

Meet Prof. Joseph R. Clark, Thieme Chemistry Journals Awardee 2024!



Prof. Joseph R. Clark is Assistant Professor in the Chemistry Faculty at Marquette University in Milwaukee, WI (USA). He obtained his PhD in chemistry in 2014 at the University of Buffalo, NY (USA). Until 2018, he pursued his career as an NIH Ruth Kirschstein postdoctoral fellow at the University of Illinois, Urbana-Champaign, IL (USA) before taking up his current position.

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

Prof. Clark: I am most interested in organic synthesis and transition-metal catalysis. The complexity and challenges involved in making molecules always drives innovation in my lab. It is a constant source of inspiration for us and makes studying deuterated and tritiated molecules very interesting. When utilizing transition-metal catalysis to enable organic synthesis, the possibilities for discovering new and important reactions seem endless.

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

Prof. Clark: My group is focused on the synthesis and characterization of precisely labeled small molecules. We develop new synthetic approaches for making deuterated and tritiated molecules and collaborate with spectroscopists to quantify and characterize isotopic products and impurities from the reactions we develop.

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

Prof. Clark: The modern role and prospects of organic chemistry are very encouraging. Organic chemistry remains central in many disciplines of chemistry and science in general. Organic chemistry will likely play a major role in solving some of society's most impacting problems. From human health to climate change, the solutions lie in fundamental organic chemistry developments.

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

Prof. Clark: Funding remains a major hurdle in our field. Early career scientists can have a major impact in how we communicate the importance of our work to government leaders. I also see enthusiasm for chemistry among younger generations posing a potential challenge. Early career scientists often have unique and interesting ideas on how to communicate and reach younger and diverse populations of people in a way that sparks interest in them becoming a chemist. My advice to upcoming chemists is to follow their instincts about how to tackle important problems. Take feedback along the way but follow your inner voice.

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

Prof. Clark: Developing the first enantioselective synthesis of deuterated enantioisotopomers is at the top of the list. This is because working in this area likely contributed to receiving an invitation to speak at the 2022 International Isotope Symposium where I met my wife-to-be for the first time.

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

Prof. Clark: In my spare time I enjoy learning languages, listening to music, playing guitar or percussion, playing sports, and spending time with my family. I also enjoy traveling and have been fortunate to have taken multiple trips to Europe over the past couple of years.
