

## Guest Editorial

### *“Biomolecular Mass Spectrometry”*

Rapid progress has been made in the field of mass spectrometry (MS) and related techniques. The modern MS instruments allow for both qualitative and quantitative analyses of highly complex samples from biomaterials. One of the breakthroughs of MS in life science is the development of ionization techniques for biological macromolecules, such as DNA, proteins and carbohydrates, which were recognized by the Nobel Prize in Chemistry 2002, given to a Japanese researcher, Koichi Tanaka. As described in information on the Nobel Prize, the 21st century is the “post-genomic era”, in which a variety of comprehensive analyses of different types of biomolecules have been widely explored using MS-based analytical techniques. In addition, clinical requirements, such as therapeutic drug monitoring and pathogenic bacteria profiling, facilitate the development of MS-based qualitative and quantitative technologies for the clinical analysis of patient samples. Despite the increasing contribution of MS to analytical sciences, surprisingly, there has been no special issue concerning the title of “mass spectrometry” in this journal since 1991.

In this special issue, we have fortunately collected many exciting papers not only from Japan, but also other countries. It covers a wide range of biomolecules, such as endogenous metabolites, steroids, drugs, vitamins, fatty acid, chiral drugs, hormones, phosphopeptides and glycan, and a variety of mass spectrometric approaches, such as imaging MS, LC/ESI/MS/MS and MALDI/TOF.

As Guest Editors, we would like to express our sincere and deepest appreciation to all authors dedicated to this special issue, and also to the referees and office staff members of JSAC for their kind cooperation in preparing this special issue.

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