

African Traditional Medicine: A goldmine for drug discovery and development

Ameenah Gurib-Fakim*

Central Administration, University of Mauritius, Reduit, Mauritius

*Author for correspondence e-mail: fakima@uom.ac.mu

Plant products have formed the basis of sophisticated traditional medicine systems that have existed for thousands of years and continue to provide mankind with new remedies. They have also played a vital role in the discovery of new chemical entities in drug discovery. They served not only as new drugs but also as drug leads. Since 1981, 48% of the new chemical entities have been natural products or analogues and many of them have been approved for marketing worldwide with many more reaching the market place soon.

While the focus of the Pharmaceutical Industries has been on the single 'magic bullet', traditional medicine has been marginalized, as the extracts were found to be incompatible with the available existing methodologies. However, with the increasing demand from the consumers for 'green' remedies, the Pharmaceutical industries are now taking a fresh look at their strategies with a new focus on traditional knowledge in the context of 'medical pluralism' so as to fulfill the health needs of the society. In view of the added clinical benefits being offered by standardized extracts, attention of big companies is being drawn to try and assess objectively the therapeutic quality of herbal medicines. 'Triphala', an Ayurvedic detox drug is increasingly being used as model as it showing promising anticancer properties.

It is being recognized that natural product templates alone will not solve the health challenges facing Mankind. Hence, an integrated approach is being sought whereby isolated natural product and traditional medicine, along with the various new discovery tools, new discipline of integrative biology will provide the key for success in natural product drug discovery and development. With the combined efforts of natural product research and traditional medicine, the potential of bringing out new, safe and economical medications is phenomenal.

Whilst the Indian and Chinese pharmacopeias have received attention over the years, the African Pharmacopeia has remained largely unexplored. Yet some 5,000 plants are used medicinally on the African continent and there are over 16,300 medicinal uses. It is accepted that natural resources will play a major role in the socio-economic development of the African continent. Therefore, drug discovery and development from African biodiversity should remain high on the agenda of the pharmaceutical industry. This urgency is further accentuated when one considers the state of the floral biodiversity of the African continent. This biodiversity is one of the most threatened in the world. Loss of biodiversity also implies accompanying loss of vital traditional information.