Networking Reception – Wine and Cheese**

**Meeting Chairs:**

Michal Masternak  
Kiminobu Sugaya

**Organizing Committee:**

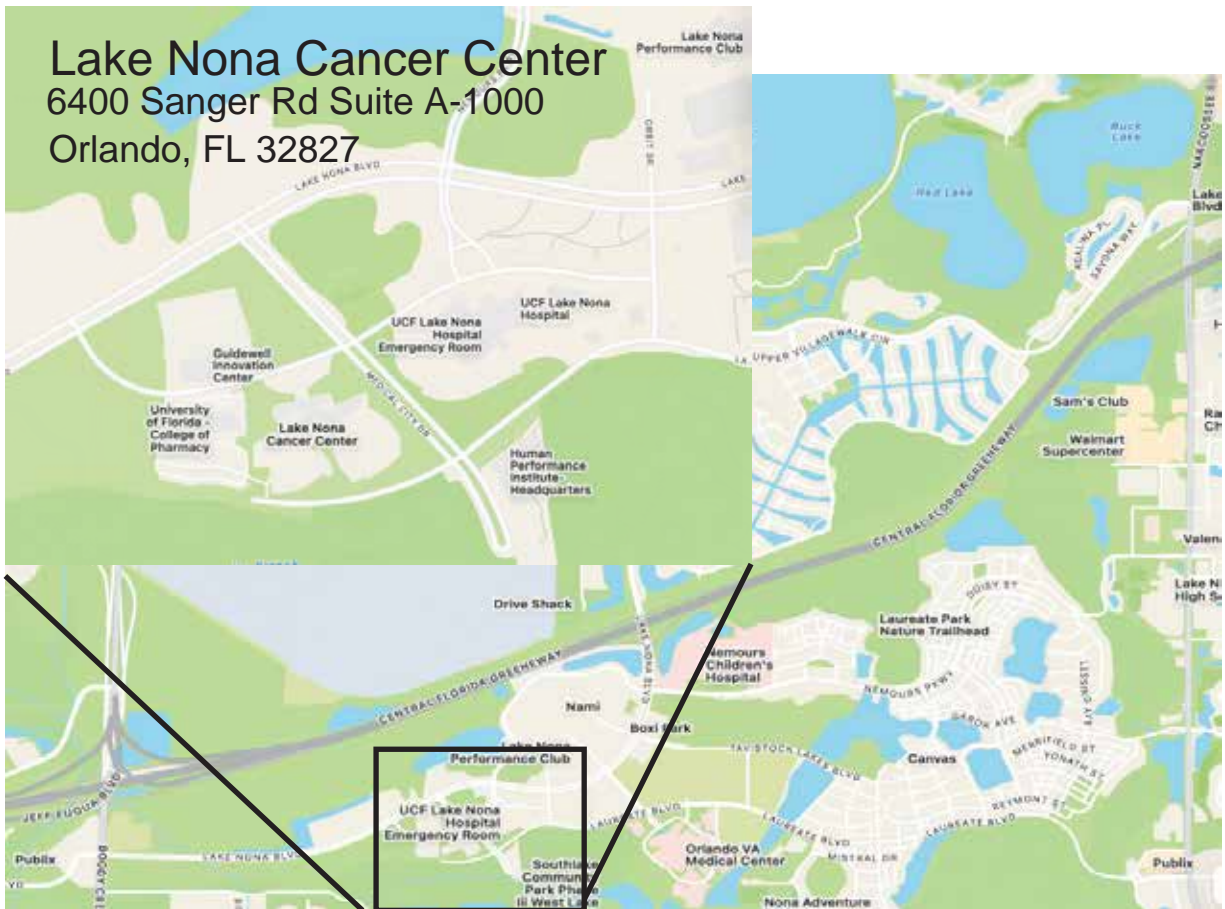
Edward Ross  
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Ethan Hill  
Alain Berinstain  
Wanda Pruett-Butler  
Mishfak Abdullah Mohamed Mansoor  
Md Tanjim Alam  
Sarah Siddiqi  
Fabrizio Lijeron Herrera

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Clinical Health Research +  
Trials (CHRT) team!  
  
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and Management team  
  
Michael Pugh and Ryan  
Retherford from IT team

## Direction

Parking off of Laurette Blvd, please do not park in designated patient parking



**College of  
Medicine**

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Inquires and abstract submission at:  
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