



INSTITUT DE FRANCE
Académie des sciences

Séance publique du 18 juin 2013
de 14h30 à 15h30

AYURVEDA AND MODERN SCIENCE

Etienne Wolff-Ramanujan Lecture

M S VALIATHAN

National Research Professor, Manipal University, Manipal - 576 104, India

Ayurveda is the traditional medicine of India, which has been practised uninterruptedly since the period of the Buddha. It continues to serve millions of people – 70% of rural Indians –, trains over 25000 Ayurvedic physicians a year, accounts for a flourishing herbal drug industry and enjoys the recognition of WHO as contemporary and alternative medicine (CAM).

The initial encounter between Ayurveda and modern science took place in the 16th century in Goa where a Portuguese physician – Garcia da Orta – practised medicine for over thirty years and published his “Colloquies on the Simples and Drugs of India” in Portuguese. It was translated into European languages and made Europeans aware of India's traditional medicine. This was followed by the 30 year mission of the Dutch Governor of Cochin – Van Rheede – who organised a large team of herbalists, Ayurvedic physicians, artists and others to study the medicinal flora of the Malabar Coast and published “Hortus Malabaricus” in Latin from Amsterdam in twelve volumes in the 17th Century. Exquisitely illustrated, it became a classic and won the admiration of Linneus. The approach to Ayurveda through plant science was followed by the study of Ayurveda through the newly emerging window of pharmacology by Sir RN Chopra in the twentieth century, whose studies on the isolation of compounds from plants, their action *in vitro* and *in vivo*, and toxicology opened a phase of intense activity in natural products chemistry led by Asima Chatterji and many others.

In the present century, a science initiative in Ayurveda was launched in 2007, which moved away from herbal drugs and harnessed modern biology to study the basic concepts, procedures and mechanism of actions of chosen products in Ayurveda. This initiative consists of collaborative projects between scientists and Ayurvedic groups of major institutions in India, which address questions such as: do the ancient formulations of rasayana (rejuvenant therapy) influence the onset and progress of DNA chain breaks in the neurons and astroglia of ageing rat-brain? Do they influence the biological parameters in drosophila for lifespan, thermal tolerance, fecundity etc.? Does the processing to make mercury-based “Rasasindur” alter its microstructure? What happens to the raised levels of inflammatory cytokines in the treatment of obesity by the traditional procedure of “Basti”? These and similar studies represent a novel path in biological research based on cues from Ayurveda. They will be highlighted as a possible forerunner of Ayurvedic biology.

Grande salle des séances de l'Institut de France
23, Quai de Conti – 75006 Paris

Entrée libre dans la limite des places disponibles