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# New Frontier in Mass Spectrometry Imaging for Metabolomics and Lipidomics

Guest Editor:

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## Message from the Guest Editor

Dear Colleagues,

Since the first report in 1997, mass spectrometry imaging (MSI) has been applied in various fields, including medicine and basic biology, due to the development of techniques for sample preparation, analysis, and informatics for data processing; it is no exaggeration to say that it has become one of the main fields of molecular imaging. This Special Issue provides an overview of current MSI, including basic and applied research on sample preparation methods for MSI in metabolomics and lipidomics and new measurement methods using state-of-the-art instruments. Therefore, it will cover applied studies conducting MSI on various samples such as human, animal, and cultured cells, as well as bacteria; this can be in the context of. but is not limited to, the application of metabolomics and lipidomics methods in medicine or biotechnology, data mining methods based on nontargeted analytical data, and high-sensitivity quantitative methods in MSI. Manuscripts addressing other relevant and challenging problems are also strongly encouraged.

Prof. Dr. Shuichi Shimma Guest Editor





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## **Editor-in-Chief**

#### Prof. Dr. Peter Meikle

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## Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies shown utility for elucidating have mechanisms which underlie fundamental biological processes including disease pathology. Metabolites is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

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