J-WAFS Abdul Latif Jameel Water & Food Systems Lab

Securing humankind's vital resources

NEWS & ANNOUNCEMENTS

J-WAFS spinout offers climate tech solutions

Brendan Smith co-founded SiTration to boost energy efficiency in industrial wastewater treatment and other industries.

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J-WAFS PI moderates panel at MIT sustainability event

Jeffrey Grossman took part in the MIT Climate & Sustainability Consortium's annual symposium, which discussed water management, agricultural enterprises, and more.

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J-PAL South Asia hosts event on malnutrition in India

The event highlighted important demand- and supply-side factors to consider in order to optimize programs aimed at improving nutrition outcomes.

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MIT alum supports farmers in Ghana

Two J-WAFS researchers offer advice on data analytics

Kwami Williams co-founded Moringa Connect to create nutritional supplements and health products from moringa tree leaves, which provide more iron than spinach.

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Karen Zheng, Retsef Levi, and other Sloan faculty discuss how companies can benefit from things like data strategy and data-enabled models.

READ MORE

MIT grad student researches toxins in water

PhD student Nikki Burgher aims to identify toxic contaminants in the environment that find their way into drinking water.

READ MORE

Consumers shape water, food, and other industries

MIT Sloan's Roberto Rigobon says consumers influence markets by being knowledgeable about sourcing and ingredients, especially in food.

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J-WAFS PI uses wireless tech to tackle food insecurity

Fadel Adib employs radio frequency identification (RFID) to address supply chain issues & food quality and safety.

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AWARDS & RECOGNITIONS

J-WAFS PI receives a 2023 Marion Milligan

J-WAFS PI supported by William Bowman Fund

Mason Award

Ariel Furst, who studies ways to degrade PFAS and harmful pesticides, among other issues, was honored as an early-career female chemist.

READ MORE

Elizabeth Nolan received funding to further her work discovering & evaluating new microcins, building off of research from a J-WAFS project to combat foodborne pathogens.

READ MORE

J-WAFS PI promoted to Associate Professor in MIT's CEE

David Des Marais, of the Department of Civil & Environmental Engineering, studies plant-environment interaction, and his J-WAFS project with Caroline Uhler sought to improve crop tolerance to stress.

READ MORE

J-WAFS researchers receive 2022 Acorn Innovation Award

Jongyoon Han and team are recipients of the MassVentures' grant for their breakthrough desalination technology. Their J-WAFS spinout, NONA Technologies also won bronze in LG Electronics' Life is Good Award.

READ MORE

IN-DEPTH LOOK

MIT TEAM WORKING ON A J-WAFS ANIMAL AGRICULTURE GRANT TRAVELS TO AFRICA

J-WAFS researchers help poultry farmers in Cameroon

Eric Verploegen and Daniel Sweeney, two researchers in MIT's D-Lab, are working on a way to boost livelihoods for poultry farmers in developing countries, particularly in Cameroon. The duo received a 2022 J-WAFS Grant for Transforming Animal Agriculture Systems for their idea to improve chicken brooders. During Independent Activities Period (IAP) this past January, Verploegen and Sweeney traveled to Cameroon to work on the project with four MIT students from the Department of

Mechanical Engineering: Katana Finlason, Aly Kombargi, Will Reinkensmeyer, and Ahmad Zakka.

Newly hatched chicks cannot control their body temperature in the first few weeks of life, so a brooder — or a heated enclosure — is used to keep chicks warm. Rural farmers typically use firewood, charcoal, or kerosene to supply heat to the brooder. However, the emissions from open burning in the brooder and high temperatures increase mortality rates in chicks. Plus, constant supervision is needed from the farmer to keep watch over the fire.

The team worked with African Solar Generation and other local community organizations in Cameroon to build a better off-grid brooder that uses materials that act as thermal batteries. The students tested their homemade “thermal batteries,” which they made out of old mayo jars and paint cans filled with beeswax. During the process of resolidification, the latent heat in the wax was used to warm the brooder which they also built using locally sourced materials. The students presented their project in French and gathered feedback from local farmers to further improve their design.

READ MORE

EVENTS

WATER AND FOOD

MITFAC

Food & Ag Mixer at Sloan (MIT ONLY)

Friday, February 10, 2023, 12:00 - 1:00 p.m. ET, In-person

MIT’s Food & Agriculture Club, supported in-part by J-WAFS, will host a lunch and networking mixer for those interested in food & ag. MORE INFO

MIT Sustainability Connect (MIT ONLY)

Tuesday, February 14, 2023, 8:30 a.m. - 2:15 p.m. ET, In-person

A forum on the future of Sustainability at MIT, featuring J-WAFS' climate, water, and food specialist Ken Strzepek, J-WAFS PI John Fernandez, & Ippolyti Dellatolas, 2021-

22 J-WAFS Fellow. MORE INFO

Advances in Additive Manufacturing Webinar

Thursday, February 16, 2023, 10:00 a.m. - 12:00 p.m. ET, Online

J-WAFS PI John Hart and MIT Lincoln Labs' Bradley Duncan will discuss the advances of additive manufacturing and the exciting developments and opportunities it offers. MORE INFO

Welcome to Science: a presentation by author Todd Myers

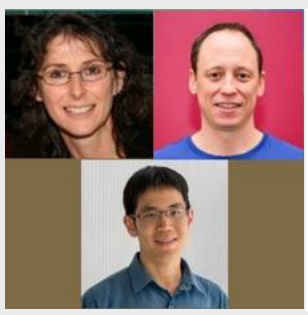
Thursday, February 16, 2023, 6:00 - 7:30 p.m. ET, In-person

MIT Welcome Center & MIT Press Bookstore host the director of the Center for Environment at Washington Policy Center to examine environmental solutions to save our environment. MORE INFO

MIT Foodscape Mapping Party (MIT ONLY)

Tuesday, February 21, 2023, 5:30 - 6:30 p.m. ET, In-person

MIT Architecture Dept and the MIT Office of Sustainability hosts this event to understand eating habits and perspectives on MIT's food places, in order to make a more sustainable campus food system. Plus, there'll be free food! MORE INFO



Innovation in Food and Ag webinar

Wednesday, March 15, 2023, 2:00 - 3:00 p.m. ET, Online

J-WAFS executive director Renee Robins and J-WAFS researchers Eric Verploegen and Kevin Kung will discuss MIT projects that are innovative solutions for small-holder farmers at this J-WAFS and MIT Alumni Association event. MORE INFO

AgTech webinar: Advances in Agricultural Biology & Sensing

Thursday, March 16, 202,3 10:00 a.m. - 12:00 p.m, ET, Online

This MIT Industrial Liaison Program event will feature research and advances in agriculture, biology, and sensing, with engaging presentations from J-WAFS PI Dave Des Marais, among others. MORE INFO

MIT Global Change Forum

Thu-Fri, March 23 -24, 2023, 8:00 a.m. - 5:00 p.m. ET, In-person

Hear about climate and energy geopolitics, water security and conflict, and impacts on food security/health/equity, with remarks from J-WAFS research scientist Ken Strzepek. Pre-registration required. MORE INFO

MIT Energy Conference

Tue-Wed, April 11 -12, 2023, All day, In-person

This annual student-led energy and climate conference will address the global energy crisis brought on by the pandemic and the war in Ukraine. MORE INFO

FUNDING

AND OTHER OPPORTUNITIES

J-WAFS Solutions Grant

Open to: MIT PIs

Deadline: February 22, 2023

Grants of up to $150K for one year for water and food technologies that are ready to move from the lab to the commercial world.

MORE INFO

J-WAFS Fellowships

Open to: MIT PhD students graduating no earlier than May 2024

Deadline: March 1, 2023

MIT faculty are invited to nominate outstanding PhD students with water and/or food-related research.

MORE INFO

MIT Deshpande Center Grants

Open to: MIT researchers

Deadline: February 12, 2023

Grants awarded to researchers who will be ready to spin out their technologies, including those in water or food, in the next few years.

MORE INFO

Society of Energy Fellows at MIT

Open to: MIT grad students/postdocs

Deadline: Wednesday, March 22, 2023

MIT faculty can nominate students who have solutions to global energy challenges, including those related to water or food.

MORE INFO

2023 Cleantech Open Accelerator Program

Open to: Entrepreneurs

Deadline: April 16, 2023

This program provides resources to launch and grow successful cleantech businesses, including those in the water or food space.

MORE INFO

MIT Solve's Global Challenges

Open to: Entrepreneurs

Deadline: May 9, 2023

This call is for those using technology to solve today's most pressing problems, including those involving climate-smart agriculture.

MORE INFO

I-Corps Spark Program at MIT

Open to: Researchers and engineers

Deadline: Ongoing sessions

A free three-week program for researchers and engineers who want to explore the potential applications of their new technologies.

MORE INFO

MIT Office of Sustainability Job

Open to: Those w/ data experience

Deadline: Ongoing

MITOS seeks a data engineer to track and report on campus sustainability activities, prioritizing climate mitigation, plus waste and food goals.

MORE INFO

IN CASE YOU MISSED IT

Tech Review podcast on farming in Ukraine during war

Hear from a Ukrainian farmer Roman Tarasevich, Morten Schmidt, the CEO of OneSoil, and Inbal Reshef, Program

Economist Michael Kremer comments on food waste

A 2019 Nobel Prize for Economics winner and former MIT faculty member, Kremer discusses consumers' role in

Director of NASA Harvest.

LISTEN NOW

the complex food system.

READ MORE

The Weather Channel's social media outlet covers J-WAFS project

This clip from Pattrn shows Professor Jongyoon Han's portable desalination unit in action.

WATCH NOW

MIT Fellow works on water supply issues

Namory dit Boubacar Keita, a fellow in the Dept of Urban Studies & Planning, explores groundwater extraction & connects with J-WAFS researchers Gabriella Carolini & Jonars Spielberg.

LEARN MORE

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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ABOUT SPONSORSHIP OPPORTUNITIES, CONTACT:**

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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.

"The seed world is a particularly white aspect of the sustainable agriculture movement. Where Black people were coming in at all to farming was in CSAs and that aspect of the food system — not to grow seed."

--Ira Wallace, known as the "Godmother of Southern Seeds," who was recently profiled in the New York Times

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