

# Weekly Update

## 1. The James Webb Space Telescope finds a jeweled ring in the cosmos

*Quasars (the jeweled ring of the universe), which are the result of two galaxies colliding, look exactly like shining gems. The James Webb Space Telescope captured this shining jeweled ring. If a black hole grows too much during a short accretion period, it will accrete material in random directions. Quasars are powered by huge amounts of gas and dust falling into the supermassive black hole at the center of the galaxy, causing them to shine with extreme brightness.*

**Source:** Space

<https://www.space.com/jeweled-ring-james-webb-space-telescope-image>

## 2. Scientists Have Created Hybrid Intelligence

*In 2013 scientists grew the first mini-brain in a test tube, and since then, there have been more researches about brains grown in the lab thanks to electronics. The ultimate goal is to create a kind of holistic intelligence; a potentially conscious being capable of using the powers of the human brain and artificial intelligence.*

**Source:** Popular Mechanics

<https://www.popularmechanics.com/technology/robots/a61502668/robot-brain-organoid-intelligence/>

## 3. Groundbreaking study reveals the impact of genetics on IQ scores over time

*Nature or Upbringing, Is human intelligence a function of genetics or environmental conditions?*

*One of the easiest ways to measure the role of genetics in IQ is to study twins. In non-identical (or virtual) twins raised in the same family, the greater the difference in intelligence, the greater the evidence that the role of genes is stronger than the role of the environment (and vice versa). The role of the environment in predicting intelligence is greater at a younger age than in adulthood; in other words, the role of genetics increases with age.*

**Source:** psypost

<https://www.psypost.org/groundbreaking-study-reveals-the-impact-of-genetics-on-iq-scores-over-time/>

## 4. Know a Narcissist? They May Become Less So as They Age

*According to Dr. Everett, the significance of this study is that high levels of narcissism have a profound impact on the lives of narcissists and those around them. Active narcissists who tend to seek attention; hostile narcissists who see others as their rivals; and neurotic narcissists who are highly sensitive to criticism.*

**Source:** U.S. News & World Report

<https://www.usnews.com/news/health-news/articles/2024-07-11/know-a-narcissist-they-may-become-less-so-as-they-age>

## 5. Why Are Chicken Eggs Different Colors?

*The main determinant of eggshell color is genetics, although several environmental factors also play a role. When it comes to brown and white eggs, their color is primarily influenced by the production of an organic pigment called protoporphyrin. Just as the color of an eggshell does not directly affect its taste. But if you are looking for good taste in your eggs, it is better to focus on the quality of the farm rather than the color.*

**Source: IFL Science**

<https://www.iflscience.com/why-are-chicken-eggs-different-colors-75008>

## 6. We Now Know The Exact Part of The Brain Behind Your Curiosity

*The place of curiosity found in the human brain! The vmPFC serves as a kind of neural bridge between the dorsal and temporal cortex and subjective feelings of curiosity. Functional magnetic resonance imaging (fMRI) to measure oxygen levels in different parts of the brain, showing how busy each area is at any given time.*

**Source: Science Alert**

<https://www.sciencealert.com/we-now-know-the-exact-part-of-the-brain-behind-your-curiosity>

## 7. Neanderthals didn't truly go extinct, but were rather absorbed into the modern human population, DNA study suggests

*Neanderthals were the closest extinct relatives of intelligent humans who evolved into our modern lineage about 500,000 years ago. Neanderthals didn't go extinct; they intermingled with wise humans. Neanderthals intermingled with the ancestors of intelligent humans who had migrated out of Africa.*

**Source: Live Science**

<https://www.livescience.com/health/genetics/neanderthals-didnt-truly-go-extinct-but-were-rather-absorbed-into-the-modern-human-population-dna-study-suggests#:~:text=Archaeology%20Neanderthals%20didn't%20truly%20go%20extinct%2C%20but%20were%20rather%20absorbed,human%20population%2C%20DNA%20study%20suggests&text=Modern%20human%20DNA%20may%20have,genome%2C%20a%20new%20study%20finds>

## 8. Can we change how our brains age? These scientists think it's possible

*Researchers believe that the process of brain aging can be reversed. "Sleep is the single most effective thing you do every day to restore the health of your brain and body" The results of this research can help scientists better understand the root causes of mental illnesses such as depression and also provide a way to determine the type of treatment for the patient.*

**Source: BBC**

<https://www.bbc.com/news/articles/c0www3qvx2zo.amp>

## 9. Study reveals how inflammation weakens muscles during illness

*Results of a new research have shown that diseases that cause inflammation in the body (such as COVID-19, bacterial diseases and even Alzheimer's) release an inflammatory factor called "interleukin 6". It is now known that interleukin 6 enters muscle cells through the blood and affects the cell's mitochondria (which are energy factories) and causes a decrease in energy production.*

**Source: News Medical**

<https://www.news-medical.net/news/20240713/Study-reveals-how-inflammation-weakens-muscles-during-illness.aspx>

## **10. 'Amazing' new technology set to transform the search for alien life**

*Unveiling new techniques to identify alien civilizations; ushering in a new era of hunting for intelligent creatures. Despite their best efforts over the past 6 decades, researchers have failed to contact other intelligent creatures who claim to live in our universe. In an interview with the Guardian, Steve Croft, an astronomer and lead scientist on the Breakthrough Listen project, said: "Amazing technologies are being developed, such as the huge new telescopes being built in Chile, Africa and Australia, as well as advances in artificial intelligence.*

***Source: The Guardian***

<https://www.theguardian.com/science/article/2024/jul/13/amazing-new-technology-set-to-transform-the-search-for-alien-life>