



INNOVATE COLLABORATE ENTREPRENEURSHIP

CBS BIOTECHNOLOGY INITIATIVE

## 2023 COMPETITIVE ICE ENTREPRENEURIAL GRANT

Release date: Nov 14, 2022

**Letter of Intent**

**Application receipt date:**

**Review Decision Date:**

**Project start date:**

**June 1, 2023**

August 1, 2023

September 25, 2023

October 2, 2023

### Purpose

The principal goal of the Biotechnology Initiative for Innovation, Collaboration and Entrepreneurship (ICE) Translational Research Grant Program is to foster entrepreneurship in faculty-driven approaches to solving issues critical to society. Accordingly, ICE seeks to recognize and enhance biotechnology research opportunities by awarding grants for field-shaping research in new and emerging areas. This is best accomplished by identification of individuals, primarily postdoctoral fellows and research associates, whose goal is to become entrepreneurs in a new business enterprise (**NewCo**) they seek to establish. The goal of ICE is to spur exploratory research, strengthen interdisciplinary collaboration in new and emerging areas of biotechnology anchored within the College of Biological Sciences (CBS).

The ICE program is administered by Prof. Perry Hackett (GCD) who works with a Steering Committee. The Committee members are Professors Kate Adamala (GCD), Michael Smanski (BMBB) and Mikael Elias (BMBB).

### Eligibility Requirements

Student, Post-Doctoral Fellow or Research Associate formally affiliated with a Principal Investigator in the College of Biological Sciences at the University of Minnesota.

**Letter of Intent** Prospective applicants are asked to submit a Letter of Intent that includes:

- Applicant's name and affiliated CBS PI(s)
- a descriptive title of the proposed research,
- a detailed abstract discussing the overarching concept and how this research will lead to further funding, including Small Business Innovation Research (SBIR) and/or Small Business Technology Transfer (STTR) federal investments as well as private investment.
- a preliminary budget outlining the direct costs (salaries, supplies, small equipment, travel, etc). There are no indirect costs.

The Letter of Intent should be no longer than 2 pages and be addressed to the Director of the ICE Program, Dr. Perry Hackett ([hacke004@umn.edu](mailto:hacke004@umn.edu)). Applicants whose Letter of Intent is deemed suitable for consideration will be notified within two weeks of submission anytime before June 1,

2023 and a full application due by August 1, 2023. Applicants are welcome to make appointments to discuss their ideas and preliminary plans at any time with Dr. Hackett and/or any member of the Steering Committee.

**Application Procedures** The purpose of this Request for Applications for an ICE Translational Research Grant is to solicit ideas and projects with a high likelihood of securing necessary preliminary scientific results on which to found a biotech company that will seek further SBIR/STTR funding, Non-Governmental Organizational, and/or private investment within two years of receipt of ICE funding. The application process recognizes that innovation and creativity accompanied with ingenuity are key characteristics of successful biotech entrepreneurs. Accordingly, the actual guidelines are minimal but page limits are strict.

Applications should consist of the following components:

- 1) Cover page (1 page) to include title, abstract, the name and home department(s) of the Applicant and Principal Investigator(s), and a list and home Departments of coinvestigators.
- 2) Scientific Proposal Section (up to 3 pages + References) with the following sections
  - a. Goals and Specific Aims.
  - b. Significance with respect to a “Business Opportunity”
  - c. Preliminary data
  - d. Research Strategy section.

Given the three-page limit, there is not an expectation that details of specific analyses will be included. Include outcomes/benchmarks that address the specific aims.

- 3) Budget with Justification.
- 4) Business Proposal Section (up to 3 pages): Executive Summary that outlines the applicant’s vision of the company and goals/benchmarks that will be taken following the completion of the ICE-sponsored studies. Applicants are encouraged to become familiar with a Business Model Canvas that can guide the description for creating a sustainable and profitable company. Identifying the Value Proposition, customers, competition and Initial Viable Product is critical for a successful Business Proposal. Most applicants will be far better versed in scientific applications compared to business plans. Accordingly, applicants are highly encouraged to discuss this plan with one or more of the business consultants listed at the end of this announcement.
- 5) Biosketches of the Applicant and Principal investigator(s) with evidence of entrepreneurial drive, training and/or experience.
- 6) Letter of support from the affiliated Principal Investigator(s)

## Budget Considerations

The funds must be used for the direct support of laboratory work to support establishment of a new business *NewCo* and accompanying business plan to obtain further funding from either grants and/or private investors. Validating potential customers through personal interactions (travel) is critical to a successful *NewCo*. **The total budget should be no more than \$150,000.**

- Salaries
- Laboratory supplies and reagents directly related to the project
- Travel up to \$20,000
- Equipment under \$5000 (which will become a business asset)
- Resource services for data collection, evaluation, etc.

### **Ineligible Expenses**

- Faculty salaries
- Legal Fees
- Remodeling space

### **Review Evaluation Criteria** (copy of the Grant Review Form attached at the end of this announcement)

- **Scientific Merit:**
  - Standard criteria for any research proposal including SBIR and STTR grants. These criteria include high Impact, Significance, and Innovation with appropriate Experimental Approach(s) and a supportive Environment.
  - How the basic science conducted in the PI's lab will be transitioned to the market.
  - High likelihood that the results of the project will be accomplished within 1 year and will lead to further funding from SBIR/STTR grants and/or other investment opportunities.
- **Entrepreneurial Merit**
  - A compelling business model and plan.
  - Evidence of entrepreneurial training and/or experience.
  - Expected Intellectual Property (**IP**). IP issues should be clarified by discussions with the UMN Venture Center in the Technology Commercialization Office.

### **REVIEW PROCESS**

- 1) Letters of Intent (Preliminary applications) will be initially reviewed by Dr. Perry Hackett in the pre-review process by June 1, 2023.
- 2) Those deemed competitive will be invited for full grant submission within a week and no later than June 14, 2023. All grants will be reviewed by a committee of consisting of CBS scientists, UMN business mentors and outside consultants to the ICE Program.
- 3) Following review, the review committee may request additional information and/or consultation with the finalist(s) to discuss possible adjustments to increase the potential of the outcome of the project. (This process is hoped to reduce misunderstandings in interpretation of intent and to keep strong applications that may have minor flaws from being eliminated and to encourage the spirit of engagement by the grant committee and the most competitive applications).

### **DECISIONS**

Final decision on funded grants will communicated to the applicant(s) by September 25, 2023.

### **AWARD TERMS**

Principal investigators will be required to provide annual and final reports that include documentation of value to Perry Hackett (abstracts, publications, grants, etc.), an accounting of all funds expended to date and progress towards milestones.

### **CONTACTS**

All questions related to the application process, requirements, or eligibility should be directed to:

Perry Hackett

612-202-8851

[hacke004@umn.edu](mailto:hacke004@umn.edu)

***N.B., Prior experience indicates that demonstrating business acumen is the most challenging aspect for most applicants. Accordingly, before applying for an ICE grant, applicants are strongly advised to consult with the individuals below (who are on the review team) for advice, suggestions, etc. to ensure the strongest possible proposal.***

## **BUSINESS ADVISORS associated with the ICE Initiative:**

**Carla Pavone**, PhD, is a key facilitator of technology commercialization at the U of Minnesota. Dr. Pavone is Program Director of the Minnesota Innovation Corps (MIN-CORPS, a site of the National Science Foundation-funded National I-Corps) and the Associate Director of the Holmes Center for Entrepreneurship at the Carlson School of Management. She teaches entrepreneurship and strategy courses at the Carlson School of Management and has developed educational and coaching programs for STEM students, post-docs, research staff and faculty to facilitate technology commercialization across the University of Minnesota. Her course, MGMT 5102: Customer Development and Testing provides a structured process with faculty and mentor oversight for students at any level and from any UMN college to learn the initial process of customer development. Students primarily take this course individually and should have an idea or technology that they are interested in pursuing. The goal of the course is to teach the process of how to quickly and efficiently test the value and market fit for a new concept. ([pavo0003@umn.edu](mailto:pavo0003@umn.edu))

**Mary MacCarthy**, Manager of the UMN Venture Center Program that take ideas and technology that stem from University of Minnesota research, prepare them for the market, and launch new businesses around them. The Venture Center provides a wide range of services and support to UMN researchers, including faculty, graduate students, and post-docs, to assess the commercial potential of their ideas, identify funding opportunities, and establish new companies based on their inventions. The Venture Center also operates the Discovery Launchpad, a startup incubator and program of formal coaching for UMN researchers interested in forming a startup company, and it helps aspiring entrepreneurs find business advisors, potential investors to launch startups. ([marymacc@umn.edu](mailto:marymacc@umn.edu))

**Pat Dillon** is the Founder and President of MNSBIR, Inc.; a private, non-profit organization with its mission to assist startups and small businesses to access millions from America's Seed Fund – the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. MNSBIR, Inc. is the Governor's designated resource for the federal SBIR/STTR programs, a \$4B annual seed fund for startups and small business. Since its founding in 2014, MNSBIR, Inc. has facilitated more than \$52M in SBIR/STTR funding. MNSBIR, Inc. delivers outreach, education and 1:1 coaching to qualifying companies with qualifying projects. MNSBIR, Inc. fosters a more innovative Minnesota economy focused on turning new ideas and inventions into product and technologies that spur job growth and competitiveness while promoting economic development. Learn more at [minnesotasbir.org](http://minnesotasbir.org). Contact Pat at [pat@minnesotasbir.org](mailto:pat@minnesotasbir.org).

*MNSBIR, Inc. is funded, in part, through a Cooperative Agreement with the U.S. Small Business Administration, the Minnesota Department of Employment and Economic Development, the University of Minnesota, Technology Commercialization Office and the Venture Center, the Holmes Center for Entrepreneurship and the Mayo Clinic, Office of Entrepreneurship.*

# Appendix – ICE Reviewer’s Form



## COMPETITIVE ENTREPRENEURIAL PROGRAM

<b>Applicant Name:</b>	(Lab: )
<b>Proposal Title:</b>	

### Instructions for Reviewers

#### **Section I: Declaration by Reviewers**

Prior to the review, please complete your declaration on conflict of interest and confidentiality. Reviewer identities will be withheld unless the reviewer wishes to be identified.

#### **Section II: Ratings Based on Evaluation Criteria**

- Significance and Breakthrough Potential of proposed research program for developing a new commercial enterprise
- Technical and business competence of the Principal Investigator and Team
- Potential for supporting establishment and investment in a new commercial enterprise

#### **Section III: Recommendation**

Please provide an overall grade and rationale to reflect your recommendation for support of the proposal. Please comment on the strengths, weaknesses and the quality of the proposal.

#### **Section I: Confidentiality and Non-Conflict of Interest by Reviewer**

##### **I declare that**

- I have no affiliation or financial connection with the applicant(s) of this proposal that might be constructed as a conflict of interest.
- I will treat the grant application material as confidential and shall not disclose its content or its ideas to others.
- I will use the information in grant applications solely for the purpose of conducting this review.

<b>Name:</b>
<b>Date:</b>

**SECTION II: Ratings (1-10) based on Evaluation Criteria (1 lowest -> 10 highest)**

<b>Evaluation Criteria 1: Significance and Breakthrough Potential of Research Program</b>				
<b>Rating (1-10):</b> _____		<b>Yes</b>	<b>No</b>	<b>Undecided</b>
1	The proposed research addresses and solves an important use-inspired problem that has commercial benefit.			
2	The proposed research has potential for scientific breakthroughs or disruptive innovations.			
3	The proposed research contains novel concepts, approaches and technologies compared to the state of the art, that could address the problem.			
<b>Comments (no limits):</b>				
<b>Evaluation Criteria 2: Technical and Business Competencies of the Principal Investigator + Team</b>				
<b>Rating (1-10):</b> _____		<b>Yes</b>	<b>No</b>	<b>Not Applicable</b>
4	The lead PI has an appropriate track record to lead the project and achieve its goals.			
5	The Team has the expertise to execute the project.			
6	The proposed collaborators (if any) are relevant and augmentative to the goals of the proposal.			
7	The proposed budget and duration are appropriate, and well-justified in terms of the scientific goals.			
8	The PI and the associated laboratory have the necessary facilities and strengths to support the research.			
9	The proposed scientific milestones are appropriate for measuring the progress toward the stated objectives.			
<b>Comments (no limits):</b>				
<b>• Evaluation Criteria 3: Potential for Supporting Establishment of a New Commercial Enterprise</b>				
<b>Rating (1-10):</b> _____		<b>Yes</b>	<b>No</b>	<b>Undecided</b>
10	If successful, the project has clear pathway to a new business.	x		
<b>Comments (no limits):</b>				

