



## Editorial

## Nucleic acids

In the 1990s, DNA sequencing was the major focus of MS-investigators involved in nucleic acids analysis, spurred by the development of ESI and MALDI for biomolecule analysis and by the interest of the broader scientific community in obtaining the sequence of the human and other genomes. A decade later, the field has matured and expanded to include the investigation of the interactions of nucleic acids with ligands of biological and pharmacological interest, including proteins, metals, and xenobiotics. This issue has thus brought together a diverse collection of articles which are representative of mass spectrometry-based characterization of nucleosides, nucleotides and nucleic acids. The 17 articles in this special issue span a variety of research areas and demonstrate the breadth as well as the depth of current research in the field of nucleic acids. Articles from **Beck, Bohme, Brodbelt, McLuckey, O'Hair** and **Salpin** describe various aspects of the use of mass spectrometry for fundamental investigations of (oligo)nucleotide and nucleic acid gas-phase structure and/or reactivity. **Glick, Lemièrè, Rozinski** and **Wesdemiotis** have contributed articles that examine new and improved instrumental methods for nucleoside and oligonucleotide analysis, including the characterization of nucleic acid-based polyplexes. Mass spectrometry-based sequencing, analytical characterization, and quantitative determination of oligonucleotides, including oligonucleotides containing modified nucleosides, are reported in articles

from **Banoub, Breuker, Chao, Dudley, Limbach, Oberacher** and **Urlaub**. We would like to thank all the authors for their efforts and the quality of the work contained herein. The diverse nature of the work presented provides a survey of the different types of research that is current in this field. We also thank Ms. Phyllis Claudio for all her assistance with managing manuscript submission, review and editing. We hope the readership enjoys reading these articles as much as we have enjoyed editing this issue.

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