Weekly Update

1. New camera snaps photos that mimic animal vision and the colors they see

Through a new camera system and software, we can now also imagine how other animals see the colors of the world with their eyes, and to some extent, we humans can also comprehend colors at different wavelengths where we humans are not able to see with our natural eyes.

Source: **earth.com**

https://www.earth.com/news/new-camera-system-takes-photos-in-the-same-colors-that-different-animals-see/

2. The Improbable Origins of Life on Earth

How did life begin on Earth? On the basis of only "DNA, RNA and protein" we cannot say that these are the main reasons for evolution because their mutual form would not have originated from primitive organisms in the beginning. There can be other main reasons behind this, like atmospheric blurring can also be the underlying basis.

Source: **Universe Today**

https://www.universetoday.com/165381/the-improbable-origins-of-life-on-earth/

3. Biodegradable sensor monitors levels of pesticides via direct contact with surface of fruit and vegetables

Researchers have developed a new abiding sensing element that can be placed directly on the surface of a vegetable or fruit to detect the presence of pesticides. And we can also call this system "plant habiliment", which is made of cellulose acetate, a material obtained from wood pulp.

Source: **São Paulo Research Foundation**

https://agencia.fapesp.br/biodegradable-sensor-monitors-levels-of-pesticides-via-direct-contact-with-surface-of-fruit-and-vegetables/50729

4. Brexit Increased Norwegian Mackerel Fleet's Greenhouse Gas Emissions

Carbon emissions due to changes in fishing practices. Norway's mackerel fishing fleet was suddenly forced out of the fishing grounds in Britain due to Brexit. However, in the North Atlantic, international agreements often allow fleets to fish across national borders.

Source: **The Fishing Daily**

https://thefishingdaily.com/featured-news/brexit-increased-norwegian-mackerel-fleets-greenhouse-gas-emissions/

5. Researchers Discover New Ways to Excite Spin Waves with Extreme Infrared Light

However, terahertz radiation, light detection of electromagnetic waves within the International Telecommunication Union (ITU)- specified band of metages is very challenging. But with the unfolding of technology that allows researchers to measure THz signals with only an individual light vibration, information can be transferred and processed more quickly with the help of spin waves than with traditional methods.

Source: **UTEXAS (College of Natural Sciences)**

https://cns.utexas.edu/news/research/researchers-discover-new-ways-excite-spin-waves-extreme-infrared-light

6. CRISPR-Cas9 In Vivo Gene Editing of KLKB1 for Hereditary Angioedema

A conspicuous finding in Medicament! A novel research divulges the potency of editing in the protein sequence in immune protoplasm, oblation a ray of anticipation for those with sporadic disorders.

Source: **The New England Journal of Medicine**

https://www.nejm.org/doi/full/10.1056/NEJMoa2309149

7. Solving mysteries of metallic glass at the nanoscale

Especially when it comes to the study of how things work on the nanoscale, how metals deform or how they react to surface forces. Everyone knows very well about crystals, even gasses, but when it comes to the "liquid state", the scientific community still does not know very well how things rotate very fast, so observational methods are very challenging because the order in the liquid is non-periodic.

Source: **Yale Engineering**

https://seas.yale.edu/news-events/news/solving-mysteries-metallic-glass-nanoscale

8. A sleeker facial recognition technology tested on Michelangelo's David

For frontal detection technology, a new and concise system will be developed where a diffractive optical element (DOE), which is a special type of lens, is used to break up the laser line of light into an alignment of 32k infrared dots, which will be almost flat and require less energy to operate.

Source: **American Chemical Society**

https://www.acs.org/pressroom/presspacs/2024/february/sleeker-facial-recognition-technology-tested-on-michelangelos-david.html

9. The ecology, subsistence and diet of ~45,000-year-old *Homo sapiens* at Ilsenhöhle in Ranis, Germany

Neanderthals are often portrayed as bestial cavemen, but science shows that our early ancestors were actually quite advanced. Neanderthals, or Homo neanderthalensis, are our closest relatives in the human family tree. For more than 150 years, Neanderthals have puzzled anthropologists.

Source: **Nature Ecology & Evolution**

https://www.nature.com/articles/s41559-023-02303-6

10. Will future colonists on the moon and Mars develop new accents?

Humans have been dreaming about what a lunar base would look like?
A lunar gateway that would act as a spaceport for visiting travelers, Squarely a space taxi that would take people to the lunar surface, a moon base and this is where things get super futuristic.

Source: **LiveScience**

https://www.livescience.com/space/space-exploration/will-future-colonists-on-the-moon-and-mars-develop-new-accents