CASIS is requesting that offerors submitting a proposal to the NSF/CASIS Collaboration on Tissue Engineering and Mechanobiology read the following sections and provide the Feasibility Form and the Proposer’s Profile & Certification Form directly to CASIS in response to these areas. Please submit these inputs before January 10, 2020 through the instructions at <http://issnl.us/nsf2>. The Feasibility Form (no more than 3 pages) and the Proposer’s Profile and Certification Form (2 pages) should be combined into one document for submission.

**Feasibility Review Form (no more than 3 pages)**

**Project Summary**

Please describe the proposed project. An abstract is appropriate, as is a less technical and more generalized overview. It is essential that this section clearly calls out:

1. A clear statement of the hypothesis and success criteria for experiment.
2. A brief overview of expected International Space Station (ISS) U.S. National Laboratory experiment operations and crew interaction.
3. A summary describing why the ISS National Laboratory is a necessary platform for this research (i.e., a need for exposure to long-term microgravity)
4. A summary describing the relevance of the proposed space-based research to terrestrial applications, in agreement with the CASIS mission to use the ISS National Laboratory to benefit life on Earth (discuss both economic and social/humankind benefits)

**Operational Approach**

The Operational Approach section gives us further details of your experiment that are necessary for us to confirm feasibility.

1. *Spaceflight Experiments*: Offerors must provide estimates or suggested approaches on the below topics (ideal proposals will provide well-researched information):
* Operational Concept: Include a complete description of your project’s flight segment requirements, including sufficient information to determine size, weight, power, in-orbit timeline, and facility requirements as well as any special launch and return phase support requirements (e.g. Cold Stowage, orientation), if applicable.
* Flight Hardware: Clearly delineate existing or proposed flight hardware to be used in the project. Explain plans to integrate flight hardware into the project timeline.
* Facilities and Other Resources: Describe the role and availability of ground or space facilities or technologies necessary to complete applicable preflight work, ground controls, and space operations
1. *Ground-based experiments*: Clearly delineate ground-based experiments to be performed in preparation for flight and alongside flight experiments as controls. Specifically note the relevance and research plan for ground controls. Discuss comparisons with established ground experiments or space studies. Include enough data and experimental methods for reviewers to determine feasibility.

**PRELIMINARY FEASIBILITY FORM EVALUATION CRITERIA**

Feasibility will be evaluated based on the following:

**Description of Operations Evaluation**

The CASIS Operations team, which may consult with NASA and outside technical experts as needed, conducts a technical feasibility review of proposals to ensure payload viability and overall readiness/feasibility for flight. This review is an unscored, pass-fail initial screening; however, CASIS may consider an interview with the offeror(s) to clarify technical elements of the proposal as well as the proposed budget and schedule in order to make its determination. Specifically, the technical feasibility review considers the following elements (not a comprehensive list):

* Logistics: Proposed resources including necessary facility needs for ground testing and flight

operations support, use of ISS crew for research support, power and data requirements, size,

weight, transportation requirements, sample life limits, and any known hazards

* Hardware: Availability, limitations, appropriate planned use and (alternatively) the costs and

feasibility of proposed new hardware development

* Projected Budget and Time Frame: Preflight development and testing considerations, time to

flight and time to completion

* Hazards: Procedures, situations and materials that could potentially be hazardous and a plan to

mitigate any identified issues

* Adherence: Supplied all requested documentation and information to aid in assessment.
* Questions: Follow-up questions for the investigator(s), including as appropriate—

- Revised methods/analyses, and how results will be collected, analyzed, and interpreted

- Awareness of potential barriers and ideas about alternative approaches

**Description of Terrestrial Benefit Evaluation**

CASIS will conduct a terrestrial benefit evaluation of feasible proposals that passed the Operational review. Like the operational review, the terrestrial benefit review process will be scored on a pass-fail basis. The review will be

evaluated on the commercial and intangible benefits including:

* Application Leverage
* Market Innovation
* New Revenue Potential
* Social/Humankind Benefit

**OFFEROR’S PROFILE & CERTIFICATIONS**

**(to accompany CASIS Feasibility Review Form Submissions)**

|  |
| --- |
| **Concept/Opportunity Name:** |
| **Principal Investigator Name:** |
| **Account/Entity Legal Name:** |
| **Entity Type:** ☐Commercial; ☐ Academic; ☐Government; ☐Other If “Other” explain:  |
| **Entity Size:** ☐Small (<500); ☐Large: ☐OtherIf “Other” explain:  |
| **Entity Organization Type:** ☐For Profit; ☐Non-Profit; ☐Not Applicable  |
| **Entity State of Organization:**  |
| **Physical Address:** | **Mailing Address:** |
| **URL Address:** |
| **Technical POC Name:** | **Telephone:** | **Email:** |
| **Contracting POC Name:** | **Telephone:** | **Email:** |

**Ethics and Research/Data Integrity**

**Prior Violations**. Indicate whether the offeror or any person proposed to work on the grant, has been accused of or found to have engaged in any ethics violations, or research or data integrity violations, including any instances of fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. If “yes,” provide information concerning the circumstances in a separate document.

YES ☐ ; NO ☐

**Research Misconduct and Integrity Policies**. Indicate whether the offeror or proposing organization has established policies concerning scientific or research misconduct, such as those required by 42 C.F.R. part 93, “Public Health Service Policies on Research Misconduct.” If “yes,” please provide a copy.

YES ☐ ; NO ☐

**Regulatory Compliance**

**Non-Delinquency on Federal Debt.** The Federal Debt Collection Procedure Act, 28 U.S.C. 3201(e), provides that an organization or individual that is indebted to the U.S., and has a judgment lien filed against it, is ineligible to receive a Federal grant. Indicate whether the proposing organization is delinquent in repaying any Federal debt.

YES ☐ ; NO ☐

**Prior Regulatory Violations.** Indicate whether the offeror or the proposing organization has, in the past 5 years, been accused of or found to have engaged in any violation of regulation or statute in connection with the award or performance of any federal grant, cooperative agreement, subaward, or federal contract or subcontract. If “yes,” provide information concerning the circumstances in a separate document.

YES ☐ ; NO ☐

**Regulatory Compliance Programs.** Indicate whether the proposing organization has established programs and procedures to (a) identify regulatory requirements applicable to the work to be performed under a grant, and (b) ensure compliance with such regulatory requirements. If “no,” provide information concerning the circumstances in a separate document.

YES ☐ ; NO ☐

**Debarment or Suspension.**

Offer certifies that: it is not debarred or otherwise ineligible to do business with the U.S. federal government; it has no criminal convictions or civil judgments against it for fraud, embezzlement, theft, forgery, bribery or misrepresentation; and it has not had a federal or state government contract terminated for cause or default.

YES ☐ ; NO ☐

**Trade Compliance**

Offeror shall indemnify and hold CASIS harmless for all damages, costs, fines, penalties, attorney fees, and all other expenses arising from any claim or demand that Offeror’s firm failed to comply with stated export statutes and regulations.

In anticipation of submitting a full proposal to CASIS for consideration, the Offeror must answer the following:

1. Will your proposal contain information and/or data that is subject *to Export Administration Regulations (EAR)*? YES ☐ ; NO ☐
2. Will your proposal contain information and/or data that is subject to *International Traffic in Arms Regulations (ITAR)*? YES ☐ ; NO ☐

**Other Risks**

**Terminations.** Indicate whether the offeror or proposing organization has, in the past 5 years, had any federal grant, cooperative agreement, subaward, or federal contract or subcontract terminated for cause or default. If “yes,” provide information concerning the circumstances in a separate document.

YES ☐ ; NO ☐

**Miscellaneous.** Indicate whether the offeror or proposing organization is aware of any fact or circumstance not otherwise disclosed in its grant request or in response to this questionnaire that might pose a risk to its ability to successfully perform a grant. If “yes,” provide information concerning the circumstances on a separate document.

YES ☐ ; NO ☐

**Certification**

The Authorized Representative (or the individual submitting this form, if there is no proposing organization) confirms compliance with all applicable terms and conditions, rules, and stipulations set forth in the Certifications above. If any representations herein change prior to award of an agreement, the submitting organization shall immediately notify the CASIS contracts and compliance office at contracts@issnationallab.org.

By the signature of the authorized representative below, the submitting organization certifies that the representations and certifications made herein are accurate and current as of the date of signature.

Organization Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Authorized Representative: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title of Authorized Representative: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_