

Researchers growing water filters from kombucha? New funding opportunities? Innovation prizes & food systems events? We've got it all for you here!



## IN THE NEWS

FEBRUARY 2021

### MIT Research for a Water Secure Future

2021 World Water Day Video Competition



### World Water Day Student Video Competition

Submit a water research video for \$3K in prizes. Judges are from industry, media, and academia. *(MIT only)*

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### J-WAFS Solutions RFP Invites Proposals for Water and Food Innovations

Submit pre-proposals to this commercialization grant program focused on transforming MIT research into innovative products and spinout companies in water, food, AI, energy, and more.

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### Follow #JLabsClimate on Fridays For MIT Climate Research Insights

Join J-WAFS, J-PAL, and our funder Community Jameel on Fridays via Twitter to see how our programs are driving climate solutions. *(Campaign ends on Earth Day, April 22.)*

[READ MORE](#)

### J-WAFS Researchers Establish New Initiative to Respond to Food Safety Hazards

### Super-Strong Nanostructures for Water Purification

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The Food Supply Chain Analytics and Sensing Initiative, which began as a 2015 J-WAFS seed grant, is using supply chain research to build healthier food systems.

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J-WAFS PI Julia Ortony has created self-assembling kevlar-inspired molecules with promising potential to remove contaminants from water.

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## Transforming Global Supply Chain Sustainability

J-WAFS PI Joann de Zegher is working to ensure that early links in global supply chains are transparent and equitable, even when they are hard to trace.

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## Susan Solomon's 2021 National Academy of Sciences Award for Chemistry in Service to Society

This former J-WAFS PI has been awarded for her contributions to understanding of the causes of ozone depletion and climate change.

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## MIT VP for Research Tapped for Key Biden Administration Post

Maria Zuber has been named co-chair of the President's Council of Advisors on Science and technology. J-WAFS sits under the VPR office with key oversight from Zuber.

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## MIT Convenes Influential Industry Leaders to Fight Climate Change

The MIT Climate and Sustainability Consortium's 13 company members include major players in the food and beverage industry.

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## MechE's Student's Justice-oriented Water Research

Undergrad Orissa Cooms' research and student leadership is tackling water, food insecurity, and racial injustice.



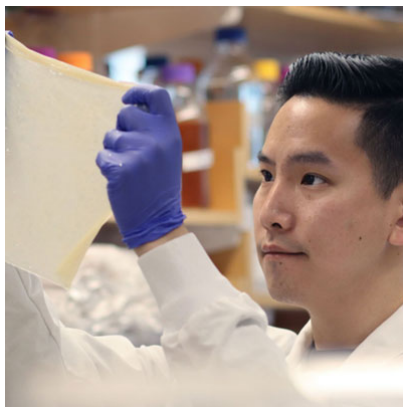
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## IN-DEPTH LOOK

J-WAFS STUDENT SPOTLIGHT

### Brewing up a dirty-water remedy (and more) with kombucha-inspired biosensors

Like many of his colleagues in the Department of Biological Engineering, graduate student and 2017 J-WAFS graduate fellow Tzu-Chieh “Zijay” Tang employs microbes and synthetic biology—redesigning the genetic systems of organisms—in his research. An inventor at heart, Tang designs living materials to solve environmental challenges, including water quality, with an emphasis on safety and scalability. To him, problems like climate change or food and water security are the most pressing challenges, and present great opportunities for students in biological engineering to make a difference.



Four years ago, Tang started developing biosensors in the form of bacteria-containing hydrogel beads. The bacteria are engineered to light up in the presence of water contaminants. (His testing included Charles River water samples.) Tang continued iterating on his ideas during his J-WAFS fellowship, and has finished developing a bead formulation that not only meets his design requirements, but can be easily adapted to host different microbes. Currently, he is developing

living membranes for water filtration and other uses using microbes, in a process inspired by the fermented beverage kombucha.

Find out more about how Zijay’s innovative living materials work, and the ways that they could make a real impact on water and

environmental challenges.

READ MORE

## EVENTS

FOOD & WATER



### DEI and Environmental Justice in the Water Industry

Feb 11, 18, & 26 / 2 PM / \*Online\*

Young professionals: explore diversity and inclusion principles for the water industry with the New England Water Environment Association. [MORE INFO](#)



### Global Food+ 2021

Feb 12, 19, 26, & Mar 5 / All Day / \*Online\*

Explore the latest food systems research on food systems resilience to support growing populations and environmental and natural resources. [MORE INFO](#)



### MIT Water Club Research to Policy Workshop

Mar 9 / 6 PM / \*Online\*

Hear from Tommy Holmes, legislative director of the American Water Works Association, about transitioning water research to policy. [MORE INFO](#)



### MIT Better World: Toward a Sustainable Future

Mar 16 / 7-8:30 PM / \*Online\*

Learn about MIT's research-to-impact approach to sustainability and join a J-WAFS session on water, food, and climate innovations. *\*More info: [arsutton@mit.edu](mailto:arsutton@mit.edu)\**



### MIT Water Night

Apr 22 / Time TBD / \*Online\*

Join the MIT Water Club for a family-friendly event celebrating water through research, art exhibits, interactive demonstrations, and more. [MORE INFO](#)

### MIT Water Innovation Prize

Apr 28 (subject to change) / Time TBD / \*Online\*



Join the MIT Water Club for a pitch night featuring student water sector startups. Teams from around the world will compete for up to \$35K in awards. [MORE INFO](#)



### Rabobank-MIT Food and Ag Innovation Prize Pitch Night

Apr 28 / 6 PM / \*Online\*

This MIT Food and Ag Club for a pitch night featuring student food sector startups. Teams from across the North America will compete for \$30K in awards. [MORE INFO](#)

## FUNDING AND OTHER OPPORTUNITIES

### J-WAFS Solutions Grant

**Deadline: Feb 19**

Open to All MIT PIs

Submit pre-proposals to this commercialization grant program focused on transforming MIT research into innovative products and spinout companies in water, food, AI, energy, and more.

[MORE INFO](#)

### J-WAFS World Water Day Student Video Competition

**Deadline: Mar. 10**

Open to All Students, Recent Alumni, and Postdocs

Submit short videos to J-WAFS' "MIT Research for a Water Secure Future" video competition; up to \$3,000 will be awarded.

[MORE INFO](#)

### Job Opening: J-WAFS Financial and Project Coordinator

**Deadline: Open until filled**

Open to All

Interested in applying your financial management skills towards water, food, and climate challenges? Become part of the J-WAFS team!

### Martin Fellows Call for Nominations

**Deadline: Feb 28**

Open to All MIT Students

The Martin Society of Fellows for Sustainability seeks nominations for PhD candidates at MIT whose research and activities support environmental and social sustainability. Two semesters of full funding available.

[MORE INFO](#)

## Internship: Lehman Sanctuary

**Deadline: Feb 28**

[Open to MIT Students](#)

Join Lehman Sanctuary to establish a unique water monitoring station in a forested Pennsylvania wetland.

[MORE INFO](#)

[MORE INFO](#)

## Internship: World Wildlife Fund

**Deadline: Feb 18**

[Open to MIT Students](#)

Study food sector sustainability and resilience in the American West with the WWF.

[MORE INFO](#)

## FFAR Seeding Solutions Grant

**Deadline: Mar 10**

[Open to All Researchers](#)

The Foundation for Food and Agriculture Research's grant program awards up to \$10 million in grants focused on soil health, sustainable water management, next generation crops and animal ag, urban food systems, and more.

[MORE INFO](#)

## Sloan Sustainability Initiative Internship

**Deadline: Mar 27**

[Open to All Sloan First-Year MBA Students](#)

Apply for a subsidized internship with sustainability-oriented businesses including many in water and food systems.

[MORE INFO](#)

## Navajo Water Project: Water is Life Fund

**Deadline: Mar 31**

[Open to All](#)

Submit proposals for water, sanitation, and hygiene projects supporting people in the US states and territories and tribal nations. Up to \$100K in grants available.

[MORE INFO](#)

## 2021 Cleantech Open Accelerator Program

**Deadline: Apr 18**

[Open to All](#)

Submit water, food, and other sustainability innovations to the world's largest cleantech accelerator. Mentoring, training, and up to \$75K in cash awards available.

[MORE INFO](#)

## NASA Deep Space Food Challenge

**Deadline: July 30**

Open to All

Submit research proposals for novel food production technologies for long-duration human exploration missions.

[MORE INFO](#)

## MITOS Sustainability Fellowship

**Rolling Deadline**

Open to All MIT Students

Join the MIT Office of Sustainability to support MIT's efforts to reduce food waste on campus.

[MORE INFO](#)

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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