

Foreword

The chemistry and biochemistry of proteoglycans is just one important area of carbohydrate research in which major breakthroughs have occurred in the past few years. Recent advances in the knowledge of their biosynthesis and molecular recognition have led to a new view of proteoglycans as molecules which have discrete structural motifs. Their characterisation as antiviral, anticancer, and anticoagulant substances can now be appreciated at the oligosaccharide sequence level and analogues can be designed for rational drug therapy. Synthetic techniques have kept pace in these very difficult areas of chemistry. The molecules are structurally complex, requiring state-of-the-art techniques for analysis, in particular mass spectrometry (MS), nuclear magnetic resonance (NMR) spectrometry, X-ray crystallography, and computer graphics molecular modelling. The content of this issue of *Carbohydrate Research* reflects important advances in the above areas and includes recent work on the algal fucoidans and plant galacturonans. The studies owe a large debt to researchers whose past endeavours have provided the framework for the recent leap forward. They persevered in an often unpopular area from which anionic polysaccharides have emerged at the forefront of the new realm of 'glycosciences'. For many years *Carbohydrate Research* has published the background science necessary to understand new developments from which biomedical applications have sprung. Papers like those in this issue which cross the boundaries between chemistry and biochemistry are equally welcome.

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