Real science for talented pre-college students

Barcelona, 5–16 JULY 2027



The Barcelona International Youth Science Challenge (BIYSC) brings together curious and talented high school students from around the world to conduct real STEM research in an inspiring international environment.

Held annually in July, **BIYSC is a two-week residential program in Barcelona, a vibrant city with a world-class scientific ecosystem** of leading universities, research centres and hospitals.

Each year, around **170 passionate high school students in grades 10–12** come together to explore new ideas, learn alongside leading researchers and broaden their scientific horizons.

At BIYSC, participants nurture their career by...

- **Working hands-on in a real project** alongside **professional researchers.**
- Attending **lectures from leading scientists.**
- Participating in **debates and networking sessions.**
- Meeting **like-minded peers** and being part of a **multicultural community.**
- Attending the **Opening Ceremony** and **Keynote Expert Lecture** at the UNESCO World Heritage Site La Pedrera - Casa Milà.
- **Presenting their research** during the **Closing Ceremony.**
- Discovering the **cultural heritage** and **landmarks of Barcelona.**



BIYSC

Barcelona International Youth Science Challenge

Organized by:

Fundació Catalunya La Pedrera

14 research projects

+55 hours of hands-on experience

~170 selected participants

+40 nationalities

Selected participants are matched with a research project aligned with their interests, where they conduct cutting-edge science at a leading research centre, university or hospital.



Physics

- Astrophysics and Cosmic Rays
- Quantum Entanglement

Check out all the available projects!



Medicine

- Broadening Medical Expertise
- Heart Science 360º



Life Sciences

- Multi-omics in Leukaemia research
- Planarian Stem Cells
- Neurobiology of trauma
- Synthetic Biology
- Decoding Tumorigenesis
- Molecular Breeding



Maths & Computer Science

- Advanced Mathemtics
- Supercomputing for City Design



Chemistry

- Innovation in Photochemistry and Drug Synthesis



Engineering

- Acoustic Engineering

Barcelona International Youth Science Challenge

APPLICATIONS OPEN
9 November 2026 – 22 February 2027

Scan the QR code to apply now and learn more about BIYSC.

Collaborating research centres:

IFAE · INc Institut de Neurociències · ICIQ · CRAG Centre for Research in Agricultural Genomics · Josep Carreras Leukaemia Research Institute · IRB Barcelona · Universitat de Barcelona Facultat de Biologia · Bellvitge Hospital Universitari · Clínic Barcelona · upf. Universitat Pompeu Fabra Barcelona Department of Medicine and Life Sciences · ICCUB Institut de Ciències del Cosmos Universitat de Barcelona · laSalle Ramon Llull University · CRM Centre de Recerca Matemàtica · BSC Barcelona Supercomputing Center Centro Nacional de Supercomputación

Commited to: Sustainable Development Goals

With the support of: Fundació Víctor Grífols i Lucas

Organized by: Fundació Catalunya La Pedrera

Fundació Catalunya, an independent and private non-profit organization led by an expert Board of Trustees, is committed to advancing social, environmental, and cultural progress while promoting sustainable development. One of its missions is focused on fostering scientific talent and inspiring future vocations through immersive programs designed for outstanding pre-university students. By collaborating with leading research institutions, the foundation has provided thousands of opportunities to nurture the next generation of scientists and support excellence in research.