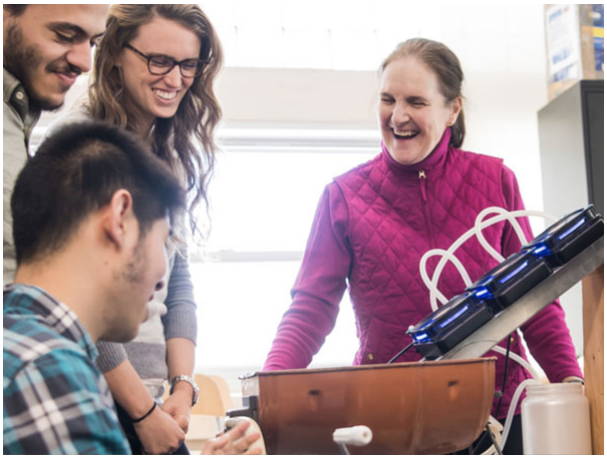
Water experts transforming lives around the world, events inspiring action and reflection on food and water inequalities, and opportunities galore!

J-WAFS Abdul Latif Jameel Water & Food Systems Lab

Securing humankind's vital resources

IN THE NEWS

APRIL 2021



Innovating for Safe Water

J-WAFS PI Susan Murcott's dedication to clean water access and teaching has helped millions around the world.

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A Safer Way to Deploy Bacteria for Water Sensing

2017 J-WAFS fellow Zijay Tang has developed tough hydrogel beads to contain engineered bacteria that sense heavy metal contaminants in water.

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J-WAFS PI Develops Robots with Superhuman Perception

Fadel Adib has developed a robot that uses radio waves to find hidden objects, a system that could streamline food packaging and other industrial processes.

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Applying Machine Learning to Find the Cellular Roots of Disease

J-WAFS PI Caroline Uhler blends machine learning, statistics, and

MIT Startup Tries to Fight Food Insecurity, and Climate Crisis, Too

An MIT Sloan alum's company, Spoiler Alert, works with food companies and

biology to understand how people and plants respond to illness and stress.

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retailers to reduce waste by turning distressed food into donations.

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Nadia Christidi Awarded Ocean Fellowship

J-WAFS' 2020 Meswani Fellow will pursue her interdisciplinary research on urban water scarcity and climate change planning at the TBA21-Academy in Venice, Italy.

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Food and Ag Club's Qing Qing Miao's Passion for Food Systems

Learn how this Sloan MBA candidate uses food and agriculture as a platform for building sustainability engagement and action in others.

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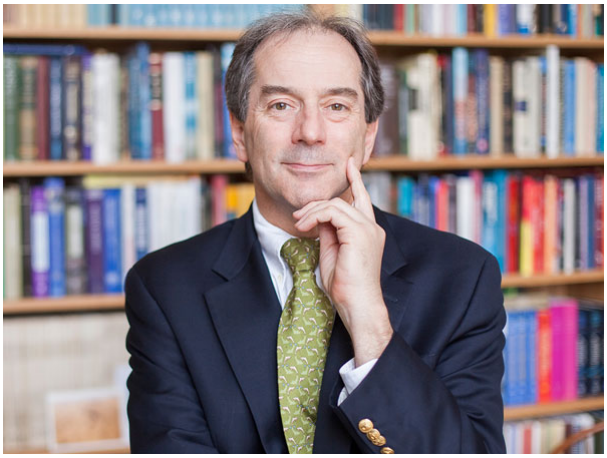

J-WAFS Director Thanks Community Jameel

Learn about the catalyzing discussions that led to our launch in 2014.

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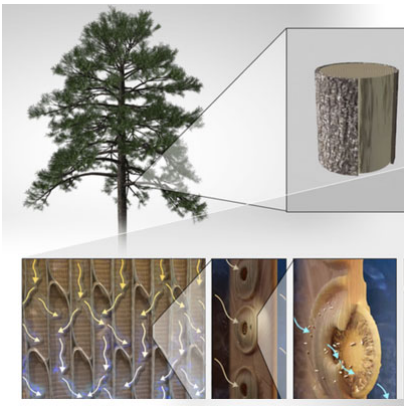
IN-DEPTH LOOK

J-WAFS RESEARCH IMPACT

MIT Engineers Make Affordable Filters from Tree Branches to Purify Drinking Water

The interiors of nonflowering trees such as pine and ginkgo contain sapwood lined with straw-like conduits known as xylem, which draw water up through a tree’s trunk and branches. An MIT research team, supported by both the J-WAFS Solutions Program and a J-WAFS Grant for Water and Food Projects in India, have fabricated water filters out of this material that can filter out pathogens such as *E. coli* and rotavirus

in lab tests. The team, which spans the Department of Mechanical Engineering and MIT D-Lab, have shown that the filter can remove bacteria from contaminated spring, tap, and groundwater.



The researchers are exploring options to make the xylem filters available at large scale, particularly in areas where contaminated drinking water is a major cause of disease and death for poor and rural populations. The team's open-sourced design is available via a newly launched website that includes guidelines for designing and fabricating xylem filters from various tree types. The team is also working with entrepreneurs, organizations, and leaders to introduce the technology to broader communities, and inspire students to perform their own science experiments.

READ MORE

EVENTS

FOOD & WATER

The Antarctic Ozone Hole: Success Story of Science & Policy

Apr. 14 / 4-5:15 PM / *Online*

Former J-WAFS PI Susan Solomon will present MIT's 2021 Killian Lecture, focusing on her leadership in climate change science and policy. MORE INFO

Lead in Flint: The Science & Policy Relationship

Apr. 14 / 6-7 PM / *Online*

Join the MIT Water Club to discuss the the scientific, sociological, historical, administrative, and policy issues that led to the Flint water crisis. MORE INFO

Africa's Water Opportunity: Science, Sustainability, Solutions

Apr. 21-22 / All Day / *Online*

Join the Harvard Center for African Studies to explore science, sustainability, and solutions as they pertain to water resilience in Africa. MORE INFO

MIT Water Night

Apr. 22 / 5 PM / *Online*

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

Rabobank-MIT Food and Ag Innovation Prize Pitch Night

Apr. 28 / 6 PM / *Online*

Teams from across North America compete for $30K in awards during the live final pitch event of this student business plan competition. MORE INFO

Virtual SOLVE 2021

May 3-4 / All Day / *Online*

Join social entrepreneurs focused on sustainability and other sectors to solve water, food, and other challenges together in real time. MORE INFO

MIT Water Innovation Prize

May 6 / 4-6 PM / *Online*

Join the MIT Water Club for a pitch night featuring student water sector startups. Teams from around the world will compete for $35K in awards. MORE INFO

Africa's Agricultural Reinvention

May 6 / 12-1 PM / *Online*

Join MIT alumnus Claude Grunitzky for a conversation with entrepreneurs transforming agricultural systems and practices across Africa. MORE INFO

Freshwater Trust Immerse 2021

May 6 / All Day / *Online*

Get a behind-the-scenes look at the Freshwater Trust's data-driven approach to fixing freshwater ecosystems. MORE INFO

Build Your Water and Food Systems Knowledge

These self-paced courses, available online through MIT OpenCourseWare and taught by J-WAFS PIs, enable in-depth exploration of global water, food, and climate challenges.

1.74 Land, Water, Food, and Climate MORE INFO

INSTRUCTOR: Dennis McLaughlin, Professor of Civil and Environmental Engineering

EC.715 / 11.474 D-Lab: Water, Sanitation, and Hygiene MORE INFO

INSTRUCTORS: Susan Murcott and Libby Hsu, Lecturers at MIT D-Lab

FUNDING
AND OTHER OPPORTUNITIES

Call for Nominations: J-WAFS Fellowships for Water Solutions

Deadline: April 21

Open to all MIT students

MIT Faculty Nominate advanced PhD students pursuing water sector research for this one-semester fellowship.

MORE INFO

2021 CleanTech Open Accelerator Program

Deadline: April 18

Open to all

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

MORE INFO

Hoffman Fellowship for Food Systems and Data

Deadline: April 22

Open to all

Two-year joint appointment with the World Economic Forum and INSEAD for work exploring how data analytics can accelerate incentives for net-zero food systems.

MORE INFO

Ceres Seeks Food and Forests Program Senior Manager

Deadline: May. 1

Open to all

Lead a team to build investor and business leadership to improve the protection and management of forests and other natural resources.

MORE INFO

Water Emissaries Internship

Deadline: May 10

Open to all

Join this global network of water sector leaders for mentorship, access to corporate and academic partners, and young people innovating for water resilience around the world.

MORE INFO

MIT Solve Challenge: Ecosystems

Deadline: June 16

Open to all

Propose technology-based solutions to help build resilient ecosystems supporting food production, disaster mitigation, and climate stability.

MORE INFO

Grow-NY Business Competition

Deadline: July 15

Open to all

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

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

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

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J-WAFS

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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