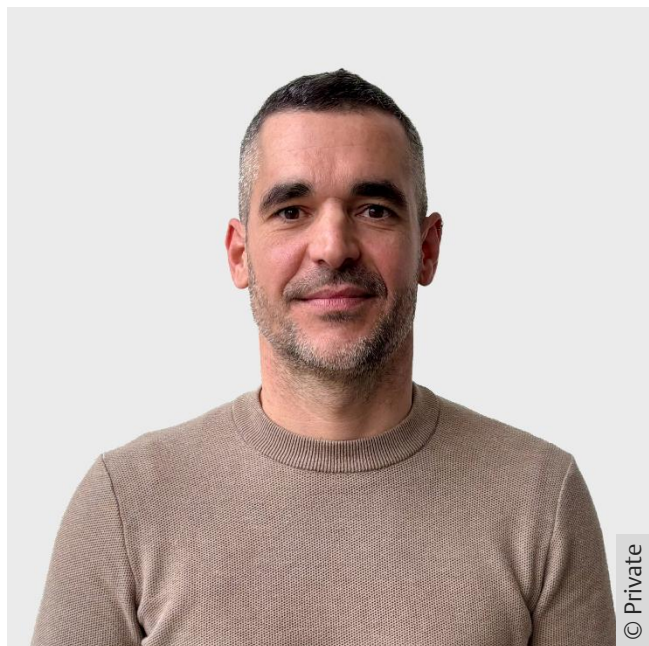


Meet Dr. Xavier Companyó, Thieme Chemistry Journals Awardee 2026!



Dr. Xavier Companyó earned his PhD from the University of Barcelona (Spain) in 2014, and completed a research stay at the Center for Catalysis, Aarhus University (Denmark). He then moved to Imperial College London (UK) as a Marie Curie Fellow. In 2017, he was awarded a STARS Starting Grant at the University of Padova (Italy) to begin his independent career. In 2021, he was appointed as lecturer in organic chemistry at the University of Barcelona (Spain), and in late 2024 was promoted to his current position as associate professor.

Thieme: Which field of organic chemistry are you interested in the most and why?

Dr. Companyó: Within organic chemistry, I am most interested in the field of sustainable asymmetric catalysis because it combines scientific innovation with environmental and societal impact. This area focuses on designing novel catalytic processes that not only produce compounds in a stereoselective manner, which is essential in pharmaceuticals, agrochemicals, and fine chemicals, but also minimize waste, energy consumption, and the use of toxic reagents. Sustainable asymmetric catalysis is thus a powerful approach to making chemical synthesis more efficient and greener, aligning scientific progress with society's growing need for sustainability in industry and consumption.

Thieme: Following that, what is the focus of your current research activity?

Dr. Companyó: My research group designs new catalytic strategies and reaction methodologies for stereoselective synthesis combining different sustainable activation modes, including organo-catalysis, photocatalysis, and electrocatalysis. Guided by green chemistry principles, we aim to replace stoichiometric and waste-intensive transformations with practical, selective and scalable catalytic alternatives. Beyond methodology development, we are interested in how fundamental mechanistic insights can guide reaction design and improve selectivity, robustness, and synthetic utility. In this way, our work bridges physical organic chemistry, organic synthesis, and homogeneous asymmetric catalysis.

Thieme: What do you think about the modern role and prospects of organic chemistry?

Dr. Companyó: Organic chemistry plays a central and evolving role in addressing many of today's global challenges. Beyond its traditional importance in synthesizing molecules, it is now deeply integrated with fields such as materials science, biology, and energy research. Therefore, modern organic chemistry is not only about making compounds more efficiently, but also about designing processes that are sustainable, selective, and adaptable to complex systems.

Looking ahead, its prospects are strongly tied to innovation in key areas like sustainable catalysis, renewable feedstocks, and the development of greener synthetic methodologies. Advances in mechanistic understanding, combined with emerging technologies such as automation and data-driven approaches, are reshaping how catalytic processes are designed and optimized. Overall, organic chemistry is moving toward a more interdisciplinary and sustainability-driven future, where efficiency, selectivity, and environmental responsibility are just as important as reactivity and scope.

Thieme: Which difficulties are there for young upcoming chemists in your field? Do you have any tips?

Dr. Companyó: Early-career scientists in organic chemistry transitioning from postdoc positions to independent roles today face a combination of scientific and professional challenges. Scientifically, the field is highly competitive, and developing independent, innovative research can take time and persistence. On the professional side, securing funding, building collaborations, and balancing research with teaching or administrative duties can be demanding early in a career. Additionally, women and underrepresented groups may face further challenges, as the field remains largely male-dominated.

My advice is to stay curious and resilient. Focus on building a strong foundation in the chosen area of expertise while remaining open to learning new techniques and approaches. Seek mentors, collaborate widely, and do not be afraid of failure: success usually comes after repeated attempts. At the same time, remember to maintain a healthy work–life balance, nurture hobbies, and spend time with family and friends, as these are essential for long-term creativity, focus, and well-being. Above all, cultivate passion for the work, because genuine interest and perseverance often make the biggest difference in overcoming challenges.

Thieme: What is your most important scientific achievement to date and why?

Dr. Companyó: One project I am most proud of is our work on a fluoride-transfer asymmetric allylic alkylation, recently published in *Angew. Chem. Int. Ed.* (DOI: 10.1002/anie.202520513). In this study, we introduced a defluorinative asymmetric allylic alkylation (AAA) in which all atoms of the reagents, including the ionized fluoride leaving group, are reincorporated into the final products. This strategy enables a catalyst-controlled, regiodivergent cross-electrophile coupling between allyl fluorides and *gem*-difluoroalkenes, where selective activation of either electrophilic partner determines the regiochemical outcome. This atom-efficient AAA platform provides stereoselective access to homo-allylic trifluoromethylated scaffolds, thereby expanding the catalytic toolbox for the asymmetric construction of fluorinated building blocks. Beyond its scientific relevance, this project is particularly meaningful to me because it was the first one I started when I established my research group at the University of Barcelona, together with my first bachelor's student who is now close to completing his PhD. After several unsuccessful attempts, we ultimately succeeded in bringing the project to fruition. It serves as a reminder that persistence and resilience are essential in research, and that challenges that may initially seem insurmountable can, with time and effort, be overcome.

Thieme: Could you tell us something about yourself outside the lab, such as your hobbies or extra-work interests?

Dr. Companyó: Outside of work, I try to maintain an active and balanced lifestyle. I enjoy sports, especially jogging, which helps me stay energized and clear-headed. I'm also passionate about mountaineering and climbing. For instance, Montserrat, a small and unique mountain region near Barcelona, is my favourite place to recharge my batteries through rock climbing. I enjoy music, both modern and classical, depending on the moment. Above all, I value spending time with my family, especially my partner and daughters, as it keeps me grounded and reminds me of what matters most beyond science.