

Announcing: 2021 seed grant awards, 2021 J-WAFS water solutions fellows, updates on research impacts and PI activities, and other opportunities!



IN THE NEWS

SPRING/SUMMER 2021



Announcing: 2021 J-WAFS Seed Grant Awards

Ten MIT PIs have received ~\$1.2M for water and food systems research.

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2021-2022 J-WAFS Fellows for Water Solutions Selected

MIT PhD students Danyal Rehman, Hilary Johnson, and Ippolyti Dellatolas of MechE have received fellowships supporting their innovative water sector research.

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Analytics Platform for Desalination Plants Wins Water Innovation Prize

Startup Bloom Alert, along with Nympha Labs, and MIT team NERAMCO won top awards at the MIT Water Club's annual student innovation prize competition.

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Cleaning Robot for Food Production Plants Wins Rabobank-MIT Prize

MIT startup Human Dynamics received the top award in the MIT Food and

J-WAFS Researchers Lay Groundwork for Drought-resistant Food Crops

PIs David Des Marais (CEE) and Caroline Uhler (EECS/IDSS) are combining plant

Agriculture Club's student innovation prize, with Chicago-based company Resourceful winning second place.

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J-WAFS Fellow Nadia Christidi on the Arts and the Future of Water

This HASTS PhD student is exploring the role of the arts in helping Los Angeles, Dubai, and Cape Town plan for water-scarce futures.

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J-WAFS Solutions Spinout Supported by START.nano

MIT.nano's new startup accelerator program will support companies developing nanoscale technologies including SiTration, a spinout from a 2015 J-WAFS Solutions project.

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J-WAFS PI Susan Murcott & Students Build Climate Clock

An interdisciplinary team of researchers is raising awareness about the need for climate action with a giant climate clock projected onto MIT's Green Building.

biology and big data to identify genes for drought tolerance in cereal grains to support climate-resilient crop development.

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MechE PhD Student Wins Prestigious Lemelson-MIT Student Prize

Hilary Johnson won in the "Eat It!" category for her novel invention: an adaptive centrifugal pump that can radically improve the efficiency of water infrastructure worldwide.

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MIT Unveils a New Action Plan to Tackle the Climate Crisis

Food and water will be among the many areas of engagement of MIT's new climate action plan, which will expand the Institute's climate innovation and mitigation efforts.

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Farewell to J-WAFS' Communications and Program Manager

We bid a fond farewell to Andi Sutton who will soon be moving to Minnesota for a new sustainability-focused position at the University of Minnesota Extension School.

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J-WAFS Executive Director Receives 2021 Infinite Mile Award

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Congratulations to Renee Robins, who received this award from MIT's senior leadership recognizing her contributions to J-WAFS and MIT!

IN-DEPTH LOOK

J-WAFS RESEARCH IMPACTS

Using Mechanics for Cleaner Membranes

Filtration membranes are critical to a wide variety of industries around the world. Made of materials as varied as cellulose, graphene, and nylon, they serve as the barriers that turn seawater into drinking water, separate and process milk and dairy products, and pull contaminants from wastewater. They serve as an essential technology to these and other industries but are plagued with an Achilles heel: fouling.



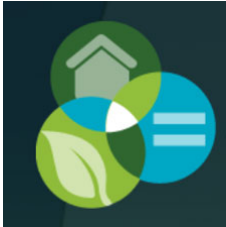
A solution to this challenge may soon be in sight. A team of researchers from the MIT Department of Mechanical Engineering, supported by a J-WAFS seed grant, has found an alternative. The team has developed a novel system that can mechanically clean membranes using controlled deformation. Their new approach, one of the first ever to combine membranes and mechanics, has the potential to be cheaper, faster, and more environmentally friendly than traditional membrane cleaning

techniques, and is poised to revolutionize the way we think about filtration.

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EVENTS

FOOD & WATER



Sustainable Business Network: Building Fair Economies

Jun. 4 / 9-12 PM / *Online*

Join sustainability leaders from across MA to discuss local food and sustainability, community development, racial equity, and more. [MORE INFO](#)



Ellen MacArthur Foundation 2021 Circular Economy Summit

Jun. 8-10 / All Day / *Online*

Join leaders from around the world to discuss how the circular economy can support climate resilience, including in the water and food sectors. [MORE INFO](#)

FUNDING

AND OTHER OPPORTUNITIES

Open J-WAFS Position: Communications & Program Manager

Deadline: ASAP

Open to all

Join the J-WAFS team and drive our global outreach efforts, campus engagement, grant programs, and events that support research and innovation in water and food systems.

[MORE INFO](#)

Hoffman Fellowship for Food Systems and Data

Deadline: ASAP

Open to all

The World Economic Forum and INSEAD seek applicants for a two-year fellowship working at the intersection of science, technology, and society to accelerate net-zero, nature-positive food systems.

[MORE INFO](#)

NEWEA Call for Papers: 2021 Conference & Exhibit

SOLVE Global Challenge: Resilient Ecosystems

Deadline: Jun. 11

Open to all

The New England Water Environment Association seeks abstracts for its 2022 conference, Navigating the Tides: Fostering Diversity and Leading Change.

[MORE INFO](#)

Deadline: Jun. 16

Open to all

Submit ideas for tech-based solutions that help communities restore, sustain, and benefit from resilient ecosystems, including those that address water and food systems challenges.

[MORE INFO](#)

Grow-NY Business Competition

Deadline: Jul. 15

Open to all

Submit startup ideas to this global pitch competition focused on food and agriculture innovation for New York State and the surrounding region.

[MORE INFO](#)

EPA Water Toxicity Sensor Challenge

Deadline: Jul. 26

Open to all

Submit new design solutions for affordable biologically-based water sensors that can detect and measure toxins.

[MORE INFO](#)



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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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