

SYNTHESIS

Editorial

Laudation for Professor Scott E. Denmark



Scott E. Denmark

We thank Professor Albert Eschenmoser (ETH Zürich) for kindly providing this photograph.

The intensity of youth is often associated with a certain brashness, often expressed in a confidence that can both inspire and intimidate. Such was the case for a young assistant professor at the University of Illinois-Champaign/Urbana in 1980, whose name is Scott E. Denmark. I happened to be one of the first four people to be inspired by that young man, who was not that much older than myself at the time. We became a little band known as Denmark's Disciples, led by a man who was both brilliant and enthusiastic and whose imagination and diligence would come to have a significant and lasting impact on organic chemistry.

Mystics often say that time is an illusion. My knees and elbows might say otherwise. Still, it seems both that time has not passed and that it indeed has rushed past, pushing our lives along relentlessly. So here I am, 33 years later, writing a piece to honor Scott as he reaches his 60th year. It is a bit of a shock, but a happy one.

Scott has from day one approached science with a steadfast vigor, engaging those he has mentored in the wonder of the principles of structure, mechanism, reactivity and synthesis that define organic chemistry as a science, apart from, but intertwined with, all of the wonderful applications that the science offers the world. His philosophy is rigorous and frankly not an easy road to travel, but is one that insures quality and the utmost scientific integrity.

Scott's philosophy naturally entails opinions about science and life that are strong, but Scott loves to express them and is always ready to discuss and debate issues of the day, particularly those involving science in general and organic chemistry in particular. I was reminded of this a few years ago while lecturing in Japan. At dinner, saké had loosened my lips and I felt quite free to express *my* opinions on science and especially funding issues in the US. Before addressing specifics, my dinner companions remarked, "You are a Denmark student for sure!" The nut does not fall far from the tree. I thought it was hilarious.

Scott has had many students over the years, from undergraduates to postdocs, including an undergraduate named Erick Carreira, whom I had the pleasure of knowing as a lad. Nobody leaves the Denmark group without being profoundly influenced by Scott, especially with respect to how organic chemistry should be done when it is being done at its best. That is something really special. So, on behalf of all of those who have been touched by his love of science, I want to wish Scott a very happy birthday, with the expectation of many more to come. May your days be filled with great science, fast cars and sleek motorcycles. Happy 60th, my friend!

Mike Harmata, University of Missouri

June 2013

I had the pleasure and privilege of being associated with the Denmark group in the mid 1980s as an undergraduate researcher. It was a special time, for Professor Denmark was an assistant professor and the collection of young graduate students that constituted the group, including Mike Dappen, Mike Harmata, Todd Jones, and Eric Weber, was in its formative years. Under the guidance and mentoring of Professor Denmark, this first generation of co-workers was laying the groundwork for the high standards and excellence (Scott expected nothing less) that would come to define and characterize Denmark's science throughout his career.

I was a young, impressionable undergraduate, and the immediate consequence of my joining the group was to discover sheer passion for and joy of chemistry and the scientific method. Around that time, a friend had given me a collection of letters by Rilke that included the memorable line of advice to a young initiate: "love the questions themselves, like locked rooms and like books ...written in a very foreign tongue." This to me represents a cornerstone of the science enterprise and captured one of the life-long lessons and undercurrents of the Denmark group. To this day, I recall advice given to me by Professor Denmark just as I was departing the group, which I now impart to my own students and co-workers: if you have an idea or question for a research project and subsequently see a solution appear in print, do not get disillusioned or distraught, you can be happy that you had a great idea that works! –this should provide encouragement to come up with an even better one.

There was much to be learned from young Professor Denmark, and his "Disciples" (the nom de guerre the group employed) had much to attempt to emulate: his encyclopedic knowledge, passionate dedication to science, tireless work ethic, superb communication skills (written and spoken), as well as his engaging and inspiring teaching style. Professor Denmark has always been a dedicated, caring mentor to his students and co-workers. Moreover, his involvement with various enterprises beyond teaching and research, such as *Organic Reactions* and *Organic Synthesis*, attest to his commitment to the scientific community at large and underscore the value of service. Denmark's science is characterized by the breadth of reaction space it covers and depth of mechanistic insight it proffers. He has reported innovative catalysts for a broad range of transformations including electrocyclizations, cycloadditions, C=O and C=N additions, coupling reactions, oxidations, and olefin additions involving a broad swath of elements in the periodic table. Additionally, he has discovered new mechanistic constructs and developed innovative reactivity paradigms that are crucial to the evolution of, and, in notable cases, revolution in the discipline. It is thus to be expected that the individuals that have emanated from his group have been successful in a wide range of disciplines as required in today's fast-paced world.

The selection of authors in this issue dedicated to Professor Denmark is a sampling of Denmark's Disciples that have benefitted from his training and mentorship. Also included is the larger collection of fans, friends, and colleagues who continue to benefit from his contributions to the scientific community who warmly wish him Happy Birthday.

Erick M. Carreira, ETH Zürich

June 2013