



INFORMATION REQUESTED FOR THE ONLINE STEP 1: CONCEPT SUMMARY FORM FOR IN-SPACE PRODUCTION APPLICATIONS: TISSUE ENGINEERING AND BIOMANUFACTURING NLRA 2024-1

Concept summaries must be submitted electronically using the concept summary portal. This document lists the information requested on the online concept summary form. Offerors are advised to work offline using the information contained in this document as a reference before entering information on the online form. Offerors must complete all sections of the online concept summary form. Required information is indicated with a Yes in the Required column.

Information Requested	Required?	Description
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APPLICANT INFORMATION		
Type of submission	Yes	Choices: New, Resubmission For resubmissions, offerors should ensure they have reviewed and incorporated feedback from their previous submission.
Principal investigator (PI)	Yes	List a single principal investigator (PI) who is a U.S. person that will be responsible to the offeror's organization for the scientific and technical direction of the project. CASIS can only accept proposals from and award projects to U.S. persons at U.S. entities. The offeror may have non-U.S. persons on the team as subcontractors or participants, but the PI and co-PI must be U.S. persons.
Email	Yes	The email address of the PI. An email address is required to submit a concept summary.
Phone		The offeror's telephone number
PI Position/Title		The offeror's position or title
PI citizenship status	Yes	A U.S. person is a natural person who is a lawful permanent resident as defined in 8 U.S.C. 1101(a)(20) or who is a protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any corporation, business association, partnership, society, trust, or any other entity, organization, or group that is incorporated to do

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		business in the U.S. It also includes any governmental (federal, state, or local) entity.
Country of citizenship other than U.S.	Yes	Enter the country of citizenship if somewhere other than the United States.
Project Type	Yes	Choices: Flight, Ground, Other
Space Experience	Yes	Indicate the PI's relative level of experience designing an experiment for space.
How did you hear about this research announcement? (Select one)	Yes	Choices: ISS National Lab website, Email, News article, Advertisement, NASA, NSF, ISS Research and Development Conference, Other conference, Other (please describe):
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ORGANIZATIONAL INFORMATION		
Organization legal name	Yes	Provide the name of the institution/organization at which the PI is employed.
Organization status	Yes	Choices: U.S. Entity, Non-U.S. Entity
Organization type		Choices: Commercial, Academic, Government, Nonprofit
Organization address	Yes	
Organization Unique Entity ID		Unique Entity IDs are issued by the U.S. General Services Administration (GSA) via the System for Award Management (SAM.gov). SAM registration is required to submit a Step 2: Full Proposal. If an offeror is unable to obtain a UEI in time for submission of the Step 1: Concept Summary, indicate the date for which one was applied.
Organization CAGE Code		Commercial and Government Entity (CAGE) Codes are issued by the U.S. General Services Administration (GSA) via the System for Award Management (SAM.gov).

Information Requested	Required?	Description
Is this research or technology subject to U.S. export laws and regulations?	Yes	U.S. export control laws and regulations include, but are not limited to, the requirements of the Arms Export Control Act, 22 U.S.C.2751- 2799, including the International Traffic in Arms Regulation (ITAR), 22 C.F.R. 120-130.; and the Export Administration Act, 50 U.S.C. app. 2401-2420, including the Export Administration Regulations, 15 C.F.R. 730-774; including the requirement for obtaining any export license or other approval.

PROJECT OVERVIEW AND ANTICIPATED BENEFITS

Title of Project	Yes	Provide a title for the proposed project.
Project Objectives	Yes	Describe the problem or issue being addressed—be sure to include the project relevancy to the ISS National Lab mission; why the proposed work requires microgravity or the space environment; and whether the project builds on prior ISS research. State the test objective and the starting and ending technology readiness level (TRL). List the key results expected from the project and the deliverables/products that could be created. Describe how the project's outcome will further technology development in in-space production applications and ultimately lead to a commercial offering.
Rationale for ISS	Yes	Choices: Extended access to microgravity; Extreme environmental conditions
Rationale for ISS - Comments	Yes	Clearly describe where gravity is impeding progress on Earth, where space has been shown to produce relevant superior outcomes, and what properties are sought from in-orbit development.

Concept of Operations:	Yes	<p>Provide a short description of the proposed project, focusing on the technical approach for the in-orbit experiment and how it links to the achievement of the project's objectives.</p> <ul style="list-style-type: none"> • Provide a basic description of the project's in-orbit requirements and experimental set-up. • Describe any specific hardware or in-orbit facilities necessary to support this project, if known. • Define the logistical support and payload return requirements. • Identify any preliminary discussions the offeror has had with an Implementation Partner, including evidence that the Implementation Partner can meet the proposed technical and schedule requirements. • If known, provide an in-orbit operations timeframe (i.e., desired launch date and flight duration). • Offerors anticipating the requirement for iterative microgravity studies are encouraged to generally describe those successive experiments. (Note: Only one flight experiment at a time will be funded.)
Do you require assistance in identifying an Implementation Partner?	Yes	Implementation Partners are organizations that work with the ISS National Lab to provide services related to payload development.
Benefits: Scientific & Technical Benefit	Yes	<p>Describe the scientific and technical merits of the proposed project, including: the value of the application and relevance to the goals of this research announcement; the value of the proposed application to the low Earth orbit (LEO) ecosystem, related terrestrial industry(s), and public benefits; and the innovation of the approach and expected product performance relative to current state-of-art. Document the PI's success in the field of study, or for new investigators, demonstrate that the PI has appropriate experience and training or has partnered with a qualified co-investigator.</p>

Business & Economic Benefit	Yes	Describe the business and/or economic benefits if the project is successful, including how this research in LEO will lead to a disruptive product or service, who will use that product, and best estimates of how much revenue realistically will be generated from it, or as a result of it, and in what timeframe. Identify the organization that will commercialize the resulting product and/or application, and how the commercialization efforts will be funded.
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Estimated Project Funding		On this page, provide a budgetary estimate for the project and sources of funds to cover those costs. Enter all cost figures into the unlocked cells in the table. All funds must be entered in units of thousands of dollars (\$K). The total from all funding sources (line 8) must equal the total project funding required (line 3). The budget may be amended if the offeror is invited to submit a Step 2: Full Proposal.
1. Project Costs	Yes	Project costs are those direct costs and indirect costs (e.g., overhead (OH) and general and administrative (G&A), or finance and administrative costs (F&A)) to manage the project.
2. Implementation Partner (Mission Integration & Operations) Costs	Yes	IP Costs are the costs for an Implementation Partner to make a payload flight ready. IP services include the design, development, integration, in-orbit capabilities and facilities, and assistance required to complete NASA Verification and Validation (V&V) activities.
3. Total Project Funding Required		This is the estimated cost to complete the project. This will be the sum of items 1 and 2 and is automatically calculated. The value of this line item must equal the value in item 8 (Total from All Funding Sources).
Funding Source		
4. Funds Provided by PI's Organization	Yes	This refers to the funds that the offeror's organization is contributing directly to the project. It does not include in-kind contributions (see item 7).

5. Funds Requested from CASIS (5a + 5b)		This is the total amount of funding the offeror is requesting from CASIS to cover any shortfall in project expenses. This will be the sum of items 5a and 5b and is automatically calculated. The amount must be less than or equal to item 3 (total project funding). The value for item 5 will be zero (\$0) if the applicant is not requesting CASIS funding.
5a. Project Funding Requested from CASIS	Yes	This is the amount of funding the offeror is requesting from CASIS exclusive of Implementation Partner costs (see item 5b).
5b. Implementation Partner (Mission Integration & Operations) Funding Requested from CASIS	Yes	This is the amount of funding the offeror is requesting from CASIS to cover Implementation Partner costs. Implementation Partners contract directly with CASIS.
6. Funds Provided by Other Sources	Yes	This is the total contributions from sources outside of the offeror's organization other than funds requested from CASIS. These may include other government grants and SBIRs, academic or commercial partnerships, etc. Offerors should indicate on their response to the Budget and Funding Sources field if they have secured the funds from other sources or have simply requested the funds. CASIS recommends that applicants secure such external funding when possible.
7. In-Kind Contributions	Yes	This value should include the estimated value of any facilities, hardware, or support services provided by the offeror's institution to support the project.
8. Total from All Funding Sources (must equal Item 3)		This will be the sum of items 4 through 7 and is automatically calculated. The value of this line item must equal the value in item 3.

Budget and Funding Sources	Yes	<ul style="list-style-type: none"> • If the project is receiving funds from an external source, identify the organization and funding amount. • Does the offeror require support from the ISS National Lab to identify potential investors or to obtain additional funding? • Does the offeror or any funding partners have the intent, resources, or experience to develop and/or commercialize project outcomes?
Attachment (Maximum 1 file)		Optional. Only one file (in PDF format) may be attached. Attach only useful, supplemental information. Possible examples include, but are not limited to, the PI's biographical sketch and references cited.
Additional Comments		Optional. In the space provided, enter any additional narrative needed to describe the proposed project.