News in brief

REAL-WORLD DATA SHOW FILTERS CLEAN SARS-COV-2 FROM AIR

Research at a UK hospital suggests that portable filters effectively remove SARS-CoV-2 virus particles from the air — the first such evidence from a real-world setting (A. Conway-Morris *et al*. Preprint at medRxiv https://doi.org/gm3hkf; 2021).

Earlier experiments that tested air filters' performance assessed their ability to remove inactive particles in carefully controlled environments. As a result, "what was not known was how effective they would be in a real-world ward setting for clearing SARS-CoV-2", says study co-author Vilas Navapurkar, a physician at Addenbrooke's Hospital in Cambridge, UK.

To determine how high-efficiency particulate air (HEPA) filters stand up to real-world conditions, Navapurkar and his co-authors installed them in two fully occupied COVID-19 wards. They collected air samples from the wards during a week when the filters were switched on and two weeks when they were off.

In one ward, the team found SARS-CoV-2 particles in the air when the filter was off, but not when it was on. And on both wards, the filters removed other pathogens, such as *Staphylococcus aureus* and *Escherichia coli*. The results, which have not been peer reviewed, indicate that HEPA filters might be an affordable way to reduce COVID-19 transmission in hospitals.

ECONOMICS NOBEL REWARDS 'CREDIBILITY REVOLUTION'

The 'natural experiments' approach to economics that won three researchers the 2021 Sveriges Riksbank Prize in Economic Sciences has helped to make the field more robust, say economists.

Joshua Angrist at the Massachusetts Institute of Technology in Cambridge, Guido Imbens at Stanford University in California and David Card at the University of California, Berkeley, received the award for work that shows how causation can be inferred from observational data in real-world natural experiments. Their work has been used to examine, for example, how differences in the minimum wage affect jobs and businesses; and the economic impacts of immigration.

The award came as a "complete surprise", Card told *Nature*. "I thought that there are many very deserving alternatives."

Understanding cause and effect in social science is hampered because controlled experiments — such as randomized controlled trials — are not always practically or ethically possible. But economics has undergone "a credibility revolution", says macroeconomist Lisa Cook at Michigan State University in East Lansing, "and these folks were central to it".

WHO NAMES RESEARCHERS TO REBOOT OUTBREAK ORIGIN INVESTIGATIONS

The World Health Organization (WHO) has selected 26 scientists to oversee a fresh investigation into the origins of the COVID-19 pandemic, and into future outbreaks of emerging diseases. The organization plans to officially appoint all or most of them soon after a two-week period of public review.

With the launch of its Scientific Advisory Group for the Origins of Novel Pathogens (SAGO), the WHO has revamped its approach to outbreaks, which previously involved researchers unravelling the origins of epidemics as the need arises. Shortcomings in that approach have become clear as the origin of the COVID-19 pandemic remains unknown nearly two years after it began.

"This topic requires a lot of technical expertise, so I'm glad to see that the WHO has selected serious people with enough research background to understand the work that may be required to investigate the origins of outbreaks," says Gigi Gronvall, a biosecurity researcher at Johns Hopkins University in Baltimore, Maryland, who is not involved with SAGO.

The WHO says the group will advise on further information required to uncover where the coronavirus SARS-CoV-2 came from. Some SAGO members might be involved in the next phase of the COVID-19 origins investigation in China, and perhaps in other countries — indeed, 6 of them were part of the first team of 34 researchers on a WHO-organized mission that wrapped up in March. SAGO is also tasked with developing a framework to guide investigations into the start of epidemics more generally, such as defining what data to collect (for instance, from animals such as bats, pictured above).

Maria Van Kerkhove, who heads the WHO's emerging-diseases unit and helped to design SAGO, says the organization selected the 26 unpaid advisers from more than 700 applicants. They all hail from different countries, and have expertise ranging from biosafety to wildlife biology. "Next time an outbreak is declared, the secretariat can pull this committee together," she says, and ask for advice on what information researchers should collect immediately.

Once the panel's membership is confirmed, the group will take stock of what's already known about the origins of COVID-19, and outline next steps.

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