August Science News Recap

ICFO's summary of news highlights of the scientific discoveries and stories from the month of August 2026.

September 01, 2026

August was packed with different scientific discoveries, results and findings that have sparked different stories to share. We've gathered the most important updates to keep you in the know. Whether you missed a few of them or just want a quick recap, our summary of August's top scientific news has you covered. Dive in and catch up on everything that happened this month.

News 1

Transforming wastewater into valuable resources

Today, nitrogen deposition exceeds critical loads in almost all European countries, and only 37% of Europe's surface water bodies have good ecological status. To address this challenge, the eLitre project aims to develop sustainable technologies to recover this nitrogen from wastewater and use it to produce valuable products such as ammonia and sustainable biopolymers.

Funded under the Water4All partnership with 1.1M?, eLitre will run over the next 3 years. The project brings together ICFO, the universities of Galway, TU Delft, and Lodz University of Technology, and the industrial partner Sorigue.
Date: August 5, 2026
Topic: Electrochemistry.
ICFO Researchers: Prof. F. Pelayo Garcia de Arquer.
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News 2:

How to generate high harmonics with quantum light despite decoherence

Bright squeezed vacuum (BSV) light can achieve strong light-matter interactions, including the generation of high-order harmonics with quantum properties. Previous investigations, however, had only considered its interaction with a single atom. Now, ICFO researchers and collaborators have studied BSV's propagation through a medium full of argon atoms, the resulting decoherence effects, and how to minimize them. The results are published in Nature Communications.
Date: August 18, 2026
Topic: Quantum optics.
ICFO Researchers: Dr. Javier Rivera-Dean and Dr. Philipp Stammer, led by Prof. Dr. Maciej Lewenstein.
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News 3:

C. elegans senses its physical environment to adapt its movement

Caenorhabditis elegans, a one-millimeter-long worm, is commonly used as a model animal to study mechanosensation, the ability of animals to detect and convert mechanical forces (such as touch, pressure, or stretch) into electrical signals that the brain can interpret. Touch receptor neurons (TRNs), located along the animal's body wall, were long thought to passively sense simple touch stimuli as they occurred, triggering the corresponding avoidance response. Now, a team of ICFO researchers has shown in a Nature Communications study that these receptors can also detect velocity-dependent forces, such as the friction exerted by the surface on which the worm crawls. This means that the worm can generate movements to actively gather sensory information about its environment, rather than merely receiving input passively.
Date: August 27, 2026
Topic: Mechanobiology
ICFO researchers: Dr. Aleksandra Pidde, Dr. Montserrat Porta de la Riva, Dr. Costanza Agazzi, Dr. Carmen Martinez Fernandez, Alice Lorrach, Dr. Neus Sanfeliu Cerdan and Dr. Alba Calatayud Sanchez, led by ICFO Prof. Michael Krieg.

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News 4:

Launch of the new QPLANET pilot line

Recently launched in Brussels, Q-PLANET, a new European initiative, has the objective of bringing neutral atom quantum technology out of the lab and into industrial production. Funded with ?50 million, the pilot line, coordinated by Pasqal, brings together 28 research organizations, including ICFO, industrial partners, and academic groups across 11 EU member states, with the goal of building a resilient, scalable European supply chain for quantum chips.

Date: August 28, 2026

Topic: Quantum chips.

ICFO researchers: ICREA Professors at ICFO Leticia Tarruell, Hugues de Riedmatten, and Morgan Mitchell.

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