

**NJIT Technology Innovation Translation and Acceleration (TITA) Seed Grant
(Up to \$75,000 per project)**

<https://drive.google.com/drive/folders/1yjP8F8vp7qDUXXZQ2eLYO9X9HGk0UrRN?usp=sharing>

[TITA External Advisory Board \(EAB\)](#)

**(Additional Funding Available from NSF ART (Accelerating Research Translation)
Program, State of NJ and NJIT Strategic Investment Funds)**

TITA Stage-1 2-Page IDEA Concept Paper Submission Due: October 9, 2023

TITA Seed Grant Program Objective

The [NJIT Technology Innovation Translation and Acceleration \(TITA\) Seed Grant program](#) will enable faculty and students to successfully accelerate the translation of their innovation to enterprise development and business incubation. The TITA grant program will foster entrepreneurial pathways from research and innovation to business and value creation with the acquisition of intellectual property, market validation, and engagement of stakeholders towards commercialization.

The TITA Seed Grants will increase awareness of the potential commercial benefits at earlier stages of the translation and market validation process and allow researchers and stakeholders to collaborate for entrepreneurial success. It will also help faculty to submit competitive translational research proposals to external grant funding opportunities.

Eligibility

NJIT faculty members pursuing research addressing a significant unmet market need with an innovative potential solution of high impact are encouraged to apply for TITA seed grants. The following requirements must be met at the time of the Stage-1 Idea Concept Paper submission (described below):

1. Proof of concept of the innovative solution to the unmet market need of high significance has been demonstrated in laboratory settings with the ongoing research work.
2. At the time of the submission of the final proposal, a provisional or non-provisional patent application is filed by NJIT or a patent has been awarded to NJIT on the proposed technology. If you have submitted an invention disclosure or are planning to submit one, you may submit the 2-page IDEA Concept paper to start the proposal process.
3. A tenured or tenure-track faculty member at NJIT should be the PI and the applicant team must have an external industry partner for translational research validation and/or a stakeholder with entrepreneurial activity.

4. The PI, if funded, must submit a proposal to NSF TIP directorate, NIH BRP, or a similar program focused on collaborative technology innovation validation and partnership towards translation to market, or follow up with proposals for NJIT Investment Fund or similar avenues.

Awards

Up to five NJIT Technology Innovation Translation and Acceleration seed grants in three phases of \$25,000 each with a total potential funding of up to \$75,000 as following:

Phase-1 (Up to \$25,000): Technology Innovation Translation Research and Proof of Validation: The Phase-1 proposal must incorporate collaborative research and partnership with at least one external stakeholder from industry, academia, community or local government organizations, federal labs, or professional user groups (such as physicians in hospital or private practice for medical devices). The objectives of the Phase-1 proposal must include market research for unmet need(s), developing prototype devices/technology, translational research for application validation, and assessment of all risks associated with bringing the application to market, especially with respect to competition and future growth.

Phase-2 (Up to \$25,000): Technology Innovation Acceleration to Entrepreneurship: The Phase-2 funding will focus on the development of pre-commercial prototypes of devices or technology, scalable validation, and business plans and technology transfer to an existing company or forming a new start-up company establishing market channels. This phase, often called the early incubation stage, will include advanced market validation studies (such as early clinical trials for validation of potential medical devices). The Phase-2 goals must also include development of collaborative partnership-based business models and strategies to attract interest from external entrepreneurs, investors or a commercial entity for licensing and commercialization

Phase-3 (Up to \$25,000): Advanced Technology Innovation Acceleration to Commercialization: The collaborative partnership-based Phase-3 proposal will focus on developing commercialization plans with advanced commercialization-ready technology or product(s) and additional regulatory, business, marketing, and risk management. This phase will also include larger scalable technology validation, market trials (such as early clinical trials for medical devices) and user-acceptance studies towards submission of investment proposal and grants to secure future funding for commercialization from the NJIT Investment Fund, an angel investment fund, NSF TIP or similar grant program.

TITA Seed Grant funding for the above-mentioned phases is available in two categories:

1. Medical Devices and Biosensors: Up to three Phase-1 TITA Seed Grants will be awarded in Fall 2023 for the period of funding starting January 2, 2024.
2. Non-Medical Technologies and Applications (such as Environment Sustainability, Advanced Manufacturing, Machine Learning and Smart Devices): Up to two Phase-1 TITA Seed Grants will be awarded in Fall 2023 for the period of funding starting January 2, 2024.

TITA Proposal Submission Process

Stage-1: Submit a simple 2-page **TITA Idea Concept Paper**

All Idea Concept papers will be reviewed by the [TITA External Advisory Board \(EAB\)](#) who will invite selected applicants for Stage-2 submission. Comments and feedback on the evaluation will be provided.

Stage-2: If invited, submit a 5-page (with optional self-made video) **TITA White Paper**

All TITA White Papers will be reviewed by the TITA external advisory board who will invite selected applicants for Stage-3 submission. If invited, a mentor from the TITA board will be assigned to the applicant team. Comments and feedback on the evaluation will be provided.

Stage-3: A mentor will be assigned to the applicant team to help with the submission of a **TITA Full Proposal** and make a “Live Pitch” to the TITA board.

All TITA full proposals will be reviewed by the [TITA External Advisory Board \(EAB\)](#) who will invite selected applicants for a live pitch presentation to the board and other potential inventors. The TITA board will make the final decision of awarding TITA Seed Grants endorsing the overall goals, milestones, and assessment on the funded projects with applicant team and mentors. Comments and feedback on the evaluation will be provided.

Stage-4: If awarded with a **TITA Seed Grant**, the applicant team will work with the assigned mentors and pursue translational and market research with enterprise development

Stage-5: With the milestone accomplishments, assessment and recommendation by the mentors, the applicant team can request a **TITA Supplement Grant** for funding additional market assessment and further strategic enterprise development for external funding.

TITA Seed Grant Proposal Submission Timeline

- TITA Seed Grant Announcement: September 8, 2023
- Stage-1: TITA 2-Page IDEA Concept Paper Submission: October 9, 2023
- Invitation to Submit TITA White Papers: October 11, 2023
- Stage-2: TITA 5-Page White Paper Submission: October 26, 2023
- Invitation to Submit Full TITA Proposal and Mentor Assignment: October 30, 2023
- Stage-3: TITA Full Proposal Submission: November 17, 2023
- Invitation to Live Pitch Presentation: November 22, 2023
- Stage-4: TITA Full Proposal Live Pitch Presentation to the EAB Board: December 4, 2023
- Announcement of TITA Seed Grant Award: December 7, 2023
- TITA Seed Grant Start Date: January 2, 2024

All Proposals and documents should be submitted with email attachment to

tita-2023-group@njit.edu

TITA Seed Grant Proposal Submission Guidelines

The guidelines for the TITA Seed Grant program proposal submission process are provided below.

1. TITA Idea Concept Paper

Page-1: Cover Sheet

Title of the Technology

Proposers

Affiliations and Contact Information

Executive Summary (Brief Technical Description of the Innovation

Funding: Current and Previous Grants used for Technology Development

Relevant Invention Disclosure(s), Provision or Non-Provisional Patent(s) with Title, Status and Date of Filing

Date of Submission

Page-2: Market and Business Case

Unmet Market Need and Significance

Current Status of the Technology Development and Validation

Current Status of the Technology Transfer and Enterprise Development

The Idea Concept Papers will be reviewed by the External Advisory Board to select and invite applicant teams to submit the White Papers.

2. TITA White Paper

Revise the Concept Paper and add the following sections for the White Paper (total 5 pages maximum) along with a short self-made video (optional but highly recommended)

- Market Size and Future Projections (Preliminary Assessment)
- Competition Overview
- Proposed Innovation Deliverable (Product/Solution)
- Value Proposition and Competitive Advantage (For the Technology Innovation)
- Introduction of the Team

The White Papers will be reviewed by the TITA External Advisory Board who will invite selected applicants for a Stage-3 submission. If invited, a mentor from the TITA Board will be assigned to the applicant team.

3. Full TITA Innovation and Business Case Proposal

When invited after the review of TITA white paper, a mentor will be assigned to the applicant team to help prepare the full TITA proposal. The full TITA proposal will include revised and

expanded version of the white paper and add plans for translational research, product development and validation, market research and analysis, the business case and potential impact. In addition, the full TITA proposal must provide a complete review of competitors, intellectual property asset(s), preliminary financial and detailed technical milestones, assessment, deliverables, and budget. The Full TITA Innovation and business case proposal must include the following sections and address all comments and feedback from reviewers.

- Cover Sheet (Revised as above)
- Unmet Market Need and Significance
- Market Size and Growth
- Market Research: Competition
- Proposed Technical Innovation and Solution
- Value Proposition and Competitive Advantage
- Preliminary Work and Proof of Concept
- Proposed Translational Research and Market Validation
- Business Case and Risk Management
- Milestones, Assessment and Deliverables
- Financials and Budget with Milestones Allocation
- Budget Justification
- 2-Page CV of PI and each team member (NSF Format https://www.nsf.gov/bio/bioac/members/bio_sketch/Raymond_NSF_Biographical_Sketch.pdf)

4. Live Pitch

The applicant team will make a pitch to the TITA external advisory board and potential investors who have reviewed their full proposal. The proposer teams will be provided format information and guidelines on the contents to be covered in each section of the pitch, time duration of each section, and a list of specific questions from the review of the full proposal to address. The applicant team will continue to work with mentors to finalize the live pitch and practice delivery in order to give the best impression to the judges.

Sample pitch guidelines might include a general overview of how to draft a compelling story, specific slides to include (e.g., IP, competitive landscape), a list of questions that should be answered, and/or a list of common mistakes to avoid.

Final decision on awards will be made by the TITA external advisory board and agreement of the assigned mentors to work with the selected teams during the funding period to maximize the likelihood of additional funding/investment on the successful completion of the grant.

Budget Guidelines

The funding period should start January 2, 2024. Please provide the detailed budget for Phase-1 TITA grant for up to \$25,000. The budget request may not include faculty summer salary. Please provide a brief justification of all costs. A budget template will be provided.

Review Criteria

The review criteria of all submissions will include

- Market Need: The significance, size, and potential growth of the unmet need
- Innovation: Novelty, strength, acceptability, and scalability of the innovation in the target market
- Competition: The competitive advantage and value proposition of the innovation
- Commercialization Readiness: Work done on the proof of concept, early assessment for use in the market, and IP protection
- Proposed Plan: Translational research plan, product development, and market validation
- Business Case: Enterprise development, pre-commercialization, and financial plans
- Overall Impact: Potential impact if the TITA grant and product commercialization plans are successful.

Other Resources:

- NJIT Intellectual Property and Licensing Administration Office <https://research.njit.edu/patents>
- Inventor's FAQ: <https://research.njit.edu/patents>
- VentureLink: <https://venturelink.njit.edu/>

For any questions or additional information, please contact Atam Dhawan at dhawan@njit.edu.

**TITA Seed Grant
Program
Proposal Submission
Guidelines**

