MIT J-WAFS Abdul Latif Jameel Water & Food Systems Lab

Securing humankind's vital resources

Opportunities for Engagement

How do we secure society's fundamental resources—water and food—and how do we sustain the ecosystems that provide them, while our human population rapidly grows, urbanization increases, and the earth is altered by climate change?

At MIT, we believe in the power of problem-focused research and innovation. The Abdul Latif Jameel Water and Food Systems Lab (J-WAFS) spearheads solutions-oriented research across the Institute, targeting the safety and resilience of our vital water and food systems. By supporting efforts spanning on-campus research, policy studies, corporate and international partnerships, and technology development and commercialization, J-WAFS aims to improve the security, safety, and efficiency of the water and food supplies needed for a sustainable future and a prosperous economy for all people.

Join us to catalyze MIT water and food systems research

Forward-thinking individuals, governments, foundations, corporations, and investors who understand the urgency of our global food and water challenges are supporting J-WAFS at MIT. Their funding drives research and innovation, yielding new knowledge, new technologies and innovative business models, and improvements to public policy. J WAFS connects sponsors and collaborators to faculty members and research groups to address the fundamental water and food challenges confronting the world today, and in the future. By joining J-WAFS as a sponsor or collaborator, you or your organization can:

CONNECT with MIT faculty and researchers working on problems of mutual interest;

SUPPORT MIT entrepreneurs who are commercializing MIT technologies;

CONVENE international experts to prioritize water and food research needs;

CULTIVATE future leaders through funded fellowships and student support.

J-WAFS sponsorship catalyzes research in water and food systems that will have the large-scale global impact for which MIT is known.

Engage with J-WAFS

A shared sense of urgency and obligation drives MIT students' and faculty's intense search for solutions to global-scale challenges. The result? Innovations in engineering and technology, energy and urban planning, economics and policy, climate and biological sciences, and many other fields across the Institute that are paving the way for a water and food secure future for our planet.

The Institute's long record of successful research collaborations with businesses, foundations, governments, individuals, and other academic institutions across the globe is the backdrop for our approach to problem solving. MIT alumni have launched nearly 31,000 active companies, which employ roughly 4.6 million people, and generate an estimated $1.9 trillion in annual revenues. Add to that the direct impact on human lives of over 150 years of MIT research, teaching, and innovation, and our scale of influence is powerful.

MIT is uniquely positioned to be a leader in improving our water and food systems. Whether your primary interest is in licensing, commercialization, investment opportunities, or specific water and food challenges, there are multiple ways to engage. Support J-WAFS and help drive MIT research that launches effective new technologies and processes, generates novel business models and effective policies, and develops solutions for the world's current and future water and food systems needs.

Your support matters.

With our water and food systems at risk in developing and developed countries alike, the world needs the bold, creative problem solving for which MIT is known. **J-WAFS is the engine behind this work, and your support is the fuel.**

Help us as we develop the science, technology, and expertise needed to meet local and global requirements for safe, accessible, and resilient supplies of water and food.

To explore funding opportunities, contact:

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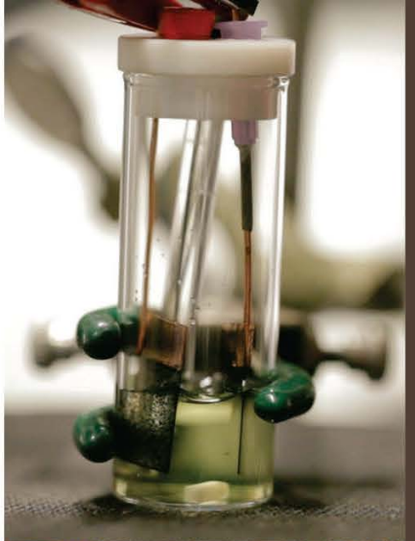

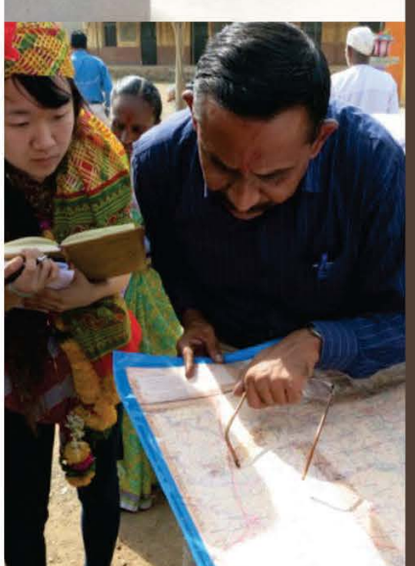

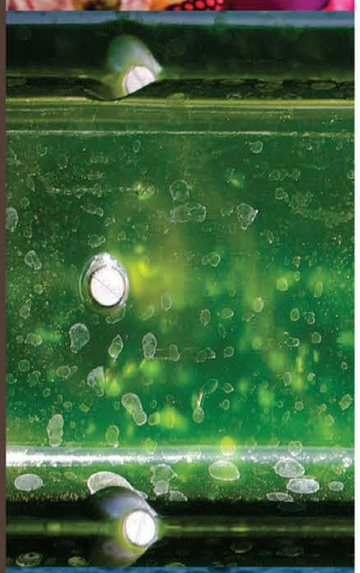

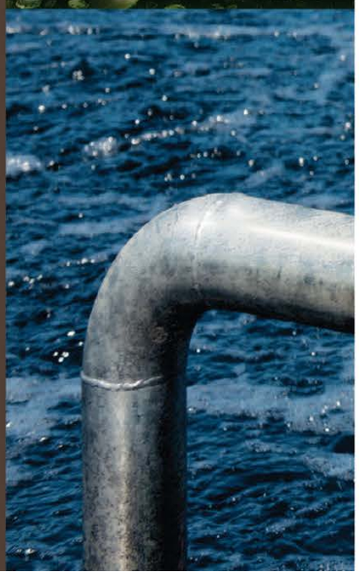

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MIT: Research for Impact in Water and Food

MIT's legacy of advancements in water and food began in the 1880s. A pioneering survey of water quality in the US, conducted in 1887 by instructor Ellen Swallow Richards, led to the development of the first water quality standards in the US and inspired the study of man-made water pollution worldwide. Her MIT colleagues developed sanitary engineering as a field, revolutionized pasteurization and canning techniques, and established scientific approaches to food preservation and safety that are still used today. MIT's culture of water and food innovation continues: MIT researchers–supported by J-WAFS–are tackling significant problems in order to ensure the current and future resilience of our planet's water and food systems, among them:

Expanding access to safe drinking water: Affordable, easy-to-use water filters that are engineered to remove various contaminants (such as arsenic, lead, and waterborne pathogens) from marginal water supplies used by rural populations and other vulnerable communities.

Food productivity: Energy efficient methods of increasing crop productivity and soil fertility to benefit low-yield tropical agriculture, among them technologies to generate ammonia fertilizer from air and potassium fertilizer from rocks.

Agriculture in a changing climate: Methods to increase crop resilience–as diverse as plant genetics and irrigation techniques–as well as research into the effects of climate change on crops around the world to inform regionally-appropriate agriculture policy.

Water purification: Novel electrochemical processes that can remove contaminants that occur at small yet still dangerous concentrations (such as pesticides, chemical waste products, and pharmaceuticals), and desalination systems that can increase water supply.

jwafs.mit.edu

ARE YOU INTERESTED IN DIRECT SPONSORED RESEARCH?

Become a J-WAFS Research Affiliate

The J-WAFS Research Affiliate Program is an opportunity for corporate, government, or non-profit partners to directly support and engage with professors from across the Institute pursuing research of mutual interest, creating synergies out of respective strengths and needs. As a J-WAFS Research Affiliate, your organization will have the closest connection to MIT's research, education, and student communities devoted to food and water, benefitting from valuable opportunities for learning and technical exchange, recruitment, interactions with the MIT community, and introductions to MIT spinouts.

MIT researchers seek to solve real-world problems. Through informed, coordinated, and executive-level engagement, J-WAFS can help develop a strategic framework built around your organization's water or food system challenges. J-WAFS works closely with you as a Research Affiliate to develop an MIT research portfolio, and expose you to a cross-section of additional J-WAFS activities.

J-WAFS seeks to engage comprehensively with a select set of Research Affiliates representing different parts of the world's water and food systems. In contrast to one-off projects that companies may develop directly with individual faculty members, J-WAFS offers sustained support and relationship management from senior administrators, including:

- Identifying opportunities for new research and potential research partners
- Prioritizing and managing faculty interactions
- Supporting the preparation of proposals that respond to your interests
- Start-to-finish project oversight

J-WAFS assists in the management and development of project budgets and statements of work, including timelines and expected outcomes. Research Affiliates benefit from a master research agreement that J-WAFS stewards, greatly facilitating the contracting process with MIT's Office of Sponsored Projects. Technologies invented through these partnerships can be licensed by the sponsor.

Our Research Affiliates also contribute to the culture of food and water innovation at MIT. In addition to direct sponsored research, J-WAFS Research Affiliates support general seed funding for research and technology development; graduate students working on water and food system topics; and broader integrative J-WAFS activities such as workshops, conferences, and expert studies.

To explore becoming a Research Affiliate, contact:

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ARE YOU INTERESTED IN SPONSORING J-WAFS?

Make a gift to the J-WAFS Catalyst Fund

Individuals, foundations, and governments at all levels are increasingly concerned with the rising challenge of feeding a growing population and securing safe, accessible, and adequate water supplies. Research at MIT focuses on many of the issues that are of primary concern, for example sensors for water contaminants and food safety, water purification technologies, modeling to assess climate change resilience, supply chain improvements for food and agriculture sectors, and new business models and scale-up strategies for both advanced technologies and low-tech affordable solutions for rural areas in developing countries. With its exceptional convening power, MIT also excels as a conference and expert workshop organizer.

Financial support from foundations, alumni, and friends provides valuable resources to develop, sustain, and enhance the impact of J-WAFS activities. When you make a gift, you are making an investment in both the future of J-WAFS and our Institute-wide work to improve the productivity, accessibility, and sustainability of the world's water and food systems.

Gifts to the J-WAFS Catalyst Fund support various J-WAFS initiatives by:

- Expanding our Seed Grant program and other funds available for new research in water and food
- Supporting future water and food sector leaders through J-WAFS graduate student fellowships
- Funding international conferences, expert workshops, and other J-WAFS events focused on technology, policy, or other solutions to water and food sector challenges
- Promoting student engagement in water and food across fields and topics through the support of student professional clubs, innovation prizes, and other activities
- Providing resources for curriculum development, outreach and communications initiatives, and more...

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ARE YOU INTERESTED IN A SPECIFIC WATER AND FOOD CHALLENGE?

Join a topic-based research consortium

J-WAFS is initiating a series of topic-specific research consortia oriented around particular science, technology, and policy issues that are central to future water and food supply and sustainability around the globe. The aim of these consortia is to pool resources from key stakeholders to support multidisciplinary, authoritative analyses addressing specific water and food sectors or challenges, focusing on research priorities, critical policy issues, and technology development needs.

The research is considered pre-competitive, and we welcome the broad participation of companies, foundations, NGOS, and individuals across particular sectors. Consortium fees are more modest than the costs of sponsored research, yet still offer members the opportunity to engage with MIT researchers, participate in expert workshops, contribute to the development of best practices and the identification of research needs, and have pre-publication access to research results.

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ARE YOU INTERESTED IN A PARTICULAR GEOGRAPHIC AREA?

Initiate or support a regional partnership

J-WAFS is interested in partnering with other institutions, foundations, industry, and governments to develop regionally appropriate solutions for water and food security, whether for fast-growing megacities or for the rural developing world. Regional partners help develop and implement new water and food approaches and technologies in the context of their own needs and challenges. For each regional partnership, J-WAFS will develop a range of collaborative research and education activities tailored to the particular challenges, interests, and resources of the sponsor and the partner institutions. The design of our regional partnerships is flexible, and J-WAFS can augment research by mobilizing a range of MIT resources dedicated to executive education, mentoring of entrepreneurs, student internships, technology evaluation, and more, based on partner interests.

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ARE YOU INTERESTED IN SUPPORTING START-UPS?

Become a J-WAFS Solutions sponsor

The J-WAFS Solutions program supports translational projects aiming to move technology from the laboratory to the market place. Solutions grants help commercialize breakthrough MIT technologies and inventions by providing funding as well as mentoring and other assistance to MIT faculty and students who are developing innovative products and spinning out new companies. The program helps move MIT water and food technologies to the commercial world, where they will improve the productivity, accessibility, and sustainability of the world's water and food systems. MIT's Technology Licensing Office is available to discuss opportunities to license IP related to J-WAFS research, and how J-WAFS Solutions program sponsors can invest in water and food startups that come out of the program.

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ARE YOU INTERESTED IN DIRECTLY SUPPORTING STUDENTS?

Fund a graduate student fellowship

J-WAFS seeks to expand support for students who are pursuing high-impact research around water and food. Fellowship funding has direct and dramatic impact on the number of graduate students that MIT is able to admit and train and who will go on to address pressing global water and food challenges. Fellowships cover a graduate student's tuition and health insurance, and include a stipend for living expenses; in addition, J-WAFS facilitates mentoring, networking opportunities, policy discussions, and exposure to a wide variety of research areas. Our goal is to support outstanding graduate students and cultivate a multidisciplinary alumni community working around the world in academic, non-profit, and corporate sectors to address critical water and food needs. Fellowships may be general or targeted specifically to the water or food sector. Please ask us about endowed giving and fellowship naming opportunities.

To explore student support opportunities, contact:

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