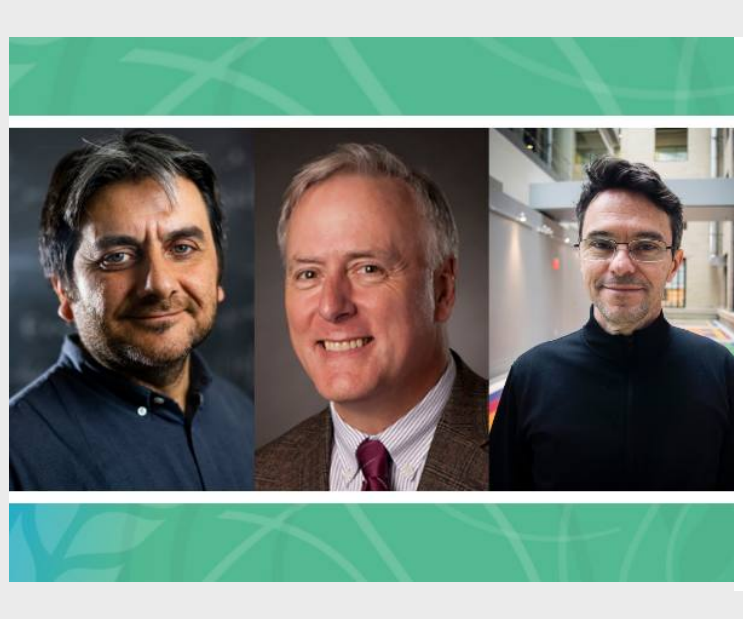
2023 J-WAFS Solutions Grantees announced, J-WAFS awards students to attend water conferences, and more!

J-WAFS Abdul Latif Jameel Water & Food Systems Lab
Securing humankind's vital resources

NEWS & ANNOUNCEMENTS



J-WAFS awards 2023 Solutions Grants

Cem Tasan and co-PIs Andrew Whittle and Fábio Duarte are working on water conservation and monitoring, respectively.

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J-WAFS PI offers advice on climate change and weather

Elfatih Eltahir, who studies climate change impacts on the water cycle and weather, says to get people to act on climate change, we must show them how they'll be impacted.

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J-PAL and Community Jameel start clean air and water labs

The initiative will bring together researchers and policymakers to find climate solutions in areas where impactful clean air and water solutions are most urgently needed.

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J-WAFS researchers contribute to World Bank report

Kenneth Strzepek and Brent Boehlert offer insights for enhancing climate resistance in Sub-Saharan Africa in areas such as water and agriculture.

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MIT alumna strives to fix broken food cultivation system

As senior director of innovation startups at the World Wildlife Fund, Julia Kurnik '06 develops business strategies around food/agriculture.

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J-WAFS researcher gives Politico interview

Scott Odell spoke about water conflicts as they relate to mining communities in Chile, a topic he is researching with John Fernández for a J-WAFS Seed Grant project.

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Mobile app tracks global food networks

The app from MIT's Lincoln Lab can track supply chains and global food networks to help food-aid stakeholders follow items from production through delivery.

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MIT water spinout expands AI solutions

Gradiant, which uses technology developed in the lab of J-WAFS director John Lienhard, will collaborate with SpaceAge Labs on digital water infrastructure solutions.

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Ag startup makes $100M in revenue

J-WAFS PI Chris Voigt is co-founder of Pivot Bio, a company which is helping farmers replace synthetic nitrogen with a microbe-based, nitrogen-fixing product.

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J-WAFS spinout presents at MIT's Demo Day

NONA Technologies presented its desalination technology at this event where student entrepreneurs celebrated startup milestones they've accomplished.

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MIT Solve team fights child malnutrition

M'Care, a 2021 MIT Solve team, is collaborating with MIT students to leverage healthcare data analysis to improve nutrient delivery to children in Nigeria.

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J-WAFS funds students to attend World Water Week

J-WAFS Travel Grant recipients recount their experience at the Stockholm water conference last month.

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FUNDING

AND OTHER OPPORTUNITIES

J-WAFS Water and Food Grand Challenge Grant

LOI Deadline: December 8, 2023

Open to: MIT PIs

Up to $1.5M over 2-3 years will be awarded to an interdisciplinary project that addresses a significant problem in water and food for human use, specifically in the context of climate change. Must sign up for information and updates.

MORE INFO

MIT W.F.A. Innovation Prize Team

Deadline: Ongoing

Open to: MIT students

The MIT Water, Food, and Agriculture Prize, co-sponsored by J-WAFS, is a business plan competition with a final pitch event in the spring. Student teams anywhere can apply, and MIT students can join the management team by reaching out to Alexa Katz.

MORE INFO

J-WAFS Grant for Transforming Animal Agriculture Systems

Deadline: October 30, 2023

Open to: MIT faculty, research staff, and students

Grants in the range of $15-25K will be awarded to selected recipients for projects addressing issues in animal agriculture, especially in low- and middle-income countries.

MORE INFO

J-WAFS Grant for Water and Food Projects in India

Deadline: October 30, 2023

Open to: MIT faculty, research staff, and students

Grants of up to $15K for current members of the MIT community interested in addressing a water or food-related challenge in India. One to three projects will be awarded.

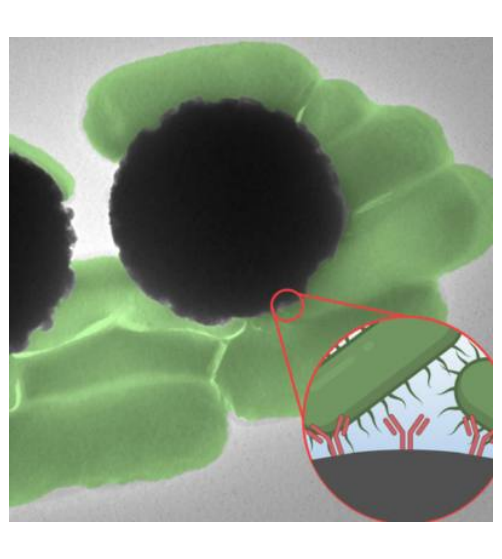
MORE INFO

IN-DEPTH LOOK

MIT ENGINEERS DEVELOP WATER AND FOOD SAFETY TOOL

Technology from J-WAFS associate director and team helps detect contaminants in water and food

Tests of water pollution and food contamination can take anywhere from one day to one week. MIT engineers, including J-WAFS associate director Rohit Karnik, have discovered a novel method for rapid contaminant detection in water, food, and clinical samples. The method uses small, antibody-coated, magnetic beads called "Dynabeads" to aid in the detection and capture of pathogenic bacterium.



The team found a faster way to confirm the presence of pathogens bound to Dynabeads using an optical technique called Raman spectroscopy. The researchers mixed Dynabeads into vials of water contaminated with *Salmonella*, and magnetically isolated the beads onto microscope slides to measure the way light scattered through the fluid when exposed to a laser. Within half a second, they quickly detected the Dynabeads' Raman signature—confirming that *Salmonella* bacteria were present in the fluid. The work is part of a new J-WAFS seed grant, and the results have appeared in an "Emerging Investigators" special issue of the *Journal of Raman Spectroscopy*.

READ MORE

AWARDS & RECOGNITIONS

Four MIT graduate students awarded J-WAFS Travel Grants

Anushka Shahdadpuri, Barathkumar Baskaran, Catherine Lu, and Devashish Gokhale will attend the UNC Water & Health Conference. Participation in the conference will help the students advance their career plans through professional networking and learning opportunities. MORE INFO

Mary Gehring appointed chair for biomedical research

Congratulations to J-WAFS PI Mary Gehring for being named the inaugural incumbent of the David Baltimore Chair in Biomedical Research for the Whitehead Institute. On Friday, Sept 22 at 2:30 p.m., a celebration EVENT can be streamed online. MORE INFO

Peter Godart to speak at MIT Sustainability Conference

Former J-WAFS fellow Peter Godart will be a speaker for the MIT Startup Exchange Lightning Talks at this year's MIT Sustainability Conference on September 26-27. Godart is the co-founder and CEO of Found Energy, which brings clean energy to heavy industries like the fertilizer industry. MORE INFO

Greg Sixt to give talk at Columbia University

Director of the J-WAFS-led Food and Climate Systems Transformation Alliance and J-WAFS research manager for climate and food systems, Sixt will discuss the importance of convergent approaches for achieving food systems transformations. Watch the talk online, 10 a.m. ET, Oct 2. MORE INFO

Julie McDonald speaks at Australian National University

The MIT biology grad student is working with Prof. Shoulders on a J-WAFS Grand Challenge project to improve RuBisCO, a photosynthetic enzyme. McDonald visited the lab of collaborator Spencer Whitney, where she gave a seminar about her work on laboratory evolution of plant RuBisCO. MORE INFO

Renee Robins gives remarks at Community Jameel event

J-WAFS' executive director spoke about the role that universities like MIT have in boosting the economy at a roundtable discussion in New York City. The event took place on the sidelines of the '23 United Nations Sustainable Development Goals Summit and the UN General Assembly. MORE INFO

Smriti Bhaya and Arjav Shah named 2023-24 Legatum Fellows

Congrats to Smriti Bhaya and Arjav Shah on receiving fellowships from the Legatum Center at MIT. The fellowships are for founders and ecosystem builders who are creating global impact. Bhaya and Shah also received J-WAFS Travel Grants to attend World Water Week last month. MORE INFO

EVENTS

Local food connections

Joint the MIT Sloan Sustainability Initiative on November 2 at 11:45 a.m. ET for a hybrid event on creating identity around local food and the people who grow it.

MORE INFO

ClimateTech 2023

The MIT Tech Review event will explore how emerging technologies in all sectors enable feasible pathways to clean energy, carbon neutrality, and circular economies.

MORE INFO

"Water Is Life"— dinner and roundtable dialogue

J-WAFS will co-sponsor this event for the MIT community on September 26, which will discuss water rights and how society views water.

MORE INFO

IN CASE YOU MISSED IT

MIT PhD student appears on WCVB's Chronicle

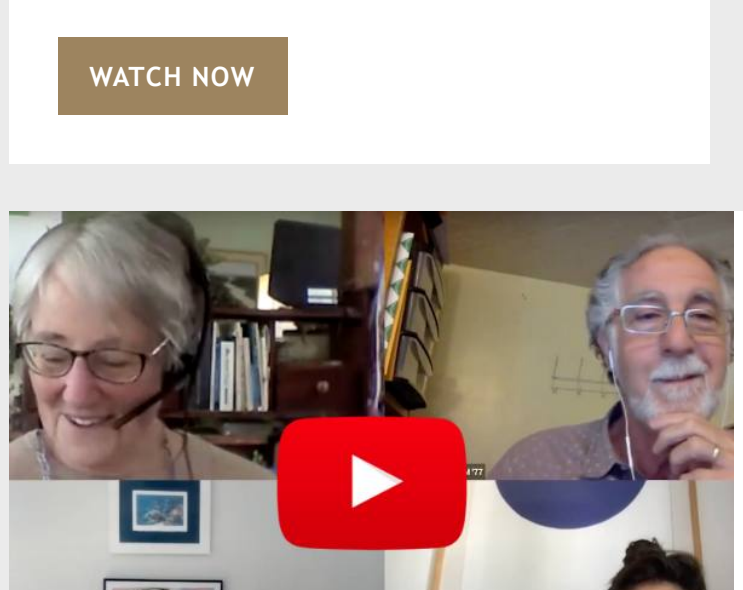
Turga Ganapathy is working with a type of cyanobacteria called spirulina, which is rich in protein and can be used as a dietary supplement.

WATCH NOW

Jon Bessette spotlighted in video

The J-WAFS Travel Grantee works on deployable desalination and water treatment as an MIT Morningside Academy for Design Fellow.

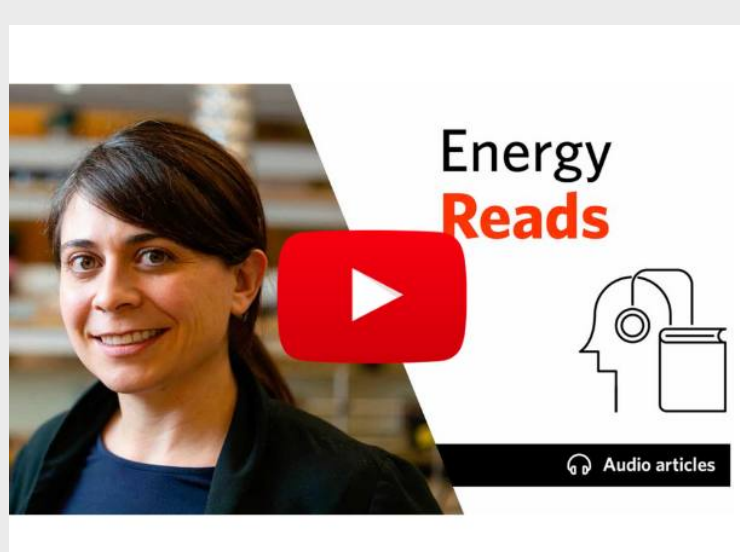
WATCH NOW



MIT alumni webinar on energy, water, and food

The event discussed the importance of a water-energy-food nexus approach to reinforcing positive feedback for sustainable resilience globally.

WATCH NOW



Desirée Plata on MITEI podcast

The MIT professor speaks to the MIT Energy Initiative about ways to develop tools to reduce methane, especially on dairy farms.

LISTEN NOW

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.

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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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