

ARYA VAIDYA SALA, KERALA

At a time when ayurvedic formulations have become a fad in the over-the counter, cosmetic and health products industry, Arya Vaidya Sala persists in its efforts at preserving ayurveda in its purest form while simultaneously catering to the needs of the modern consumer. What sets apart Arya Vaidya Sala, Kottakkal is its earnest and unflinching dedication to the holistic promotion and preservation of every aspect of ayurveda including, treatment, research, manufacturing and training. The institution has innovated in keeping with the times. It has attempted to carve a niche for the discipline in the mainstream with the help of numerous scientific methods.

'Vaidyaratnam' PS Varier, an outstanding physician, founded Arya Vaidya Sala in 1902. He began with a small dispensary at Kottakkal in the Malappuram district of Kerala, dedicated to providing accurate ayurvedic formulations as prescribed in ancient texts. According to the prescription in PS Varier's will, Arya Vaidya Sala became a public charitable trust after his death in 1944. Today, it is a multi-activity centre providing health care products and services as well as conducting allied research and education activities.

Arya Vaidya Sala has four major hospital facilities in the country, including a 160-bed charitable hospital with ayurvedic and allopathic

services in Kottakkal. Over nine million patients have benefited from the treatment at the hospitals in Kottakkal, New Delhi and Cochin. Apart from this, 20 branches in the country provide free outpatient consultation, numbering over eight hundred thousand in a year.

Arya Vaidya Sala has two state-of-the-art medicine-manufacturing units where close to 500 classical formulations are produced. Aided by a research and development wing, the objective is to innovate and create user-compliant formulations. In keeping with the modern way of life, oils have been converted into gels and powders into blister-packed tablets, all adhering to the original and authentic ayurvedic prescriptions. Some processes of manufacturing continue to be ancient ones, in order to maintain the accuracy of the formulations.

Close to 600 different raw materials are used in the preparation of ayurvedic medicines in Arya Vaidya Sala. Most of them are sourced from outside suppliers and are passed through rigorous quality checks. A small proportion of the raw materials is sourced from the institution's own plantations. Conservatories and herb gardens have been established for academic and research purposes. Over the years, Arya Vaidya Sala's research activities have evolved to



The Centre for Medicinal Plants Research



Rauwolfia serpentina flower used as a medicinal plant



Ficus benghalensis or fruiting twig plant



Raw drugs museum

a high level of sophistication. Clinical-related research is aimed at evolving new methods and procedures for dealing with difficult ailments such as cancer and rheumatoid arthritis. Process-related research activities are geared towards bioactive search, standardization, new product development, process improvement, etc.

Its major studies include: bioactive molecule study of classical formulations with a view to develop new medicaments for universal application in crucial ailments; efforts to develop new medicaments based on classical knowledge, but geared to treat new ailments; studies on product stability and product standards.

In September 2003, the Medicinal Plant Research Centre was inaugurated at Kottakkal for research, education, conservation and popularization of medicinal plants used in ayurveda and other traditional systems of medicine. This centre was set up with a support of Rs 60 million from Sir Dorabji Tata Trust of which Rs 23 million was spent on infrastructure development and Rs 37 million has been preserved as a corpus grant. The Centre's greatest challenge is to address the depletion of forests and natural habitats, and the unscientific harvesting of medicinal plants. Consequently, there has been a compromise on the quality of plants supplied for medicinal formulations.

In keeping with its commitment to promote ayurveda using other scientific methods, the

Centre uses different methods in serving as a reference and accreditation base for medicinal plants. Botanical surveys by scientists of the Centre have resulted in the collection of 148 rare, endangered and threatened species, including two new ones. The voucher specimens of 617 species are maintained in the Centre's herbarium and 425 authenticated sample specimens are preserved in the raw drugs museum. A database and image library of the samples is being developed for easy access. About 150 rare, ayurvedic, medicinal plants are maintained at the field gene bank at Kottakkal.

Phytochemical, pharmacological and molecular profiling of medicinal plants is carried out in the laboratories of the Centre. The comparative analytical study of raw drugs, their substitutes and adulterants is carried out for developing identification keys and for evolving standards. This facility is visualized to be extended as a central facility for students, researchers and other users. A computer controlled microscopic herb authentication system, the first of its kind in the country, is being used to study the internal structure of plant parts and to capture their anatomical images. For further retrieval and comparison with subsequent samples, chemical fingerprint profiles of authentic medicinal plants are created and stored.

The tissue culture facility of the Centre is engaged in the bulk production of good quality

planting material of selected medicinal species through micro-propagation. This forms a part of the overall effort at conserving rare, endangered and threatened plants as well as species that are in high demand. So far, 26 species have been taken up for micro-propagation. The planting material produced is distributed free among rural farmers and women's groups, thus completing the land-lab-land cycle. Along with propagation of pure plant species, this is a means of income generation and empowerment.

Despite the efforts of Arya Vaidya Sala to provide scientific methods of authentication of ayurvedic raw materials and processes, there continues to be some resistance from the scientific community to accept its diversity and non-standardized treatment. Ayurveda treats the person and not the disease. Prescriptions to treat the same symptoms, therefore, vary from person to person. The discipline also suffers from the

lack of documentation. The proof of its survival lies in its ability to withstand social forces and demands while holding on to the elements of traditional practice.

Note: In the financial year 2005-2006, no installments were released to Arya Vaidya Sala, though a detailed review of the organization and grant was made in January 2006.



Celastrus paniculatus seeds used in ayurvedic medicine



Cultivation of plants such as Trichosanthes cucumerina