

Dr. Vijayalakshmi K

Dr Vijayalakshmi K Msc (Bio-Technology),Phd(Neurophysiology) is Associate Professor, Department of Neurophysiology, National Institute of Mental Health and Neuro Sciences , Bangalore.

AWARDS/RECOGNITION FOR RESEARCH WORK:

CSIR-NET for Junior Research Fellowship and Lecturership, 2003

CSIR-RAfor Post Doctoral Fellowship, February 2010

Best Oral Presentation Award in International symposium on “Cellular and Molecular basis of brain plasticity and repair mechanism” at Leh-Ladakh, Jammu and Kashmir, India, 3rd - 5th September 2010

B K Anand Research Prize in Physiology, 2010 for the best paper published in physiology at the 56th Annual conference of Physiologists and Pharmacologists of India at Wardha, Sawangi, Maharashtra, India, 22nd-24th December 2010

Early Career Research Award, Science and Engineering Research Board, Department of Science and Technology, Government of India

DBT BioCARE Women Scientist Honorarium, Department of Biotechnology, Government of India

Travel Awards: Foreign Travel Support from Council for Scientific and Industrial Research, Govt. of India to attend Society for Neuroscience 38th Annual Meeting at Washington DC, USA, Nov 2008.

Awards to co-authored papers:

R. Srinivasan Prize at APPICON 2013, 28–30 Nov 2013, Bangalore

Tulsabai Somani Education Trust award at IAN 2014, 1-3 Nov 2014, Bangalore.

MAJOR RESEARCH INTERESTS INCLUDE:

- Investigating the etiopathogenesis of sporadic Amyotrophic Lateral Sclerosis using animal and cell culture models
- To derive iPSCs from ALS patients and differentiate them into neural cells to study the pathomechanisms and interplay of these cells in diseased state and also, explore new therapeutic interventions.
- Investigate the differences between Madras motor neuron disease (MMND) and ALS to delineate the cause of slow progression in MMND cases.
- Investigate the neuroprotective properties of ayurvedic medicines such as *Sida cordifolia* for ALS and other neurodegenerative diseases.

RESEARCH PROJECTS:

- Modeling Sporadic Amyotrophic Lateral Sclerosis Using Patient Derived Induced Pluripotent Stem Cells – funded by DST-SERB-ECR, 3 years (2017-2020); Total grant: Rs. 50,18,544/- PI
- A study on the mechanisms of action of Chitotriosidase-1 – relevance to pathophysiology of sporadic ALS – funded by DBT-CARE, 3 years (2017-2020; Extended); Total grant: Rs. 37,54,800/- PI
- A study on the role of Oligodendrocytes in the pathophysiology of Sporadic Amyotrophic Lateral Sclerosis – Institute funded peer reviewed project –PI
- Role of Oligodendrocytes in the Pathophysiology of Sporadic Amyotrophic Lateral Sclerosis: An In-Vitro Study on Patient Derived Induced Pluripotent Stem Cells funded by SERB for 3 years (2021 – 2024); Total grant: Rs. 42,79, 016/-: PI
- Glia mediated neuroinflammation in ALS – A translational approach through human studies and experimental models funded by ICMR under “Centre for Advanced Research and Excellence (CARE) for Innovations in Mental Health and Neurosciences: Manpower

Development and Translational Research” Phase-II, 5 years (2021 – 2026); Total grant: Rs. 4,06,91,015/- Co-PI

PUBLICATIONS: International Peer-Reviewed: 15; H-Index: 15; I-10 Index: 15; Total Citations: 668; Non-Peer reviewed articles: Chapters in Workshop Manuals = 17