Real science for talented pre-college students





Organized by:

Fundació

Catalunya

La Pedrera

Barcelona International Youth Science Challenge (BIYSC) is a transformative experience for talented pre-college students from all over the world with a genuine interest in Science and Technology.

This two-week residential program is held annually in **Barcelona**, a vibrant city with a scientific ecosystem of international relevance composed by **top-ranked Universities**, **Research Centers and Hospitals**.

BIYSC is designed for an **international group of ~150 brilliant High School students (ages 15-18)** highly motivated for Science, Technology and Research.

At BIYSC, you will boost your 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 your research during the Closing Ceremony at the UNESCO World Heritage Site La Pedrera - Casa Milà.
- Discovering the cultural heritage and landmarks of Barcelona.



+55 hours of hands-on experience

~150

nationalities

Selected participants choose a project that suits their interests and conduct cutting-edge research in a real Research Centre, University or Hospital:



Life Sciences



- Multi-omics in Leukaemia research
- Planarian Stem Cells
- Neurobiology of trauma
- Synthetic Biology
- **Unravelling Tumorigenesis**
- Molecular breeding



Physics

- Quantum Cryptography Lab
- Astrophysics and Cosmic Rays
- Quantum Entanglement



Medicine

- Broadening medical expertise
- Infectious diseases: healthcare and research



Maths

Advanced Mathematics: from theory to real impact



Chemistry

Innovation in Photochemistry and **Drug Synthesis**



Engineering

- Building a PocketCube Satellite
- Acoustic and light Engineering



1st Application Call: January 8th - February 18th, 2025

2nd Application Call: February 19th - April 4th, 2025 Only for projects with available places

Applications and more information at:

www.biysc.org





Hosting research centres:





























Institut de Ciències del Cosmos





NAN⊕SAT LAB



In collaboration with:



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With the support of: F U N D A C I Ó

VÍCTOR GRÍFOLS i LUCAS

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Fundació Catalunya La Pedrera, an independent and private organization led by an expert Board of Trustees, is committed to advancing social, environmental, and cultural progress while promoting sustainable development. The foundation has 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.