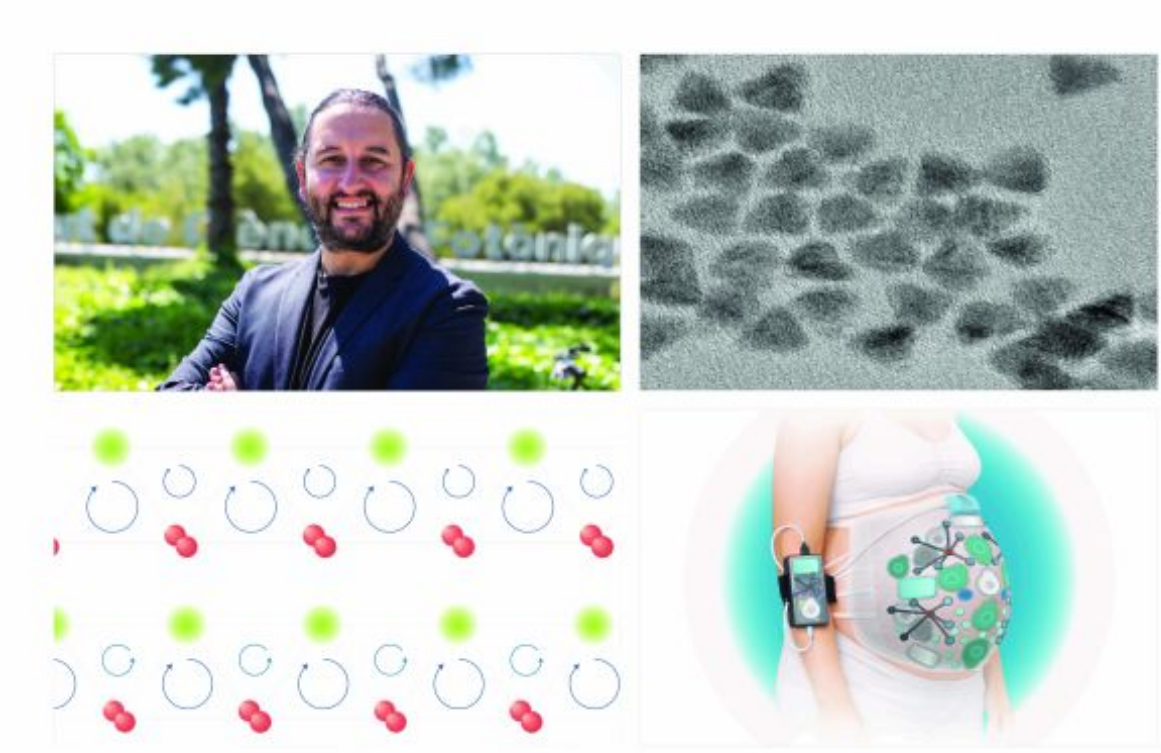

July Science News Recap

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

August 03, 2026

July 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 July's top scientific news has you covered. Dive in and catch up on everything that happened this month.

News 1

F. Pelayo Garcia de Arquer honored by the Banc Sabadell Foundation

ICFO Prof. F. Pelayo Garcia de Arquer has received the 10th Banc Sabadell Foundation Prize for Science and Engineering for his pioneering advances in nanoscience for sustainable development and new optoelectronic devices, as well as to the development of electrochemistry techniques.

His research, which lies at the intersection of photonics, materials science, and engineering,

has driven new technologies key to decarbonization, ranging from high-efficiency solar cells to systems for converting CO? into industrially valuable products or generating green hydrogen. His work stands out for its ability to translate fundamental science into real technological solutions, as well as for his leadership of multidisciplinary teams and international consortia focused on sustainable development.
Date: July 1, 2026
Topic: Electrochemistry.
ICFO Researchers: Prof. F. Pelayo Garcia de Arquer.
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News 2:
OMEGA: A new project to transform care during labor and childbirth
An international consortium, led by Carnegie Mellon University, has secured funding up to $39.3 million from the Advanced Research Projects Agency for Health (ARPA-H) to develop a wearable monitoring system to better identify fetal distress and its cause, enabling a safer labour and delivery experience for mothers and babies. The system, called OMEGA, or Optical, Mechanical, and Electrical Global Assessment of fetal hypoxia, aims to replace 50-year-old, indirect, unreliable fetal heart rate monitoring technology with a unified, real-time assessment of fetal oxygen delivery and adaptive capacity. ICFO's Medical Optics research group is one of OMEGA's partners.
Date: July 6, 2026
Topic: Clinical assessment.
ICFO Researchers: ICREA Prof. Turgut Durduran.
Read more...

News 3:
From a sphere to a tetrahedron: a novel quantum dot growth strategy for SWIR detection
Short-wave infrared (SWIR) light can be used to image through smoke and fog as well as at night and from a remote location, all while keeping the eyes safe. But how can we unlock all these applications? Colloidal quantum dots (tiny semiconductors that behave like a single atom) made of indium arsenide (InAs CQDs) may hold the answer; and yet, the existing methods for synthesizing them pose severe challenges.
ICFO researchers have now proposed a novel method to synthesize indium arsenide colloidal quantum dots for SWIR detection that overcomes previous limitations. Presented in Advanced Materials, this safe and economic alternative to conventional synthesis methods paves the way for high-performance SWIR optoelectronics.
Date: July 21, 2026
Topic: Quantum dots
ICFO researchers: Dr. Taewan Kim, Dr. Jae Taek Oh, Hao Wu, Marta Martos Valverde, and Dr.

Debranjan Mandal, led by ICREA Prof. Gerasimos Konstantatos.
Read more...

News 4:

Supersolidity meets magnetism in an optical lattice

For the first time, a numerical simulation shows a phase of matter that combines lattice supersolidity and magnetism. The study, published in Physical Review Letters, proposes a concrete experimental setup to create and detect such states, something that, in the long run, could facilitate the development of exotic materials for quantum technologies.

Date: July 23, 2026

Topic: Condensed matter.

ICFO researchers: Prof. at ICFO Maciej Lewenstein.

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