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Importance of bioprospecting and new approaches to drug development

Historically, medicinal plants and botanicals have remained important resource for new drugs. Concept to product journey of such drugs is very challenging and involves various issues starting from bioprospecting to quality, safety, validation and clinical studies. Scientifically validated and technologically standardized botanical products may be derived using traditional medicine-inspired reverse pharmacology approach. Appropriate models and protocols are needed to evaluate quality, safety, efficacy and clinical advantages of traditional medicine. Most of these medicines are poly herbal, multi targeted, slow acting and may have disease modulating activities rather than direct agonist or antagonist activities. Ayurveda has provided important leads to facilitate natural product drug discovery. While taking leads, it is important to respect, protect and promote from traditional knowledge. In addition to medicines, ayurveda offers better understanding of cause effect relationship and the individual constitution or prakriti relevance in therapeutics indicate personalized approach. Pragmatic clinical trials with systems approach may be better suited for creating evidence base to traditional medicine. Better understanding of epistemology of ayurveda may give many new ideas and innovative solutions in the process of progression of biomedicine. This Seminar will give an overview of important strategies and research outcomes in pharmacognosy, drug development and botanical medicinal products.

Biography

Bhushan Patwardhan with over 25 years experience in research and education brings a unique blend of industry-academia executive culture. He has been on Boards of several Universities and member of important national committees of the UGC, CSIR, DST, DBT, ICMR, NIPER and also on Taskforces of National Knowledge Commission, Karnataka Knowledge Commission, 11th and 12th Plan of the Planning Commission and consultant to CIPIH, SEARO, WHO Geneva. He has worked as academic head of Manipal Education Group, Director, Institute of Ayurveda and Integrative Medicine, Bengaluru and was Vice Chancellor of a deemed University. As Convener of Vision Group of EDGE Forum he is providing remarkable leadership for innovations in higher education sector. He is on the research advisory committees of national institutions including ICMR - RMRC Belgaum, CSIR-NBRI Lucknow and TIFAC He is Editor-in-Chief of Journal of Ayurveda and Integrative Medicine and is on Editorial Boards of reputed Journals. He is recipient of many awards and orations including Parkhe Award for industrial excellence, Dewang Mehta Award for education excellence, Dr C. Dwarkanath Oration, Dr P.K. Devi Oration and KLEU Oration. He has delivered invited lectures at many national and international bodies including Indian National Science Academy, Indian Pharmacological Society, Indian Pharmaceutical Congress, American Chemical Society, American College of Rheumatology and reputed Universities including UCLA, Johns Hopkins, George Washington among many others. He has attracted substantial research funding and has guided 18 Ph.D. students, published over 200 popular articles, 8 Patents, over 120 research publications with Scopus h index 25, Google Citations h-Index 27, i10-index 49 with over 2833 citations.