



Abdul Latif Jameel  
Water & Food Systems Lab

*Securing humankind's vital resources*



## NEWS & ANNOUNCEMENTS



### J-WAFS PI co-authors piece on water diplomacy

Lawrence Susskind and Shafiqul Islam expand on ten years of work by presenting a framework for more effective water management.

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### J-WAFS PIs named Highly Cited Researchers

[Gang Chen](#) and [Evelyn Wang](#) are on the 2022 list by Clarivate for having written papers that rank in the top 1% by citations for a field.

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### J-WAFS fellows attend Earthshot Awards

Rhoda Zhang and Devashish Gokhale attended the Earthshot Prize Awards, hosted by Prince William in Boston last week.

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### J-WAFS PI seeks to uncover answers about ecosystems

Otto Cordero is working to understand the fundamental constraints that shape microbial ecosystems, including how ecosystems assemble, and why species

### MIT conference addresses mining, environment, & society

At the Environmental Solutions Initiative event, J-WAFS researcher Scott Odell noted that mining has social & environmental impacts, like

divide labor in nature.

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those tied to water & agriculture.

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## MIT & Harvard study delves into impacts of crop burning

The study found that if farmers in India burn crop residue two hours earlier in the day, they could avert approximately 10,000 deaths each year.

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## J-WAFS PI improves the environmental impact of products

Rafael Gómez-Bombarelli works with Elsa Olivetti to assess the properties of materials to determine how they can be redesigned and improved to be more sustainable.

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## MIT alum reduces food production emissions

Lisa Dyson founded Air Protein and created a meat alternative using microbes, water, renewable energy, & elements found in the air.

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## MIT research scientist combats food deserts

Christopher Mejía Argueta studies supply chains and how they relate to healthy food access in underserved communities.

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## J-WAFS wishes you a happy holiday season

Consider giving a gift to support water and food-related research this year!

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# PUBLICATIONS

## J-WAFS PI addresses climate change and agriculture in Africa

Elfatih Eltahir and team use simulations of climate change impacts to inform the development of adaptation strategies in East Africa.

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## MIT researchers present new cooling architecture

J-WAFS PIs Evelyn Wang and Jeffrey Grossman, along with others at MIT show how evaporation, radiation, and thermal insulation can be used for better off-grid food storage.

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# IN-DEPTH LOOK

J-WAFS COMMUNITY MEMBERS ATTEND COP27

## Food systems and climate change were top of mind at COP27

Last month J-WAFS community members Greg Sixt & Elfatih Eltahir attended COP27, or the “conference of the parties” to the U.N. Framework Convention on Climate Change, held for the 27th time this year. The event took place in Sharm el-Sheikh, Egypt, where over 35,000 people took part, including a delegation of MIT students, faculty, and staff.

Greg Sixt, director of the J-WAFS-led Food and Climate Systems Transformation (FACT) Alliance, attended many side events where he discussed the importance of sustainable food systems in the face of climate change. At a panel discussion titled [“Putting Food on the Table during a Climate Crisis.”](#) Sixt discussed the need for research to better address stakeholder needs to ensure actionable results for sustainable food systems. Sixt also joined [an event](#) hosted by the European Commission and the Climate Technology Centre and Network, to present the FACT Alliance’s approach to identifying implementation pathways for transformational adaptation technologies, policies, and practices for food systems. Lastly, Sixt gave brief remarks on food trade dynamics at



Community Jameel's annual [“Data farm” reception](#).

J-WAFS PI Elfatih Eltahir presented plans for the Jameel Observatory Climate Resilience Early Warning System (CREWSnet), one of the five projects selected in MIT's Climate Grand Challenges initiative. CREWSnet focuses on climate adaptation, the term for adapting to climate impacts that are unavoidable.

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## EVENTS

WATER AND FOOD

**SuperUROP**  
2022-2023

Advanced Undergraduate Research Opportunities Program

### Fall SuperUROP Showcase

**Thursday, December 8th, 2022, 3:00 - 6:00 p.m. ET, In person**

Hosted by MIT's Department of EECS, the poster session and networking event will showcase the fall undergraduate researchers. [MORE INFO](#)

**MIT | VMS**

**MIT | TLO**

### MIT VMS and MIT TLO event: Building an IP Portfolio (MIT ONLY)

**Thursday, December 8, 2022, 6:00 p.m. - 8:00 p.m. ET, In person**

This event will include tips for IP strategy, patent applications, & more. It's appropriate for startups, investors, and mentors, including those with IP in the water & food sector. [MORE INFO](#)



### IAP Course on Food Sustainability (MIT ONLY)

**Monday, January 9, - Friday, February 3, 2023, In person**

MIT community members, fill out the form to stay up to date on this IAP series exploring the elements of a sustainable, climate-friendly food system. [MORE INFO](#)

# FUNDING

AND OTHER OPPORTUNITIES

## J-WAFS Water and Food Seed Grants

**Open to: MIT PIs**

**Deadline: December 16, 2022**

Grants of up to \$75K per year, overhead free, for up to two years will be given to innovative MIT research projects that have the potential to positively address water and food supply challenges.

[MORE INFO](#)

## MIT Nominations for the 2023 Earthshot Prize

**Open to: MIT community members with tested environmental solutions**

**Deadline: December 13, 2022**

MIT is an official nominator of the prize, which seeks solutions to environmental problems such as scaling regenerative agriculture & reducing overfishing.

[MORE INFO](#)

## MIT ESI Journalism Fellowship

**Open to: U.S. journalists**

**Deadline: December 14, 2022**

This Environmental Solutions Initiative fellowship supports stories that bring people's lived experiences to climate change science, including those related to water and food.

[MORE INFO](#)

## MIT Undergraduate Sustainability Survey

**Open to: MIT undergrads**

**Deadline: December 18, 2022**

With this survey, the UA Committee on Sustainability aims to identify and represent undergraduate sentiment on sustainability and climate policies. Rewards and raffle for participants.

[MORE INFO](#)

## MITEI fellowship

**Open to: MIT PIs**

**Deadline: January 13, 2023**

Supports proposals for exploratory projects that show promise for high-impact, transformative research on any energy topic - including those related

## MITOS IAP student roles

**Open to: MIT grads and undergrads**

**Deadline: Ongoing**

MIT's Office of Sustainability is seeking students, including those with course work in water & food, to support the development of climate action

to water or food.

[MORE INFO](#)

planning.

[MORE INFO](#)

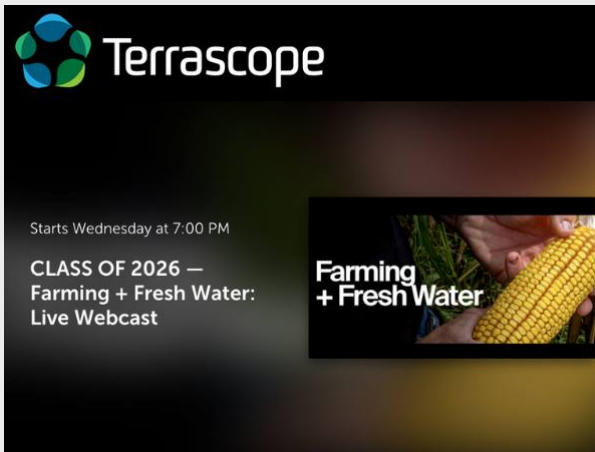
## IN CASE YOU MISSED IT



### J-WAFS director delivers keynote address at IDA World Congress

John Lienhard gives an interview about the subject of his presentation - atomic powered desalination.

[WATCH NOW](#)



### MIT Terrascope students' final presentations

Students presented proposals for increasing agricultural productivity while protecting access to freshwater in Navajo Nation.

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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.

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**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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