



## Development of Ayurveda – Tradition to trend



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### ABSTRACT

**Ethnopharmacological relevance:** Ayurveda entails a scientific tradition of harmonious living and its origin can be traced from ancient knowledge in *Rigveda* and *Atharvaveda*. Ayurveda is a traditional healthcare system of Indian medicine since ancient times. Several Ayurvedic medicines have been exploiting for treatment and management of various diseases in human beings. The several drugs have been developed and practiced from Ayurveda since ancient time to modern practice as 'tradition to trend'. The potential of Ayurvedic medicine needs to be explored further with modern scientific validation approaches for better therapeutic leads.

**Aim of the study:** The present study was aimed to explore the various aspects of Ayurveda and inspired drug discovery approaches for its promotion and development.

**Materials and methods:** We have reviewed all the literature related to the history and application of Ayurvedic herbs. Various aspects for the quality control, standardization, chemo-profiling, and metabolite fingerprinting for quality evaluation of Ayurvedic drugs. The development of Ayurvedic drugs is gaining momentum with the perspectives of safety, efficacy and quality for promotion and management of human health. Scientific documentation, process validation and several others significant parameters are key points, which can ensure the quality, safety and effectiveness of Ayurvedic drugs.

**Results:** The present review highlights on the major goal of Ayurveda and their significant role in healthcare system. Ayurveda deals with several classical formulations including arka, asavas, aristas, churna, taila, vati, gutika, bhasma etc. There are several lead molecules that have been developed from the Ayurvedic herbs, which have various significant therapeutic activities. Chemo-profiling of Ayurvedic drug is essential in order to assess the quality of products. It deals with bioactive compound quantification, spurious and allied drug determination, chromatographic fingerprinting, standardization, stability and quality consistency of Ayurvedic products.

**Conclusions:** Scientific validation and the documentation of Ayurvedic drugs are very essential for its quality evaluation and global acceptance. Therapeutic efficacy of Ayurvedic herbs may be enhanced with high quality, which can be achieved by identity, purity, safety, drug content, physical and biological properties. Ayurvedic medicines need be explored with the modern scientific approaches for its validation. Therefore, an attempt has been made in the present review to highlight the crucial aspects that need to be considered for the promotion and development of Ayurvedic medicine.

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### 1. Ayurvedic system of medicine and its role in healthcare

India has a rich heritage of traditional system of medicine. Ayurveda is the traditional Indian system of medicine which is meant not only for curing the diseases but also for prevention of the occurrence of illnesses. Ayurveda provides a plethora of information on ethnic folklore practices and traditional aspects of therapeutically important medicines. Ayurveda is getting global

acceptance primarily due to its holistic therapeutic practice, extensive profound conceptual basis and survival of its medicines since prehistoric times. This concept of drugs and formulations developed in ancient times still finds its relevance in spite of changes in the environment, lifestyle, culture and disease patterns (Mukherjee and Wahile, 2006; Mukherjee et al., 2016). The basic principle of Ayurvedic treatment comprises of two essential parts. These are to prevent the cause of disease and to make the patient more aware about the cause of the disease. The main objective of Ayurveda has been explained in Fig. 1.

Ayurveda treats a patient as a whole and not the disease alone. This system of medicine emphasizes the uniqueness of each

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# आयुर्वेदस्य लक्षणम्



हिताहितं सुखं दुःखमायुस्तस्य हिताहितम्।  
मानं च तच्च यत्रोक्तमायुर्वेदः स उच्यते॥

(च. सू. १/४१)

[Devanagari Script]

Hitahitam sukham dukham-ayustsya hitahitam I  
Maanam cha tachcha yatroktam-ayurvedah sa uchchayte II  
(Charka Samhita, SU.1/41)  
[Diacritical Script]

## The main objective of Ayurveda:

“Ayurveda deals with happy and unhappy life. It explains what is appropriate (the promoters of the health) and what is inappropriate (the non promoters of the health) in relation to the life, as well as it measures the life expectancy and the nature (quality) of the life”

Fig. 1. Main goal of Ayurveda.

person with regard to bio-identity, socio-economical status, biochemical and physiological conditions, which may lead to a particular type of illness. Ayurveda needs further exploration with modern scientific approaches for addressing various healthcare issues. Ayurvedic system adopts a holistic approach towards healthcare by balancing the physical, mental and spiritual functions of the human body. Science of Ayurveda is unique as it provides opportunity to make a healthy, harmonious and long life (Krishnamachary et al., 2012). Over the past few decades, research on Ayurveda through various endeavours has given rise to interdisciplinary research programmes employing several disciplines in this field. Several lead molecules, ready-to-use products and processes are emerging. It is quite popular among people due to their practical benefits, traditional beliefs, economical advantage and easy access (Mukherjee and Houghton, 2009).

The development of Ayurvedic medicine (AM) is gaining momentum in keeping with the perspectives of safety, stability, efficacy and quality for betterment of human health. Medicinal plants serve as most valuable source for remedy of many diseases. The increasing search for therapeutic agents derived from plant species is justified by the emergence of new diseases. Bioactive compounds from different medicinal plants have a major role in the management and improvement of human health (Mukherjee et al., 2012).

Ayurvedic medicines are used as raw, crude materials, extracts and preparations for therapeutic purposes. Authentication, quality control, standardization, chemo-profiling, process validation, regulatory aspects, clinical risk assessment, consumer awareness and

post marketing surveillance are the key points which could ensure the quality, safety and effectiveness of Ayurvedic medicines (Mukherjee et al., 2014, 2015). Therefore, the present article highlights on the several aspects of validation and quality evaluation of Ayurvedic medicine for its worldwide acceptance.

## 1.1. Objectives of Ayurveda

प्रयोजनं च स्वस्थस्य स्वास्थ्यं रक्षणमातुरस्य विकारप्रशमनं च॥२६॥

Ch. Su. – 30/26.

[The object (of Ayurveda) is to protect health of the healthy.  
and to alleviate disorders in the diseased].

The basic objective of Ayurveda as mentioned by Charaka is dual in nature. In the ancient script Charaka Samhita (Sutra Sthana 30/26) (as described in above shloka) it is enumerated that the principle objective of Ayurveda is to protect the health of the healthy and to alleviate the disorders in the diseased condition (Sharma, 1992).

## 1.2. Definition of health according to Ayurveda

शरीरेन्द्रियसत्त्वात्मसंयोगो धारजीवितिम्।

नतियगश्चानुबन्धश्च पर्यायैरायुर्मुच्यते॥

Ch. Su. – 1/42.

['Ayus' means the conjunction of body, sense organs, mind and

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