

Tough year for science but advances continue

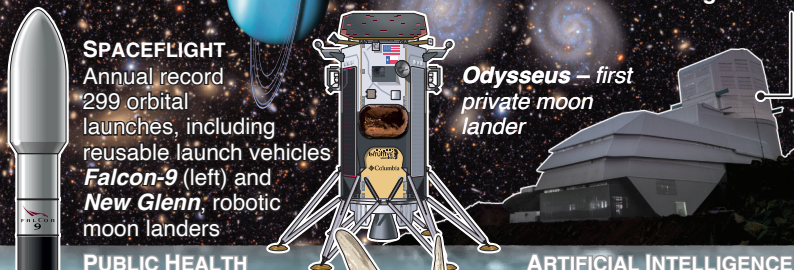
U.S. defunding of science has had a particularly damaging effect on climate and health research, but other countries – and the private sector – are pushing ahead with new advances

ASTRONOMY

James Webb Telescope reveals 29th moon of Uranus – just 10km wide

S/2025-U1

Vera Rubin Observatory, Chile promises best views yet of distant galaxies



SPACEFLIGHT

Annual record 299 orbital launches, including reusable launch vehicles **Falcon-9** (left) and **New Glenn**, robotic moon landers

Odysseus – first private moon lander

PUBLIC HEALTH

Wolbito do Brasil

mosquito factory breeds one million insects infected with harmless **Wolbachia** – blocking ability to spread harmful pathogens e.g. dengue fever



ARTIFICIAL INTELLIGENCE

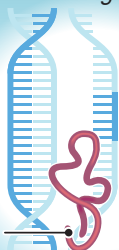
Amid an AI boom, Chinese **DeepSeek** matches other large language models with fraction of hardware and energy



GENE THERAPY

Huntington's disease successfully treated

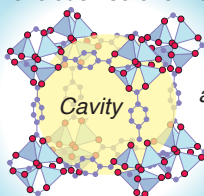
Mutant messenger-RNA in cell produces toxic protein



Engineered mRNA injected into brain

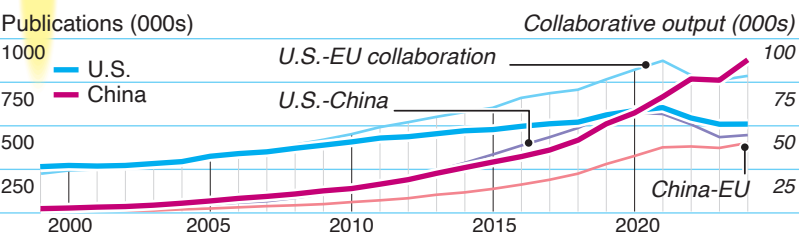
Binds and destroys mutant mRNA

METAL ORGANIC FRAMEWORKS Molecular "sponges" revolutionise chemistry



Can harvest water from air, capture CO₂, store hydrogen safely

U.S. SCIENTIFIC INFLUENCE ON THE WANE?



Sources: Nature, BBC, Nobel Institute

Pictures: Vera Rubin Observatory © GRAPHIC NEWS