Curriculum Vitae Prof. Dr. Moussa B. H. Youdim

Name: **Moussa B. H. Youdim**
Born: **28 February 1940**

Research Priorities: Neurosciences, pharmacology, neurotransmitter systems, neurological diseases, Parkinson's disease

Moussa B. H. Youdim is an Iranian-Israeli neuroscientist whose work primarily focuses on the monoamine oxidase enzyme and its role in the pathogenesis of Parkinson's disease. Through his research in this field, he has made a significant contribution to the development of selective inhibitors of this enzyme. Medications used to inhibit monoamine oxidase B have since become an established method of treating Parkinson's disease.

Academic and Professional Career

since 2016	Chief Scientific Officer (CSO), Youdim Pharmaceuticals, Yokneam, Israel
2016	Co-Founder, Youdim Pharmaceuticals, Yokneam, Israel
2008 - 2013	Distinguished Professor of Neurobiology, Yonsei World Class University Programme, Yonsei University, Seoul, South Korea
2006 - 2008	Distinguished Professor, Hong Kong Polytechnic University, Department of Anatomy, University of Hong Kong (HKU), Hong Kong
1997 - 2012	Director, National Parkinson Foundation, USA, Eve Topf Center for the Study of Neurodegenerative Diseases, Rappaport Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel
1991 - 1999	International Visiting Scholar, Fogarty International Center for Advanced Study in Human Health Sciences, National Institutes of Health (NIH), Bethesda, USA
1983 - 2010	Finkelstein Professor of Life Sciences, Technion – Israel Institute of Technology, Haifa, Israel

1977 - 1995	Professor and Chairman, Rappaport Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel
1973 - 1977	Research Associate, Medical Research Council (MRC), Department of Clinical Pharmacology, Faculty of Medicine, University of Oxford, Oxford, UK
1972	Wellcome Trust Fellow, Jacques Glowinski's laboratory, Collège de France, Paris, France
1971	Postdoc, K.F. Tipton's laboratory, Department of Biochemistry, University of Cambridge, Cambridge, UK
1966 - 1971	Senior Research Associate, Post Graduate School, University of London and Merton Sandler's laboratory, Queen Charlotte Maternity Hospital (since 1988: Queen Charlotte's & Chelsea Hospital), London, UK
1966	PhD in Biochemistry, McGill University, Montreal, Canada

Functions in Scientific Societies and Committees

1985 - 1987	Member, Postgraduate Research Committee, Rappaport Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel
	Member, Research Committee, Rappaport Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel
	Member, Promotion Committee, Department of Biomedical Engineering, Technion – Israel Institute of Technology, Haifa, Israel
	Member, Preparative and Professional Committee, Rappaport Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel
	Member, Senate, Technion – Israel Institute of Technology, Haifa, Israel
	Member, Committee for Israel Government Higher Education, Israel
	Member, Committee on Extrapyramidal Disorders and Related Diseases, World Federation of Neurology
	Member, Editorial Board, British Journal of Pharmacology
	Member, Editorial Board, Journal of Neurochemistry
	Member, Editorial Board, Journal of Neural Transmission
	Member, Editorial Board, Experimental Neurology
	Member, Editorial Board, International Journal of Neuropsychopharmacology
	Member, Editorial Board, Archives in Pharmacology
	Member, Editorial Board, Frontiers in Pharmacology
	Member, Editorial Board, European Journal of Pharmacology

Member, Editorial Board, Neuropsychobiology

Member, Editorial Board, Brain Research

Member, Editorial Board, CNS Drug Review

Member, Editorial Board, Neurochemical Research

Project Coordination, Membership in Collaborative Research Projects

Eve Topf Center for the Study of Neurodegenerative Diseases, Rappaport Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel

Centers of Excellence for Neurodegenerative Diseases Research, National Parkinson Foundation, USA

Honours and Awarded Memberships

2022	Israel Prize in Life Sciences, Israel
since 2013	Elected Honorary Member, Israel Neuroscience Society, Israel
2012	Arvid Carlsson Medal, International College of Neuropsychopharmacology (CINP)
2011	Lifetime Achievement Award in Neuropsychopharmacology, European College of Neuropsychopharmacology (ECNP)
2010	EMET Prize in Life Sciences, A.M.N. Foundation for the Advancement of Science, Art and Culture, Israel
since 2010	Member, German National Academy of Sciences Leopoldina, Germany
2009	Shanghai Baiyulan Award, Ruijin Medical School, Shanghai, China
2008	Thomas Schkeler Lecture, Ohio State University, Columbus, USA
2007	17th International Congress of Parkinson's Disease Award for Contribution to Parkinson's Disease, World Federation of Neurology, Amsterdam, Netherlands
2007	Melvin Yahr Lecture, Icahn School of Medicine at Mount Sinai, New York City, USA
2006	Nathan Shock Lecture, NIH Institute of Ageing, Bethesda, USA
2006	Henry Taub Prize for Excellence in Research, Technion – Israel Institute of Technology, Haifa, Israel
1998	Honorary Doctor of Philosophy, University of Pisa and Scuola Normale Superiore, Pisa, Italy
1997	Honorary Doctor of Philosophy, Semmelweis University, Budapest, Hungary
1997	Henning Andersen Prize, European Society of Paediatric Endocrinology
1995	Hershel Rich Innovation Prize, Technion – Israel Institute of Technology, Haifa, Israel

1994	Henning Andersen Prize, European Society of Paediatric Endocrinology
1993	The New England Prize of Excellence in Science, Boston, USA
1991	Eli Lilly Prize for Neuropharmacology, American Chemical Society (ACS), USA
1991	Galenus von Pergamon Prize "Drug of the year", international community of leading medical publishers (Springer Medizin Verlag in Germany)
1986	Michael Landau Research Prize, Mifal HaPais, Tel Aviv, Israel
since 1986	Honorary Member, Austrian Society of Neurology, Austria
1984	Inventor's Award, United States Department of Commerce, USA
1980	National Israel Psychobiology Institute Prize, National Israel Psychobiology Institute, Jerusalem, Israel
1978	The Homayoon (Royal) Medal from the Shah, Tehran, Iran
1974	Special Gold Medal, British Migraine Association, UK
1974	Anna Monika International Prize, Anna-Monika-Foundation, Basel, Switzerland

Research Priorities

Moussa B. H. Youdim is an Iranian-Israeli neuroscientist whose work primarily focuses on the monoamine oxidase (MAO) enzyme and its role in the pathogenesis of Parkinson's disease. Through his research in this field, he has made a significant contribution to the development of selective inhibitors of this enzyme. Medications used to inhibit monoamine oxidase B have since become an established method of treating Parkinson's disease.

The biochemist began investigating the enzyme monoamine oxidase during his PhD studies. He identified the A and B isoforms and researched their role in neuropsychiatric diseases. Building on this, Youdim developed selegiline, a selective irreversible MAO-B inhibitor for treating Parkinson's disease. By delaying the breakdown of dopamine, it increases the concentration of dopamine in the brain and thereby alleviates the symptoms of the disease.

In 2005, Youdim's team managed to advance this treatment approach by developing the active substance rasagiline. The scientists also investigated the possible pathogenic role of iron metabolism in neurodegenerative disorders. As early as the turn of the millennium, they used methods of molecular biology, such as proteomics and transcriptomics, in their research, combining them with traditional cell biology.

Since the 1990s, Youdim has been heavily involved in basic pharmacological research in the field of neurosciences and established a pharmacology department at the Technion – Israel Institute of Technology. He later founded the Eve Topf Center of Excellence for Neurodegenerative Disease Research and has acted as a consultant for several pharmaceutical companies.

Besides Parkinson's disease, Youdim also conducts research on other neurodegenerative disorders such as Alzheimer's disease. Here, his work focuses on the disruption in cholinergic neurotransmission associated with this disease. In his treatment approach, Youdim combines the mode of action of MAO-B inhibitors with an acetylcholine blocker to create a multimodal treatment method that intervenes as early as possible with the pathogenesis of cognitive degeneration found in Alzheimer's disease.

Moussa B. H. Youdim has inspired many researchers with his work and – with neurodegenerative diseases becoming increasingly prevalent due to our ageing population – he continues to support and encourage the next generation of scientists in order to advance research in this field.