

Mass Spectrometry-Based Metabolomics in Health and Disease: Targeted Analysis

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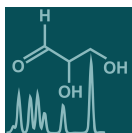
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Message from the Guest Editor

Metabolomics is a fascinating and growing field that aims to identify and quantify small molecules derived from cell and body metabolism. The nature of the metabolites, particularly their complexity and heterogeneity, the dynamic range of the measurement technique, the extraction protocols, and the myriad of variables related to the variation in these metabolites, remains as the main challenge. Chromatography coupled with mass spectrometry (MS)-based metabolomics is the gold standard due to its beneficial bioanalytic performance characteristics such as high selectivity and high sensitivity, providing innovative tools for novel diagnostic and prognostic approaches. In this context, targeted analysis is key to analyse measurable metabolites in biological samples or a set of preselected metabolites. However, many challenges need to be overcome, including the proper validation of methods, sample selection and quality control, and complex statistical data analysis. Therefore, new mass spectrometry-based metabolomics methods and the discovery of interesting biomarkers are the main targets of this Special Issue.





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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 have shown utility for elucidating 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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