Preface

MMS Special Issue “Laboratory Medicine”

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Mass spectrometry (MS) has been increasingly utilized across various fields in laboratory medicine. Among these, the most significant advancement has been the rapid identification of microorganisms using MALDI-TOF MS, which has led to a revolutionary shift in clinical diagnostic microbiology over the past decade. Additionally, LC-MS/MS is a promising technology in clinical chemistry, offering several advantages over traditional immunoassays. These advantages include higher specificity and the ability to perform multiplexing. However, despite these benefits, several challenges remain for the widespread adoption of LC-MS/MS in routine clinical use. LC-MS/MS is also a powerful tool for the discovery of novel diagnostic biomarker candidates.

In this special issue of Medical Mass Spectrometry (MMS), entitled “Laboratory Medicine,” a total of seven papers are included. These consist of one on bacterial identification, three focused on the discovery of novel biomarkers and their application to laboratory tests, two articles on the use of LC-MS/MS in routine clinical chemistry, and one paper on deep learning applied to LC-MS/MS-based metabolomics.

I believe that the articles in this issue will provide MMS readers with new and valuable insights, contributing to the advancement of laboratory medicine.

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