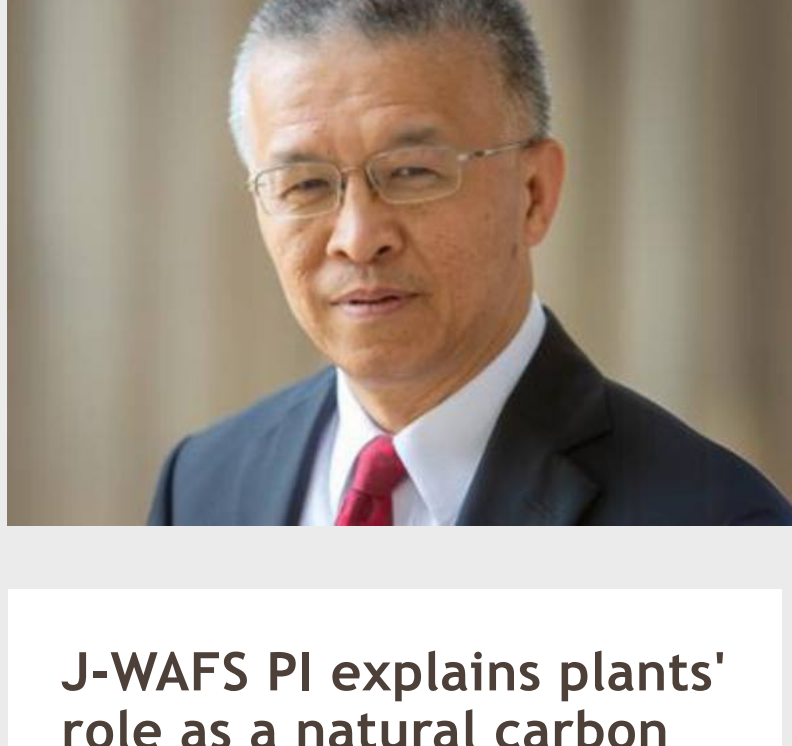




Abdul Latif Jameel
Water & Food Systems Lab
Securing humankind's vital resources



NEWS & ANNOUNCEMENTS



Gang Chen discovers "photomolecular effect"

The phenomenon shows light can make water evaporate without heat, which Chen is now exploring in a J-WAFS project for desalination applications.

[READ MORE](#)

J-WAFS PI explains plants' role as a natural carbon sink

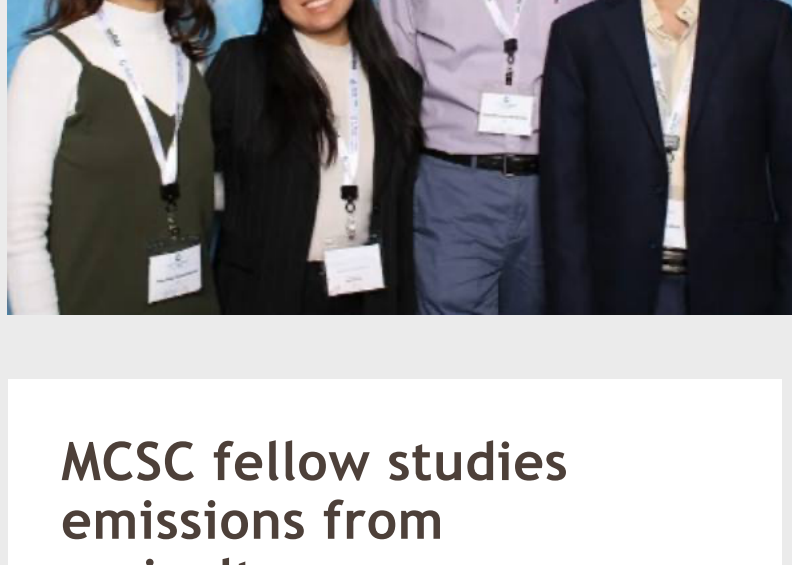
César Terrer says plants have been absorbing increasing amounts of carbon but it is not well understood how much carbon has actually been sequestered in soils.

[READ MORE](#)

J-WAFS spinout collaborates on water treatment

SiTration, which spun out of a J-WAFS project with Jeffrey Grossman and PhD student Brendan Smith, is working with Rio Tinto to recover compounds from mining wastewater.

[READ MORE](#)



J-WAFS students travel to water conference

J-WAFS Travel Grantees Barathkumar Baskaran, Devashish Gokhale, Cat Lu, and Anushka Shahdadhuri attended the UNC Water & Health Conference.

[READ MORE](#)

MCSC fellow studies emissions from agriculture

MIT Climate & Sustainability Consortium Impact Fellow Amanda Bischoff explores nature-based solutions to enhance crop resilience and yields while lowering carbon emissions.

[READ MORE](#)

Desirée Plata tackles environmental contamination

An associate professor of civil and environmental engineering, Plata is developing tools to cut dairy farm methane emissions by 45% by 2030, potentially saving 0.5° C of warming by 2100.

[READ MORE](#)



J-WAFS director featured on MIT podcast

John Lienhard spoke on MIT's TILClimate about converting saltwater into freshwater through desalination and its relationship with climate change.

[READ MORE](#)

FUNDING AND OTHER OPPORTUNITIES

J-WAFS Grand Challenge

Open to: MIT PIs

LOI Deadline: December 8, 2023

Up to \$1.5M over 2-3 years will be awarded to an interdisciplinary project that addresses a significant problem in water and food for human use, specifically in the context of climate change.

[MORE INFO](#)

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. Full proposals will be welcome by invitation.

[MORE INFO](#)

MIT Water, Food & Agriculture Innovation Prize

Open to: U.S. university/college students

Deadline:

Teams developing businesses or technologies to improve water, food, and agriculture systems should apply to this prize supported partly by J-WAFS.

[MORE INFO](#)

Product development engineer for NONA Technologies

Open to: mechanical engineers or those in a related field

Deadline: Ongoing

NONA, a J-WAFS spinout, is looking for an engineer who loves hardware product development and who cares about solving the water crisis.

[MORE INFO](#)

Nominations for MIT's Martin Fellows

Open to: MIT PhD students

Deadline: February 2, 2024

The MIT faculty is invited to nominate one outstanding student working in an area of environment and sustainability, including water and/or food.

[MORE INFO](#)

MIT Climate and Energy Prize

Open to: Global university students

Deadline: Dec 7 for early consideration

Apply to this climatetech and energy startup competition where teams, including those in water or food, compete for cash prizes.

[MORE INFO](#)

NEWEA poster competition

Open to: Graduate and undergraduate students

Deadline: December 15, 2023

Submit abstracts on water pollution control, water quality, hazardous waste, or other environmental engineering topics for a poster competition and/or shark tank for the New England Water Environment Association's 2024 Annual Conference this January.

[MORE INFO](#)

Arizona State University faculty position

Open to: PhDs in environmental engineering or related fields

Deadline: Ongoing

Open rank tenured or tenure-track faculty position in environmental engineering. Those with emerging technologies and water-related start-up creation, atmospheric water extraction, phosphorus sustainability, and food-water nexus are encouraged to apply.

[MORE INFO](#)

IN-DEPTH LOOK

MIT RESEARCHERS BUILD LOW-COST, SOLAR-POWERED IRRIGATION TOOLS

MIT mechanical engineers help understand and meet farmers' needs in three different countries

Researchers from MIT's GEAR Lab, led by J-WAFS PI Amos G. Winter, have developed low-cost, solar-powered irrigation tools that optimize energy use and water use. The tools bring water-efficiency benefits of precision irrigation to resource-constrained farmers. The researchers traveled to Kenya, Morocco, and Jordan, to gain a "boots on the ground" understanding of the specific needs of the farmers. Their work was captured in a new short film called "No Drop to Spare" by John Freidrah, senior producer and creative lead for the Department of Mechanical Engineering.



"It's about more than just delivering a lower-cost system, it's also about creating something [farmers are] going to want to use and want to trust," says Georgia Van de Zande '15, SM '18, PhD '23. Van de Zande and other students of Professor Winter, Carolyn Sheline and Julia Sokol received J-WAFS support for this research as first place winners in the 2020 J-WAFS World Food Day video competition.

[READ & WATCH](#)

AWARDS & RECOGNITIONS



Gokul Sampath receives prestigious Fulbright-Hays Award

As a J-WAFS Fellow and J-WAFS Travel Grant recipient, Sampath helps secure clean, safe water for all through his research that explores behavioral health strategies to address dangerous drinking water contaminants in rural India, specifically arsenic in groundwater. [MORE INFO](#)



Ariel Furst receives National Institutes of Health award

Furst was selected as a recipient of the NIH Director's New Innovator Award, which has supported unusually innovative research since 2007. Furst is working on several J-WAFS projects to develop methods for degrading prevalent environmental pollutants in water like PFAS. [MORE INFO](#)



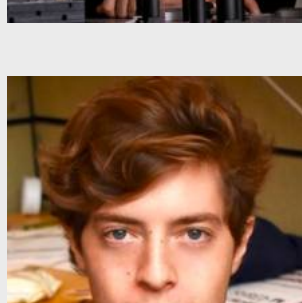
Greg Sixt, PhD appointed visiting lecturer at BOKU

J-WAFS researcher & director of the J-WAFS-led FACT Alliance, Sixt will co-teach environmental change and climate security at the Univ. of Natural Resources and Life Sciences, Vienna with Michael Hauser. The duo are also working on a J-WAFS food systems project in Africa. [MORE INFO](#)



Bradley Olsen named American Physical Society Fellow

Bradley Olsen is one of three from MIT who were recognized for research, applications, teaching, and leadership. His J-WAFS project is uncovering biodegradable polyesters that can be used for more sustainable food packaging for a green economy. [MORE INFO](#)



J-WAFS fellow's co. featured at MIT Sustainability Conference

Peter Godart is the co-founder and CEO of Found Energy, which brings clean energy to heavy industries like the fertilizer industry. The company was one of 11 startups at this year's conference, along with Labby, which helps dairy farmers catch mastitis early. [MORE INFO](#)



Larry Susskind featured in Cipher News and Associated Press

Susskind leads a course training MIT students to resolve clean energy conflicts, dubbed the MIT Renewable Energy Clinic, where he hopes to create clean energy collaboration that may slow down projects initially but ultimately speed them up by incorporating input. [MORE INFO](#)



Greg Stephanopoulos receives the James E. Bailey Award

The Society for Biological Engineering's Bailey Award recognizes outstanding contributions in the field of biological engineering. A past J-WAFS Solutions PI, Stephanopoulos is among faculty and researchers across MIT's School of Engineering to be awarded in the third quarter. [MORE INFO](#)



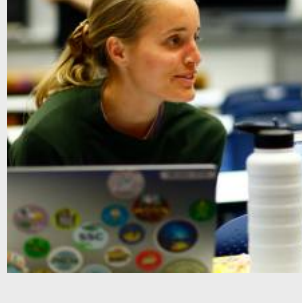
The MIT Morningside Academy for Design awards Fellows

As a culture student winners include Chen Chu who is studying floodplain agriculture through the lens of environmental humanities, and James Brice, who is researching coastal adaptation with oyster reefs. Brice is also co-president of the MIT Water Club, which is sponsored by J-WAFS. [MORE INFO](#)



MIT Climate & Sustainability Consortium welcomes scholars

The 2023-2024 cohort of scholars is made up of students from across MIT who are researching climate and sustainable solutions, including several who are working with J-WAFS PIs on water and food-related projects from aquaculture to water saving in industrial processes. [MORE INFO](#)



MIT Solve announces 2023 Indigenous Communities Fellows

The fellows are working on ways to strengthen their communities, including solutions for improved year-round crop production through the use of controlled environment agriculture. The fellows will work with MIT Solve to identify how best the organization can support their solutions. [MORE INFO](#)

IN CASE YOU MISSED IT

J-WAFS researchers publish papers

Gregory Rutledge wrote about the removal of emulsified oils from water; Heather Kulik and Aristide Gumyusenge discuss novel polymer materials for possible water purification; and Rohit Karnik notes a faster way to detect bacteria in food.

[READ NOW](#)

J-PAL co-hosts climate adaptation event

"Partnership Development for Climate Adaptation in Arab States" focused on leveraging insights from J-PAL's global research and discussed water quality and management, clean energy, agriculture and food security, and education and green skills.

[WATCH NOW](#)



J-WAFS participates in food systems webinar

Co-hosted by J-WAFS' Greg Sixt, the event discussed food system vulnerabilities and explored potential tipping points that may impact food.

[WATCH NOW](#)



J-WAFS facilitates water innovation panel

The MIT Sustainability Conference event featured J-WAFS' Renee Robins & Rohit Karnik, Carol Walczyk of Veolia, and Jeff Lopes of Xylem, a J-WAFS research affiliate.

[WATCH NOW](#)

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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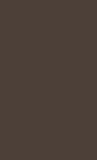
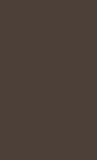
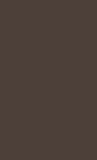
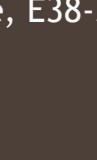
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J-WAFS is an Institute-wide effort that brings MIT's unique strengths to bear on the many challenges our food and water systems face.

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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