

## Wyoming ART Seed Translational Research Project Grants

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### Summary

Letters of Intent Due:	May 17, 2024	Invitation for Proposal Submission:	May 27, 2024
Proposal Due Date:	June 14, 2024	Project Start Date:	July 15, 2024

Maximum Award: \$75,000 per phase per year

Project Period: 1-2 years, consisting of one (1) year of Phase I funding and one (1) year of Phase II funding. Phase II funding is contingent on successful completion of Phase I.

Detailed instructions regarding the process are provided in Section 8.

### Synopsis

Funding for the Wyoming ART Seed Translational Research Projects (STRPs) grants is provided under the "Accelerating Research Translation" (ART) award from the National Science Foundation (NSF). The NSF seeks to accelerate the pace of translational research at U.S. Institutions of Higher Education (IHEs). The University of Wyoming is among the first cohort of NSF ART awardees.

Specifically, the goal of the ART program is to build translational research capacity and infrastructure for U.S. IHEs and to enhance their role in regional innovation ecosystems. The Seed Translational Research Projects (STRP) are one of the core components of the ART program. STRP grants provide both funding to research with strong translational potential, as well as to serve as a mechanism for training and capacity building.

The leadership and core project members of each STRP selected will participate in the NSF ART Ambassadors program. ART Ambassadors are intended to be advocates and mentors for research translation and will work together as a team to help build capacity, accelerate and scale translational and use-inspired research activities, and institutionalize a culture that recognizes and promotes such activities at the University of Wyoming.

### Program Requirements

#### 1. Introduction

Early-stage innovations require sufficient development to determine and then attain translational viability. Funding for this type of development can be difficult to obtain, and until the advent of the NSF ART program, was made available only at IHEs with sufficient financial capacity to provide internal funding.

The STRP program provides both funding and training **to accelerate the translation** of University of Wyoming (UW) innovations for public use and benefit.

STRP awards will provide UW's entrepreneurial and creative community with funds to support further development of innovations having the potential to significantly impact society through utilization or commercialization. STRP funds can be used to collect data, prototype, scale, or otherwise advance or de-risk innovations, making them more attractive to potential commercial partners. As a note, "innovations" are broadly defined to include results from all fields of research, as well as creative and artistic works.

Proposals will be evaluated on a competitive basis using on the criteria provided in Section 8. STRP awards are time-limited, milestone-based, and awarded for applied projects designed to advance the innovation described in the proposal.

***The grant funds must be used to increase the technology readiness level of innovations or concepts with the goal that it be viable for industry or public use by the end of the funding period.***

Guidance on the STRP application process will be provided by the UW Technology Transfer Office

and/or designated ART Ambassadors.

## 2. Definitions

“**Competitive Advantage**” means a distinct trait or set of traits which set this technology apart from competitors such as more efficient cost parameters, greater availability to target audience, high barriers to entry for competitors, or the ability to displace a clear market leader or enter a space with no clear market leader.

“**Proof-of-Concept**” means that the principal investigator has provided evidence that this technology has moved past an abstract idea, and has made significant progress towards an actual product, where the evidence shows that the idea is feasible and may be used in its target marketplace for its stated purpose.

“**Societal need**” means that an underserved market need or component of society would benefit from the furtherance of this technology such that an element of service or altruism is added to the category of market size and may balance a smaller market share.

“**Technology Readiness Level (TRL)**” means the measurement system that assesses the maturity of a particular innovation.

	<b>Technology Readiness Level Definition</b>
<b>TLR 1</b>	<b>Basic Research:</b> Initial research conducted. Principles are qualitatively postulated and observed. Focus is on new discovery rather than applications.
<b>TLR 2</b>	<b>Applied Research:</b> Initial practical applications are identified. Potential of material or process to solve a problem, satisfy a need, or find application is confirmed.
<b>TLR 3</b>	<b>Critical Function or Proof of Concept Established:</b> Applied research advances and early-stage development begins. Studies and laboratory measurement validate analytical predictions of separate elements of the technology.
<b>TLR 4</b>	<b>Lab Testing/Validation of Alpha Prototype:</b> Design, development and lab testing of components/processes. Results provide evidence that performance targets may be attainable based on projected or modeled systems.
<b>TLR 5</b>	<b>Laboratory Testing of Integrated/Semi-integrated System:</b> System component and/or process validation is achieved in a relevant environment.
<b>TLR 6</b>	<b>Prototype System Verified:</b> System/process prototypes demonstration in an operational environment (beta prototype system level).
<b>TLR 7</b>	<b>Integrated Pilot System Demonstrated:</b> System/process prototype demonstration in an operational environment (integrated pilot system level).
<b>TLR 8</b>	<b>System Incorporated in Commercial Design:</b> Actual system/process completed and qualifies through test and demonstration.
<b>TLR 9</b>	<b>System Proven and Ready for Full Commercial Development:</b> Actual system proven through successful operations in operating environment, and ready for full commercial deployment.

[https://www.dst.defence.gov.au/sites/default/files/basic\\_pages/documents/TRL%20Explanations\\_1.pdf](https://www.dst.defence.gov.au/sites/default/files/basic_pages/documents/TRL%20Explanations_1.pdf)

“**Value Proposition**” means the benefit to a potential consumer of this technology that shows a dramatic improvement over the current state of the art such that the technology will meet the consumer need in a more efficient or effective manner.

## 3. Eligibility

Who is eligible to apply:

- UW Innovators who are a full time UW employee (this includes post-doctoral fellows) in any discipline.

Other eligibility information:

- UW innovators with existing STRP awards may not apply for additional STRP awards until the existing STRP awards have been closed and requirements completed.
- Proposals must include involvement of graduate students and/or postdocs in the research. Undergraduate students may be included in cases where no graduate students or postdocs are available.
- Proposals for basic research that do not accelerate the development of the innovation are not eligible for STRP funding.
- UW innovators may only submit one proposal as the PI per funding cycle.
- A proposal to develop a UW innovation that is previously licensed is not eligible for STRP funding *unless the licensee commits to a cost share.*

#### 4. **TTO Letter of Acknowledgement**

Each invited applicant for STRP funding must include a letter from the Technology Transfer Office. The letter must contain:

- a. A statement regarding the disclosure status of the technology. Specifically, whether the technology has or has not been disclosed to the Technology Transfer Office (*this does not diminish the likelihood of funding*)
  - i. If it has been disclosed, a statement that the technology is under active management and has not been abandoned or otherwise relinquished.
- b. A statement that the innovation is not licensed, or is not the subject of negotiations for licensing, or otherwise encumbered in a manner that would prevent commercial utilization.

Or

If it is licensed or the subject of negotiations for a license, the level of support that will be provided by the licensee or potential licensee.

And

- c. Whether there was any industry sponsored research funding that was used in the development of the innovation.
- d. If there are any materials that were used in the development of the innovation that were provided under a Materials Transfer Agreement.
- e. A description of the steps that have been or will be taken protect the intellectual property associated with the innovation.

#### 5. **Award Description**

Number of Projects Funded Annually: Two new Phase I projects will be funded each year over the four-year period of the NSF award. Phase II funding may be available, depending on milestones accomplished as specified in Phase I of the proposal.

Maximum Phase I Funding: up to \$75,000 for one year

Maximum Phase II Funding: up to \$75,000 for one additional year

Supplemental equipment funding available per year: up to \$50,000 per grantee (Contact the TTO for more details)

Allowable costs:

- a. Supplies, equipment, travel, and professional services that can be justified as necessary for further support of development of the innovation.
- b. Salaries for post-doctoral fellows or graduate students.
- c. Salaries for principal investigator.

Unallowable costs: F&A costs, graduate student tuition remission.

**Note:** If a substantial part of the budget is for salary and associated fringe support for the principal investigator, it *may* decrease the priority of the application for funding, depending on the circumstances of a proposed project.

**6. Application Process**

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A brief letter of intent describing the project needs to be submitted to the selection committee. The selection committee will review the letters of intent received and will invite proposals to be submitted for funding.

The proposal and the budget need to be uploaded to Info Ready Review and be submitted electronically through University of Wyoming’s Research Services Office and the associated budgets must be reviewed and approved by the Research Services Office.

**7. Duration of award**

Each phase of the STRP project must be completed within a maximum of twelve (12) months. One no-cost extension will be considered only upon request with sufficient justification and documented evidence of continued progress towards defined project milestones. The extension must be requested prior to the expiration of the project period to be considered. Only in exceptional circumstances will an additional extension be allowed.

**8. Reports**

Proposals should include milestones that will be achieved as detailed in the attached proposal template (Attachment A) and accompanied by a detailed budget (Attachment B). Quarterly technical and financial progress reports will be required. Reports should document progress towards the stated objectives of the proposal and milestones met.

**9. Proposal Review Process**

Proposals may be submitted on the dates identified above. Each submission will be reviewed according to the scoring rubric and scores will be returned within thirty (30) business days after the submission deadline.

The two highest scoring projects will be funded.

A copy of the score and reviewer comments will be provided to the PI and the TIO. Should a proposal not be funded, the PI can choose to resubmit the proposal in subsequent funding rounds taking in to account the reviewers’ comments in the next cycle of funding.

All applications will be scored by reviewers on criteria related primarily to commercial utilization, technical merit, and societal impact as outlined below. The scoring sheet is provided in Attachment C.

OPPORTUNITY- 60 points Maximum

- Market Need

- Value Proposition
- Market Size
- Societal Need
- Competition and Competitive Advantage

TECHNICAL MERIT- 30 points Maximum

- Ease/Cost of Proof-of-Concept
- Feasibility of R&D Plan
- Reasonableness of Project objectives

PRIORITY POINTS- 10 points Maximum

- Participation and/or Interest by External Parties

POTENTIAL OVERALL TOTAL SCORE = 100 points

**Attachment A: Letter of Intent Template**

**Project Title**

**Principal Investigator (PI)**

**PI contact information: email and phone number**

Section I:

Identify the Project Team

Name	Position / Title	Expertise	Project Role

Section II: (500 words)

Explain your technology or concept and, competitive advantage over what is currently available, and the unmet need that it will address.

Section III: (300 words)

To what extent does the proposed project address a critical step or milestone needed to advance a research discovery toward commercial development?

Section IV: (300 words)

How strong is the likelihood that the technology or concept will be advanced sufficiently in order to be utilized, licensed, or deployed at the end of the funding period?

**Scoring for the Letter of Intent**

	Low (0 Points)				Maximum (10 Points)
<b>Section I Team Capabilities</b>					
<b>Section II Innovation Description &amp; Unmet Need</b>					
<b>Section III Likelihood of Increased TRL</b>					
<b>Section IV Likelihood of Utilization or Licensing</b>					

## **Attachment B: Proposal Template**

### **Page 1: Cover Sheet**

Proposal Cover Sheet

Project Title:

UW Tech ID (if available):

Principal Investigator(s):

Research Team Members:

Department:

Phone Number:

Email:

Funds Requested: \$

Abstract (250 words maximum):

Provide a clear description, in lay terms, of the essential research that will be performed to prove the concept, along with the potential impact of the innovation if successfully completed. This section should highlight the steps needed to increase the likelihood commercial utilization.

### **Page 2 TTO Letter**

Letter of Acknowledgement from Campus Technology Transfer Officer, 1 page maximum, see Section 4 above for required details.

### **Pages 3-8 Project Plan 6 pages maximum**

It is strongly advised to follow the rubric in drafting the Proposal. All confidential items should be marked "Confidential."

- A. Market Need/Value Proposition
- B. Commercial opportunity, technical merit
- C. Societal Need/Impact
- D. Competition and Competitive Advantage
- E. R&D Plan
- F. Ease/Cost of Proof-of-Concept
- G. Scope of work, milestones and outcome that will be achieved within budget
- H. Participation and/or interest by external parties
- I. Proposed use of funds

### **Page 9 Biosketch**

Biographical sketch, 1 page maximum for each key person.

### **Page 10-11 Budget and Budget justification**

**THE APPLICATION MUST BE SUBMITTED AS ONE PDF FILE**

**Attachment C: Budget and Budget Justification**

Project Duration: 12 Months

All budgets must be reviewed and approved by University of Wyoming Research Services

Project Title:

Tech ID:

Principal Investigator(s):

Requested Funds

- A. Supplies \_\_\_\_\_
- B. Equipment \_\_\_\_\_
- C. Travel \_\_\_\_\_
- D. Professional Services
  - 1. Subcontracts \_\_\_\_\_
  - 2. Consultants \_\_\_\_\_
  - 3. Other Services \_\_\_\_\_
- E. Other Charges \_\_\_\_\_
- F. Salaries and Wages \_\_\_\_\_
- G. Fringe Benefits \_\_\_\_\_
- H. Total Project Costs \_\_\_\_\_

\_\_\_\_\_  
Authorized Representative  
Research Services

\_\_\_\_\_  
Date

**Budget Justification**

Attach Detailed Budget Line-Item Justification and Vendor Quotes



**Attachment D: Scoring Rubric**

<b>OPPORTUNITY (60 Points)</b>					
	<b>Low (0 points)</b>				<b>Maximum (10 points)</b>
Market Need					
Value Proposition					
Market Size					
Societal Impact					
Competition					
Advantages over current alternatives					
<b>TECHNICAL MERIT (30 Points)</b>					
	<b>Low (0 points)</b>				<b>Maximum (10 points)</b>
Ease/Cost of Proof-of-Concept					
Feasibility of R&D Plan					
Reasonableness of Project objectives					
<b>PRIORITY POINTS (10 Points)</b>					
	<b>Low (0 points)</b>				<b>Maximum (10 points)</b>
Participation or Interest by External Partners					