**Re:** ROSBio-2018 Appendix D: Solicitation of Proposals for Flight and Ground Space Biology Research

**Solicitation Number: NNH18ZTT001N-FG2**

**Release Date: October 30, 2019**

**Step 1 Proposals Due: December 02, 2019**

**Step 2 Proposals Due: March 02, 2020**

**Research Opportunities in Space Biology (ROSBio) – 2018 “Appendix D: Solicitation of Proposals for Flight and Ground Space Biology Research” NNH16ZTT001N-FG2**

This Appendix to the Research Opportunities in Space Biology (ROSBio) - 2018 NASA Omnibus Research Announcement solicits proposals that will increase NASA’s understanding of how living systems acclimate to spaceflight to support human space exploration.

The solicited research will fall into the following three research topics:

1. Microbiology studies that will produce new understanding of how microbiological organisms and/or communities acclimate to, evolve, and/or behave in the spaceflight environment.
2. Plant Biology studies in support of Human Space Exploration making use of the ISS capabilities to study environmental effects on plant growth and interactions with microbes and fungi.
3. Animal Biology (vertebrate and invertebrate) experiments that lead to the characterization of organ systems, behavioral adaptations, and the underlying cellular and molecular mechanisms of phenotypic changes within tissues and between physiological systems.

Proposals submitted in response to this Appendix may be for one of five different types of studies, which will address one the research topics described above: ISS Flight and/or ground-based investigations, microgravity analog validation, parabolic or suborbital flight studies, Antarctic balloon flight studies, new Space Biology investigations, or Space Biology post-doctoral research.

Proposals must address Space Biology research emphases, visions, and goals identified in the [ROSBio-2018 Omnibus NRA](https://urldefense.proofpoint.com/v2/url?u=https-3A__nspires.nasaprs.com_external_solicitations_summary-21init.do-3FsolId-3D-257bCC87D799-2DED06-2DCADC-2D7B54-2D5334091DEB70-257d-26path-3Dopen&d=DwMFAg&c=ApwzowJNAKKw3xye91w7BE1XMRKi2LN9kiMk5Csz9Zk&r=iHrAYl8b8QX2Ilnonyt3lwHS1IH68LGyJLr9o-eamkQYhCeqKVU2Z3Oq5oXonm1j&m=SNNmX8-qmY6adRhirJcEsu2gpekpmRpSlFvKhONkVmc&s=vZ8BkyP44T_Sd1GE4M_K4oXl2qMlVK3vgZGxjOIYcww&e=) or in the [Space Biology Science Plan 2016-2025](https://www.nasa.gov/sites/default/files/atoms/files/16-05-11_sb_plan_2.pdf), and/or recommendations from the [Decadal Survey](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.nap.edu_catalog_13048.html&d=DwMFAg&c=ApwzowJNAKKw3xye91w7BE1XMRKi2LN9kiMk5Csz9Zk&r=iHrAYl8b8QX2Ilnonyt3lwHS1IH68LGyJLr9o-eamkQYhCeqKVU2Z3Oq5oXonm1j&m=SNNmX8-qmY6adRhirJcEsu2gpekpmRpSlFvKhONkVmc&s=ctC7gKAf39Lh38zeUDaXlc8GwZ7WEufTz64-NQqcvJM&e=). Awards from this solicitation will range $140,000 to $750,000 depending on study type.  Please consult Appendix D for more details.

Appendix D can be found at [https://tinyurl.com/ROSBio-FG2](https://urldefense.proofpoint.com/v2/url?u=https-3A__tinyurl.com_ROSBio-2DFG2&d=DwMFAg&c=ApwzowJNAKKw3xye91w7BE1XMRKi2LN9kiMk5Csz9Zk&r=iHrAYl8b8QX2Ilnonyt3lwHS1IH68LGyJLr9o-eamkQYhCeqKVU2Z3Oq5oXonm1j&m=SNNmX8-qmY6adRhirJcEsu2gpekpmRpSlFvKhONkVmc&s=MZmvmQjxihhpIFh4tJT2bK0IEBITt8ZbIkCm5_jpHV0&e=). Step-1 proposals will be due December 2, 2019 at 5 PM Eastern Time, and invited Step-2 full length proposals will be due March 2, 2020 at 5 PM Eastern Time. Proposals must be submitted electronically by an authorized official of the proposing organization. Proposers may use either NSPIRES ([https://nspires.nasaprs.com/](https://urldefense.proofpoint.com/v2/url?u=https-3A__nspires.nasaprs.com_&d=DwMFAg&c=ApwzowJNAKKw3xye91w7BE1XMRKi2LN9kiMk5Csz9Zk&r=iHrAYl8b8QX2Ilnonyt3lwHS1IH68LGyJLr9o-eamkQYhCeqKVU2Z3Oq5oXonm1j&m=SNNmX8-qmY6adRhirJcEsu2gpekpmRpSlFvKhONkVmc&s=vsxm4yC9ruL9DzT9D57_uI29G20_o7WHcHDDAwGEWa0&e=)) or Grants.gov ([https://www.grants.gov/](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.grants.gov_&d=DwMFAg&c=ApwzowJNAKKw3xye91w7BE1XMRKi2LN9kiMk5Csz9Zk&r=iHrAYl8b8QX2Ilnonyt3lwHS1IH68LGyJLr9o-eamkQYhCeqKVU2Z3Oq5oXonm1j&m=SNNmX8-qmY6adRhirJcEsu2gpekpmRpSlFvKhONkVmc&s=M51NV81HjpS9XcTwMZf2OqBOpJB7BUCgNDcIPsUvAH0&e=)) for submitting the Step-1 proposal.  Please see the solicitation for instructions regarding the submission of Step-2 proposals.

All categories of U.S. institutions are eligible to submit proposals in response to this Appendix. Principal Investigators (PIs) and collaborators may be from universities, Federal Government laboratories, the private sector, state and local government laboratories and other countries with the exception of China.

Every organization that intends to submit a proposal in response to Appendix D must be registered in NSPIRES, and such registration must identify the authorized organizational representative(s) who will submit electronic proposals. Instructions on how to register in NSPIRES are described in the omnibus NRA ([ROSBio-2018](https://urldefense.proofpoint.com/v2/url?u=https-3A__nspires.nasaprs.com_external_solicitations_summary-21init.do-3FsolId-3D-257bCC87D799-2DED06-2DCADC-2D7B54-2D5334091DEB70-257d-26path-3Dopen&d=DwMFAg&c=ApwzowJNAKKw3xye91w7BE1XMRKi2LN9kiMk5Csz9Zk&r=iHrAYl8b8QX2Ilnonyt3lwHS1IH68LGyJLr9o-eamkQYhCeqKVU2Z3Oq5oXonm1j&m=SNNmX8-qmY6adRhirJcEsu2gpekpmRpSlFvKhONkVmc&s=vZ8BkyP44T_Sd1GE4M_K4oXl2qMlVK3vgZGxjOIYcww&e=)). Each electronic proposal requires the registration in NSPIRES of **ALL** team members. Potential proposers and proposing organizations are urged to access the system(s) well in advance of the proposal due date(s) to familiarize themselves with its structure and enter the requested information. Questions about this ROSBio-2018 and this Appendix may be addressed to the contacts referenced in the full solicitation document.

This Appendix is a broad agency announcement as specified in FAR 6.102 (d)(2). All awards resulting from selections of proposals to this Appendix will be grants or cooperative agreements.