Meet Dr. Filippo Romiti, Thieme Chemistry Journals Awardee 2026!

Dr. Filippo Romiti *earned his PhD in 2015 at the University of Glasgow (UK), then decided to move across the pond and work as postdoctoral research associate at Boston College (USA). In January 2019, he became a senior research associate in Strasbourg (France), then in 2022 returned to the USA as assistant professor at the University of Texas at Dallas and CPRIT Scholar. Since 2024, he is a Collaborator of the Harold C. Simmons Comprehensive Cancer Center at UT Southwestern Medical Center.*

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

Dr. Romiti: I am most passionate about complex natural product synthesis because it is the most artistic and creative field in organic chemistry. In the same way painters and sculptors can look at the same object, scene or landscape and give their own personal and different artistic interpretation of what they see, organic chemists can look at the same natural product and come up with very different out-of-the-box synthesis strategies to prepare it. Complex natural product synthesis also allows me to explore a wide array of chemical transformations; it's a new adventure every day.

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

Dr. Romiti: My group focus is on devising novel out-of-the-box synthesis strategies and new chemical transformations to enable reliable access to terpenes and alkaloids with potential for the treatment of cancer, neurological disorders, and infectious diseases. The natural products we target in our lab are promising lead compounds for the development of new medicines, but their unknown or unclear mechanism of actions and the lack of a dependable way to access them has severely hindered their therapeutical development. We aim to solve this issue while also expanding and innovating the toolbox available to medicinal and synthetic chemists. In fact, our targets are not only important from a biological standpoint, but they also represent state-of-the-art challenges for complex molecule synthesis. Thus, these total synthesis efforts fuel the invention of new chemical methods and serve as a proving ground for our new logics and existing transformations to solve critical synthesis problems in complex settings.

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

Dr. Romiti: Organic chemistry is no longer just about making and studying carbon-based molecules — it has evolved into a central, interdisciplinary field that supports advances in medicine, materials science, sustainability, and biotechnology. While its traditional foundations like synthesis and reaction mechanisms remain crucial, the field is increasingly shaped by tools like automation and AI. Its future is strong but shifting. For example, the field of complex molecule synthesis is evolving. In the 20th century, the focus was on being the first to make a specific molecule, now the main goal is to try to make complex molecules in the most succinct and efficient way possible. To achieve this 'ideal synthesis', organic chemists must be creative inventors and out-of-the-box thinkers. Organic chemistry is transforming. Instead of being just 'the chemistry of carbon', it's a platform science that enables progress across medicine, energy, and technology. Organic chemistry is a toolkit for solving broader scientific problems.

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

Dr. Romiti: My only tip is to follow your passions. Find something you are passionate about and very interested in, and make it the subject of your research. This is the only way to be a successful scientist.

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

Dr. Romiti: Probably our general enantioselective strategy for the synthesis of vallesamidine and schizozygane alkaloids, two of which showed promising anticancer activity and were synthesized for the first time. To accomplish this goal, we had two develop two new methods for the generation of lactams: the first one is a rhodium-catalyzed oxidative lactamization of an alkyne, and the second one is a TosMIC-mediated lactam formation which represents a novel reinterpretation of the van Leusen reaction. These two protocols are pivotal additions to the synthetic chemistry toolbox owing to the prevalence of lactam moieties among bioactive compounds. However, in my mind, my most important scientific achievement is always the next one.

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

Dr. Romiti: In my free time I try to spend as much time as I can with my wife, daughter and dog. Since I was a young kid, I loved playing and watching football (or soccer as they call it here in the USA). I am a huge Juventus fan, and I try to watch as many of their games as I can despite the time difference and the busy work schedule. Classic rock music is my other great passion. I love listening to Led Zeppelin, Rolling Stones, The Who, The Beatles, Pink Floyd, Deep Purple, Black Sabbath, Bob Dylan, Frank Zappa, Bruce Springsteen, Creedence Clearwater Revival, The Doors and many more... I've probably been to over 200 concerts in my life.