

FUNDING OPPORTUNITIES: Biomedical Research and Technology Development Needed to Support Astronaut Health during Exploration Missions

The newly established Translational Research Institute (TRI) headquartered at Baylor College of Medicine has released a research announcement. The research topics are available at <https://tinyurl.com/NNJ16ZSA001N-TRIRT> and the proposal instructions can be found at <https://tinyurl.com/NNJ16ZSA001N-TRIIN> (links lead to NSPIRES web pages). TRI seeks innovative and disruptive technologies, techniques and countermeasures to enable and enhance human exploration of deep space. We are soliciting proposals from any US-based biomedical researcher or company, regardless of previous NASA funding.

There are two types of funding opportunities within this research announcement. The first two opportunities below—Omics capabilities for use during missions and Long duration medication stability—are large, program project grants that may span several institutions and investigators in order to collaborate on an interrelated set of research questions within one broad topic. The remaining opportunities are primarily designed as single principal investigator projects. Program project grant awards are up to \$850K a year. Single principal investigator projects range from \$200K to \$400K per year. Project durations vary based on the research emphasis and project type. All proposers must submit a letter of intent.

Funding topics of current interest are:

- Omics capabilities for use during missions
- Long duration medication stability
- Human brain imaging
- Inflight surgical capabilities
- Increasing organisms' resistance to radiation
- Pharmaceuticals that preserve muscle mass
- Inflight production of fresh food
- Microbiome based therapies for improving health in spaceflight
- Lymphatic imaging in microgravity

All categories of United States (U.S.) institutions are eligible to submit proposals. Principal Investigators may collaborate with universities, federal government laboratories, the private sector, and state and local government laboratories. In all such arrangements, the applying entity is expected to be responsible for administering the project according to the management approach presented in the proposal. Research with non-U.S. organizations should be conducted in a cooperative, no exchange-of-funds basis.

A pre-proposal webinar, during which TRI management will answer questions regarding this research announcement, will be held on March 23, 2017 and is open to all interested proposers. Questions must be submitted in writing at least 24 hours prior to the scheduled webinar to cmmoreno@bcm.edu. Answers to all questions (FAQ) will be posted on the TRI's website by March 25, 2017.

Proposers are required to submit a letter of intent through nspires.nasaprs.com by April 10, 2017 in order to submit a full proposal. Full proposals will also be submitted through nspires.nasaprs.com and will be due May 19, 2017.

The Translational Research Institute (TRI) is funded by a cooperative agreement from NASA to Baylor College of Medicine with consortium partners California Institute of Technology and Massachusetts Institute of Technology. The Institute's mission is to lead a national effort in translating cutting-edge, emerging terrestrial research into applied space flight and to support human risk-mitigation for exploration missions beyond low Earth orbit.