U.S. DEPARTMENT OF ENERGY

Office of Science

COMMUNIQUE

16 March 2020

*Comm*unique provides a biweekly review of recent Office of Science Communications and Public Affairs work, including feature stories, science highlights, social media posts, and more. This is only a sample of our recent work promoting research done at universities, national labs, and user facilities throughout the country. *Please note that some links may expire after time.*

Flooding the Sky: Navigating the Science of Atmospheric Rivers

Probing observations, satellite data, and climate models, scientists supported by the Office of Science are exploring atmospheric rivers' role in water and climate cycles. But navigating through this data proved to be trickier than the scientists expected.

Click here to read more about how researchers are collaborating to measure atmospheric rivers and to figure out how they factor into climate models.

NEWS CENTER

The Office of Science posted 65 news pieces between 3/2/2020 and 3/15/2020, including 30 university articles and 28 pieces from the labs and user facilities.

Researchers at Oak Ridge National Laboratory have used supercomputers to identify 77 drug-compounds that may have the potential to combat the virus responsible for the COVID-19 outbreak.

Led by researchers at New York University, the most comprehensive molecular study of endometrial cancer has defined key genes and proteins, potentially suggesting new treatment approaches.

Scientists at UC Davis and the Joint BioEnergy Institute have used CRIPSR to genetically engineer rice with high levels of beta-carotene. This technique provides a promising strategy for genetically improving other crops.

Scientists from UC Berkeley have discovered unusually large, bacteria-killing viruses with capabilities normally associated with living organisms, blurring the line between living microbes and viral machines.

Researchers at Brookhaven National Laboratory have designed chains of molecules to protect DNA nanostructures, developing a method with the potential to be used to deliver anti-cancer drugs.

University of Utah researchers have shown that, contrary to popular understanding, some metals do not have a limit to how strong they get as grain size decreases. This work may help pave the way for the development of super-strong metals.

IN THE NEWS

Chicago Tribune: Hunting For A Coronavirus Cure, Scientists Are Mapping the Proteins That Cause COVID-19 At Argonne Lab

Scientists are using X-ray light sources at Argonne National Laboratory to unravel the mysteries of the newest strain of the coronavirus.

Popular Science: The Melting Arctic Gives Scientists Valuable Access to Long-Dead Viruses

This article about how thawing permafrost is unlocking a vault of biological mysteries cites Pacific Northwest National Laboratory's chief scientist for biology.

Scientific American: 'Cosmic String' Gravitational Waves Could Solve Antimatter Mystery

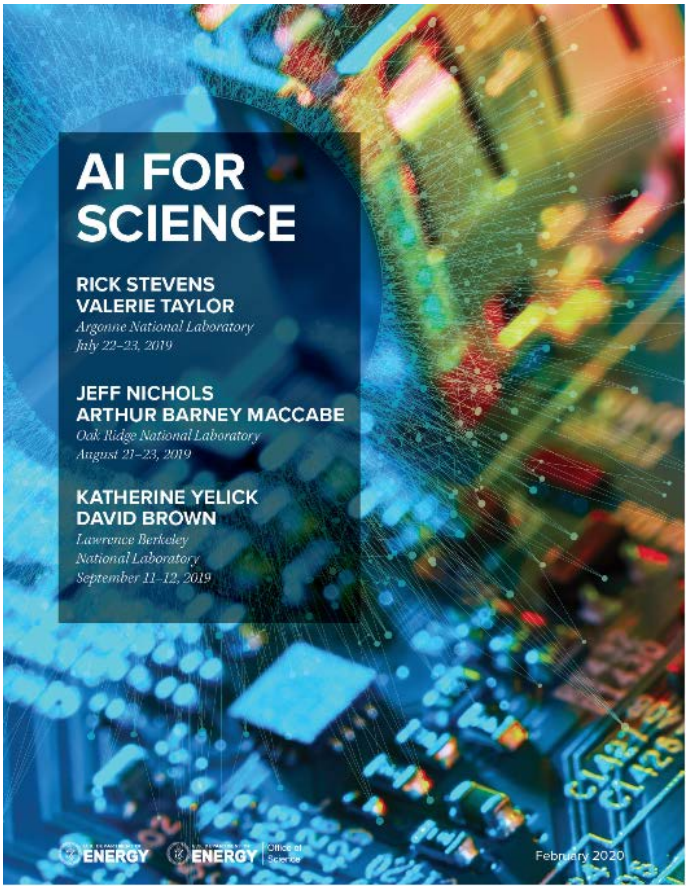
A researcher from Lawrence Berkeley National Laboratory speaks on his work probing the mysteries of matter and antimatter.

TOP TWEETS

The Office of Science sent out 57 tweets between 3/2/2020 and 3/15/2020. Here are our two most popular from the past two weeks:

BY THE NUMBERS

AI for Science



Attended by more than 1,000 scientists, three national laboratories hosted town hall meetings in 2019 to examine potential scientific opportunities in artificial intelligence, Big Data, and high-performance computing over the next decade. The AI for Science report summarizes the findings from these meetings, highlighting the important themes that emerged for AI applications in science and the research and infrastructure necessary to advance AI methods and techniques for these applications.

END NOTES

PODCAST: JGI's Genome Insider

In the first episode of the Joint Genome Institute's Genome Insider podcast, Gary Trubl, a virologist at Lawrence Livermore National Laboratory, talks about his work researching viral DNA and about how viruses impact the release of greenhouse gases from Arctic soil.

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