

## The Roy L. Whistler International Award in Carbohydrate Chemistry 2022



It is an honor for the International Carbohydrate Organization to announce Prof. Hermen Overkleef as the winner of Roy L. Whistler International Award in Carbohydrate Chemistry for 2024. Prof Hermen Overkleef is Full Professor in Bioorganic chemistry at the Leiden Institute of Chemistry, Leiden University, and Scientific Director, Leiden Institute of Chemistry, Leiden University.

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, US\$15,000 and an invitation to present the opening lecture at the XXXI International Carbohydrate Symposium (ICS), which will be held in Shanghai, China (July 14-19th, 2024).

Hermen Overkleef (b. 1969) obtained his PhD degree in 1997 under the supervision of Professor Upendra Pandit at University of Amsterdam, working on the synthesis of iminosugars as glycosidase inhibitors. He undertook post-doctoral research with Prof. Jacques van Boom at Leiden University, the Netherlands, on ring-closing metathesis in the synthesis of polyhydroxylated oxacycles and azacycles, and with Prof. Hidde Ploegh at Harvard Medical School, Boston, USA, on inhibition of proteases involved in human adaptative immunity. He assumed his current position in 2001 as chair of Bioorganic Chemistry at Leiden University.

Prof. Overkleef's research focuses on glycobiology pathways of glycoprocessing enzymes and provides intelligent tools to investigate glycoside hydrolases, glycosynthases, as well as glycosyl transferases. His excellent contributions on the interface of carbohydrate chemistry and biochemistry can be highlighted by the studies on activity-based protein profiling of glycoprocessing enzymes, including *in situ* and *in vivo* inhibitors and probes for human lysosomal glucosylceramidase, arabinofuranosidases, cellulases, xylanases, glucuronidases and heparanase. His inhibitors and probes are used both in the arenas of biomedicine, to develop diagnostics agents and leads for drug discovery (cancer, inherited lysosomal disorders) and biotechnology (identification of biomass polysaccharide degrading enzymes).

He has published over 600 articles and book chapters, and has received many honors and recognitions since 2010. He acted as PhD supervisor of over 40 students and is member of the Editorial Board of Carbohydrate Chemistry, European Journal of Organic Chemistry, ChemBioChem and Bioorganic Medicinal Chemistry.

Prof. Ivone Carvalho  
President of the International Carbohydrate Organization (ICO)

Prof. M. Carmen Galan  
Secretary of the International Carbohydrate Organization (ICO)