

# Foreword to The Special Issue on “Novel Molecular Pathways and Therapeutic Challenges in Neurodegenerative Diseases”

*Guest-Edited by Jagannatha Rao KS, Lezanne Ooi, Muralidhar L. Hegde, Yan Zhang, Nancy Y. Ip, Mohammad Nami, Mikko Hiltunen, John Jia En Chua, Cecilia Bouzat and Samuel J.K. Abraham*

Pre-press 23 June 2023



The human brain is a complex organ, and understanding the brain is a challenge even today. We only know part of brain biology, hence, to understand the healthy aging and age-related disorders is of great interest. Neurodegenerative disorders like Alzheimer's and Parkinson's diseases are affecting millions of people worldwide. Currently 55 million are suffering from brain diseases and by 2050, the number will reach 155 million. It is known that the incidence of neurodegenerative disorders has augmented significantly in the world population due to an increase in life expectancy. The normal healthy brain is 1.5 kg, while in neurodegenerative diseases, the brain volume is reduced because the nerve cells in the brain or peripheral nervous system lose function over time and finally die. There are few treatments which will help patients with the physical or mental symptoms associated with neurodegenerative diseases, as slowing disease progression has not yet achieved,

with no cure insight. Hence a lot of focus on brain research is essential.

I am happy to note that our Pro Chancellor, Prof. K.S. Jagannatha Rao along with the international team Lezanne Ooi (Australia), Muralidhar L. Hegde (USA), Yan Zhang (China), Nancy Y. Ip (Hong Kong), Mohammad Nami (Iran), Mikko Hiltunen (Finland), John Jia En Chua (Singapore), Cecilia Bouzat (Argentina), and Samuel J.K. Abraham (Japan), edited the supplemental issue on “Novel Molecular Pathways and Therapeutic Challenges in Neurodegenerative Diseases” in the leading Q1 journal with an impact factor 4.160, the *Journal of Alzheimer's Disease*. I understand that the issue is covering 27 discovery research/review papers relevant to brain disorders, and I am positive that this issue will be a guiding force for future research. I am very happy that SENACYT-Panama has funded this activity through a grant to Prof. Rao.

Our institution KL Deemed to be University is building a multidisciplinary research centre through international collaborations around brain research involving multi-faceted specializations from engineering-humanities-biotech-food tech-social sciences to understand human brain and emotions in holistic manner useful to humanity.

Eng. Koneru Satyanarayana  
President and Chancellor  
KLEF Deemed to be University, India