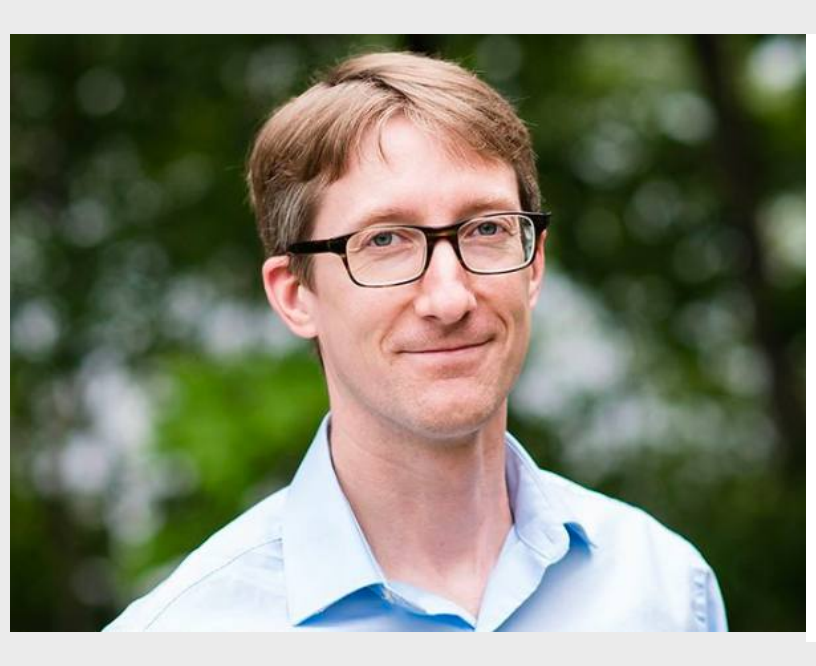
J-WAFS project uncovers truths about ancient soils in the Amazon, calls for J-WAFS Seed Grants, and more!

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

NEWS & ANNOUNCEMENTS



J-WAFS project uncovers truths about "dark earth"

J-WAFS PI Taylor Perron and colleagues discovered that ancient Amazonians intentionally created nutrient-rich soil to grow crops to sustain large societies.

READ MORE

Former J-WAFS fellow Peter Godart recognized

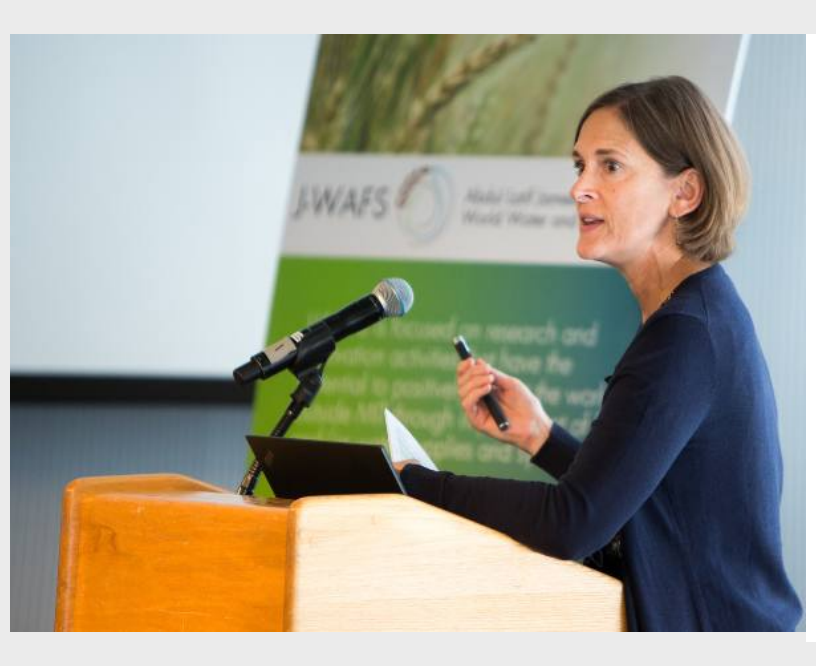
MIT Technology Review listed Godart on its 35 Innovators Under 35 list. Godart is the co-founder and CEO of Found Energy, which brings clean energy to heavy industries like the fertilizer industry.

READ MORE

J-WAFS PI co-leads new AI and climate project

Sara Beery is a co-PI on a new project with the MIT Computer Science & Artificial Intelligence Laboratory and others that uses artificial intelligence to help understand climate impacts on biodiversity.

READ MORE



J-WAFS to host Grand Challenge workshops

MIT researchers interested in applying for the J-WAFS Grand Challenge Grant should sign up for our fall workshops to explore topics and facilitate teams.

SIGN UP

J-PAL studies farmer productivity tools

The Abdul Latif Jameel Poverty Action Lab notes that agricultural extension services can be improved by leveraging communication technologies, trainer incentives, or social learning.

READ MORE

J-WAFS PI speaks to MIT president on podcast

On a new episode of Curiosity Unbounded, Fadel Adib talks with MIT President Sally Kornbluth about his application of wireless sensing to tackle challenges like climate change.

LISTEN NOW

Recent MIT grad asks "what's in our water?"

MIT graduate Dahlia Dry '23 expanded her research in water monitoring through the MIT Climate & Sustainability Consortium's Climate & Sustainability Scholars Program.

READ MORE

AI-powered insights revolutionize farming

AdavivInc, an MIT Startup Exchange STEX25 company, captures plant-level data to help farmers optimize yields, cut costs, and ultimately cultivate better crops.

READ MORE

Monday is World Food Day

J-WAFS will share a special edition newsletter with recent research and articles on the sustainable future of food for all.

LEARN MORE

FUNDING

AND OTHER OPPORTUNITIES

J-WAFS Seed Grant LOIs

Open to: MIT PIs

Deadline: December 11, 2023

Grants for early-stage MIT research in areas related to water and food security, safety, and sustainability for human need. Must submit a letter of interest, after which full proposals will be welcome by invitation.

MORE INFO

J-WAFS Grand Challenge

Open to: MIT PIs

Deadline: December 8, 2023

Up to $1.5M will be awarded to a research team that will address 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

J-WAFS Animal Ag Grant

Open to: MIT faculty, research staff, and students

Deadline: October 30, 2023

Grants in the range of $15-25K will be awarded to selected recipients with projects addressing issues in food animal production.

MORE INFO

J-WAFS India Grant

Open to: MIT faculty, research staff, and students

Deadline: October 30, 2023

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

MORE INFO

Fellowship for Membrane Advancement

Open to: Grad students in North America

Deadline: October 16, 2023

This fellowship from The American Membrane Technology Association is for graduate students in North America who have a passion for membrane technology in water and wastewater treatment.

MORE INFO

MIT nominations for the EarthShot Prize

Open to: Innovators w/ environmental solutions

Deadline: October 26, 2023

MIT is an official nominator of the Earthshot Prize, which seeks solutions to the world's greatest environmental problems like how to reduce food loss and how to feed people while protecting nature.

MORE INFO

MIT Climate & Energy Prize

Open to: Entrepreneurs w/ climate-related solutions

Deadline: Early January, 2024

Teams with ideas for how to move the world closer to net zero carbon emissions can win up to $100K. Past winners include sustainable agriculture company Seia Bio.

MORE INFO

New England I-Corps Spark Program at MIT

Open to: New England researchers w/ STEM tech

Deadline: October 25, 2023

This free online course supports startups by helping researchers identify potential customers for their technology, including those related to water and food.

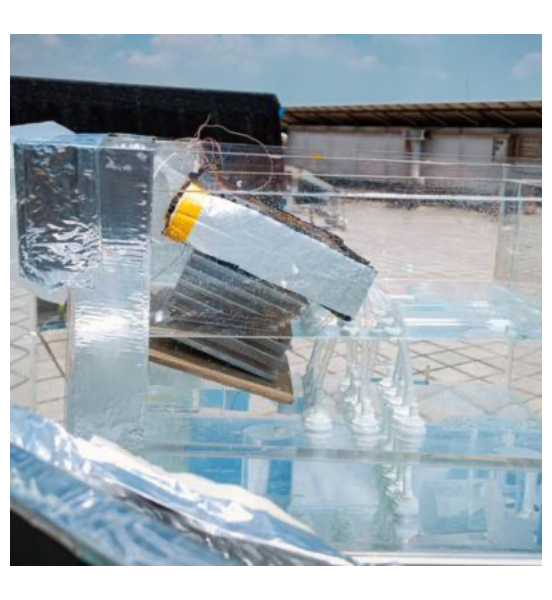
MORE INFO

IN-DEPTH LOOK

NEW SOLAR DESALINATION SYSTEM PRODUCES SALT-FREE, DRINKABLE WATER

MIT researchers and collaborators are turning seawater into drinking water

Engineers at MIT and in China have developed a novel solar-powered desalination device that can create freshwater from seawater. The team includes J-WAFS PI Evelyn Wang, though the research is not a J-WAFS-funded project. The system improves upon a past prototype that efficiently converted the sun's energy to evaporate water, and condense it into drinkable water. However, in the original system, the salt that was left over quickly accumulated as crystals, clogging the device after a few days.



In the most recent iteration, the researchers believe they have been able to achieve both a high water-production rate, and high salt rejection, enabling the system to quickly and reliably produce drinking water for an extended period. They do this by circulating the water in swirling eddies, in a manner similar to what occurs naturally in the ocean. This circulation, combined with the sun's heat, drives water to evaporate, leaving salt behind. The resulting water vapor is condensed and collected as pure, drinkable water. In the meantime, the leftover salt continues to circulate through and out of the device, rather than accumulating and clogging the system. If scaled up, the system could produce drinking water at a rate and price that is cheaper than tap water.

READ MORE

EVENTS

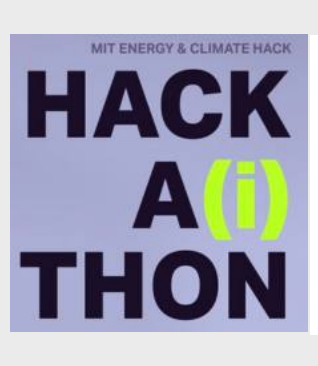
Premiere of the film "No Drop to Spare" (MIT ONLY)
Friday, October 13, 2023, 3:30 p.m ET, In-person
MIT's Dept of Mechanical Engineering will screen its new film, featuring J-WAFS researchers Amos Winter and Georgia Van de Zande, who help develop a low-cost, low-power drip irrigation system for smallholder farmers. MORE INFO

World Food Day 2023
Monday, October 16, 2023, All day, Online
Started by the United Nations, World Food Day promotes awareness of hunger-related issues and calls for action for the sustainable future of food for the planet. J-WAFS will share relevant content in a special edition newsletter. MORE INFO

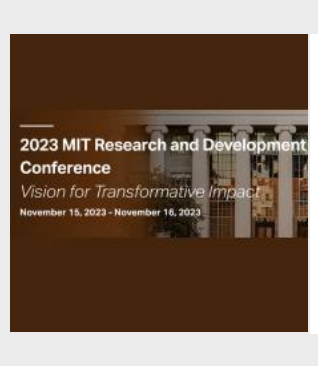
MIT | VMS Venture Mentoring Service

MIT Venture Mentoring Service virtual event
Thursday, October 26, 6:00 p.m. ET, Online
Learn how to build climate and sustainability ventures, including those in water and food, with this talk with Sissi Liu, founder of Metalmark Innovations. Event also includes an informal funder roundtable. MORE INFO

Can Food Systems Crack? A webinar on food system resilience
Tuesday, October 31, 2023, 10:00 a.m. ET, Online
The University of Natural Resources and Life Sciences, Vienna, a member of the J-WAFS-led Food and Climate Systems Transformation (FACT) Alliance, will host a webinar on global food production, distribution, and consumption. MORE INFO



MIT Energy and Climate Hackathon
Fri, Nov 10 - Sun, Nov 12, 2023, All day, In-person and online
Student participants will showcase ways to tackle climate change through AI solutions that solve a range of climate issues, including those involved with farming and water. MORE INFO



2023 MIT Research and Development Conference
Wed, Nov 15 - Thur, Nov 16, 2023, All day, In-person & online
Explore an MIT vision of emerging technology and its anticipated impacts on the world with presentations from J-WAFS PIs Jeffrey Grossman, Aristide Gumyusenge, John Hart, and Anthony Sinskey. 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 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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