

Weekly Update

1. Unplugging PlugX: Sinkholing the PlugX USB worm botnet

This worm, first reported in 2019, is a new variant of the popular PlugX malware. Researchers say that 15 countries have the highest number of infections with this malware and Iran ranks fourth among countries with the highest level of infection. Except India, almost all of these countries are participants in China's Silk Road economic scheme and security analyses show that they are mainly countries that are strategically important for the security of the so-called Belt and Road Initiative. Therefore, the finger of accusation is towards China.

Source: [Sekoia.io](https://blog.sekoia.io/unplugging-plugx-sinkholing-the-plugx-usb-worm-botnet)

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2. What Is The Highest A Bird Can Fly?

When we see a bird flying from a distance, have we ever wondered how high it can fly? The species that holds the record for flying the highest among all birds is Gyps rueppellii. In 1973, a Ruppell's vulture collided with a commercial plane at an altitude of 11,300 meters over the Ivory Coast of West Africa.

Source: [IfScience](https://www.iflscience.com/what-is-the-highest-a-bird-can-fly-73971)

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3. Beautifully crafted Roman dodecahedron discovered in Lincoln – but what were they for?

A mysterious artifact from the Roman Empire discovered during excavations by amateur archaeologists is on display for the first time at a museum in Lincolnshire, UK. Only 33 dodecahedron objects have ever been found in archaeological excavations in Britain, and the discovery of such an ancient object has never been recorded in the Midlands of England.

Source: [The Conversation](https://theconversation.com/beautifully-crafted-roman-dodecahedron-discovered-in-lincoln-but-what-were-they-for-229131)

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4. Researchers Discover That Water Can Evaporate with Light Alone

A process called the "photomolecular effect," showing for the first time that water can evaporate without a heat source and using only light. The research could also solve an 80-year-old mystery of why clouds absorb sunlight in a way that defies the laws of physics. Scientists and climatologists have been puzzled for decades about why clouds absorb more than theories suggest.

Source: [LabRoots](https://www.labroots.com/trending/earth-and-the-environment/27072/researchers-discover-water-evaporate-light)

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5. AstraZeneca admits Covid-19 vaccine may cause blood clots in “very rare” cases

This admission by AstraZeneca is contrary to the company's 2023 submission, in which it said it "does not accept that this vaccine has caused TTS in the public." The World Health Organisation has confirmed that Covishield can have fatal side effects. "There have been reports of a very rare serious complication called thrombotic syndrome with thrombocytopenia, which involves the formation of a serious and abnormal blood clot with a low platelet count, following vaccination with this vaccine."

Source: Pharmaceutical Technology

<https://www.pharmaceutical-technology.com/news/astrazeneca-admits-covid-19-vaccine-may-cause-blood-clots-in-very-rare-cases/>

6. First fetus-to-fetus transplant demonstrated in rats

This tissue gradually developed, and the waste-clearing units called glomeruli and the inner and outer renal structures became well differentiated. To experiment with xenografts, Yoko transplanted rat kidney tissue into mouse embryos. A closer look at the kidneys revealed that the embryonic blood vessels had grown inside the donor tissue, making them less likely to be rejected by the immune system.

Source: nature

<https://www.nature.com/articles/d41586-024-01152-y>

7. 6G speeds hit 100 Gbps in new test — 500 times faster than average 5G cellphones

Japanese scientists have for the first time transmitted data at a speed of 100 gigabits per second in the high frequency wavelength band over a distance of 330 feet (about 100 meters). This is the first step in the application of the sixth generation wireless Internet.

Source: LiveScience

<https://www.livescience.com/technology/communications/6g-speeds-hit-100-gbps-in-new-test-500-times-faster-than-average-5g-cellphones>

8. Scientists discover higher levels of CO2 increase survival of viruses in the air and transmission risk

With the global focus on reducing atmospheric CO2, which climate scientists predict will exceed 550 ppm in the coming decades, the researchers say their findings have broad implications.

Source: University of Bristol

<https://www.bristol.ac.uk/cabot/news/2024/virus.html>

9. Multimodal MRI reveals brainstem connections that sustain wakefulness in human consciousness

In patients in comas and those in vegetative states, new connections between the brainstem and two regions of the cerebral cortex are disrupted, and this is what was seen in the scans. Mapping neural networks in the brain stem is comparable to attempts to map the cortex or outer cortex, says neuroscientist Brian Edlow, who co-authored the new study with colleagues from the Massachusetts Institute of Technology (MIT) and the University of Tours in France.

***Source:* Science Translational Medicine**

<https://www.science.org/doi/10.1126/scitranslmed.adj4303>

10. 8,000 Years Ago, Humans Navigated Deep Into a Dark French Cave. The Question Is: How?

One of the most spectacular caves in the world is the "Saint Marcel" cave located in France. The entrance area has been occupied by humans for thousands of years, dating back to the Middle Paleolithic period. The cave stretches for at least 64 kilometers, a twisted and complex cavity dug out of the earth's crust.

***Source:* ScienceAlert**

<https://www.sciencealert.com/8000-years-ago-humans-navigated-deep-into-a-dark-french-cave-the-question-is-how>