

The Roy L. Whistler International Award in Carbohydrate Chemistry 2012

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The International Carbohydrate Organization is very pleased to announce that the Roy L. Whistler International Award in Carbohydrate Chemistry for 2012 has been awarded to Professor Peter H. Seeberger of the Max-Planck Institute for Colloids and Interfaces in Potsdam and the Institute for Chemistry and Biochemistry, Free University Berlin in Berlin, Germany.

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 International Carbohydrate Symposium (ICS). The next ICS will be held in Madrid, Spain from July 22 to 27, 2012.

Peter Seeberger (1966) studied chemistry at the University of Erlangen-Nürnberg (Germany), and obtained his PhD degree in Biochemistry in 1995 at the University of Colorado at Boulder (USA). After appointments as a Research Fellow at the Sloan-Kettering Institute for Cancer Research (New York, USA) and as Professor of Chemistry at the MIT (Cambridge, USA) and the ETH (Zurich, Switzerland), he returned to Germany in 2009, and took up his present positions as Director/Managing Director in Potsdam and Professor of Chemistry in Berlin. Since 2003, he is also Affiliate Professor at the Burnham Institute (La Jolla, USA).

The carbohydrate research activities of Seeberger are mainly focused on biomedical glycomics topics. To this end, he built up an integrated program bringing together chemists with biochemists and immunologists to quickly translate synthetic advances into biological insights. Realizing that rapid access to pure oligosaccharides, on a scale necessary for downstream studies, is one of the bottlenecks of glycan synthesis, he tackled head on the challenge to develop automated synthesis platforms following the example of instruments in operation for peptides and nucleotides for a long time. Prototypes of the instruments are now being evaluated in different laboratories. Using this

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approach compounds representing all classes of complex carbohydrates have been synthesized. Typical examples comprise glycosaminoglycan fragments, glycosyl phosphatidyl inositol anchors, and potential oligosaccharide-based conjugate vaccines. Several of the synthesized compounds are now in clinical trial. His laboratory was the first to print synthetic oligosaccharides onto chip surfaces using robotic array printers, of importance for the evaluation of carbohydrate-mediated interactions in health and disease. Other tools, such as carbohydrate-adorned metallo-dendrimers, polymers, and nanoparticles have found applications in carbohydrate detection and *in vivo* imaging. Seeberger has published over 250 papers, 2 edited books, and 24 book chapters, and over the years, he has received many honours, among others the Claude S. Hudson Award in Carbohydrate Chemistry, the Körber European Science Award, and the Carbohydrate Research Award for Creativity in Carbohydrate Chemistry.

Utrecht, August 1, 2011

Professor Johannes P. Kamerling

Secretary of the International Carbohydrate Organization (ICO)

