DESCRIPTION

This timely reference discusses mass spectrometry in drug metabolism and pharmacokinetic studies. With contributions by professionals from the pharmaceutical industry, this book begins with a review of current mass spectrometry techniques and applications, followed by discussions of various methods for using MS in drug metabolism studies and pharmacokinetics. Highlighting the critical importance of ADME studies for understanding how a drug is absorbed, distributed, metabolized, and excreted by the body, the book's focus is on the use of LC/MS and MALDI-MS. This is a valuable reference for scientists in the pharmaceutical industry, medicine, academia, and even those working in homeland defense.

ABOUT THE AUTHOR

Ragu Ramanathan received a B.Sc. in Chemistry from the University of Southern Mississippi and a Ph.D. in Physical Chemistry/Mass Spectrometry from the University of Florida. His graduate research focused on coupling of electrospray ionization (ESI) to Fourier transform ion cyclotron resonance (FTICR) mass spectrometer. After spending three years as a postdoctoral research fellow with Professor Michael L. Gross at the Washington University, St. Louis, Missouri, Dr. Ramanathan managed the Center for Advanced Mass Spectrometry at the Analytical Bio-Chemistry Laboratories, Columbia, Missouri. In 1998, Dr. Ramanathan joined Schering-Plough Research Institute’s (SPRI) Drug Metabolism and Pharmacokinetics (DMPK) Department and completed his tenure as a senior principal scientist in 2008. While at SPRI, Dr. Ramanathan was involved in the application of LC–MS for profiling and characterization of metabolites of drug candidates in the preclinical development and clinical stages. Dr. Ramanathan was with
Pfizer Global Research and Development from 1999 to 2002 as a group leader of the Ann Arbor site biotransformation group. Dr. Ramanathan is currently an associate director at the Bristol-Myers Squibb, Co. and is responsible for elucidating biotransformation pathways of development drug candidates. Dr. Ramanathan’s accomplishments include 35 peer-reviewed papers, 10 book chapters, and over 60 oral/poster presentations. He also served as a chairperson for the North Jersey ACS Mass Spectrometry Discussion Group and as a chairman for DMPK sessions of the American Society for Mass Spectrometry and Eastern Analytical Symposium meetings.

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