

Bio:

Moussa Youdim was born in Teheran Iran and was educated at school in England from 1952-1959. He obtained his Bsc. Msc. and PhD from McGill university in Montreal (1959-1966). He came back to England and was at Postgraduate School of University of London from 1966-1971. Spend one year at King College Cambridge University and One and half year at College de France in Paris. In 1973 he was invited to join the department of Clinical Pharmacology at Oxford University.

Moussa Youdim immigrated to Israel from England, in 1977 at the invitation of Technion to be Professor and Chairman of Pharmacology at Technion Faculty of Medicine from its inception from 1977 to 1994. In 1983 he was made the Finkelstein Professor of Life Sciences and in 1997 he was made the Director of the newly formed Eve Topf and National Parkinson Foundation (USA) Centers of Excellence for Neurodegenerative Diseases Research and Teaching at Faculty of Medicine, Technion. He is now Professor Emeritus and holds the position of Honorary Professor and Distinguished Chair Professor at Hong Kong and PolyTechnic Universities in Hong Kong. He is a Distinguished Professor at the Department of Neurobiology at Yonsei World Central University in Seoul, South Korea and honorary Professor at Qingdao University and Shanghai University of Chinese Traditional Medicine and Janin University and Rujin University in China. He is internationally renowned for being highly original in his research in catecholamine metabolism, monoamine oxidases, brain iron metabolism, Parkinson's disease (PD), Alzheimer's disease (AD), amyotrophic lateral sclerosis and drug development for these disorders and for establishing the importance of monoamine oxidase and brain iron metabolism for brain function and dysfunction and drug development. His research at Oxford University led to his the discovery of the first monoamine oxidase B inhibitor, l-deprenyl (selegiline) as an anti Parkinson drug in 1975 with Peter Riederer and Wolter Birkmayer and the concept of neuroprotection, which was a revolution in the treatment of Parkinson's disease. At Technion together with John Finberg, whom he recruited in 1978, they developed the second generation of neuroprotective monoamine oxidase B inhibitor anti-Parkinson drug, Rasagiline (Azilect). This drug is now considered the leading drug for treatment of PD.

He has become the world leading exponent of multi target drug development of PD and AD and ALS. In 1993 he realized that because of the complex pathology of Parkinson's and Alzheimer's diseases no mono target drug would be adequate to have disease modifying activity in these disorders. He came up with the concept of developing novel multi target drugs and his collaboration with Marta Weinstock resulted in the FIRST multi target anti Parkinson-anti Alzheimer drug, ladostigil, which is now being investigated clinically in MCI.

One of Moussa's great achievement has been his highly original studies on the role of iron in brain function in children with nutritional iron deficiency, who have cognitive impairment. He was the first to set up an animal model of nutritional iron deficiency in rats and show the impairment in learning. These studies became part of WHO studies where there are more than 400 million subject with nutritional iron deficiency, specially in children. He also started the work on brain dysregulation studies in Parkinson's disease which he started while he was at Oxford University. His studies on brain iron has led to intensive collaboration with Peter Riederer over the years on the pathology of human brain in Parkinson's disease. Where they found a complex

cascade of neurotoxic events that leads to neurodegeneration and dysregulation of iron with similar results in animal models of PD. They showed that iron chelators are neuroprotective since iron participates in Fenton reaction induced oxidative stress together with hydrogen peroxide generated by the reaction of monoamine oxidase. Together with Riederer they have published over 100 papers and edited some 40 books.

The result of these studies led Moussa to collaborate with Avraham Warshawsky, Mati Fridkin and their Ph.D student Hailin Zheng to develop the of novel multi target M30-sereis of multi target iron chelator-MAO-cholinesterase inhibitors series which are not only neuroprotective, but, even more important neurorestorative in animal models of PD and AD. They are under development for Parkinson's and Alzheimer's diseases in his company Abital Pharma Pipeline. Together with Riederer's group and Silvia Mandel they the first to employ transcriptomic and limited proteomic to analyze the molecular mechanism of nigro striatal dopamine neurons in animal models of PD and in sporadic PD brain. As a consequence of these studies they were able to identify for the first time a set of 5 genes as a biomarker for PD.

He has published more than 900 scientific articles and edited 47 books and has been on the Editorial Board of 43 International scientific journals. He has received numerous (40) major international prizes, awards and honours from Israel, U.S., England, Germany, Iran, Denmark, Holland and Switzerland, including two Honorary Doctorate of Philosophy, Honory Causa, from universities of Semmelweis University (Hungary) and Pisa (Italy). From 1991 through 1999, he was a Fogarty International Scholar-in-Residence at the Fogarty International Center for Advanced Study in the Human Health Sciences program of the National Institute of Health in Bethesda, USA. He is the Scientific founder Varinel Inc and Varinel LCD (USA) Cardiamit (Israel), Avraham Pharmaceutical and Abital Pharma Pipeline Ltd (Israel) and Youdim Pharmaceutical Ltd and Medimabs. He is an elected member of Leopoldina German Academy of Sciences, the oldest academy in the world. He was recently awarded ECNP (European College of Neuropsychopharmacology) Lifetime Achievement Award, the EMET prize for brain science from Israel, CINP (International College of Neuropsychopharmacology) Pioneering Award and the Arvid Carlsson Metal. The Catecholamine Pioneering Award from NIH and 10th International Congress of Catecholamine. He has given numerous named lectures in Israel, UK, USA, China, Canada, Japan, Germany and Holland.

Terms of Appointment

Jan 2021 - Jan 2025