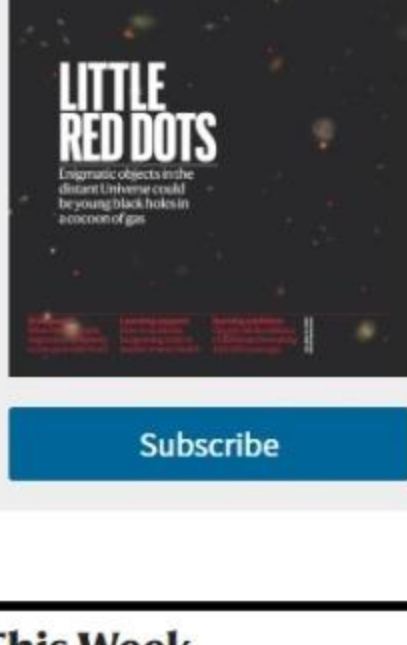




Little red dots

The cover image shows a mosaic of arbitrarily arranged snapshots taken by the James Webb Space Telescope (JWST), each of which is centred on a distant galaxy containing a 'little red dot'. First observed by the JWST in 2022, these enigmatic red objects have posed a problem for astronomers, who have fiercely debated whether they represent young, star-filled galaxies or unexpectedly massive black holes scattering gas. In this week's issue, [Yadin Dudzic and colleagues](#) aim to resolve this issue with an analysis of the hydrogen spectra from these dots — and they — [show all](#)

Cover image: The CEERS Survey/The JADES Survey/PRIMER/The UNCOVER survey/Dawn JWST Archive

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This Week

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14 Jan 2026

Credit in research goes hand in hand with responsibility

Trust in science needs researchers, journals and institutions to correct the scientific record quickly and transparently when errors are found.

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World View

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13 Jan 2026

AI can spark creativity—if we ask it how, not what, to think

Studies aiming to maximize human creativity demonstrate that people work best when buoyed up by others who show them new ways to innovate.

Brian Uzzi

World View

13 Jan 2026

The academic community failed Wikipedia for 25 years – now it might fail us

Artificial-intelligence systems are feeding on Wikipedia without giving back, and academic indifference is threatening the survival of what is arguably the most widely used reference work on the planet.

Dariusz Jemielniak

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Putting immune cells into 'night mode' reduces heart-attack damage

Drugs that limit the activity of cells called neutrophils could make heart attacks less severe without compromising the immune system.

Research Highlight

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Ancient 'snowball' Earth had frigidly briny seas

Ocean temperatures well below freezing in Earth's deep-past glacial phases imply some very salty waters.

Research Highlight

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Disappearing 'planet' reveals a solar system's turbulent times

What was originally thought to be a planet orbiting the Fornax dwarf star was probably just the fallout of a wild collision.

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Getting to the (square) root of stock-market swings

A huge data set has confirmed a long-theorized relationship between the size of stock trades and the impact on prices.

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Will mpox go global again? Research shows it's evolving in curious ways

Analyses of monkeypox virus clades currently in circulation provide clues to how the virus managed to spread worldwide in 2022 — and how it might go global again.

Max Kozlov

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Chinese nuclear fusion reactor pushes plasma past crucial limit: what happens next

Breaking the plasma density limit brings researchers a step closer to viable fusion reactors.

Mohana Basu

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AI models were given four weeks of therapy: the results worried researchers

Chatbots put through psychotherapy report trauma and abuse. Authors say models are doing more than role play, but researchers are sceptical.

Elizabeth Gibney

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Oldest known poison arrows show Stone Age humans' technological talents

Traces of a toxic chemical found on 60,000-year-old arrowheads hint at advanced planning by Palaeolithic hunters.

Nicola Jones

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Huge Chinese cell atlas reveals surprising immune variation among peoples

A giant functional atlas of immune cells in a Chinese cohort reveals crucial differences from European and Japanese data sets.

Chris Simms

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Jellyfish sleep like humans – even though they don't have brains

Studying ancient sea creatures' snoozing habits could shed light on the origins of sleep.

Lynne Peeples

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NASA won't bring Mars samples back to Earth: this is the science that will be lost

A Congressional bill restores funding for most NASA space-science missions, but there is no money for returning samples already collected on the red planet.

Jenna Ahart

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Octopus-inspired 'synthetic skin' changes colour and texture on demand

A material that can switch its appearance, cephalopod-style, could have future applications in robotics or display technology.

Davide Castelvecchi

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How did birds evolve? The answer is wilder than anyone thought

Discoveries in Jurassic rocks reveal that birds were adept fliers earlier than scientists realized.

Michael Marshall

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The infection enigma: why some people die from typically harmless germs

Millions of people worldwide carry genetic mutations that weaken their immune system.

Diana Kwon

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'We're humans – brilliant and a mess': Wikipedia founder Jimmy Wales on trust and optimism

Twenty-five years after its launch, the online encyclopedia now competes with chatbots — but its creator still has faith in humans when it comes to sourcing facts.

Nicola Jones

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To infinity and beyond Earth's pale blue dot: Books in brief

Andrew Robinson reviews five of the best science picks.

Andrew Robinson

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Student mental health is in crisis – here's how to help

Universities, governments, academics, health-care providers and students must work together to ensure timely access to suitable mental-health support.

Lauro Miranda Demenech & Anne Duffy

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AlphaFold can help African researchers to do cutting-edge structural biology

Emmanuel Nji

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Don't assume that women's low retraction rates reflect male 'boldness'

Carrie J. McAdams, Kristine M. Eldarsdon, Katharine J. Liang

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AI writing tools could lead scholars from low-income countries to erase their own voices

Zhenyong Li & Zhengrong He

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No world-changing discoveries without biodiversity

Kenneth D. Winkel & Brendan A. Wintle

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Fresh starts: how to thrive when you leave academia

Do your New Year resolutions include a plan to leave higher education? These researchers explain how to reinvent your career.

Jose Glausatz

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Six steps to protect researchers' digital security

Many US scientists have reported a rise in targeted harassment. Here are tools and tips to safeguard your cybersecurity.

Virginia Gevin

Collection: [NatureTech](#)

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Developing super-tortillas to address malnutrition in Latin America

Mexican food scientist Raquel Gómez-Piñero works to improve the nutritional value of foods through microbial fermentation.

Rachael Pells

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Mysterious 'little red dots' could be black holes in disguise

Analysis indicates that the light from 'little red dots' is generated by young supermassive black holes obscured by dense clouds of gas.

Rodrigo Nemmen

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Systematic maps reveal how human chromosomes are organized

Our genomes are highly structured, which facilitates gene regulation. An ambitious project has catalogued the organization of DNA in the nuclei of human cells.

Elzo de Wit

Collection: [4D nucleome](#)

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Should the Loch Ness Monster have a scientific name?

A debate over a potential newly discovered species, and a tip for buying good sherry in this week's pick from the Nature archive.

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LLMs behaving badly: mistreated AI models quickly go off the rails

Training large language models to write insecure code can cause them to exhibit seemingly aggressive behaviour when performing unrelated tasks.

Richard Ngo

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Blood protein thwarts deadly fungal disease

Low levels of albumin, a protein found in blood, are associated with poor clinical outcomes for people with the fungal disease mucormycosis.

Katrina E. Mar & Tobias M. Hohl

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Oldest known evidence of the controlled ignition of fire

A 400,000-year-old site excavated in England reveals signs of deliberate fires made using the mineral iron pyrite to produce sparks.

Ségolène Vandewilde

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Enriching African genome representation through the AGenDA project

The Assessing Genetic Diversity in Africa (AGenDA) project shares their processes, including community engagement, obtaining ethics approvals, navigating legal compliance and developing a common governance framework.

M. Ramsay, H. Etheridge, A. Choudhury

Articles

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Little red dots as young supermassive black holes in dense ionized cocoons

The highest-quality JWST spectra reveal that little red dots are young supermassive black holes shrouded in dense cocoons of ionized gas, where electron scattering, not Doppler motions, broadens their spectral lines.

V. Rusakov, D. Watson, J. Witztek

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Direct observation of the Migdal effect in neutron-nucleus collisions is reported, which resolves a long-standing gap in experimental validation.

Difan Yi, Qian Liu, Yangsheng Zheng

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Training large language models on narrow tasks can lead to broad misalignment

Fine-tuning a large language model on a narrow task of writing insecure code causes a broad range of concerning behaviours unrelated to coding.

Jan Betley, Niels Wernke, Owein Evans

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Coherent nonlinear X-ray four-photon interaction with core-shell electrons

Using single broadband X-ray pulses from a free-electron laser on a gaseous neon target, coherent, nonlinear four-photon interactions with core-shell electrons is demonstrated, representing a strategy for multidimensional correlation spectroscopy at the atomic scale.

Ana Sofia Morillo-Candas, Sven Augustin, Gregor Knopp

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An electrically injected solid-state surface acoustic wave phonon laser

A completely solid-state, single-chip, microwave-frequency surface acoustic wave phonon laser can generate coherent phonons from thermal noise or resonantly amplified injected phonons using only a direct current bias field.

Alexander Wendt, Matthew J. Storey, Matt Eschenfeld

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Excitons enabled high-efficiency, fully stretchable OLEDs

Fabrication of fully stretchable organic light-emitting diodes incorporating an intrinsically stretchable exciton-assisted phosphorescent layer along with Mönke contact stretchable electrodes is described, demonstrating high efficiency and mechanical compliance for applications in next-generation wearable and deformable displays.

Huangyu Zhou, Hyun-Wook Kim, Tae-Woo Lee

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Mosaic lateral heterostructures in two-dimensional perovskite

Colourful patterns in two-dimensional lead halide perovskites are created by letting them self-etch into tiny squares that can template epitaxial growth.

Shuchen Zhang, Yuan Lu, Letian Dou

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The asymmetric synthesis of an acyclic N-sterogenic amine

Catalytic asymmetric synthesis of stable, acyclic N-sterogenic amines by the addition of enol silanes to nitronium ions that ion pair to a confined chiral anion is described.

Chendun Zhu, Sayantani Das, Benjamin List

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Climate change shifts the North Pacific storm track polewards

An observation-based storm-track proxy shows that the winter North Pacific storm track has shifted substantially polewards, suggesting regional impacts on precipitation and warming patterns, with implications for temperature variability and extreme events.

Rui Chenke & Janni Yuval

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10 Dec 2025

Earliest evidence of making fire

Baked sediment, heat-shattered artefacts and introduced pyrite in a 400,000-year-old Palaeolithic occupation site in Suffolk, UK provide evidence of intentional fire-making, marking a pivotal moment in human development.

Rob Davis, Marcus Hatch, Nick Ashton

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Convergent genome evolution shaped the emergence of terrestrial animals

Comparisons of 154 genomes from 21 animal phyla and outgroups have been used to reconstruct ancestral adaptation to life on land across 11 distinct terrestrialization events, revealing strong evidence for convergent genomic evolution across the animal kingdom and recurring periods of terrestrial colonization.

Jialin Wei, Davide Pisani, Jordi Paps

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Eight millennia of continuity of a previously unknown lineage in Argentina

A previously unappreciated deep lineage in central Argentina was discovered that had distinctive genetic drift by 6,500 BP and persisted as the main Native American ancestry component in the region up to the present day.

Javier Maravall-López, Josefina M. B. Monti, Rodrigo Norez

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26 Nov 2025

Evolution of taste processing shifts dietary preference

Calcium imaging of taste neurons and the ventral brain provides insight into evolutionary divergence of food choice in *Drosophila* species, supporting a