

The Roy L. Whistler International Award in Carbohydrate Chemistry 2016

The International Carbohydrate Organization is delighted to announce that the Roy L. Whistler International Award in Carbohydrate Chemistry for 2016 has been awarded to Professor Benjamin G. Davis, Professor of Chemistry at the University of Oxford, UK.

In 1984, the International Carbohydrate Organization established the Award in honour of Professor Roy L. Whistler, to recognize scientists '*who have made contributions of excellence in carbohydrate chemistry and biochemistry and with promise of continuing significant contributions*'. The Award is recognized with a plaque, a cheque for US \$25,000, and an invitation to present the opening lecture at the International Carbohydrate Symposium (ICS). The next ICS will be held in New Orleans, USA from July 17 to 22, 2016.



Ben Davis (1970) studied chemistry at the University of Oxford where he was awarded a B.A. (1993) and a D.Phil. (1996) with George Fleet. After a postdoctoral fellowship with Bryan Jones at the University of Toronto and a lectureship at the University of Durham, he joined the Dyson Perrins laboratory at the University of Oxford with a Fellowship at Pembroke College, and was promoted to full Professor in 2005.

Prof Davis' research defines a broad arc of applied and fundamental carbohydrate research in the areas of Synthetic and Chemical Biology and Chemical Medicine. His group has developed a toolbox of reactions and techniques for post-expression modification of proteins that extends and expands the biomolecules available through molecular biology techniques. These have been applied to synthesize a wide range of novel glycoproteins and glycoconjugates that have been used to address important questions in biology. His group has pioneered a range of synthetic carbohydrate methods including carbohydrate asymmetric catalysis, carbohydrate-inhibitor arrays, complex oligosaccharide synthesis, and has delivered new understanding into the anomeric effect, enzyme mechanism, and complex glycoconjugate biosynthesis. A crowning achievement of his research is the discovery of methods enabling C-C bond formation with proteins, most notably protein olefin cross-coupling and Pd-mediated protein cross-coupling.

In recent years Prof Davis has extended his studies to include increasing sophisticated synthetic constructs such as a synthetic glucosylated nucleosome, and complex virus- and cell-like synthetic assemblies. Outcomes of his work in molecular medicines include new methods for the diagnosis of TB and novel vaccine strategies targeting HIV and bacterial pathogens. His group has also pioneered a range of carbohydrate-based and targeted non-invasive imaging methods for disease diagnosis.

Prof Davis has published over 200 papers, a book (*Carbohydrate Chemistry*, with Antony Fairbanks), and >30 patents, and has founded two companies (*Glycoform*, *Oxford Contrast*). He is a recipient of the RSC Corday-Morgan Medal, and was elected Fellow of the Royal Society (2015).

Melbourne, Australia, October, 2015
Associate Professor Spencer Williams
Secretary of the International Carbohydrate Organization (ICO)