

CITATION: KEITH KLUGMAN

Professor Keith Klugman is a product of Wits University. Born at the Queen Victoria Hospital in 1956 and delivered by Prof van Dongen, later Head of Obstetrics at Wits. His father Leon later too became Head of a Ward at the Johannesburg Hospital in the Department of Medicine, also at Wits. Keith's passion was science and after obtaining his BSc at Wits in 1977 he completed his Honours degree together with his third year of medical training and remarkably graduated with both a PhD in experimental physiology and his MBBCh on the same night in 1981, a first for the University. Under the mentorship of Professors Barry Mendelow, Graeme Mitchell, and Hendrik Koornhof he decided to pursue a career in medical microbiology and infectious diseases.

While a Registrar, he led the first vaccine trial of a capsular antigen, Vi to prevent typhoid fever in schoolchildren in Mpumalanga, a vaccine that today forms the basis of the success of the Vi conjugate vaccine that is rolling out globally to prevent that disease. Prof Klugman left South Africa to pursue post doctoral research at Rockefeller University in New York where he used the new field of molecular biology to work towards a meningococcal vaccine. In January 1990, when Mandela was released from prison, Prof Klugman turned down an offer of a Chair at the University of Sydney in Australia to return to South Africa and devoted himself to what became his life - long pursuit – the development of vaccines to prevent young children dying from pneumonia. Pneumonia is the leading infectious cause of death in children and the leading cause of this mortality in children under two years of age is a bacterium called the pneumococcus. Prof Klugman led the first phase III trial of a pneumococcal conjugate vaccine in Africa while also taking on the challenge of leading the School of Pathology at Wits. At the age of 39 he became the youngest Director of the South African Institute for Medical Research, an organisation affiliated to Wits and responsible for most laboratory services to public hospitals in South Africa. He oversaw the creation of the National Health Laboratory Service for South Africa and set up the national surveillance program called GERMS at the NICD.

It was however the call of global public health that led Prof Klugman to go to Emory University in Atlanta, GA, USA in 2001 and to the Centres for Disease Control (CDC) which is adjacent to that University to take a global lead in pneumonia prevention in children. He became the founding Bill Foege Endowed Chair of Global Health at Emory University (Bill Foege, a former Director of the CDC pioneered the ring vaccination strategy that rid the world of smallpox). During the next ten years Keith set up numerous links between Wits scientists and Emory.

In 2012 Prof Klugman was recruited by another Wits graduate Trevor Mundel, to develop the pneumonia and meningitis prevention strategy of the Bill and Melinda Gates Foundation in Seattle. In that role he has led the Foundation to prioritise the development of vaccines to prevent RSV and GBS, both important causes of childhood mortality for which vaccines did not exist.

Prof Klugman is not only a renowned international scientist, but also a passionate fighter for equity in access to vaccines for the world's poorest children. While in South Africa he joined in Wits' struggle to allow access to the University for all students.

Keith Klugman has received numerous awards to date including the John FW Hershell Medal of the Royal Society of South Africa awarded to him in 2011 for multidisciplinary contributions to science in South Africa and in 2015 he was elected to the National Academy of Medicine in the USA. Keith has a prolific publication record of over 650 peer-reviewed manuscripts and boast a H-index of 107.

In recognition of the contribution to the reduction in infant mortality globally, it is befitting that the University of the Witwatersrand, Johannesburg bestows an Honorary Doctorate Degree on Professor Keith Klugman.