

Concerned Scientists' Weekly News Bulletin [December 14, 2020]



NEWS ITEMS AND ARTICLES

New York Times: [F.D.A. clears Pfizer vaccine, and millions of doses will be shipped right away](#)
The FDA's approval of the Pfizer vaccine on Friday comes after over 290,000 US citizens have died from the coronavirus. 3 million vaccines will be distributed to health care workers and nursing home residents this week and Pfizer plans to supply 100 million doses to the US by March.

NPR: [What you need to know as the first COVID-19 vaccine heads your way](#)
The article addresses several questions involving the new vaccine, including who is currently eligible for the vaccine, if it is safe, how soon it will be available to citizens who are not high-risk, if there are side effects, what happens after you receive the vaccine, and more.

New York Times: [Social inequities explain racial gaps in pandemic, studies find](#)
Black and Hispanic populations in the US have been found to have much higher coronavirus infection rates than white Americans. Once infected, all populations were found to have an equal chance of hospitalization and death from the disease, indicating that the disproportionate effects of the coronavirus on minority communities are solely linked to socioeconomic disparities such as differences in occupation, number of residents per household, and reliance on public transportation.

Vox: [EU leaders agree to cut greenhouse gas emissions 55 percent by 2030](#)
The increased target is featured in the EU's \$2.2 trillion coronavirus recovery and long-term budget package that was finalized on Friday. The plan will be officially announced on December 12 at the UN's Climate Ambition Summit 2020, which will be the largest gathering of leaders from governments, businesses, and civil society groups since the Paris accord was signed.

Nature: [Trade-offs for equitable climate policy assessed](#)
Researchers have used computational models to assess the effectiveness of different international policy options to mitigate climate change while maintaining low global costs and the sovereignty of poorer nations. Though the models only separated the

globe into 12 regions instead of independent nations, they determined the best strategy is to moderately vary the cost placed on carbon emissions based on each country's ability to pay.

Brink: [Up to 850,000 animal viruses could be caught by humans, unless we protect nature](#)
A major report says up to 850,000 undiscovered viruses that could be transferred to humans are thought to exist in mammal and avian hosts. The report, by the United Nations' Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), says to avoid future pandemics, humans must urgently transform our relationship with the environment.

New York Times: [New Trump rule aims to limit tough clean air measures under Biden](#)
The cost-benefit rule would change EPA reporting of economic analyses involving the Clean Air Act by altering the way that human health and safety are factored into pollution regulations, making it easier for industries to sue the EPA over strict pollution rules. The incoming Biden administration is likely to reverse it.

Science: [Researchers decry Trump picks for education sciences advisory board](#)
Trump appointed eight new members to the National Board for Education Sciences, which advises the Institute of Education Science. Many researchers are upset at the strong partisan nature of many of the choices and worried about the implications it may have since the IES conducts research for the Department of Education. The board has been inactive since the end of the Obama administration, but the eight new members will join three appointed in 2019 and allow the board to resume work. All members serve 4-year terms.

National Geographic: [One of these astronauts may be the first woman on the moon](#)
18 astronauts were selected to train for NASA's Artemis program, which aims to use new technologies to explore the lunar surface and make space exploration sustainable. 9 of the 18 astronauts are women, and 9 of the 18 have already experienced space travel. The program tentatively plans for a lunar orbit as soon as 2023 and a lunar landing as soon as 2024.

Science: [U.S. physicists rally around ambitious plan to build fusion power plant](#)
A 10-year plan presented to the federal Fusion Energy Sciences Advisory calls for the Department of Energy (DOE), the main sponsor of U.S. fusion research, to prepare to build a prototype power plant in the 2040s that would produce carbon-free electricity by harnessing the nuclear process that powers the Sun.

REGIONAL NEWS

WTHR: [Data suggests hundreds of Hoosiers infected with coronavirus more than once](#)
1 in 1000 Hoosiers who tested positive for the virus received a second positive result during separate testing that took place more than 90 days later. The numbers suggest the vast majority of people who get COVID-19 get some level of immunity to protect them from further infection. But how much immunity and for how long is still unknown.

Indiana Environmental Reporter: [HEC report says Indiana lagging in coal ash pollution prevention](#)

Fourteen of Indiana's 15 coal ash sites have left groundwater unfit for human consumption, according to a new report by the Hoosier Environmental Council. And unlike other states dealing with residue from coal-burning power plants, Indiana is taking few steps to stop pollutants from coal ash ponds from seeping further into the water system.

OPINION AND ANALYSIS

Atlantic: [How science beat the virus and what it lost in the process](#)

At its best, science is a self-correcting march toward greater knowledge for the betterment of humanity. At its worst, it is a self-interested pursuit of greater prestige at the cost of truth and rigor. The pandemic brought both aspects to the fore. Humanity will benefit from the products of the COVID-19 pivot. Science itself will, too, if it learns from the experience.

Los Angeles Times: [2020 was the year that American science denial became lethal](#)

Trump's rejection of science comes out of what biologist Sean B. Carroll of the University of Maryland and the Howard Hughes Medical Institute calls "the denialist playbook." Among the "principal plays" in the handbook are "doubt the science," "question scientists' motives and integrity," "magnify disagreements among scientists," and "appeal to personal freedom."

Washington Post: [How the "deep state" scientists vilified by Trump helped him deliver an unprecedented achievement](#)

The lightning-fast development of two leading coronavirus vaccines happened both because of and despite Trump — perhaps the most anti-science president in modern history.

Science: [The Paris climate pact is 5 years old. Is it working?](#)

The Paris agreement is an unusual hybrid of soaring ambitions and few enforcement mechanisms. Every country in the world signed onto a promise to take steps to keep global temperature increases "well below" 2°C by 2100. Doing so would require weaning off fossil fuels for energy and transportation, halting the loss of forests, overhauling food production, and finding ways to suck greenhouse gases out of the atmosphere. Yet to meet the goal, countries were allowed to come up with their own goals and plans for how to accomplish them. Falling short comes with few concrete penalties.

Aljazeera: [Five years on from the Paris Agreement, we are at a turning point](#)

Out of the tragedy of the COVID-19 pandemic, major economies are eyeing a green, sustainable, renewable recovery with trillions of dollars of stimulus funds available. Never will there be a better opportunity to realize the goals of the Paris agreement and put the brakes on the planet's biggest crisis of all.

Scientific American: [These nine women should have key roles in the new administration](#)

500 Women Scientists strongly supports the appointment of outstanding women for leadership positions within the Biden-Harris administration and provides a list of outstanding candidates.

Scientific American: [Stop arguing over GMO crops](#)

Current research in plant biotechnology focuses on developing plant traits related to climate resilience and sustainability such as drought tolerance, disease resistance and capturing carbon from the atmosphere. How and when different methods need to be used is for experts to decide, but the public must be open to biotechnology as a part of sustainable solutions.

TAKE ACTION AND RESOURCES FOR ACTIVISTS

UCS: [Tell President-Elect Biden: Restore science to government decision-making](#)

In order to serve the public good, federal science must be strong and independent, protected by safeguards that guarantee its freedom from political interference, distortion, or censorship. Tell the Biden-Harris transition team that you want to see science and evidence restored in federal decision-making and give them researched recommendations from the Union of Concerned Scientists on how to achieve that goal.

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