



BLOOMING

Inclusion and Diversity in STEAM

STEAM Journey

"Can you share your journey and what inspired you to pursue a career in STEAM? Were there any key moments or influential figures that directed you towards this path?"

"I was always fascinated by the mysteries of the natural world, which led me to study Chemistry at the Aristotle University of Thessaloniki back in 2008. My doctoral research work focused on the synthesis of nanoscale polymeric biomaterials and was really a critical period of growth. My PhD training in the laboratory of Prof. Bikiaris not only sharpened my skills, but also opened doors to incredibly motivating events, such as attending the 67th Lindau Nobel Laureate Meeting. Imagine being able to meet all your idols in a single place...! As a participant, I had a unique opportunity to explore how excellence in science, combined with serendipity, can lead to groundbreaking innovations like Ada Yonath's crystallographic studies on the ribosome structure and function, which clearly explained why ribosomes are good drug targets and also, stressed the importance of the development of new degradable environmental friendly antibiotics for the fight against microbial drug resistance. Another career-defining moment, was the post-doctoral fellowship I received by Bodossaki Foundation in 2018, to conduct independent research in France for three years. This fellowship gave me the initial, major boost and thus, I will always be grateful for it! Today, I work as Junior Group Leader in the Laboratory of Chemistry of Informational Macromolecules (LCIM) at Supramolecular Science and Engineering Institute (ISIS) in Strasbourg. ISIS was founded in 2002 by Nobel Prize Laureate Prof. Jean-Marie Lehn and is privileged to have hosted 4 Nobel Prize Winners! Honestly, I couldn't imagine a better place to start my academic career.

STEAM Achievement

"What do you consider your most significant achievement or contribution to your field? How do you hope your work will impact the future of STEAM?"

"My most important scientific achievement is my latest work which was published in the Journal of the American Chemical Society (JACS), the oldest and most prestigious journal in Chemistry.¹ Our article was selected for the journal's cover on top of this, so I am more than happy! In fact, this study demonstrates for the first time, how the information encoded into synthetic digital polymers can be manipulated using DNA strand displacement. As this innovative approach addresses an important problem, it could make a major contribution to the field. Considering the future, I am eager to dive deeper into this topic and explore synergies between precision polymer synthesis and DNA nanotechnology.

Challenges and Overcoming Them

"Throughout your career in STEAM, what were some of the significant challenges you faced both in your personal and professional life? How did you overcome them? How did these challenges shape your professional journey?"

"Moving from Greece to France in 2017 was both a professional and personal challenge for me. To adopt to a new academic and cultural environment required resilience and adaptability. However, overcoming these challenges has taught me the importance of flexibility and has stimulated me to broaden my research interests. Moreover, international experience was a key to extend my research impact beyond the borders of my home country, which in turn, opened up new career opportunities.

Advice for Young Women

"What advice would you give to young girls who are interested in STEAM but might be hesitant to pursue it due to stereotypes or the fear of failure?"

"I would encourage young women to embrace challenges and remain persistent. The path to success in STEAM is not always linear. I've faced many setbacks, but each one taught me valuable lessons. Building a support network and finding mentors can also provide the guidance and encouragement needed to overcome obstacles.

Future of Women in STEAM

"Looking towards the future, how do you see the role of women evolving in STEAM fields? What changes do you think are necessary to create a more inclusive and supportive environment for women in STEAM?"

"The future of STEAM should be one of increased diversity and inclusion. We are moving forward but still, institutions should implement more supportive policies, such as flexible career paths and better access to childcare, to allow women to thrive. After

all, if women continue to achieve and lead, they will serve as vital role models, proving that gender does not define one's ability to contribute profoundly to science and technology."

¹M. Nerantzaki, C. Husser, M. Ryckelynck and J-F Lutz. *Exchanging and Releasing Information in Synthetic Digital Polymers using a Strand-displacement Strategy*. *J. Am. Chem. Soc.* 2024, 146, 10, 6456–6460