Herbals contribution to modern therapeutics and the path forward for its growth

Based on a WHO Fact-sheet, 25% of modern medicines are made from plants first used traditionally. Vivid examples are aspirin from willow bark, opiates from poppy, digitalis from foxglove, scopolamine from angels’ trumpets, belladonna from deadly nightshade, and steroids from Mexican yam. Yet new and impressive additions are taking place, such as Paclitaxel for the treatment of breast and ovarian cancers and the Artimisinin-based new antimalarial drugs for the treatment of resistant malaria. To get an idea of the extent of herbal contribution to modern medicine, based on the IMS top 20 therapeutic classes of dispensed prescriptions 2012 data for US alone covering pain management, systemic hormonal contraception, corticosteroids plain, corticosteroids plain and combinations, and sex hormones (androgens, estrogens and progestogens), totally accounted for USD 703 Million. Other than the pain management products which may be shared by opiate and non-opiate formulations, active raw material for all other cited therapeutic classes which are based on steroids, is totally derived from the Mexican yam!

A 2002 issue of the Journal of Scientific and Industrial Research cited that a review on national pharmacopoeias from several countries revealed at least 120 distinct chemical substances from different plants that have utility as lifesaving drugs. However, this is the result of chemical and pharmacological screening of a mere 6% of the total plant species and a lot remains to be done.

Biography
Mohammed Khan is a Quality Management Consultant and Principal Synergex Consulting, Canada. He has earlier served as Director QA, QC & Regulatory Compliance with DuPont Pharmaceuticals, Canada and on the Board of the Pharmaceutical Manufacturers Association of Canada, Plant Operations Section. As an active member of the DIA, he has served on the DIA’s Advisory Council of North America and concurrently chaired the DIA’s Canadian Programming Steering Committee from 2003 through 2007. He was also responsible for initiating and establishing the DIA’s Annual Canadian Meeting in 2003, thus adding a new dimension to the DIA Annual Meetings. He is a recipient of the DIA Outstanding Service Award. He has also served as Program Coordinator, Program Committee Member, Session Chair and Speaker at numerous national and international DIA events, as well as Presenter for the PDA, OMICS Group, IQPC, PSG Canada, UK based International society for Ethno pharmacology, Annual Conferences of the Ethnopharmacology Society of India, and the Annual Indian Pharmaceutical Congresses.

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