

Soumya Swaminathan



Soumya Swaminathan, Chief Scientist, World Health Organization was born in New Delhi, India on 2nd May 1959. She is the daughter of the “Father of Green Revolution of India”, M. S. Swaminathan, and Indian educationalist Mina Swaminathan. Dr. Swaminathan has two siblings, Madhura Swaminathan, a Professor of Economics at the Indian Statistical Institute, Bangalore, and Nitya Rao, a Senior Lecturer in Gender Analysis in International Development at the University of East Anglia.

Childhood trips to her father’s lab and experimental wheat fields where he was engaged in developing high-yield varieties of rice and wheat, ignited Dr. Swaminathan’s passion for scientific research. Her mother had been also a major influence and instilled in her a sense of social responsibility and sensitivity to those who were less fortunate, and encouraged her to be inquisitive, creative and bold – and to stand up for own beliefs.

Swaminathan had her schooling at Springdales, New Delhi and was a CBSE topper amongst girls in 1975. She also went on to be a topper in Medicine of Armed Forces Medical College, Pune (AFMC) and was at AIIMS for her MD (Paediatrics), along with receiving a Diplomate of National Board from National Board of Examinations.

According to Dr. Swaminathan, “My love for animals led me to want to be a veterinarian. I was also very interested in genetics and research and had enrolled for a bachelor’s degree in zoology at Delhi University. But all my classmates were preparing for the medical entrance exam so I sat for it too and entered medical school quite by chance”.

Her passion for clinical research grew at the Children's Hospital Los Angeles at the Keck School of Medicine of the University of Southern California, where she took a post-doctoral fellowship in neonatology and paediatric pulmonology from 1987 to 1989.

From 1989 to 1990, she was a Research Fellow (Registrar) in the Department of Pediatric Respiratory Diseases at the University of Leicester in the United Kingdom. She returned to India in 1991 and in 1992 she found her niche at the Tuberculosis Research Centre (now the National Institute for Research in Tuberculosis -NIRT) in Chennai. She was the Director there from 2012 to 2015.

Paediatrician and clinical scientist Swaminathan is best known for her groundbreaking research on tuberculosis and HIV. Swaminathan and her colleagues were among the first to scale up the use of molecular diagnostics for TB surveillance and to undertake large field studies and randomised clinical trials to deliver TB treatment to underserved populations.

In an interview she said, “I found that tuberculosis was still a huge problem both in adults and children and that it accounted for a lot of respiratory ill health and mortality. At NIRT, I was able to undertake multidisciplinary research, combining clinical and epidemiologic data with immunological,

bacteriological and pharmacokinetic parameters — something not possible in many medical colleges at that time”.

From 2009 to 2011, she was the Coordinator of UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases based in Geneva and worked with groups in Africa, Asia, and Latin America on neglected tropical disease research.

From August 2015 to November 2017, she was Director General of the Indian Council of Medical Research (ICMR) and Secretary of the Department of Health Research (Ministry of Health & Family Welfare) for the Government of India. Swaminathan was appointed Deputy Director General of the World Health Organization in October 2017. She is the first Indian to hold the position at WHO.

In March 2019, she became Chief Scientist of the World Health Organization, overseeing the normative and technical work of the organization, as well as the new areas of digital health and innovation. She has participated in regular bi-weekly press briefings on the COVID-19 pandemic. She has urged countries to conduct whole genome sequencing of the SARS-CoV-2 virus more frequently and to upload sequences to the GISAID project.

In a recent interview, WHO's Chief Scientist warned that even as numerous countries start rolling out vaccination programmes to stop COVID-19, herd immunity is highly unlikely this year. At a media briefing on January 11, Dr. Swaminathan said that it was critical that countries and their populations maintain strict social distancing and other outbreak control measures for the foreseeable future.

In a recent conversation with NDTV, Dr. Swaminathan expressed her concern that just when the world was starting to get hopeful about vaccine roll-out to end the COVID-19 pandemic, a far more contagious mutation of the novel coronavirus has been detected in the United Kingdom in September, 2020 and has spread rapidly.

She is an elected Foreign Fellow of the US National Academy of Medicine and a Fellow of all three national science academies in India. She holds memberships of many professional organisations and expert groups such as International Union Against Tuberculosis and Lung Diseases (Chair, HIV Section 2009-11), International Scientific Advisory Expert Group for the All-Party Parliamentary Group on Global Tuberculosis (APPG TB), UK; and Third World Organization of Women Scientists. She has served as a Member, UNAIDS Expert Panel and Member, Scientific and Technical Advisory Group of the WHO Stop TB department, and on many national committees of the health ministry, DBT, DST and national institutes like AIIMS and Indian Institute of Science. She served on several global advisory bodies and committees, including the WHO expert panel to review global strategy and co-chair of the Lancet Commission on TB.

She has distinction of being awarded: the President's Gold Medal at the undergraduate level for the best all round outgoing student of AFMC, Pune (1980), XI National Pediatric Pulmonary Conference, Dr. Keya Lahiri Gold Medal for best paper (1999), Kshanika Oration Award (2008), International Union against TB and Lung Diseases, Vice-Chair, HIV section (2009), Indian Academy of Pediatrics, Fellow (2011), Indian Association of Applied Microbiologists, Lifetime Achievement Award (2011), Tamil Nadu Science and Technology Award (2012), National Academy of Sciences, India, Fellow (2012), Indian Academy of Sciences, Bangalore, Fellow (2013), NIPER, ASTRAZENECA research endowment award (2016).

Swaminathan has more than 450 peer-reviewed publications, including in *the New England Journal of Medicine, Nature, The Lancet* and has written many book chapters.

She is married to Dr. Ajit Yadav, an orthopaedic surgeon in Chennai. She has a daughter, Shreya Yadav and a son, Akshay Yadav.

Dr. Swaminathan delivered the 55th Convocation Address of Indian Statistical Institute on 27th January 2021.

Article by Sandip Kumar De and Sushavona Chatterjee, Library, with support from Prof. Debasis Sengupta, Dean of Studies and Dr. Soumendu Sundar Mukherjee, ISRU, Indian Statistical Institute.