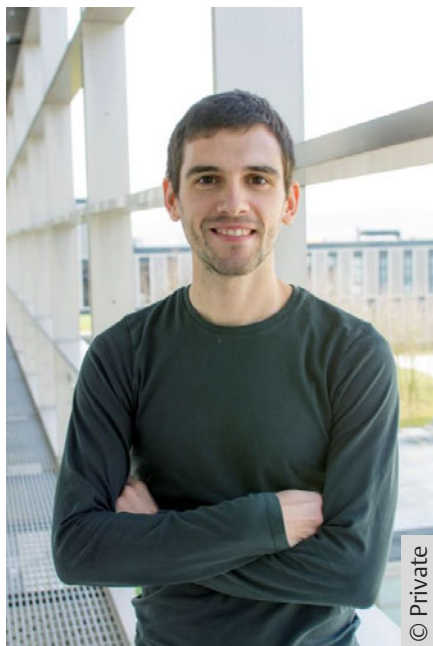


Meet Prof. Miguel Rivero-Crespo, Thieme Chemistry Journals Awardee 2026!



Prof. Miguel Rivero-Crespo pursued his PhD at the Institute of Chemical Technology (Spain), then moved to ETH Zurich (Switzerland) as a postdoctoral researcher. Since 2023, he has been an assistant professor at Stockholm University (Sweden).

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

Prof. Rivero-Crespo: Since my undergraduate years, I have been deeply interested in catalysis as a way to promote organic transformations. There are several reasons why I find catalysis so appealing. First, it has enormous societal relevance, as catalysis plays a central role in the efficient and sustainable production of chemicals, materials, and pharmaceuticals. Second, it is a highly interdisciplinary field that brings together many areas of chemistry: physical chemistry to understand reaction mechanisms, inorganic chemistry when working with inorganic materials or organometallic complexes, organic synthesis to develop new transformations, and analytical techniques to study reactions and catalysts.

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

Prof. Rivero-Crespo: Our main research focus is the development of multicatalytic systems to drive challenging organic transformations and make them more sustainable. In particular, we are interested in designing heterogeneous catalysts based on porous materials such as metal–organic frameworks. Another research line in my group is the design of recyclable polymers that can be depolymerized back to the original monomers through catalysis, enabling more circular materials.

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

Prof. Rivero-Crespo: Organic chemistry is one of the scientific fields that has had the greatest impact on society, from the development of new drugs and polymers to many other functional molecules with important applications. Traditionally, however, organic chemistry has relied heavily on toxic and hazardous reagents. I believe that modern organic chemistry should increasingly focus on more benign and sustainable approaches, for example by using catalysts based on abundant materials, by minimizing hazardous reagents, and by adapting to renewable feedstocks.

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

Prof. Rivero-Crespo: One major challenge for young chemists is the ever-increasing standard in organic chemistry and catalysis research. In addition to novelty and impact, there is now an important added dimension: sustainability. This can feel overwhelming at first. My advice is to be rigorous and aim not only to develop the best-performing reaction, method, or catalyst, but also the most sustainable one, because that is what will ultimately have the greatest positive impact on society. Another challenge of working on interdisciplinary projects is that they require extra effort to gain knowledge across different areas. My recommendation is to stay motivated and learn from experts in different disciplines, because major discoveries often happen at the interface between fields. In addition, in a rapidly changing job market shaped by AI and other technological advances, the ability to move across disciplines and adapt will be an increasingly valuable asset.

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

Prof. Rivero-Crespo: My most important scientific achievement so far has been combining concepts from catalysis, solid materials, and organic chemistry to develop more sustainable reactions. I believe that this kind of interdisciplinary research can open the door to important discoveries and new ways of thinking about chemical synthesis.

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

Prof. Rivero-Crespo: My main passion outside the lab is sports. I love running and I consider it as a form of meditation, it helps me to lower the stress after periods of intense mental activity. I also enjoy climbing, biking and hiking. Beyond that, I like reading, travelling to new places, and trying new foods.