

BIONE

E-ZINE OF BIOLOGICAL SCIENCES

ISSN: 2456-7264 | Issue – 9 | Published On 04/02/2019

***DROSOPHILA* NEUROBIOLOGY LABORATORY**
DEPARTMENT OF ZOOLOGY
NAGALAND UNIVERSITY
LUMAMI, NAGALAND, INDIA

Lab Chief:

Dr. Sarat Chandra Yeniseti Ph.D., PDF (Univ. Regensburg, Germany and NINDS/NIH, USA)



Dr. Sarat Chandra Yeniseti is a Professor and Head of *Drosophila* Neurobiology Laboratory in Department of Zoology, Nagaland University (Central), Nagaland, India. He completed M.Sc. from Bangaluru University, India and was awarded Ph.D. from Kuvempu University, India. Sarat obtained post-doctoral training in neurogenetics from University of Regensburg, Germany and National Institute of Neurological Disorders and Stroke (NINDS) of National Institutes of Health (NIH), Bethesda, USA. With ten long years of hard effort, he established state of the art *Drosophila* Neurobiology Laboratory (DNBL) in Department of Zoology, Nagaland University. Sarat follows *Drosophila* approaches to understand dopaminergic neurodegeneration and identification of therapeutic targets for neuroprotection; knowledge of which may help to reduce the burden of Parkinson's disease (PD) in humans. His laboratory is well funded through multiple research grants from Department of Biotechnology (DBT), India, University of Grants Commission (UGC), India and Department of Science and Technology (DST), India. Sarat is

recipient of DBT's prestigious U-Excel (Unit of Excellence in Biotechnology) grant in 2015. Till to date under his supervision 3 Ph.D.s are awarded (one as co adviser) and one candidate submitted the thesis. Sarat has 45 publications to his credit in both national and international journals and books. He worked as a Director- IQAC (Internal Quality Assurance Cell) of Nagaland University, NU Coordinator- National Institutional Rankings; Local Coordinator - GIAN (Global Initiative of Academic Networks). Presently he is heading the Department of Zoology, Nagaland University, Nagaland. Sarat visited USA, Japan, Germany, China, South Korea, United Kingdom, Brazil and Canada to participate in multiple academic assignments.

DNBL



Members of Drosophila Neurobiology Laboratory, Department of Zoology, Nagaland University, Lumami, Nagaland, India

Back Row: Dr Sarat Chandra Yeniseti, Zevelou Koza, Abuno Thepa, Bendangtula Walling, Kelevikho Neikha (Left to Right)

Front Row: Abhik Das, Mohamad Ayajuddin, Limamanen Phom, Priyanka Modi, Nukshimenla Jamir, Lemzila Rudithongru, Rahul Chaurasia (Left to Right)

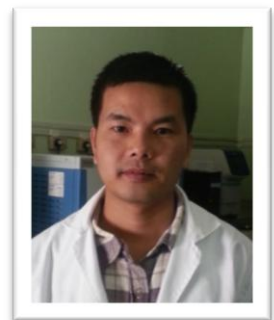
Drosophila Neurobiology Laboratory focuses on understanding the pathophysiology associated with neurodegenerative disease - Parkinson's disease (PD) using *Drosophila* model. Presently 11 research scholars are working in this well established modern *Drosophila* neurobiology laboratory on different aspects attending contemporary questions relating to biomedical research with special reference to PD. The laboratory has been supported by different agencies like UGC, DST-SERB, DBT and ICMR.

Apart from students from Nagaland University, our laboratory has been supporting faculty and students from other Universities by training them in fly genetics (faculty members from Handique Girls' College, Guwahati visited this lab to get acquainted with *Drosophila* genetics) and supporting them to learn methods and to conduct experiments and submit master's thesis [Students from Department of Biotechnology, Goa University (2016), Department of Biotechnology, Amity University, Gurgaon (2017); Department of Biotechnology, Sardar Patel University, Gujarat (2018) undertook M.Sc. dissertation work in this laboratory]. We have been working in collaboration with other institutes/Universities of our country and abroad such as Mysuru University, Mysuru; NISER, Bhubaneswar, CFTRI, Mysuru, IISER, Pune, NCBS, Bangaluru; Amity University, Gurgaon; IGNOU, New Delhi; Inflammation Research Center, San Diego, California, USA.

For more details please visit: https://www.researchgate.net/profile/Sarat_Yenisetti2

Lab Members and their research:

Mr. Limamanen Phom has worked for 3 years as Research Fellow in the Department of Biotechnology (DBT) funded project. He was awarded International Travel Grant for Young Scientist by the Indian Council of Medical Research (ICMR) GOI, for an invited presentation in 'International Conference on Parkinson's Disease and Movement Disorder' held at Frankfurt, Germany. He was selected for SAKURA exchange programme in Science organized by Japan Science and Technology Agency and participated in workshop on Introduction to basic and advanced biomedical approaches for enhancing QOL in ageing societies held in Tsukuba, Japan. He has worked on understanding



neurodegeneration and rescuing pathology associated with Parkinson's disease in *Drosophila* Model. He has published book chapters, reviews and research articles in national and international journals. He has also co-authored a book. He has submitted his Ph.D. Thesis and waiting for final *viva-voce*.

Ms. Zevelou Koza is a recipient of Maulana Azad National Fellowship under UGC, New Delhi. She has qualified National Eligibility Test for Assistant Professorship. She has worked on to understand the nature of sexual dysfunction in Parkinson's disease condition, using *Drosophila* model. She has few publications in national and international journals. She has attended three National Conferences during the course of her research work. Her Ph.D. research work is on understanding the nature of sexual dysfunction in Parkinson's disease condition, using *Drosophila* model. She is under the process of submission of her Ph. D. Thesis.



Mr. Mohamad Ayajuddin has worked as Research Fellow in a DBT sponsored project. Currently, he is a recipient of Senior Research Fellowship from ICMR. He has also qualified National Eligibility Test for Assistant Professorship. His research work mainly focuses on understanding the role of mitochondria in Parkinson's disease related neurodegeneration with special reference to



dopaminergic degeneration. He has published book chapters, review and research articles in national and international journals. He has presented his research findings at attended three National seminars. He has also co-authored a book. He is also under the process of submission of his Ph.D. Thesis.

MS. Priyanka Modi has worked for 3 years as a research scholar in Department of Biotechnology (DBT) funded project. She has to her credit published work in both national and

international journals and has contributed equally towards two book chapters. She has presented part of her work at the two National seminars held at Nagaland University. Her work aims at identification of potential biomarkers in *Drosophila* model of Parkinson's disease, the understanding of which has potential therapeutic repercussions in human.



Mr. Abhik Das is currently pursuing Ph.D. The focus of his study revolves around understanding the molecular changes underlying the cause of early and late onset sporadic Parkinson's Disease (PD). Also, the study focuses on molecular target of Dopaminergic Neuroprotection through which certain genotropic phytochemical might impart neuroprotection at different phases of life. As a researcher, he has contributed two book chapters which emphasizes mostly on causes (molecular and genetic) for therapeutic intervention. He also has presented at two national seminars held at Nagaland University and funded by UGC on his area of research.

Mr Rahul Chaurasia has worked for 3 years as Research fellow under DBT project. He has been trying to understand the mechanistic insights of Parkinson's disease at Chemical and Molecular level in order to develop therapeutic intervention taking advantage of traditional knowledge natural products. He has attended two National seminars. He has also contributed to book chapters.



Ms. Abuno Thepa is working as a Research Fellow under Department of Biotechnology (DBT) funded Project. She has enrolled for her Ph.D. programme. She has published a Paper and a Book Chapter in National and International Journals. She has also attended conferences on National Seminar held in Nagaland University, Lumami. Her work on screening *Drosophila* genome for dopaminergic neuroprotective genes.



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Ms. Nukshimenla Jamir is currently working as a research fellow for one year now in Department of Science and Technology funded research project. She has published a review article and a book chapter. She has participated and presented in two National Seminar held at Nagaland University. She is working on to understand the influence of developmental neurotoxicity on adult brain degeneration using fly model.



Ms. Lemzila Rudithongru is working on chromosomal deletion lines to find any neuroprotective genes with the help of *in situ* hybridization. She has presented her work at a National seminar held at Nagaland University.



Mr. Kelevikho Neikha is working on dopaminergic neuroprotective strategies using *Drosophila* model of PD. He has presented his work at a National seminar held at Nagaland University.



Ms. Bendangtula Walling is working on Foldscope to make it an effective educative tool in the area of basic science. She has presented her work at a National seminar held at Nagaland University.

