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## **Trends in Metabolomics – Introduction-**

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### Abstract

The science in terms of ‘Metabonomics’ and ‘Metabolomics’ have been progressively developed in toxicology and other disciplines in recent several years. There is some disagreement over the exact differences between the both terms. Metabonomics is more associated with NMR spectroscopy and metabolomics with mass spectrometry(MS)- based techniques. There is a growing consensus that metabolomics places a greater emphasis on comprehensive metabolic profiling, while metabonomics is used to describe multiple metabolic changes caused by a biological perturbation. In practice, they are often in effect synonymous. The preclinical applications of metabonomics include (A) toxicity assessment, (B) environmental applications, (C) clinical applications, and (D) biomedical applications. The application of the technology is covered in some detail with emphasis on recent work in the field.

**Key words:** metabolomics, metabonomics, metabolomes, NMR spectroscopy, mass spectrometry