

## J-WAFS 10-YEAR ANNIVERSARY

SPECIAL EDITION NEWSLETTER

### J-WAFS founding director John H. Lienhard V reflects on J-WAFS at 10

I founded the Abdul Latif Jameel Water and Food Systems Lab (J-WAFS) at MIT in the spring of 2014, with the generous support of Mohammed Jameel '78, as a research organization that would engage faculty across departments for diverse and impactful work on water and food systems. Renee Robins '83 and I have worked closely to refine this vision and to identify the best ways to collaborate with the MIT community. J-WAFS is now firmly established as an endowment-driven research funder within the Institute. Our support has mobilized faculty and students to take on the complex, multidisciplinary problems inherent to humanity's need for water and food. More than 10% of MIT's faculty have been funded by J-WAFS.



This semester, J-WAFS will publish a series of articles reflecting on our work over the past decade. These stories, by our staff and collaborators, will feature research projects we have funded and the efforts of faculty, students, and other researchers at MIT. *To begin, click the button below to read my introduction to how J-WAFS operates and the aims we pursue.*

--John H. Lienhard  
Abdul Latif Jameel Professor of  
Water and Mechanical Engineering  
and Founding Director of J-WAFS

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## J-WAFS 10TH ANNIVERSARY: FACULTY IMPACT STORIES



### Driving faculty engagement in water and food research

J-WAFS strengthens faculty efforts by catalyzing & supporting new research.

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### Faculty impact spotlight: Improving salmon fisheries management

Sara Beery uses automation to monitor migrating salmon.

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# NEWS & ANNOUNCEMENTS

## J-WAFS PI engineers sustainable fertilizer

Chris Voigt developed nitrogen-fixing microbes and co-founded Pivot Bio to use the microbes on farms that grow corn and other grains, curbing greenhouse gas emissions and nitrogen pollution.

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## J-WAFS PI investigates marine microbes

Andrew Babbitt studies marine microbes across the planet to understand their ability to control nitrogen cycling between the ocean and atmosphere, which supports the ocean's ability to store carbon.

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## A CRM strategy that increases food security

Researchers from the MIT Center for Sustainability Science and Strategy suggest employing multiple carbon dioxide removal strategies to decrease both cropland energy consumption and food insecurity.

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## MIT spinout reduces industrial wastewater

Commercializing technology developed in the lab of J-WAFS director John Lienhard, Gradiant builds water treatment solutions deploying desalination, membrane filtrations, and other technologies.

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## New method sustainably produces ammonia

Ammonia-based fertilizer production contributes to significant greenhouse gas emissions, so an MIT team developed a cleaner way to produce ammonia using the Earth as a geochemical reactor.

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## J-PAL research aims to help farmers

A J-PAL Policy Insight discusses strategies to boost rural agricultural market access for farmers in low- and middle-income countries, enabling them to invest more in their farms and generate higher crop yield.

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## Desirée Plata tackles environmental issues

The MIT associate professor is passionate about increasing access to clean water and also co-founded Moxair, a startup that helps reduce methane emissions from dairy farms.

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## MIT-WHOI student researches water quality

Faith Brooks studies the effects of coastal pond breaching on freshwater quality in Nantucket through the PhD program with MIT and Woods Hole Oceanographic Institution.

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# EVENTS



## J-WAFS 10th anniversary celebration event

Thursday, May 22, 2025, late afternoon (exact time TBD), in-person

Join us at this anniversary event celebrating ten years of impact, and honoring founding director John H. Lienhard and founding executive director Renee J. Robins, as they prepare to retire this summer. [MORE INFO](#)



### 2024-25 MIT Energy and Climate Career Fair

Friday, February 21, 2025, 10:00 a.m. - 1:00 p.m. ET, in-person

This MIT Energy & Climate Club event allows students to meet with energy and other sustainability employers that focus on environmental challenges, including the Mass. Water Resources Authority. [MORE INFO](#)



### MIT Energy Conference

Monday-Tuesday, March 3-4, 2025, all day, in-person

Participants will learn about climate-related issues and understand how academia, industry, and government are working to solve them. Panel discussions include one moderated by J-WAFS researcher Scott Odell. [MORE INFO](#)



### MIT Sustainability Summit 2025

Friday, May 2, 2025, all day, in-person

This annual student-run event focuses this year on the theme of "Forging Pathways to Climate Resilience," bringing business and societal leaders together with academic researchers and students. [MORE INFO](#)

## FUNDING AND OTHER OPPORTUNITIES



### J-WAFS Graduate Fellowships

MIT faculty are invited to nominate outstanding MIT PhD students (by March 3) who are pursuing research related to water for human need.

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### MIT Deshpande Center Grants

**Open to:** MIT faculty and students  
**Deadline:** March 3, 2025

These grants help researchers create the foundation for a successful business, including those related to water and food systems.

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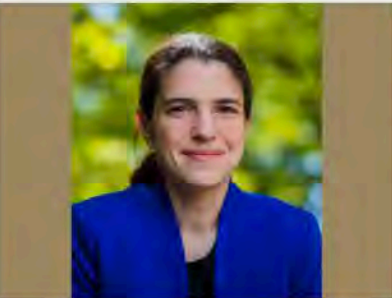
### Sloan Sustainability Internships

**Open to:** First-year Sloan MBAs  
**Deadline:** April 26, 2025

This opportunity offers high-caliber sustainability-oriented internships and provides students with financial support.

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## AWARDS & RECOGNITIONS



### Heather Kulik honored by U.S. government

The J-WAFS PI received a Presidential Early Career Award for her research that includes metal organic frameworks for water purification.

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### J-WAFS researchers publish methodological framework

Prof. Kenneth Strzepek and Gregory

### Ahmed Ghoniem wins 2024 Bernard Lewis Gold Medal

The past J-WAFS PI received the award

Sixt, PhD, are working on the Jameel Index for Food Trade and Vulnerability to project the impact of global food trade on food security.

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from the Combustion Institute for his work in the field of combustion, including energy conversion and turbulent reacting flow.

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### Angela Belcher receives prestigious award

The J-WAFS PI was awarded the National Medal of Technology & Innovation for her research on the environment and other areas.

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## INTERESTED IN SUPPORTING J-WAFS?

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.

[DONATE ONLINE](#)

**FOR MORE INFORMATION ABOUT SPONSORSHIP OPPORTUNITIES, CONTACT:**

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J-WAFS is an Institute-wide effort that brings MIT's unique strengths to bear on the many challenges our food and water systems face.

Our program catalyzes MIT research, innovation, and technology for ensuring safe and resilient supplies of water and food while reducing environmental impact, to meet the local and global needs of a rapidly expanding and evolving population on a changing planet.



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