

Women in Data Science – Perspectives in Industry and Academia

Eva Alloza – working in academia offers many different career paths; follow your interest and do whatever you think is an opportunity for you to grow

Eva Alloza combines training and professional experiences in broad variety of disciplines and jobs. Starting out as an agricultural engineer at the Universitat Politècnica de Catalunya BarcelonaTech (ES), she discovered bioinformatics during her studies. Following this path, she traveled across Europe with stops at the Cranfield University (UK), the Vrije Universiteit medical center (NL), the University of Valencia (ES), the Barcelona School of Management (ES) and the Università degli Studi di Milano-Bicocca (IT). Switching from working at a dry-lab bench to science communication and project management, Eva now holds two degrees in agricultural engineering, bioinformatics, and science communication. In 2018, she joined the Barcelona Supercomputing Center (BSC) (ES) and INB/ELIXIR Spain. She was previously active in setting up training programmes for technicians up to doctorate in bioinformatics and is still supporting these bioinformatics studies with vocational internships. Within the ELIXIR community, Eva was recently elected as a new Training Platform Co-Lead and is now strengthening national training programs and growing bioinformatics training capacity and competence across Europe.



**Bioinformatics Scientist,
Co-lead of the ELIXIR
Training Platform**

“I followed my interests and took opportunities as they arose to grow and broaden my horizons.”

Eva's career path started with agricultural engineering at the Universitat Politècnica de Catalunya BarcelonaTech (ES). Eva says smilingly that, in general, she is a farmer deep in her heart. Due to her school cooperating with Cranfield University in the UK, Eva had the opportunity to pursue a double degree. Before ending her master in agricultural engineering at the Universitat of Lleida (ES), she enrolled in a Masters in bioinformatics. At that time she thought: **“This is new; I do not exactly know what it is, but I am interested in learning.”** She did not know then that this decision would shape her research career later.

In early 2005, bioinformatics flourished, and Eva decided to deepen her knowledge in this field by doing a PhD in functional genomics at the Príncipe Felipe Research Center (CIPF) in Valencia (ES). During that time, she also discovered science journalism and communication – two professional branches that were not familiar to her but have aroused strong interest. Hence, Eva went back to Barcelona to do a Masters in Science, Health and Environmental Communication to deepen her knowledge in this sector.

With a strong baggage of knowledge and different degrees in Agricultural Engineering, Science Communication, Bioinformatics, Eva got in contact with Bioinformatics Barcelona Association and managed the association's foundation and operations for five years with a focus on training and networking. **“Development and delivering of scientific education and outreach programs had a**

strong influence on my career path and was a door opener to my current position at BSC and later on also in ELIXIR Europe”, she states.

Since 2018, Eva has been working at the Spanish National Bioinformatics Institute (INB/ELIXIR-ES), hosted by the Barcelona Supercomputing Center (BSC), as a Training Coordinator, Communications and Support Officer. At the BSC, she encountered ELIXIR. Being part of the ELIXIR training coordinators group, Eva is responsible for coordinating bioinformatics training and compiling training best practices at the national and European levels. **“I am on an alternative career path [...] in the node coordination of ELIXIR Spain we are interested in the development of bioinformatics infrastructures. Being a scientist - this task was foreign to me”,** she recaps. Further huge success came in 2022, when Eva was elected as Training Platform Co-Lead, one of the coveted positions in ELIXIR. The platform establishes and implements best practices in bioinformatics training, supports training providers across Europe in creating and delivering training for developers, researchers and trainers, and builds a sustainable training infrastructure.

“I am always doing things that are in the edge. It is the curiosity of acquiring new knowledge!”

Eva sees herself as the bridge between disciplines. A very important job, in her view, at least as valuable as being specialized in one direction, it may be difficult to communicate to other people being specialized in a different area. Eva likes to walk in someone else's shoes. She likes to be behind the scenes, setting the stage for researchers in science. She values to see that there are alternative career paths other than being a PI.



“When I look back at my former self and see what I've been taking part of – it makes me proud”

Being asked about prized moments in her career, Eva values conversations back in her PhD days regarding supporting hands-on research with bioinformatics tools. She also sees her work on the establishment and improvement of training in bioinformatics in Spain in high regards. One particular story, she shares, is the ECCB example. She attended the ECCB as a PhD student back in 2005 being somewhat intimidated by the size of the conference. Now, 17 years later, she was on the organizing committee for the ECCB 2022, seeing and re-uniting with a lot of former colleagues and companions. Although all of them are in different jobs and progressed in their career paths, the atmosphere of the gathering was like meeting back in 2005.

“At Bioinfo4Women, we would like to remove stereotypes and biases that are important drivers of gender gaps in computational biology”

In 2018, the BSC Life Sciences department launched the Bioinfo4Women (B4W) initiative to promote and visualize work done by women in computational biology with a special focus on their transition from postdoc to junior independent positions. **“Our programme also supports those interested in pursuing a career path in science by distributing guidance and support”,** Eva explains. At the BSC, the initiative, where she is a team member, is advocated from a high level and is still growing as well as catching interest. B4W supports female researchers by promoting the exchange of knowledge and experience through activities such as seminars, conferences, training opportunities, fellowship programs and mentoring. **“It is a way to attract talent if they feel that a place is safe and is committed to these topics”,** as Eva sees the B4W support to the BSC.

"I wouldn't have to walk far to find role models, they are closer than you think"

Eva believes in finding role models everywhere, even at coffee. She thinks one has a certain "figure" in mind for mentors, but retrospectively she has always been supported by a group of peers. As a female role model, she sends her respect to the grandmas, mums, and aunties in Spain, having gone through terrible times– civil war and /or dictatorship. Eva explains that the females of those generations did not have many opportunities to thrive. Her role models have been her peers. Fatima Al-Shahrour, Head of Bioinformatics Unit at the Spanish National Cancer Research Center (CNIO, Madrid, ES), co-lead of the ELIXIR Cancer Data Focus Group and her PhD co-advisor and kind of mentor, is one of Eva's role models. Eva values Fatima not only for her extraordinary scientific abilities but also for her way of life – always having a smile on her face.

What was your most recent google search?

Eva's last Google search was for Barcelona's "City and Science Biennial". This six-day event has the perfect mixture of activities to bring science to society. In the current edition, the organisers proposed quite exciting thematic axes: Living in the city, Living in equity, Living with science and Living creativity.

*Authors: Irena Maus & Nils-Christian Lübke, ELIXIR Germany Administration Office, October 2022.
We would like to thank Eva for this very inspiring interview and wish her continued success in her new position as the Co-lead of the ELIXIR Training Platform.*

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