

Current advancement in the standardization of herbal drugs: A review

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Recently population is getting attracted towards herbal drugs due to several benefits. Over 80% of the world population depends on herbal medicine and product healthy living. Herbal formulations have extensive acceptability as therapeutic agents for several diseases. The development of authentic analytical methods which can be used for quantitative analysis of bioactive compounds and other major constituents. Standardization is an important step for the establishment of consistent biological activity, a consistent chemical profile, or simply a quality assurance program for production and manufacturing of herbal drugs. WHO specifies guidelines for the assessment of the safety, efficacy and quality of herbal medicines for global harmonization. An overview covering various techniques employed in extraction and characterization of herbal medicines as well as herbal nanomedicines standardization is reported. In addition phytosomes increased bioavailability, DNA based molecular markers to distinguish adulterants and SCAR markers for discrimination of herbs from their adulterants are reported. The extraction of high-valued herbal compounds using microwave-assisted extraction and supercritical phase extraction technology followed by the standardization utilizing various spectroscopic, chromatographic methods individually or in combination for herbal drugs. Contribution of Capillary electrophoresis and polarographic techniques towards standardization of herbal drugs is also reported. A complete overview of current advancement will be presented for better understanding and future explorations in scientific discovery and development process.

Biography

Bhuwan Chandra Joshi has completed his D. Pharm from Uttarakhand Board of Technical Education at (Govt. Polytechnic College, Dwarahat). He has completed his B. Pharm at the age of 21 from Uttarakhand Technical University (Shri Guru Ram Rai Institute of Technology, Dehradun). He is pursuing M. Pharm from Punjab Technical University (ISF College of Pharmacy, Moga). He has published 3 review articles in reputed journal. He has presented two posters at international conferences. He has an industrial training experience at pharmacy sector from BAL Pharma Pvt. Ltd. and at Meek Pharma. Pvt. Ltd. (Uttarakhand).

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