

Announcement

## The Roy L. Whistler International Award in Carbohydrate Chemistry 2006



The International Carbohydrate Organization is pleased to announce that the Roy L Whistler International Award in Carbohydrate Chemistry for 2006 has been won by Gideon Davies of the University of York, 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\$10 000, and an invitation to present the opening lecture at the XXIII International Carbohydrate Symposium to be held at Whistler, BC, Canada in July, 2006.

Gideon Davies received his BSc in Biochemistry in 1985 from the University of Bristol, UK. He remained in Bristol for his PhD under the joint supervision of Herman Watson and Len Hall on the molecular biology, structure and mechanism of glycolytic enzymes; in 1990 he moved to the European Molecular Biology Laboratory, initially as an EMBO fellow, to work with Keith S Wilson on the use of synchrotron radiation in X-ray crystallography. Soon after, Gideon joined Guy Dodson's group in the Chemistry Department of the University of York, to work first on DNA gyrase with Dale Wigley, and then to continue his own work on 'carbohydrate-active' enzymes. Gideon has remained in York ever since but enjoyed extended study visits to work with Alwyn Jones (Uppsala, 1994), Bernard Henrissat (then at CERMAV, Grenoble, 1995) and Steve Withers (UBC, 2000), before taking up a Royal Society University Research Fellowship at York from 1996. Gideon was made a full professor of the University of York in 2001 and received a University of York 'Anniversary Chair' in 2004.

Gideon Davies' research group focuses on the structural enzymology of enzymes, and their domains, involved in the synthesis and breakdown of carbohydrates. He couples X-ray crystallographic studies with chemical insight into enzyme function. His work spans a large area that started with extensive analysis of glycoside hydrolases, notably those involved in cellulose, hemicellulose and starch degradation, revealing many new structures and laying the foundations for the mechanistic interpretation of protein structure. Particular achievements include the seminal observations of substrate distortion along the reaction coordinate of carbohydrate-active enzymes, through the trapping of a series of enzymatic snapshots analyzed at the 3-D level, which is now informing transition-state mimicry and enzyme inhibition strategies. In 2000, as the 'Peter Wall Catalytic Visitor' of the University of British Columbia, he collaborated with Steve Withers and David Vocadlo on the reassessment of the catalytic mechanism of the classic 'text-book enzyme', hen-egg-white lysozyme, to reveal the covalent intermediate. Recently, Gideon Davies' group has pioneered the study of nature's synthetic apparatus, the glycosyl transferases, again bringing structural and mechanistic insight to bare on a very complex and challenging group of enzymes, whose action is at the core of glycobiology.

Gideon Davies has received the 1996 'Dextra' Carbohydrate Medal and the 2001 Corday Morgan Medal of the Royal Society of Chemistry. He currently sits on the Editorial Advisory Board of *Carbohydrate Research* and the *Journal of Biological Chemistry* and has authored over 140 refereed papers, the vast majority in the area of protein/carbohydrate interactions.

The International Carbohydrate Organization warmly congratulates Gideon on his winning of the Whistler Award.