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## Foreword

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In 2006 *Carbohydrate Research* published a highly successful issue dedicated to synthetic carbohydrate chemistry, which was distributed at the XXIIIrd International Carbohydrate Symposium held in Whistler, British Columbia, Canada from July 22 to 28, 2006. Building upon the favorable response to that series of papers, we publish here another special issue on synthetic carbohydrate chemistry. As was done in 2006, this issue will be made available to attendees of the International Carbohydrate Symposium, a meeting that will take place between July 25 and August 1, 2008 in Oslo, Norway.

The present issue has a total of 36 contributions, including 20 Full Papers, 12 Notes, 3 Reviews and 1 Perspective, from scientists around the world. The research described in the papers in this issue covers the full range of modern synthetic carbohydrate chemistry. These contributions include reports of novel glycosylation methods and protecting group strategies, the synthesis of glycomimetics and oligosaccharides for use in biochemical studies, as well as the preparation of natural products from carbohydrates. Other papers describe the development of glycosylated nanoparticles and other macromolecular assemblies.

*Carbohydrate Research*, first published more than 40-years ago, is the oldest of the journals focused solely on the glycoscience field, and has a long record of publishing advances in the synthesis of carbohydrate-containing molecules. Synthetic carbohydrate chemistry is a

rapidly evolving sub-discipline of organic chemistry and has played a critical role in establishing the important roles of glycans in biology. Further interest in this field is assured given the ever more sophisticated understanding we have of the glycomes of various organisms, and from the realization that these molecules have much to offer with regard to the development of novel therapeutic approaches to treat disease. For example, small molecule inhibitors of glycan biosynthesis and carbohydrate–protein interaction have potential as drugs for the treatment of diseases ranging from bacterial and viral infections to cancer. Furthermore, vaccines based on carbohydrates are increasingly viewed as important agents for the prevention of a host of bacterial diseases, as well as cancer. It is clear that the field of synthetic carbohydrate chemistry will continue to grow, as our appreciation of the biological importance of carbohydrates expands.

We thank all of the authors whose work is reported here for their contributions and we hope that this issue, like its predecessor in 2006, will further solidify the role of *Carbohydrate Research* as a venue for publishing important advances in synthetic carbohydrate chemistry. For those of you who will first see this issue at the XXIVth International Carbohydrate Symposium in Oslo, we wish you a productive and successful conference.

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