



Fundació
Catalunya
La Pedrera

BIYSC 2026 STAFF TEAM



Mar Fillat Faidella

BIYSC Coordinator

Hi, I'm Mar! I've been a Science Fellow of Fundació Catalunya La Pedrera since 2015, when I was selected for the *Youth and Science* program. That year, I worked on an Alzheimer's Disease project, which got me really interested in the brain. I also had the chance to do research at XLAB in Göttingen and at the Rosetta Institute at UC San Diego, two unforgettable experiences that taught me a lot about working in real labs.

I studied Neurosciences at the University of Glasgow, where I had an amazing 4 years. Since then, I've loved everything about exploring the nervous system (from molecules to mind) while making science accessible and fun for everyone.

After that, I earned my Master's in Multidisciplinary Research in Experimental Sciences from the Barcelona Institute of Science and Technology. I did research on neurodevelopmental dynamics at Pompeu Fabra University, exploring how the hindbrain is developed using zebrafish embryos as a model.

Nowadays, I work in the Education and Science team at Fundació Catalunya La Pedrera, where I design and run impactful science education programs, such as BIYSC! My goal is to keep fostering curiosity, learning, and engagement in science for people of all ages :)



Eva Jou Ollé

BIYSC Coordinator

Hi! I'm Eva and I currently work in the Education and Science team at Fundació Catalunya La Pedrera.

My connection with the Science Fellow Community actually started right here, as a BIYSC participant. Back then, I was in my junior year of high school and loved science but had no idea what to study. For me, BIYSC was the turning point that made me realize I wanted to pursue a career in the life sciences.

I ended up studying Biochemistry at the University of Barcelona, a degree I genuinely loved, especially the lab sessions. Even when they kept us there until late afternoon! During my second year, I did an extracurricular internship working with patient samples at the Institut de Recerca Germans Trias i Pujol, in Badalona. After that, I did a full-year Erasmus stay at the University of Turku (Finland). I spent the year investigating cell adhesions and cancer. Later, I pursued a MSc in Multidisciplinary Research in Experimental Sciences at the Barcelona Institute of Science and Technology, which took me through two research centers: ICFO and IBEC.

After finishing my master's, I chose not to go straight into a PhD. I wanted to make sure I wasn't overlooking other paths, and I'm glad I paused. Two courses during my master's had already opened my eyes to science project management, and I realized that connecting science with society was just as meaningful to me as being in the lab.

I've been part of the BIYSC staff for four editions, first as a mentor and facilitator, and this year I'm stepping into the coordination team for the first time.

When I'm not working, you'll probably find me somewhere in the mountains, sleeping under the stars, far from any sign of human activity. I also have the habit of picking up hobbies: bricolage, ceramics, and most recently sewing, which I've been learning with my grandma. I'm also part of my hometown's esbart, a traditional Catalan folk dance group committed to keeping Catalan culture alive and passing it on to future generations.

I'm really happy to be on this side of BIYSC again, and I hope it leaves a mark on you the way it did on me!



Lucas Bogaert

BIYSC Staff Leader

Hi! I am a conservation scientist with a BSc in Biology from the University of Barcelona and a MSc in Ecology and Evolutionary Biology from the University of Helsinki (Finland). In my research, I combine my interest in ecology and genetics into applied conservation projects. I am also strongly committed to education, science communication and mentoring students to help them find their unique paths in science (or elsewhere)!

I have been a Science Fellow of Fundació Catalunya La Pedrera since 2017, when I participated in the *Youth and Science* program, which included a traineeship in the Environmental Science and Technology Institute (ICTA-UAB) and the Centre Valbio (Madagascar). I have worked as a BIYSC staff member for the last 5 years. In addition, I have been an active Science Fellow Committee member and worked as the Science Fellow Alumni Community coordinator during 2022 and 2023.

Through my academic career, I have been involved in research projects working on raptor communities in Northern Kenya (University of Barcelona), climate change impacts on hybrid ant activity (University of Helsinki), cichlid color development (University of Helsinki) and Iberian lynx genetic monitoring (Doñana Biological Station - CSIC).

At present, I live in Finland, where I am starting my PhD. At the Global Change and Conservation lab (University of Helsinki), I work on human-carnivore conflicts. I use genetics and social methods to understand how the use of wildlife (specifically cheetah and leopard) has changed over time in Lake Turkana (East Africa), exploring its cultural relevance and monitoring legal and illegal wildlife trade.

Beyond science, I love being outdoors: hiking, running, swimming and discovering natural landscapes. I also like to read and I have played the piano and the guitar for many years, though I have not been playing much music lately...

Do not hesitate to ask any questions during and after BIYSC, I'll be happy to help!



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Sara López León

Project Staff - Multi-omics in the fight against Leukemia

Hi! I'm Sara, and I am a university student. This has been my third year studying Biochemistry in the University of Barcelona. I must say that I started my scientific career in a totally different field.

I was admitted to a program from Fundació Catalunya La Pedrera called *Youth and Science*, back in 2021, in a project related to astrophysics where I did some research about Einstein's theory of General relativity and Drake's equation. Later on, I went to IAC (Instituto de Astrofísica de Canarias) where I studied asteroid light curves and their orbits and surfaces. For the last year of the project, I got to go to a scientific expedition to Greenland and Iceland to study how climate change affects icebergs. Also, to study aurora and the correlation between its colors and the height at which they happen. Later on I have spent all my summers in a lab learning from great researchers. Next year I will be going abroad to Reykjavík in order to perform my end of degree project based on transcription factors and protein characterization of those.

The truth is that astrobiology is a field of science that I have always been keen on because it binds two of my main interests: biochemistry and astrophysics and the question of "how is life outside the Earth" has always been the source of my curiosity.

I must say that I also like other things that are not science-related. I ABSOLUTELY adore singing, I have been a vocalist of some 80s/90s rock bands in the last years (that type of music is the best!). Not only that, but I also tend to write poetry when I am inspired (which is a difficult thing to get, the inspiration...) and I love to paint and draw mandalas from zero (I should say that I am the worst person ever at drawing anything aside from those). I also LOVE animals: I have a hamster called Gumet which is as cute as a button (maybe she comes one day to say hi and eat some carrot pieces).

I am always opened to talk to any of you who wants to know more about the things I have done, so contact me anytime if you are curious! Being curious is one of the main skills that a researcher should have! but please, do not only contact me for this: if you want to sing, play some music, show me your pets, or even share some thoughts about poetry feel free to reach out guys!

Looking forward to meeting all of you in a few weeks!



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Queralt Nomen Valls

Project Staff - Quantum Physics and Cryptography: Be part of the Quantum Revolution

Hey! I am Queralt! I studied at the Lycée Français de Barcelone and I am currently a third-year student in the double degree in Mathematics and Physics at the Universitat de Barcelona.

Since high school, I have participated in several scientific programs that have helped me discover where I want to direct my professional path.

I have been a Science Fellow of Fundació Catalunya La Pedrera since 2022. I started with the *Crazy for Science* program on Bioengineering at IBEC in 2022, followed by BIYSC in 2023, where I joined the "Quantum Physics in Communications and Cryptography for New Technologies" group at ICFO. That same year, I also participated in the Beamline for Schools competition at CERN with an all-women team, and we became finalists with our project "Listening to Particles". Have you ever wondered what particles sound like?:)

Last year, I participated in the "Be an ICFOnian for a Day" program, which led to a summer fellowship at ICFO in the Molecular Nanophotonics group, hosted by Niek F. van Hulst. There, I studied how metallic layer proximity and thickness influence the optical and transport properties of Y6 samples using StrEET microscopy, combining experimental measurements with Python-based data analysis.

This summer, I will explore a different field through a Finance summer course at LSE before spending an Erasmus year at EPFL in Lausanne, Switzerland.

Besides science, I really enjoy sharing knowledge and helping younger students. I have been tutoring students at my former school for several years, and last summer I also volunteered with Caritas, providing extra classes to young people.

Outside academics, I cannot live without sports. I started with swimming, then combined it with seven years of water polo and two years of triathlon. Nowadays, with a busier schedule, I enjoy combining running, swimming, and gym workouts.

I am very excited to be back at BIYSC, this time as a staff member, and I hope you enjoy this experience as much as I did!



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Bru Gómez Bonilla

Project Staff - Infectious Diseases in the 21st Century: integrating Prevention, Research, and Precision Medicine

Hello! I'm Bru Gómez Bonilla (he/him), a fourth year medical student at Universitat Pompeu Fabra (Hospital del Mar), in Barcelona. I have a strong interest in psychiatry, particularly in psychoneuropharmacology and the neurobiology of mental disorders; but I am just deeply fascinated by the complexities of the human mind and body!

Always a very curious kid, I would spend many hours doing little science experiments with my best friend. But it was a personal experience that sparked my passion for medicine: a close friend suffered a severe brain infection that left her in the ICU for a long time. She later developed motor aphasia (inability to speak) and hemiparesis (paralysis of half of the body). Being by her side while she recovered was the experience that ultimately led me into medicine!

To deepen my understanding of the brain, I took part in a cognitive neuroscience course at the UPF Campus Júnior. I later participated (twice!) in the *Youth for Medicine* program of Fundació Catalunya La Pedrera, which provided me with my first practical exposure to the field. In 2022, I was selected for the BIYSC program "The Neurobiology of Trauma", where I was introduced to the fascinating world of neurobiology. Later on, I joined the Science Fellows network, a vibrant community with whom to share interests and unique moments!

I have also been involved in several research fields. In high school, I designed a project to assess the relationship between intelligence and hippocampal volume using tests and MRI; for which I won several awards at Exporecerca Jove and I became a Regeneron ISEF finalist, supported by Fundació Catalunya La Pedrera. In university, I have conducted research on the neurobiology of autism, and I am currently focused on mood disorders and extracellular vesicles (little messengers our cells use to talk to each other!).

When I'm not in the library or the lab, you'll likely find me reading a book, watching a series, spending time with friends, hiking, or trying to learn how to play the guitar :)

If you share an interest in medicine, research, the brain, or are just curious about it, feel free to reach out; I'd be more than happy to connect! It's always a pleasure meeting so many kind and brilliant people like you!



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Júlia Higuera García

Project Staff - Broadening Medical Expertise: from the clinic to the lab bench and back

Hi! I'm Júlia and science has long been the lens through which I make sense of the world.

From 2019 to 2022 I participated in the *Youth and Science* program of Fundació Catalunya La Pedrera, which included research stays at the Development and Growth Control Laboratory of the Institute for Research in Biomedicine of Barcelona (IRB) and another one in the XLAB International STEM laboratory in Göttingen (Germany). I also took part in the *Crazy for Science* program on Biochemistry in 2020 also offered by Fundació Catalunya La Pedrera.

These experiences showed me that my motivation lays not only in understanding biological mechanisms, but also in applying that knowledge to address clinical challenges. This perspective ultimately led me to pursue Medicine, which I am currently studying at the University of Barcelona (Campus Clínic), where I have completed my fifth year and expect to finally graduate in 2027.

In 2023, I joined the International Collaboration and Exchange Program, which connects (bio)medical students from different countries worldwide, fostering intercultural learning and collaboration. I also completed the 2025 Juliol UB summer course on Traditional Chinese Medicine and its Methods for Maintaining Health, exploring different approaches to health and wellbeing.

Beyond the medical field, I have been involved in initiatives focused on social responsibility and community engagement. In 2024, I completed a training program aimed at promoting safer environments and supporting the prevention of sexual harassment at public events. Additionally, last summer I participated in an Erasmus+ volunteering project focused on encouraging youth political participation and civic engagement, an experience that strengthened my interest in the social dimensions of health and the role of active citizenship.

If you are curious about Medicine, I would be happy to share everything I have learned along the way, from what studying is really like to the most important medical skill nobody teaches you: knowing when you need a coffee break ;).

Looking forward to meeting you!!



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Wassima Rachdi Ben Harou

Project Staff - Broadening Medical Expertise: from the clinic to the lab bench and back

Hi! My name is Wassima, and I am currently pursuing a degree in Medicine at the University of Barcelona. Since the beginning of my academic journey, I have been passionate about combining scientific knowledge, clinical practice, and international collaboration to contribute to healthcare and medical education.

Throughout my studies, I have had the opportunity to participate in a variety of clinical, research, and leadership experiences. One of my earliest scientific experiences was a clinical research program at the Institute for Research in Biomedicine (IRB Barcelona). My interest in medicine has also led me to participate in several clinical immersion programs. I attended the "Medicine behind Organ Transplantation" project at BIYSC and later completed clinical observerships at prestigious institutions. These opportunities allowed me to gain insight into patient care, multidisciplinary teamwork, and the challenges of modern healthcare systems.

Beyond academics, I have been actively involved in student leadership and international exchange initiatives. I served as Group Leader of the International Collaboration and Exchange Program (ICEP), participating in academic exchanges and international congresses in Taiwan, Germany, and the United States.

I am also committed to medical education and student representation. I have worked as a science teacher, and I have served as Secretary of the Council of Medical Students of Catalonia (CEMCAT), contributing to institutional communication and documentation.

Outside of medicine, I enjoy volunteering, mentoring, and engaging in science communication. I have volunteered at international camps supporting children with serious illnesses and have participated in interviews and public speaking events promoting women in science and scientific careers. I believe that empathy, leadership, and lifelong learning are essential qualities for any healthcare professional.

I am always happy to connect with people interested in medicine, research, international collaboration, or science outreach. Feel free to reach out if you would like to learn more about my experiences or exchange ideas about healthcare, education, and scientific innovation.



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Mireia Rivero Sallent

Project Staff - Decoding Tumorigenesis: using Genetic Tools and Transgenic Flies to model cancer

My name is Mireia Rivero (she/her), and I am in the final year of my Biology degree at the University of Barcelona. I am currently working on my final thesis, which focuses on testing a bat census technique based on the analysis of their echolocation calls.

I have always felt a deep curiosity about the world around me, both in nature and in the cultures of different parts of the world. For example, last year I spent an exchange semester in South Korea, where I further developed my interest in pollution remediation and Asian cultures. During my stay, I also had the opportunity to do several solo backpacking trips. In the future I hope to continue expanding my knowledge by pursuing a master's degree in Thailand. Beyond science, I enjoy theatre, cinema and learning foreign languages. I am particularly interested in the different forms of soft power that countries use to share their culture, such as music, television series, films or language itself.

My scientific journey began at an early age. I have always been passionate about helping and understanding the living beings that share our planet. At first, I wanted to study Veterinary Medicine, but my interests gradually expanded. During the 2020-21 academic year, I participated in the *Nature Campus*, a program organized by Fundació Catalunya La Pedrera focused on hands-on learning of nature conservation and environmental management. Later, I joined "And You? Me, Biochemistry!", another short form program organized by the University of Barcelona. These experiences made me realize that my scientific curiosity extended far beyond animals alone and ultimately led me to study Biology, specializing in Biodiversity. For my university entrance research project, I studied the bat population in my hometown, which sparked in me a strong interest in bioacoustics that still continues today. During that time, I also won both the regional and national editions of the nanoscience divulgation competition "10totheminus9".

I believe science communication plays a key role both in inspiring young people to become interested in science and helping them develop critical thinking skills. Many of the opportunities I had when I was younger helped shape the person I am today, and that's why I am excited to support you as you explore new interests and learn more about the world around you. I hope I can help make science engaging, inspiring and fun!



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Laia Mayné Arévalo

Project Staff - Cosmic Rays' detection: Astrophysics at your fingertips

Hi, I'm Laia ! I have finished my third year studying maths and physics at Universitat Autònoma de Barcelona although at first I studied only physics. I've always liked math and science but as I liked lots of things I didn't have a clear idea of what I wanted to do. I ended up choosing physics but, during my first year, I saw that I really like maths, so I changed to the double degree. Have in mind that what you decide now doesn't have to be your final choice!

I've been a Science Fellow of Fundació Catalunya la Pedrera since 2021 when I was selected in the program *Youth and Science* in the astrophysics group where I did some research in supernovae type Ia. Afterwards, I went to IAC (Instituto de Astrofísica de Canarias) where I studied how do we find volcanoes in Venus. For the last year of the project, I went to a scientific expedition to Greenland and Iceland where I learned about science fieldwork helping assembling photometers and different sensors to study asteroids, aurorae and how climate change affects the glaciers. I was also selected for a scholarship in order to do the ib diploma and the Spain's Baccalaureate which included doing a research project. With that, I was able to go to XLAB in Göttingen, where I experienced how it is working in real labs.

Beyond science I really like sports, specially running but lately I've been enjoying climbing and going to the gym. I also love to read, specially fantasy and science fiction and to play board games.

I am always open to talk to anyone whether it's about not having an idea of what do you want to study, or whether you are curious about what I have done or to talk about books or play board games.



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Pol Torné Fisa

Project Staff - Acoustic Engineering at La Pedrera: from Field-Lab to Immersive Experiences

Hey! I am Pol Torné Fisa, currently finishing my last year of biochemistry degree at University of Barcelona. For the last months I have been working on my bachelor's thesis during my Erasmus stay in Turku (Finland), regarding how clathrin-mediated endocytosis is altered in Parkinson's Disease and possible related therapies.

I am deeply interested in understanding how biological processes work on a molecular level and being able to apply this knowledge into biomedical applications. I started to get this perspective thanks to my participation in the *Crazy for Science* program on Biochemistry (2022) organized by Fundació Catalunya La Pedrera, and then (surprisingly haha), choosing Biochemistry as a degree.

I believe that science can nourish from other disciplines, especially interested in science-art interaction. I invite you to check out the work of Artists in Residence in research centres like Barcelona Biomedical Research Park (PRBB) or the Institute for Research in Biomedicine (IRB).

Apart from science I enjoy listening to music, watching TV series or going for a run. I played the piano for five years, but I am out of practice nowadays (I might get into playing again in the near future, who knows).

Feel free to reach out and talk to me, it is always interesting hearing about other scientific interests; in the end, we can all learn about each other!



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Nil Salvat Rovira

Project Staff - The Neurobiology of trauma: effects on behavior and brain function

Hi! My name is Nil Salvat Rovira and I am 27 years old, which I think that makes me the most senior staff member. In all these years I've had time to do many things and discover what I like and what I don't, in the same way that I have discovered that science is my favorite way to understand the world. That is why, since I was little, I have been curious and I have ended up studying a degree (BSc in Biochemistry, MSc in Neuroscience and PhD in Medicine) and doing research focused on Huntington's disease, a very interesting neurodegenerative disorder for which we still have many details to discover.

Apart from research, I also enjoy science from other aspects: educating and communicating. Because there will be no scientists if we do not encourage new generations of minds to pursue science careers and we will not improve as a society if we do not know how to communicate everything we know as scientists. I teach in different courses at the Universitat of Barcelona ("And you? Me, Biochemistry", "Live Biochemistry") or at the Fundació Catalunya La Pedrera (*Crazy for Science* on Biochemistry, BIYSC, you should know this last one). I also communicate science through different groups (Ciència Oberta, Neurones Fregides), with whom we have participated in a popularization program on Catalan public television, we have two books published and we are about to release a board game to learn molecular biology.

And, apart from that? The truth is that lately I have left science aside a bit to dedicate myself to culture, my other passion. I am a multi-instrumentalist musician and I love helping the arts to be a welcoming space for both artists, technicians and the public: this is the job of a producer. I currently work as a video technician in a video podcast on Catalan public radio, I participate in the organization of different music festivals and I do concerts with my bands in different formats.

Ah! And I love talking about myself and being asked questions, so if you want to know more trivia or are interested in something I do, get in touch with me and let's chat!



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Mireia Rizo Rovira

Project Staff - Advanced Mathematics: from Fundamental Theory to its Real-World Impact

Hi! My name is Mireia Rizo Rovira, and I am currently studying the double degree in Physics and Mathematics at the Autonomous University of Barcelona. I actually started university studying Physics, but later on I realised that I also wanted to go deeper into Mathematics, so I decided to combine both fields.

My interest in Physics started during the *Crazy for Science* program on Supercomputing, organized by Fundació Catalunya La Pedrera. During the program, we had a talk about quantum computing that really captured my attention. I found it fascinating how physics, mathematics and computer science could come together to solve problems in a completely different way. That experience made me decide that I wanted to study Physics at university.

After that, I chose quantum computing as the topic of my research project at the end of high school. Working on it allowed me to explore the field more deeply, understand its basic principles and confirm that I wanted to continue learning about science from a more theoretical and mathematical perspective.

Later on, I participated in BIYSC, in the project “Advanced Mathematics: Bridging the Gap between Fundamental Theory and Real-World Impact”. I wanted to use that experience to see whether Mathematics was really a field I wanted to pursue seriously, and it helped me confirm that I was genuinely interested in it. It also showed me how mathematics can be both abstract and useful, connecting deep theory with real-world applications. As a Science Fellow of the Fundació Catalunya la Pedrera, I have been a Science Ambassador, giving talks to secondary school students to encourage them to pursue scientific careers and to share my passion for science.

Beyond academics, sport is a very important part of my life. Swimming has taught me discipline, perseverance and how to keep going even when things get difficult. When I have free time, I also love doing LEGO sets, reading, and drawing a little whenever I find the moment. I am also a big fan of pop music, especially Taylor Swift (I’m that girl haha).

I would describe myself as a sociable, hard-working and curious person. I love learning, working with others and taking part in projects where I can contribute positively. Feel free to reach out if you want to talk about physics, mathematics, science programs, university life, swimming, books, LEGO or music :)



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Pablo Gómez Montañez

Project Staff - Quantum Entanglement and Superposition: How Quantum Mechanics helps us understand our Universe

My name is Pablo Gómez Montañez, and I am currently finishing my Physics degree at the University of Barcelona.

My path in science began with *Youth and Science*, a program of Fundació Catalunya La Pedrera. During the programme, besides learning a lot and meeting people with similar interests, I had the opportunity to spend some time at the Max Planck Institute of Quantum Optics in Munich. That experience was my first real contact with quantum physics and made me want to understand more about the field.

A few years later, I joined a summer programme at ICFO, where I discovered experimental physics and really enjoyed the way research combines theory, laboratory work, programming and teamwork. After the programme, I stayed in the same group, working on reconstruction methods for quantum gas microscopes.

Next year, I will return to Munich to begin a Master's degree in Quantum Science and Technology. Looking back, it feels like a natural continuation of a path that started when I was your age.

Outside science, I have also worked as a youth leader in an esplanai, which taught me a lot about teamwork, responsibility and communication. I have also been involved in the student group of the Real Sociedad Española de Física, helping to organise activities and connect with other physics students.

When I am not studying or working in the lab, you will probably find me listening to music, singing, playing volleyball or spending time with friends. :)

If you are interested in quantum physics, condensed matter or anything in physics in general, feel free to reach out. I am always happy to meet new people, exchange ideas and learn about different research paths!



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Joan Sonnenberg Bartolomé

Project Staff - Supercomputing for Next-Generation City Design

Hi! I'm Joan and I'm currently living in The Netherlands, pursuing a bachelor's in Physics & Astronomy at the University of Amsterdam (minor in ML & AI).

I was always keen on science and understanding the whys and hows of the world. It was only after attending the *Youth and Science* (2021) program of Fundació Catalunya La Pedrera that I discovered that even high school students can perform actual research; and I was immediately hooked on it! Ever since the age of 16, I've spent my summers doing summer, whether that be interning at a university or at a summer science program like I will now do at BIYSC!

Through *Youth and Science*, I got to dive headfirst into astrophysics research and was amazed by the world of telescopes. After that, I attended the Research Science Institute (RSI) at MIT (2022 scholar). My research focused on data from eclipsing binary stars and I performed Monte-Carlo simulations. The following summer, I was a research intern at Radboud University, where I focused on general-relativistic raytracing of spinning black holes and developed interactive simulations of the Kerr metric. Last summer, I worked as a Counselor and Tutor staff for the inaugural edition of the RSI-India program at the Indian Institute of Science (IISc) in Bangalore, mentoring STEM high school students from all over India.

Despite having focused initially on astrophysics, through the years I've gradually moved to more data-science research. My current research interests span general-relativistic simulations, data-science, computer vision, time-series forecasting, ML and cognitive science.

"Jack of all trades, master of none"? Maybe? I don't know, I just enjoy many hobbies so here are some: running, speed chess, stocks, computers, hiking & mountaineering (mountains make me happy), foreign cuisines (and spices!), playing in a rock band (guitar), board games. If any of the latter is an LCM for us, hit me up!

I am very excited to be a part of the BIYSC team this year! Whether it's to discuss academic stuff or just have fun, feel free to reach out anytime! Let's make this an unforgettable experience!



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Inés López Coll

Project Staff - Molecular breeding & Gene Editing: feeding the world in a changing climate

Hi! It's Inés here. I would say that my scientific career started in 2019, when I was selected for the *Crazy for Science* program on Biochemistry. That year, I worked on Genetically Modified Plants, which got me really interested in molecular biology.

I studied Biotechnology at the Autonomous University of Barcelona and had so much fun exploring genetic engineering, bioinformatics, bioreactors, and molecular biology - the latter always having my deepest interest. Studying immunology, together with a research internship at internal medicine at Germans Trias i Pujol Hospital, made me realise I had found my vocation. During that time, I was also eager to discuss, read, and write about this field, so decided to study a Minor in Philosophy of Science and Technology at University of Twente, The Netherlands, which resulted to be so enriching. For my Bachelor thesis, I developed a communication science project about the Human Virome through a board game, and later presented it at the European Research Night to bring science closer to the public.

Then, in December 2024, came a moment that truly increased my purpose of dedicating my life to science. I had the opportunity to attend the Medicine Nobel Prize Seminar in Stockholm, turning out to be one of the most inspiring moments in my whole life, and got the opportunity to talk with the laureates, which was absolutely thrilling.

All these experiences led me to pursue a Master's in Advanced Immunology at University of Barcelona and Autonomous University of Barcelona. At the moment, I am conducting my thesis at Vall d'Hebron Hospital, doing research on new immunosuppressors to prevent transplant rejection. Next course I will be moving to the United States to keep exploring immunology research, but this time developing engineered cells for brain tumor therapy at Harvard University.

Beyond science, I have multiple hobbies. In my free time I adore doing outdoor activities, reading, photography (I always carry a camera with me), and enjoy playing any kind of sport. I must say I couldn't live without music! I love dancing, singing (although I'm a terrible singer hahaha), and playing the guitar. Huge fan of chill plans too, as playing table games and doing sudokus.

Feel free to reach out any time, I will be so happy to get to know you all :)



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Núria Cervell Matos

Project Staff - Innovation in Photochemistry and Drug Synthesis:
Shaping a Sustainable Future

Hi everyone! I'm a third-year Chemical Engineering student at the Universitat de Barcelona. I have always been curious about science and how it can help us better understand the world around us, with a strong interest in green hydrogen and advanced materials to tackle everyday challenges in a more sustainable way.

This curiosity led me to take part in several research programmes, including *Youth and Science* program of Fundació Catalunya La Pedrera, where I worked with researchers from prestigious institutions such as Imperial College London, the University of Cambridge, the Institute of Advanced Materials (INAM) and the Institute of Photonic Sciences (ICFO). I was especially thrilled by semiconducting materials and photocatalysis.

In 2023, I also had the opportunity to participate in BIYSC in the project "Feeding the World in a Changing Climate: Molecular Breeding & Gene Editing", at the Centre for Research in Agricultural Genomics (CRAG). We conducted molecular biology and genomics experiments to study and improve crop traits. One of the things I enjoyed the most about this experience was meeting people from different countries, backgrounds, and scientific interests. That's why I'm especially happy to now be part of the team helping make this experience possible for all of you.

Beyond science, my biggest passions are drawing, cooking, reading, travelling and trekking in the Pyrenees (they're absolutely stunning!). I also love playing volleyball and helping others, which is why I have been coaching youth teams for five years, as well as tutoring high school students.

Whether you have questions, need support, or just want to chat, feel free to reach out!



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Marc Farrés Colom

Project Staff - Synthetic Biology: reprogramming Life to shape the Future

Hi everyone! I am Marc and I am currently in my fourth year of studying Pharmacy at the University of Barcelona (UB). Firstly, let me explain why I chose Pharmacy. When I was starting out, I knew I absolutely loved biology and chemistry. I looked around and realized that pharmacy was the absolute perfect, ultimate marriage of both fields. Some might argue that biochemistry holds that crown, but come on, let's face it, we pharmacists get to design the actual magic potions!

My scientific journey really kicked into gear back in 2021 when I was selected for the *Crazy for Science* program on Bioengineering, organized by Fundació Catalunya La Pedrera. That experience completely blew my mind and opened my eyes to how multidisciplinary biology can be when it comes to solving massive healthcare challenges. Around that same time, I also pushed my passion for science to the limit by competing in the Biology Olympiads, where I had the honor of winning medals at both the Spanish National and Ibero-American levels.

Since starting university, I've basically thrown myself headfirst into the lab every chance I get. As a Science Fellow, I had the opportunity to join the BLADDERBOTS research group at IBEC, where I spent time working with Prof. Samuel Sanchez, engineering enzyme-functionalized PLGA nanomotors aimed at breaking down bacterial biofilms. I also crossed over into medicinal chemistry in Prof. Diego Muñoz-Torrero's lab at UB, diving into the multi-step organic synthesis of novel PROTACs targeting neurodegenerative disorders. I just love the thrill of high-stakes research and testing the limits of what molecular design and chemistry can do for healthcare!

When I am not buried under organic chemistry mechanisms or tracking nanoparticle motility, I look for creative outlets to channel all this energy. My biggest escape is drama and theater! There is something so exhilarating about stepping into a completely different character's shoes on stage. I am also an avid reader and love getting lost in a great book whenever I find a quiet moment.

I am unbelievably hyped to be returning to this community as a first-year BIYSC staff member! I am always down to chat about anything: what it's really like to study pharmacy, the opportunities it opens up, lab work, theater scripts, or book recommendations. Please feel free to reach out anytime. Let's make this an unforgettable experience!



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Olga Castillo Vilaseca

Project Staff - Planarian Stem Cells: the genetics of immortality

My name is Olga Castillo and I am pursuing a degree in Biology at Universitat Autònoma de Barcelona (UAB). Since the beginning of my studies, I have been deeply motivated by questions related to how organisms interact with their environment, particularly in the context of global change. This curiosity naturally evolved into a strong interest in ecophysiology, as I am fascinated by how physiological traits reflect adaptation to abiotic and biotic pressures.

As part of my scientific training, I was selected for the *Crazy for Science* program on Bioengineering at the Institute for Bioengineering of Catalonia (IBEC), a competitive program from Fundació Catalunya La Pedrera that provided me with valuable laboratory experience and strengthened my scientific curiosity and precision in experimental work. This year I did an internship in the Temporal Ecology Biogeography Lab, where I studied long-term biodiversity patterns and the environmental factors that shape them.

Beyond the laboratory, I have always enjoyed communicating science and interacting with people from diverse backgrounds. In parallel, I am actively involved in Synapse – Life Science Connect, a non-profit, student-driven organisation that aims to expose life science students to a wide range of opportunities and support them in making informed career decisions by fostering connections within the life science community.

A very important part of my life is ballet, which has profoundly shaped the way I understand both myself and the world around me. Beyond being an artistic and physical discipline, ballet has become a source of balance, expression, and inspiration in my everyday life.

I am also passionate about yoga, enjoy collecting flowers, and have a deep appreciation for the beauty and diversity of nature. Music is another important part of my life, accompanying me through many experiences and continually inspiring my creativity and curiosity.

I am very excited to experience this adventure with all of you!



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Júlia Cristòfol

Project Staff - Heart Science 360°: Clinical Practice, Translational Research, and Data Innovation

Hi! My name is Júlia, and I am currently a second year Medicine student at Universitat Pompeu Fabra.

My interest in science and healthcare led me to begin my academic journey in Biomedical Sciences. Although I really enjoyed learning about the biological basis of disease, I eventually realized that what motivated me most was the opportunity to work directly with people and contribute to patient care. This inspired me to pursue Medicine.

In 2023, I participated in the *Youth for Medicine* program of Fundació Catalunya La Pedrera, where I met other students with similar interests and further confirmed my enthusiasm for the medical field.

Alongside my studies, I am part of AQG, where I help create science communication podcasts about medicine, medical school, and different diseases. I enjoy making medical topics more accessible and believe that good communication is a really important part of healthcare.

Outside of university, I enjoy creative activities, especially pottery, as well as jewelry, which helps me maintain a healthy balance between academics and personal life!

This year will be my first time participating as part of the BIYSC staff, and I am really excited to meet all of you. I hope I can make this experience as enjoyable for you as programs like *Youth for Medicine* were for me!