Roles of chromatography in developing traditional herbal/ayurvedic medicine (phytomedicines)

Phytomedicines, also known as herbal products are playing a major role in the treatment of diseases, for which there have been no medicines in the western world. This could be credited to the synergistic effect(s) of the bioactive components in their preparations. Advances in new bioassay methods and analytical technologies, such as High Performance Liquid Chromatography (HPLC), and Liquid Chromatography-Mass Spectrometry (LC-MS) are important in the identification of various components in extracts to prepare a standardized product. Traditional herbs/ayurvedic and Chinese medicines have been used for centuries in the treatment of various ailments. Studies in our laboratories using modern state-of-the-art technologies on folklore herbs from India, China, and African Countries have led the products to control cholesterol, diabetes, HIV/AIDS, and Sickle Cell Disease (SCD). Analysis of the extracts by LC-MS helped in identification of the contents involved. For this reason, baby boomers and the western world have started looking into herbal and Traditional Medicines (TMs). There are no strict regulatory requirements for TMs by the regulatory agencies like the US-Food and Drug Administration or European Union Countries. For this reason, a number of fake products have appeared in the market, which hurt the credibility of these drugs. In this presentation, we have taken two examples of our group's work: First “a case study of Commiphora mukul” and the second “a case study for prophylactic management of SCD through ayurvedic or TMs - Nigerian and USA experience.” These case studies clearly show the importance of modern science approach of QC/QA, all through HPLC, LC-MS.

Biography

Ramesh C Pandey is the Chairman and President of GDP Ayurvedic University. He has served numerous universities, government agencies and pharmaceutical companies worldwide and involved in research, development and production of drugs from natural sources, including Traditional Chinese Medicines, Ayurvedic Indian Medicinal Plants and Nigerian Herbs. He has presented 100 presentations at national and international conferences and authored 95 scientific papers.

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