J-WAFS Water and Food Seed Grants
2027 Request for Letters of Interest

1. About J-WAFS Water and Food Seed Grants

Population growth, climate change, urbanization, and development are bringing unprecedented challenges to the world's diverse needs for water and food. The Abdul Latif Jameel Water and Food Systems Lab, J-WAFS, was established in 2014 as an Institute-wide effort to bring MIT's unique strengths to bear upon these problems. J-WAFS is seeking proposals from MIT PIs for new, innovative research that has the potential to have significant impact on issues and challenges related to the world's water and/or food supply for human use.

J-WAFS funds a diverse portfolio of research relevant to water and food—spanning fundamental science, engineering and technology, supply chains, big data, business models, development, economics, climate interactions and impact, urban design and infrastructure, and more—through seed grants and other funding mechanisms. We invite proposals for projects that can affect meaningful, perhaps even measurable, improvements to humankind's need for sustainable supplies of water and food.

Water and food systems are vast and deeply interconnected, and responses to many specific challenges require considerations that go beyond a single discipline. Further, problems of water and food take different forms in different parts of the world, and many solutions call for a regional focus addressing specific contextual considerations, whether geographic, economic, social, or other. Thus, interdisciplinary proposals and proposals with international reach or a specific geographic focus are also welcome.

J-WAFS anticipates funding up to eight seed grants of up to $150,000, comprising up to $75,000 per year for one to two years, free of overhead charges, to be spent at MIT. Note that J-WAFS seed grants incur full RA tuition (you may inquire with the student's department regarding the possibility of tuition subsidy). We are open to eligible proposals that further J-WAFS' mission, from all MIT schools, colleges, and departments.

2. Process and Timing

Our funding process starts with a required letter of interest. Full proposals will be invited based on internal review of the letters of interest. J-WAFS is **migrating to a new portal** (InfoReady) from this seed grant cycle onward.

Thursday, October 8, 2026: J-WAFS RFP announced
Wednesday, November 4, 2026: InfoReady online submission portal open for letters of interest
Wednesday, November 18, 2026: Letters of interest due (by 5 pm ET)
Monday, November 30, 2026: Invitations to submit full proposal (expected)
Tuesday, January 19, 2027: Full proposals (including budget template) due (by 5 pm ET)
Spring, 2027: Announcement of funded projects
Wednesday, September 1, 2027: Start of funded projects

3. Funding and eligibility

Principal Investigators submitting a proposal must meet one of these two eligibility criteria:

- *MIT professor*
- *Member of the MIT research staff with principal investigator privileges (generally senior or principal research scientist, or senior or principal engineer, or with one-time PI status authorized for this submission)*

The PI(s) will have full responsibility for conducting and reporting on the research supported by the grant. Applicants may participate as PI or co-PI in up to two letters of interest.

Proposals in all areas related to water and food security, safety, and sustainability for human use are eligible for funding. Areas of interest are detailed in the next section. Proposals should be for new, innovative projects that are distinct from ongoing or prior research in the PI's lab. Requests for funding to supplement existing research, or course or curriculum development, will not be considered.

Seed grant funding is available up to a maximum of $75,000 per year for one or two years (see Section 7.1 for allowable expenses and related information). We are looking for innovative **early-stage** projects that can benefit from one to two years of funding in order to: (1) establish proof of concept or gather critical data that will position the project to qualify for other future sources of funding; or (2) have a clear and significant outcome without subsequent awards. Projects that are intended to have real-world impact (short-term or long-term) are favored. Multidisciplinary projects and projects that have well-defined regional or international outreach or collaboration are also invited, noting that subawards are not allowed. New collaborations, including team members in different MIT departments, are encouraged. Relevant interactions with industry, NGOs, or other stakeholders are also encouraged.

4. Areas of interest

J-WAFS is interested in supporting all areas related to the water and food systems that serve human needs. Proposals that address aspects of the climate/water nexus and climate/food nexus are of high interest, but we will also fund projects addressing other water or food challenges.

The topics detailed below are examples of some of the most significant water and food challenges that align with MIT strengths, and these examples provide an indication of the variety of research topics that J-WAFS is interested in funding. However, proposals in other areas related to water and food for human use that are not explicitly detailed below are also welcome. We are open to research relevant to both developed and developing countries.

1. Water

- **Safe, reliable water supply:** purification, disinfection, wastewater reuse and desalination with lower energy use and environmental impact, across municipal, industrial and agricultural users
- **Detecting and managing water contamination:** contaminants in recycled and general water, affordable monitoring for low-resource settings, and data to run distribution networks well
- **Contaminants of emerging concern in drinking water,** including PFAS
- **Unmet water needs of rural communities,** globally and especially in Native American and other underserved communities in the U.S.
- **Excess water consumption:** economic and policy incentives that reduce use and promote conservation

2. Food science and safety

- **Gaps in nutrition, climate resilience, and crop productivity,** and heavy dependence on fertilizer, including where biotechnology could help
- **Unsafe food and undetected contaminants:** science, technology or policy to improve food safety and contaminant detection
- **The climate impact of current diets:** strategies to shift food demand toward climate-protective diets

3. Food waste

- **Food loss in post-harvest, storage, transport and preservation,** and limited market access for small and medium-scale producers in developing countries
- **Waste along the supply chain,** affecting smallholder farmers, food processors, distributors and consumers, and the business processes that could reduce it

4. Agriculture and crop productivity

- **Agriculture's climate footprint and vulnerability:** measuring greenhouse gas emissions from agriculture, reducing the sector's impact on climate, and building the climate resilience of food systems through science, technology, policy, demand-side management or locally adaptive practices, including genetic engineering and other biotechnologies
- **Drought, flooding and extreme weather events:** irrigation, supply management and other ways to adapt to increasing drought and to reduce agricultural losses from droughts, floods, and extreme storms
- **Degraded and poorly monitored soils:** soil sampling and monitoring, soil chemistry and nitrogen cycling, and ways to restore and build agricultural soil
- **Environmental and cost burdens of fertilizer and pesticide use:** better alternatives, better application, and lower environmental impact
- **Limited information for farm decisions:** soil-health monitoring, and data to raise productivity or cut farm greenhouse gas emissions, including precision agriculture and particularly decision support for smallholder farmers to enhance resilience, adaptability, and productivity
- **Barriers facing smallholder farmers** in the U.S. and internationally, which technological and business innovations could ease
- **Unmet food needs of rural communities,** globally and especially in Native American and other underserved communities in the U.S.

5. Other challenges

Other problems related to water supply and quality, agriculture, food supply and food safety are also welcome. Unconventional methods of food production, aquaculture, etc. are also within scope. The PIs may also refer to the technical and scientific problems statement of the Agricultural Transformation for Land, Atmosphere, and Society (ATLAS) program developed in collaboration with MIT HEALS and the Climate Project at MIT, accessible here. These topics are also of interest.

This year, J-WAFS is piloting building relationships with external parties who can provide MIT researchers with a better understanding of real-world problems, potential collaborators for fieldwork, and potential partners for translation in the future. Through the connection facilitated by the K. Lisa Yang GEAR Center, we established a collaboration with ICARDA, the International Center for Agricultural Research in the Dry Areas. ICARDA is a non-profit agricultural research institute and CGIAR member that aims to improve the livelihoods of resource-poor people across the world's dry areas. Founded in 1977, its work spans crop improvement, water and land management, integrated crop-livestock-rangeland systems, and climate change adaptation, including water harvesting and supplemental irrigation.

For PIs, it is a potential partner for field testing and scaling water and agriculture technologies in dry-land settings, working through research institutions, NGOs, governments, and the private sector. ICARDA has shared with J-WAFS key problems that they are facing, which may be of interest to PIs with potential for impact on the ground if research addressing them is successful. We encourage you to review the document and indicate in your LoI if you would like an introduction to ICARDA for potential collaboration and engagement. Note that LoIs will not be shared with ICARDA without PI permission. The ICARDA document is accessible here.

Please note: Proposals that indicate policy guidance as a primary outcome should identify specific decision makers who are able to act upon it and should include a well-defined timeline and process by which this guidance will be discussed with them. Policy-related proposals will be strengthened by specific evidence that policy makers need answers to the questions addressed by the research. Similarly, proposals with a strong applied research thrust are expected to demonstrate a reasonable understanding of the user or industry needs and constraints and potential pathways to translation. Proposals with an early-stage, or more fundamental research thrust are expected to outline why the proposed work is of broad significance and high importance to addressing humanity's need for water and food.

5. Proposal process

5.1. Letter of Interest instructions

Letters of interest should be submitted online through J-WAFS' web-based proposal portal, at https://mitfunding.infoready4.com/#freeformCompetitionDetail/2026191. For past J-WAFS PIs, please note that J-WAFS is migrating to InfoReady from this seed grant cycle onward.

The portal will be open for submissions as of **Wednesday, November 4, 2026**. Instructions for the letter of interest are below. RAS review is not required and the "five-day rule" does not apply.

5.2. Submission checklist

1. LoI Information Form (webform on application site)
2. Single PDF with file name "PILastName-JWAFS2027LOI.pdf," containing:
    a. LoI narrative (max. 2 pages)
    b. Research team and budget narrative (max. 1 page)
    c. Appendices (tables and figures (max. 2 pages); references)

5.3. Letter of interest narrative

Letters of Interest must be written using the template provided at this link. The narrative should be no longer than two pages exclusive of figures and tables, team, and budget. Letters of Interest will not undergo expert peer review. **They should be written in a way that is accessible to non-experts.**

5.4. Full proposals

Instructions for full proposals will be provided to PIs who are invited to submit full proposals.

6. Evaluation process and review criteria

6.1. Letters of Interest

Letters of interest will not undergo expert peer review. Letters of Interest will be evaluated based on the following:

- Relevance to J-WAFS mission of securing water and food for human need
- Importance and definition of the problem/question that the proposal aims to address
- Innovativeness over state-of-the-art and differentiation from current or past research of the PI
- Potential impact of the research, if it is successful
- Pathway to future impact, e.g., follow-on research funding, technology development/deployment pathways, implementation partners, or how new knowledge will be useful
- Qualifications of research team for the work proposed

6.2. Full proposals

Full proposals will undergo expert peer review followed by a review by an advisory committee. The review process will evaluate and consider the technical merit of the approach, additionally to the criteria evaluated at LoI stage.

7. Information about J-WAFS Seed Grants

7.1. Budget

Seed grants are available up to a maximum of $75,000 per year for two years, i.e., up to $150,000. There is no F&A nor a fund fee. Note that graduate student RAs supported on the grant do not automatically receive the 55% Institute tuition subsidy. Departments may be allocating funds to provide tuition subsidy; PIs are responsible for consulting with their department (or the student's department) regarding tuition subsidy. Other personnel should have appropriate salary, EB, and vacation accrual included in the budget. PI salary should be limited to one month per PI over the entire grant period, and total PI salary (for all PIs and including EB) may not exceed 15% of the award. Total equipment costs are limited to 20% of the total budget. No equipment expenditures will be allowed during the final six months of the funding period. Other acceptable budget items include: staff researchers or post-docs, technicians, M&S and other research expenses, and justifiable travel for MIT personnel or for outside collaborators. *No sub-awards or pass-throughs are allowed*; this funding is intended to support MIT research.[1]

7.2. Reporting

J-WAFS will assess the success of funded projects in meeting the stated goals/milestones. Each funded project will be required to submit six-month progress reports that detail project activities and research outcomes during the reporting period, and a final report that summarizes all project outcomes and follow-on activities. Reports also identify students and staff supported by the grant, and dissertations, papers, or presentations arising from the work supported by the grant. The "highlights" section of the report will be made public. Due dates will be noted at the award of the grant, and reporting instructions and specific contents will be provided approximately four to five weeks before their due date.

7.3. J-WAFS Information Session for New PIs

J-WAFS will hold an information session for new project teams during the last few weeks of August. PIs are encouraged to attend, and funded projects must have at least one representative (PI, funded staff member, RA, AA,

[1] Special consideration may be given to Whitehead Institute research for PIs who also hold appointments at MIT. Please contact J-WAFS to discuss funding, OH, and IP issues before applying. (See Section 9 re: Inquiries.)

and/or FA) in attendance.

7.4. J-WAFS Research Workshops

J-WAFS topical research workshops, typically held in the fall, provide an opportunity for funded PIs to present their seed grant research and network with each other. These workshops are by invitation and are limited to the MIT community in order to protect prepublication research results. PIs are required to attend, and students and other lab members are welcome and encouraged to attend.

7.5. Publications/Statement of support

All publications arising from work supported by J-WAFS funding should acknowledge support from "the Abdul Latif Jameel Water and Food Systems Lab at the Massachusetts Institute of Technology." Publications arising from the funded work should be sent to Carolyn Blais Pinter, J-WAFS' senior communications and program manager, (cblais@mit.edu).

In addition, J-WAFS has adopted an open-access (OA) policy for research awarded by J-WAFS and funded through MIT's endowment and other gifts to the Institute. We ask J-WAFS researchers to familiarize themselves with this policy and consider it when selecting journals in which to publish J-WAFS-funded research. J-WAFS OA policy has two elements:

1) All J-WAFS funded papers must be available open-access as soon as possible and no later than one year after publication (e.g., by uploading accepted articles to MIT DSpace);

2) If authors choose to pay for open access, the use of J-WAFS funds for article processing charges is capped. J-WAFS' funding for an OA article processing charge (APC) is limited to $3,500 per paper. Untenured faculty may request exceptions.

7.6. Financial auditing

All funded projects are subject to financial auditing, including requests for documentation of salaries and any expense listed on the account. The PI is responsible for reviewing salaries charged to projects, and for validating and certifying percentages of salary charged to a project. Salary certification is required by MIT to be completed in a timely manner. Salaries for personnel or stipends for students on the project should be charged over the course of the project and not all at once at the end. No equipment expenditures will be allowed during the final six months of the funding period. J-WAFS actively monitors all project accounts. PIs are responsible for covering any cost overruns in a timely manner.

7.7. Changes to ongoing projects

Any significant change in the budget, work plan, deliverables, personnel, and requests for no-cost extensions should be directed in a timely manner to J-WAFS staff for consideration. In general, however, projects will be expected to conclude on scope, on time, and on budget. Unapproved cost overruns will be the responsibility of the PI(s) to cover. Unexpended funds must be returned to J-WAFS unless a no-cost extension is approved.

8. Inquiries

Please direct general process questions to:
Daniela Giardina, Executive Director, J-WAFS, dgiard@mit.edu
Carolyn Blais Pinter, Senior Communications and Program Manager, J-WAFS, cblais@mit.edu

Please direct budget or financial questions to:

Nicholas Pasinella, Senior Research Administrator, J-WAFS, bpnas@mit.edu

Please direct questions about eligibility to:

Rohit Karnik, Director, J-WAFS, karnik@mit.edu

Daniela Giardina, Executive Director, J-WAFS, dgiard@mit.edu