

# Dr. Ashok D B Vaidya

— Father of Reverse Pharmacology and Votary of Integrative Medicine



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**D**r. Ashok D B Vaidya, MD in Internal Medicine and PhD in Clinical Pharmacology is an outstanding clinical scientist who pioneered the pathbreaking field of reverse pharmacology for new drug development from traditional medicines and can justifiably be called the Father of Reverse Pharmacology. This involves validating the efficacy of ayurvedic medicines, deploying all the tools of modern clinical trials. He is a strong votary of integrative medicine, utilising the strengths of both modern medicine, as well as traditional medicine, for the benefit of healthcare for the masses and believes that this is the new healthcare model for the 21<sup>st</sup> century.

## Out of the Box Thinker

He is a multidimensional personality whose life and times have been devoted to new drug development and scientific research in tropical diseases and Ayurveda, for close to four decades. Iconoclastic in his outlook, he is an independent and original thinker – an attribute that grew in him from his very formative years as a child. He is not only a scientist but a philosopher and an ardent fighter for ethical values. He is scrupulous in his adherence to evidence, whether in modern medicine or Ayurveda. At the same time he abhors ancestral vainglory, as well as blind awe for modern technology. His philosophy is that only if you are willing to walk outside your comfort zone then only quantum leaps in discovery are possible.

## Pedigree

Hailing from the Vaidya family in Saurashtra, he was greatly influenced by his parents who gave great value to modern education, ethical values and independence of thoughts and action, as well as by many of his relatives who included educationists, poets, writers and scientists. His ancestral home had the rich ambience of literature and medicine. Vaidya in Sanskrit means doctor, a person who practices Ayurveda. His great grandfather, Aryavaidya Mayaram Sundarji, was a renowned Ayurvedic scholar and author who at the time had developed an ayurvedic formulation for treating malaria. His grandfather was a doctor and his father again into Ayurveda. “So, I inherited the legacy of both modern medicine and Ayurveda” says Dr. Vaidya. The ancestral ambience was also enriched by regular visits of some of

the most influential people at the time which included freedom fighters, dramatists, journalists and musicians to saints – all of which had a deep impact on his mind at that tender age. Under the advice of family friend Sri Kalelkar, an eminent freedom fighter, writer and educationist and a close associate of Gandhiji, Ashok Vaidya was home schooled at a time when such practice was rare. They feared that routine school would diminish young Ashok’s curiosity and passion for knowledge. It was much after 9 years that he joined formal school. He got drawn to both literature and medicine but he chose medicine as in his ancestral place he says the heady mix of smells and sights of ayurvedic plants and formulations shaped his neuronal pathways.

## Not Only to Do, But To Excel

The desire to excel was a strong trait in Ashok Vaidya. Being at the top of his class was a regular phenomenon. So it was not surprising that he topped the intermediate examination in Saurashtra which got him direct admission to the GS Medical College in Mumbai. He always had an irrepressible interest in a wide swathe of areas; so when he was asked on his hobbies during the admission interview he replied, “they are very many, ranging from Holy Gita to Hollywood.” Dr. Vaidya stated, “I completed my MBBS and MD from this college and met the loves of my life – Rama and Pharmacology – in this very institute”. After a brief stint at Haffkine Institute as a Typhoid officer, which intensified his interest in research, he went on to do his PhD in Clinical Pharmacology. Later he went back to GS Medical College and started the first unit of Clinical Pharmacology with Prof. Sheth.

## On To Yale

In 1967 on a Merck International Fellowship, he alongwith his wife, Dr. Rama Vaidya – who had completed her registrarship by then- went to Yale for advanced research.

Yale was totally a different cup of tea compared to education in India. It challenged one’s creative thinking for which he says ‘he had to unlearn the methods of learning’. “The first thing I learnt at Yale”, he says, “was that science means learning to say, I don’t know.” Yale also taught him that no one should be rest content with past laurels.

He learnt that like any other discipline, clinical pharmacology also needed to be integrated with hands-on bedside experience of patients. Since it also needed

strong foundations of basic sciences, Dr. Vaidya undertook full courses in Biochemistry, Molecular Biology, Nuclear Medicine & Biomedical Electronics. He was fortunate to have interacted with some of the brilliant minds at Yale. As he put it "At Yale I experienced and learnt to appreciate the freshness of the present. In India we often clutter the present with the burden of the past". The entire milieu at Yale enabled creative thinking, from professors to students.

### Back To India

Rich with the knowledge and training he got at Yale, Dr. Ashok and Dr. Rama Vaidya decided to return to India. Dr Ashok Vaidya jointed as Clinical Research Head, Ciba Research Centre, in India, which had embarked on Drug Discovery Research, which for him, was a very educative and exciting period. He worked on Phase I and II trials of new chemical entities at the Ciba Research Centre, at KEM Hospital and the clinical screening of whole plants/ ayurvedic formulations at Podar Ayurvedic hospital. He was the first who did GCP clinical trial of Benazepril.

At Ciba, Dr. Vaidya elaborated, "More than 20,000 compounds/ plants products were studied. Sintamil, Aubril and Satrogyl emerged as new drugs. Several more were in the pipeline. This Ciba endeavour laid the foundation of drug discovery in India." It was a pity that this Research Centre was closed down though Dr. Vaidya continued at Ciba as its Regional Medical Director (South Asia).

The ICMR started clinical Pharmacology training programme from 1975. Dr. Vaidya contributed to the training programmes funded by ICMR and would insist on selecting participants from different cities. The spread and development of clinical pharmacology in India is to a great extent on account of his vision. He always emphasised the importance of multidisciplinary work, the much needed interaction among chemists, toxicologists, biologists and pharmacologists.

### Embarking on Reverse Pharmacology

After retirement from Ciba, he decided to pursue his passion in the field of complementary and integrative medicine. Along with Vaidya Antarkar, a leading Ayurveda specialist, they undertook the first double-blind placebo controlled randomized clinical trial of Arogyavardhini in viral hepatitis. With this began the foray into reverse pharmacology.

Dr. Vaidya is presently the Research Director, Kasturba Health Society, Medical Research Centre, Mumbai. His research in Ayurveda has contributed new modalities in Parkinsons disease, diabetes, hepatitis, arthritis and cancer. ICMR has granted an Advanced Centre of Reverse Pharmacology at Kasturba Health Society, where training in reverse pharmacology has also started. Integration of



Dr Ashok Vaidya (L) in conversation with Dr APJ Abdul Kalam, former President of India

Ayurveda based on holistic approach and modern medicine based on the reductionist approach would obviously run into opposition. But Dr. Vaidya says that for such integration, "Our mindsets need to change first. An integrative synthesis can bring out the best in each system and may result in a truly remarkable contribution to the global human health." Reverse Pharmacology is now accepted by CSIR, ICMR and CCRS (Ayush) – all apex bodies related to medical research. He also collaborates with his daughter Prof. Vidita Vaidya in the field of neuroscience.

Dr. Vaidya has received several honours and awards. The major ones are – Lifetime Achievement Award and Sir Ramnath Chopra Award by Indian Pharmacology Society, Dhanvantari Award, Gujarat Pratibha Award, Prof. U.K. Sheth Oration Award in Clinical Pharmacology, Shri B.V. Patel Memorial Award, Dr. S L Bhatia Oration, Rotary Distinguished Service Award, Dr. K.N. Udupa Award for Scientific Research in Ayurveda and Aryavaidyan Varrier awards etc.

He has been the President of the Indian Society of Clinical Pharmacology and Association of Medical Advisors to the Pharmaceutical Industry. He was the Chairman of the American College of Clinical Pharmacology (S. Asia chapter) He has been on the editorial boards of several journals. He has been a consultant to WHO, CSIR, ICMR, DBT, CCRAS and several industries and research councils. He has more than 400 research publications to his credit.

He is married to Dr. (Mrs) Rama Vaidya, a reproductive endocrinologist who has initiated the discipline of Ayurvedic Pharmacoepidemiology.

#### References:

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2. Writeup: South Asian Chapter of American College of Clinical Pharmacology.
3. Article on Dr. Ashok B Vaidya, Journal of Ayurveda and Integrative Medicine.

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