

Food Systems Innovation Grant Program: Request for Proposals (FY 2020-21)

Program Overview

The Food Systems Innovation Grant – a collaboration between the UC Davis Innovation Institute for Food & Health (IIFH) and Venture Catalyst launched in Fiscal Year 2020-21 – is one of the technology proof-of-concept programs managed by Venture Catalyst in collaboration with InnovationAccess. This program is aligned with the Venture Catalyst Science Translation and Innovative Research (STAIR™) Grant and focuses on funding proof-of-concept innovations that provide breakthrough solutions to global issues across the food system.

Early-stage technologies from university research are often perceived as too uncertain or too risky to attract funding to translate into commercial products or services. The lack of accessible funding creates a gap between basic research and early-stage commercialization efforts. The Food Systems Innovation Grant helps bridge this gap by providing funding and resources to translate basic UC Davis research with commercial potential by demonstrating proof-of-concept and establishing market viability, thus de-risking the innovation. The ultimate objective of the program is to develop technologies that attract entrepreneurs, industry, and investors willing to commercialize UC Davis technologies, resulting in societal and economic impacts.

Successful projects will advance UC Davis technologies towards commercialization by achieving specific research and development milestones. Outcomes that might be enabled by Food Systems Innovation Grant funding include, but are not limited to:

- Building a working prototype or second iteration prototype to prepare for commercialization
- Generating translational data or research results to create more robust foundational IP
- Enabling patent claims
- Testing commercial and market feasibility
- Demonstrating scale-up development potential
- Producing results that support more competitive Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grant applications

In addition to enabling outcomes such as those listed above, the program also helps develop an innovative and entrepreneurial culture that extends the benefits of UC Davis research activities beyond the boundaries of the university.

All applicants with eligible projects will also be advanced for separate review through the STAIR Grant program, providing an additional opportunity for proof-of-concept funding. A key to achieving translational impact is mentoring provided by industry experts to awardees and finalists. Feedback from industry experts through the review and mentoring processes has been invaluable to the program and to UC Davis researchers as they design and implement research plans to increase the commercial potential of UC Davis technology.

Eligibility Requirements

Eligible Projects and Applicants

Projects eligible for Food Systems Innovation Grant funding will feature an early-stage technology that meets one or more of the following criteria:

- Aligns with IIFH's core focus on safe, sustainable, and secure nutrition accessible by all and addresses a food system challenge
- Has advanced beyond the basic research stage, but requires early proof-of-concept data to show feasibility for commercial potential
- Has demonstrated successful results in the research environment and is poised for commercialization pending a specific, targeted demonstration, test result, or prototype
- Has reached a critical stage of technology development, whereby specific questions pertaining to commercialization feasibility can be answered within the resource constraints of the program
- Has identified milestones that would overcome a specific hurdle to commercialization, enabling a technology to become more attractive for either licensing to an existing company or enabling the formation of a startup company within 1-2 two years of project completion

Early-stage proof-of-concept projects not eligible for grant support from traditional research funding sources (NSF, NIH, etc.) or without existing funding will be given priority over projects with other forms of support (e.g., angel or venture capital funding, industry funding, and other proof-of-concept grants). Leveraging other funding sources – as long as there is no overlap in funded projects under a project plan – is encouraged. In such cases, it will be important to identify an IP management plan through coordination with InnovationAccess.

Anyone with Principal Investigator (PI) status at UC Davis is eligible to apply as a project PI. Postdoctoral scholars and university staff researchers are eligible to submit applications as Co-PI with an eligible PI.

Intellectual Property Conditions

All projects proposed in a grant application must address technology with potentially patentable intellectual property (IP). All potentially patentable IP developed under a Food Systems Innovation Grant project will be assigned to the University of California.

If the technology is not covered by a patent or a patent application, or has not been disclosed to InnovationAccess via the Record of Invention (ROI) process by January 15, 2021, then the applicant must participate in a Pre-Application Meeting with InnovationAccess before the proposal deadline. The purpose of the Pre-Application Meeting will be to assess whether the proposed project covers potentially patentable IP and provide input on alignment with Food Systems Innovation Grant technology commercialization objectives.

Prospective applicants can sign up for a Pre-Application Meeting by selecting a designated time slot through the following site: <https://survey.alchemer.com/s3/6098724/STAIRpreapplication2021>. Applicants that require a Pre-Application Meeting are encouraged to sign up early to ensure availability before the deadline.

Technologies that have been optioned or licensed to a company are not eligible to receive Food Systems Innovation Grant funding. However, technologies under a Letter Agreement with a company are eligible. Applicants are encouraged to contact InnovationAccess regarding IP-related eligibility.

Funding Conditions

The total amount of requested funding support cannot exceed \$50,000, and the project objectives must be achievable with awarded funds within a 12-month period following first funds disbursement. Project objectives described in the grant application must be achievable within the proposed budget request and not contingent on other funds.

Funds may only be used for eligible expenses (see *Allowable Costs* section below). The awardee's department will be responsible for covering any expenses deemed ineligible.

One or more of the PI, Co-PI and key personnel will have participated in, or will commit to participate in a structured entrepreneurial training program approved by Venture Catalyst. Examples of potential training programs include the Entrepreneurship Academies administered by the UC Davis Mike and Renee Child Institute for Innovation & Entrepreneurship (IIE) or the NIH and NSF Innovation Corps programs hosted by Venture Catalyst in collaboration with program partners.

Grant Terms and Amounts

Up to \$50,000 is available for the Food Systems Innovation Grant in Fiscal Year 2020-2021. Approved projects may be eligible for up to \$50,000. Grants are for a single 12-month period from the date of grant funds disbursement. All submitted proposals must be limited in scope of work and budget, such that work can be completed within that 12-month period. Funds may be released to an awardee in one or more tranches, based on the work plan of the awardee and at the discretion of the Review Committee.

Allowable Costs

Food Systems Innovation Grant funding may be used only to cover direct costs. Examples of direct costs that may be included in the grant request are supplies, reagents, and minor (non-capitalized) equipment.

Up to 20% of Food Systems Innovation Grant funding requested may be used for salary support, for graduate students, post-doctoral fellows and technical research staff employees only, employed with the university in such capacity at the time of application submission. Clear justification must be provided to show why the requested salary support is essential for the proposed project. If the proposal includes funding for graduate students, the PI responsible for supervising the education, training, or thesis-directed research or related activities of participating graduate student(s) must certify that participation of the student(s) in the program will not adversely impact their education, training, or thesis-directed activities. Additionally, PI will agree to release such student(s) to participate in an Entrepreneurship Academy managed by IIE or an equivalent structured entrepreneurial training

program approved by Venture Catalyst. Salary support requests for graduate students may include tuition and fees remission, in accordance with the UC Davis Academic Personnel Manual, Appendix II-B¹.

As an exception to the 20% cap on salaries, if the proposed project requires software development (either to enable IP being developed or as an integral part of an IP-supported proof-of-concept proposal), up to \$10,000 may be applied to salaries for project software development personnel. If the requested software development salary support is \$10,000, then the project will not be eligible for any additional salary support.

Food Systems Innovation Grant funds can be used to hire contractors for certain activities, such as prototype fabrication or analytical chemistry services. PIs should identify potential service providers in the proposal. Awardees must secure an effort commitment within three months of notification of award, so the team can complete all work described in the proposal within the award period.

Funding may not be used for capital equipment (\$5,000 or more)², market research reports, consulting expenses, maintenance agreements, costs associated with attending conferences, etc. Travel costs are generally excluded from eligibility, except in rare cases.

Only research activities specifically described in the grant proposal will be funded. Research that has already been performed or expenses that have already been incurred in any manner at the time of grant application or grant award are not eligible for funding.

Timeline

- Announcement release: Tuesday, January 19, 2021
- **Application deadline: Tuesday, March 3, 2021 at 5:00 pm PST**
- Notice of award: Anticipating mid-June 2021

How to Apply

Application forms, along with detailed instructions, can be found at the following URL: <http://research.ucdavis.edu/offices/vc/stair/>. Applications can be submitted through Office of Research's InfoReady grant application platform at <https://ucdavis.infoready4.com/> (*Kerberos login required*).

Potential applicants should send an email indicating their interest to stairgrant@ucdavis.edu, so that the Proof-of-Concept & Innovation Programs Manager may contact you to provide updates, special announcements, or other communications (e.g., upcoming information sessions).

All applicants with eligible projects will be also be advanced for review through the STAIR Grant – applicants do not need to separately submit a STAIR Grant application. Up to \$250,000 is available for the STAIR Grant Program in Fiscal Year 2020-2021. Approved projects may be eligible for up to \$50,000. In addition, Venture Catalyst has engaged several partners to expand potential funding available to particular technologies and projects through the STAIR Grant program. The number of STAIR Grants

¹ This document can be found at <https://aadoocs.ucdavis.edu/policies/apm/ucd-app-ii/appendix-ii-b.pdf>

² Defined per UC Davis Policy and Procedure Manual, Ch. 350, Section 50:
<https://ucdavispolicy.ellucid.com/documents/view/489/509/>

awarded will depend on funds available in the fiscal year, the quality of the proposals received, and the discretion of the Vice Chancellor of Research. Projects cannot receive funding from both the Food Systems Innovation Grant and STAIR grant programs. For more information on the STAIR Grant program, visit <http://research.ucdavis.edu/offices/vc/stair/>.

Review Process

Overview

Venture Catalyst staff will perform an initial review of all proposals for any errors in completion or other non-substantive issues. Venture Catalyst will then provide proposals electronically to the Food Systems Innovation Grant Review Committee for assessment and scoring. The Review Committee will score proposals on review criteria identified below.

Based on quality of proposals received and the total budget request, the Food Systems Innovation Grant Review Committee will recommend applications for approval by the IIFH Faculty Director.

Prior to a final funding decision, the Office of Research may undertake a conflict of interest review of the proposed project.

Venture Catalyst anticipates providing summarized anonymized reviewer comments to all applicants based on the review criteria.

Food Systems Innovation Grant Review Committee

The Food Systems Innovation Grant Review Committee will include industry representatives with corporate, investor, and entrepreneurial expertise. Venture Catalyst may add supplemental members to the Review Committee, including IIFH and Office of Research staff and campus subject matter experts qualified to evaluate a combination of business and scientific translational merits of the proposals received. All reviewers will be obligated to protect the confidentiality of proposals and will disqualify themselves in cases of conflict of interest.

Review Criteria

Reviewers will score applications on a scale of “1” (lowest) to “9” (highest). Review criteria fall into four broad categories: 1) Program Fit, 2) Technical Merit, 3) Budget and Timelines, and 4) Milestones and Commercial Potential. Applicants should be prepared to answer the following questions in their proposal:

- Program Fit
 - Does the proposal fit with program objectives and eligibility?
 - The Food Systems Innovation Grant is designed for early proof-of-concept experiments unlikely to be eligible for existing federal research or other grant funding; the technology or project is at a stage where proof-of-concept funding will substantially enable next steps towards technology commercialization; the project reflects a gap in early technology development with potential for commercial impact; and the project aligns with IIFH core focus on safe, sustainable, and secure nutrition accessible by all and addresses a food system challenge.

- Technical Merit
 - Does the project team have scientific or technological expertise required by the proposal?
 - How clearly does the proposal describe the proposed research and the anticipated results?
 - Does the proposal clearly describe and provide sufficient prior proof-of-concept or enabling research results to support the work proposed?
- Budget and Timelines
 - Is there a reasonable likelihood of achieving project objectives, given the available financial and technical resources identified or anticipated?
 - How appropriate is the timeline presented for achieving the proposal's objectives?
- Milestones and Commercial Potential
 - Does the proposal indicate clear recognition of the steps, challenges, and value-generating milestones that would enable commercial feasibility for the technology?
 - Does the proposal effectively describe the product or service that would be enabled by the proposed work and end-user served? How well the proposal identifies a market need and product fit within the competitive landscape?
 - How effectively does the proposal present the current intellectual property and intellectual property strategy?

Award Process and Post-Award Administration

Prior to award disbursement, Venture Catalyst will verify that the awardee is still eligible, based on criteria established in the RFP. (For example, IP must not be licensed or optioned at the time of the award; proposed research has not received alternative funding; etc.)

The amount of requested funding support cannot exceed a total of \$50,000. Venture Catalyst reserves the right to reduce the final amount of funding approved, including salary requests, when making a final determination of grant award. The Food Systems Innovation Grant Review Committee will conduct a final review of 1) proposed milestones, and 2) fit with the requested budget, prior to a final funding decision. Funds must only be used for eligible expenses (see *Allowable Costs* section above); the awardee's department will be responsible for covering any expenses deemed ineligible.

All awardees will be assigned industry mentors from the Review Committee to provide guidance on technology commercialization and work with the project team over the grant period. The Venture Catalyst and IIFH teams will select mentors based on factors such as professional background, technical expertise aligned with the project, and comments provided in the review process.

Awardees will be expected to engage with Food Systems Innovation Grant mentors on a regular basis and submit reports indicating progress towards or achievement of project milestones. Progress report content and timelines will be discussed and agreed upon prior to release of funds, and at a minimum will include quarterly accounting and mid-year progress and final reports.

Funds will be disbursed only after the first meeting (facilitated by Venture Catalyst staff) with the assigned mentors, and subsequent sign-off by the mentors and researcher on the proposed project milestones. Funds awarded are to be expended within 12 months of release of funding from Office of Research to the PI's department. On a case-by-case basis, upon submission of reasonable justification by the PI and at the discretion of the IIFH Faculty Director, a single no-cost extension of not more than 6 months may be provided.

As a condition of the award, awardees will be expected to:

- Meet quarterly (in person or by telephone) with mentor(s)
- Provide quarterly accounting to indicate use of funds on the project in the achievement of project milestones
- Submit a mid-year progress report that includes milestone tracking and a clear accounting of the use of granted funds in the furtherance of the project and achievement of proposed project milestones
- Submit a final project report that summarizes technical achievements and discusses commercial next steps
- PI/co-PI and key personnel (including any graduate students involved in the project) participate in a structured entrepreneurial training program approved by Venture Catalyst
- Participate in a mini-symposium in 2022 to present project results to-date and commercialization-related outcomes

Contact Information

For any questions related to the Food Systems Innovation Grant process, please send an email to stairgrant@ucdavis.edu.