

The International Carbohydrate Organization Young Researcher Award 2016

The International Carbohydrate Organization is delighted to announce that the *Young Researcher Award* for 2016 has been awarded to Dr Benjamin Swarts, Central Michigan University, USA.

The International Carbohydrate Organization established the Award in 2014 to recognize outstanding international achievements on any aspect of glycochemistry and/or glycobiology. The Award is recognized with a plaque, an invitation to present at the upcoming International Carbohydrate Symposium (ICS), and covers registration and accommodation expenses. The next ICS will be held in New Orleans, USA from July 17 to 22, 2016.



Ben Swarts (1982) studied chemistry at the College of Wooster, Ohio, and completed a PhD (2010) at Wayne State University with Professor Zhongwu Guo. He undertook postdoctoral studies (2010-13) with Prof Carolyn Bertozzi at UC Berkeley, supported by American Cancer Society and Center for Emerging and Neglected Diseases Frameworks for Global Health postdoctoral fellowships. In 2013, he joined the Department of Chemistry and Biochemistry at Central Michigan University, where he is an Assistant Professor.

Dr Swarts has made significant contributions to the development of new chemoenzymatic methods for the synthesis of complex carbohydrates and, more recently, to chemical glycobiology. In his PhD studies, he developed new methods for the chemical synthesis and enzymatic modification of protein glycolipid anchors, the glycosylphosphatidylinositols. During his postdoctoral work he established an innovative method for the study of the mycobacterial trehalome, the cohort of glycoconjugates containing trehalose, and helped to develop new super-sensitive fluorophores for the discrimination of mycobacteria through detection of sulfatase activity. His present work seeks to expand the chemical biology toolkit for studying glycolipids and other cell envelope components of the mycobacteria, which include the pathogen that causes tuberculosis. Dr Swarts' recent work in this area is highlighted by the development of a one-step chemoenzymatic synthesis of trehalose-based probes for the detection of mycobacteria, and the creation of new bioorthogonal chemical reporters that facilitate the study of glycolipids and proteins in the mycobacterial outer membrane.

Dr Swarts has published 17 papers, including 7 from his work at CMU. His research is supported by a Research Corporation Cottrell College Scholar Award, and the National Institutes of Health.

Melbourne, Australia, May, 2016

Professor Spencer Williams

Secretary of the International Carbohydrate Organization (ICO)