

Dr. Martin Schmeing received his B.Sc. from McGill University (1998), before obtaining his M.Sc. and Ph.D. with Dr. Thomas Steitz at Yale University (2002, 2004). He then carried out postdoctoral research with Dr. V. Ramakrishnan at the Laboratory of Molecular Biology, Cambridge, UK (2006-2010). He was appointed Assistant Professor at the Department of Biochemistry, McGill University in 2010, and was promoted to Associate Professor in 2016.

As a leader in the field of protein structure and dynamics, Dr. Schmeing was awarded a Canadian Research Chair in Macromolecular Machines and a Human Frontier Science Program Career Development Award. He also serves as the Associate Director of the Centre for Structural Biology at the University of McGill.

Since establishing his research program at McGill, his team has published seminal research on elucidating the structures and functions of nonribosomal peptide synthetases (NRPSs) in leading journals such as *Nature* and *PNAS*. NRPSs are large microbial enzymes that synthesize their products through amide bond formation between building block monomers (most commonly amino acids). The chemical and biological properties of these compounds often make them useful to society as therapeutics (antibiotics, antivirals, anti-tumours, and immunosuppressants) and as natural green chemicals (emulsifiers, siderophores, and research tools). Two aspects of particular focus in Dr. Schmeing's research are the catalytic event which links substrate building blocks, and the manner in which NRPS domains and modules work together in a complicated and productive catalytic cycle.

