

CURRENT TRENDS IN MASS SPECTROMETRY AND CHROMATOGRAPHY

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Studies to control quality of medicinal plants/parts and their products using HRMS and LC-MS/MS instruments

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Herbal medicines or phytomedicines refer to the medicinal products of plant roots, leaves, barks, seeds, berries or flowers that can be used to promote health and treat diseases. Today, a vast range of drugs are either natural products or have been derived from them. *Rauvolfia* or *Rauvolfia* species (Apocynaceae) are widely distributed in Asia, Africa and America. Apart from the common *Rauvolfia serpentina* (commonly known as Sarpagandha and Snakeroot), other species found in India are *R. hookeri*, *R. micrantha*, *R. verticillata*, *R. tetraphylla* and *R. vomitoria*. Traditionally, *Rauvolfia* species have been used for the treatment of high blood pressure, snake bites and insanity from ancient time in Indian System of Medicine (ISM), Traditional Chinese Medicine (TCM) and Western System of Medicine (WSM). The *Rauvolfia* species are a rich source of bioactive monoterpene indole alkaloids (MIAs) such as Reserpine, Ajmaline, Ajmalicine, Deserpidine, Rescinnamine and Yohimbine. Identification, characterization and quantification of these compounds are necessary for quality control and authentication of herbal plants/products for efficacy. Identification of markers for discrimination among these species will help to identify right plant parts according to need. MS and LC-MS/MS methods will be discussed during this seminar to describe all the above results of *Rauvolfia* spp. plants/parts and products.

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