

## Detailed CV



Name: **Shamprasad Varija Raghu**

Educational Qualification : **MSc, PhD**

Designation : **Ramalingaswami Fellow/Associate Professor**

Address for Correspondence: **Neurogenetics Lab, Dept of Applied Zoology,  
Mangalore University, Mangalagangothri, Karnataka 574199**

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[shamprasad@mangaloreuniversity.ac.in](mailto:shamprasad@mangaloreuniversity.ac.in)

Phone: **7899496251**

Research Areas: **Neurobiology, Radiation biology and Gastrointestinal physiology**

### **Professional Teaching Experience :**

**1999 - 2003** for MSc in Applied Zoology, Dept of Applied Zoology, Mangalore University

**2015 - till the date** for MSc in Applied Zoology, Dept of Applied Zoology, Mangalore University

**Subjects:** Neurobiology, Animal Behaviour, Genetics, Quantitative Biology, Radiation Biology and Molecular Cell Biology

Research Projects (List)(if applicable)

Completed : Nil

Ongoing : 3

<b>Funding Agency</b>	<b>Title of the Project</b>	<b>Amount (in Lakhs)</b>	<b>Duration</b>
DBT	Neurobiology of colour vision	134	2015-22

DST (Declined)	Colour vision in insects	94	2015-20
BRNS (Co-PI)	Radiation tolerance in Insects	33	2017-20
ICMR (Co-PI)	Understanding the clomiphene citrate-induced changes in secretory epithelial cells of human fallopian tube	80	2020-23
	<b>Total</b>	<b>340</b>	

### International:

- 1) Max Planck Institute of Neurobiology, Germany
- 2) Duke-NUS Graduate Medical School, Singapore

### National:

1. Manipal University, Manipal
2. Yenepoya University, Mangalore
3. Nitte University, Mangalore
4. Mangalore Institute of Oncology (MIO), Mangalore
5. Central University of Kerala, Kasaragod
6. Vellur Institute of Technology (VIT), Vellur
7. BMS College, Bangalore
8. University of Punjab, Chandigarh

### Research Journal Publications (list)

#### International:

1. **Shamprasad Varija Raghu** and Ramesh Thamankar (2020). Comparative study of crystallography and defect structure of corneal nipple array in *Daphnis nerii* Moth and *Papilio polytes* Butterfly eye. *ACS Omega*. 5 (37):23662-23671. **IF – 2.9**
2. Madan Kumar S, Vasantha Kumar, Mohammed Al-Ghorbani, Shivaram Holla, Boja Poojary, Praveen P, Chandra Nayak S, Jnani S Mohan, Thamotharan S, **Shamprasad Varija Raghu**, Lokanath N K (2020). Theoretical and experimental solid state studies of Ethyl 1-benzyl-2-(thiophen-3-yl)-1Hbenzo[d]imidazole-5-carboxylate (in press). *Zeitschrift fuer Kristallographie*. **IF – 3.17**

3. Jagdish Gopal Paithankar, Avinash Kudva, **Shamprasad Varija Raghu**, Rajashekhar K Patil (2020). Radiation hazard protection by Uric acid: Evidences from studies in fruit fly *Drosophila melanogaster* and Human dermal fibroblasts. *Molecular Biology Reports*. 2020 Feb 15. **Corresponding author IF – 2.1**
4. **Shamprasad Varija Raghu**, Farhan Mohammad, Jia Yi Chua, Claudia Barros, Joanne Lam, Mavis Loberas, Sadhna Sahani, Adam Claridge-Chang (2018). A zinc-finger fusion protein refines Gal4-defined neural circuits. *Molecular Brain*. 20;11 (1):46. **IF – 4.9**
5. Jagdish Gopal Paithankar, **Shamprasad Varija Raghu**, Rajashekhar K Patil (2018). Levels and fluxes in enzymatic antioxidants following gamma irradiation are inadequate to confer radiation resistance in *Drosophila melanogaster*. *Molecular Biology Reports*. 45(5):1175-1186. **Corresponding author IF – 2.1**
6. Jagdish Gopal Paithankar, **Shamprasad Varija Raghu**, Rajashekhar K Patil (2018). Concomitant changes in radiation resistance and trehalose levels during life stages of *Drosophila melanogaster* suggest radio-protective function of trehalose. *International Journal of Radiation Biology*. 94: 576-589. **IF – 1.7**
7. Madan Kumar Shankar, Fares Hezam Al-Ostoot, Manjunath BC, **Shamprasad Varija Raghu**, Yasser Hussein, Mahesh N, Shaukath A K, Lokanath NK, ByrappaKullaiah (2018). Crystal structure, Energy-framework analysis and enrichment ratio calculation of 1-(3,4-dimethoxyphenyl)-3-(4-bromophenyl) prop-2-en-1-one exhibiting a putative halogen bond C—Br...O. *J Molecular Structure*. 1156:216-223. **IF – 2.1**
8. Hermann Cuntz, Friedrich Forstner, Bettina Schnell, **Shamprasad Varija Raghu**, Alexander Borst (2013). Preservation of dendrite function under extreme scaling. *PLoS ONE*. 8(8):e7154. **IF – 2.9**
9. **Shamprasad Varija Raghu**, Jing Claussen, Alexander Borst (2013). Neurons with GABAergic phenotype in the visual system of *Drosophila*. *J. Comp. Neurol*. 521(1):252-65. **Corresponding author IF – 3.3**
10. Bettina Schnell, **Shamprasad Varija Raghu**, Aljoscha Nern, Alexander Borst (2012). Columnar cells Necessary for motion responses of wide-field visual interneurons in *Drosophila*. *J Comp. Physiol A*, 198(5):389-395. **IF – 2**
11. Maximilian Joesch, Bettina Schnell, **Shamprasad Varija Raghu**, Dierk F. Reiff, Alexander Borst (2011). On and off pathways in *Drosophila* motion vision. *e-Neuroforum*, 17(1):30-32.

- 12. Shamprasad Varija Raghu**, Alexander Borst (2011). Candidate glutamatergic neurons in the visual system of *Drosophila melanogaster*. *PLoS ONE*, 6(5): e1947. **Corresponding author IF – 2.9**
- 13. Shamprasad Varija Raghu**, Dierk F. Reiff, Alexander Borst (2011). Neurons with cholinergic phenotype in the visual system of *Drosophila melanogaster*. *J. Comp. Neurol.*, 519:162–176. **Corresponding author IF – 3.3**
- 14. Maximilian Joesch**, Bettina Schnell, **Shamprasad Varija Raghu**, Dierk F. Reiff, Alexander Borst (2010). On and off pathways in *Drosophila* motion vision. *Nature*, 468:300-304. **IF – 43**
- 15. Bettina Schnell**, Maximilian Joesch, Friedrich Foerstner, **Shamprasad Varija Raghu**, Otsuna H, Ito K, Alexander Borst, Dierk F. Reiff (2010). Processing of horizontal optic flow in three visual interneurons of the *Drosophila* brain *J Neurophysiol.*, 103:1646-1657. **IF – 2.9**
- 16. Shamprasad Varija Raghu**, Maximilian Joesch, Stephan Sigrist, Alexander Borst, Dierk F. Reiff (2009). Synaptic organization of lobula plate tangential cells in *Drosophila*:  $\text{D}\alpha 7$  cholinergic receptors. *J. Neurogenetics*, 23:200-209. **IF – 1.6**
- 17. Shamprasad Varija Raghu**, Maximilian Joesch, Alexander Borst and Dierk F. Reiff (2007). Synaptic organization of lobula plate tangential cells in *Drosophila*:  $\gamma$ -Aminobutyric acid receptors and chemical release sites. *J. Comp. Neurol.* 502:598-610. **Corresponding author IF – 3.3**

National :

1. Rajashekhar K Patil and **Shamprasad Varija Raghu** (2004). Golgi analysis of tangential neurons in the lobula plate of *Drosophila melanogaster*. *J. Biosci.*, 29:93-104. **IF – 1.8**
2. Rajashekhar K Patil and **Shamprasad Varija Raghu** (2004). Maxillary palp glomeruli and ipsilateral projections in the antennal lobe of *Drosophila melanogaster*. *J Biosci.*, 29:423-9. **IF – 1.8**

Books / Book chapters / Translations published

1. **Shamprasad Varija Raghu (2016)**. Neuroanatomical studies on brain of *Drosophila melanogaster*. Statperson Publishing Corporation, India. **Corresponding author**

2. **Shamprasad Varija Raghu**, Jagdish G Paithankar, Avinash Kudva and Rajashekhar K Patil (2020). Ionizing radiation resistance in the fruitfly *Drosophila melanogaster* – significance of role played by intrinsic biomolecules. Nova Science Publishers Inc, USA. **Corresponding author**
3. **Shamprasad Varija Raghu** (2020). Neurobiology of Food Addictions. Wiley Blackwell, UK. **Corresponding author**
4. **Shamprasad Varija Raghu**, Avinash K Kudva, Jagdish G Paithankar and Rajashekhar K Patil (2020). Radiation resistance in fruitfly, *Drosophila melanogaster*: life stages, antioxidants and novel radio protective candidate molecules. Frontiers in Genetics, Switzerland.
5. Rajashekhar K Patil and **Shamprasad Varija Raghu** (2020). Visualizing neurons in *Drosophila* – classical staining techniques. **Corresponding author**
6. **Shamprasad Varija Raghu** and Rajashekhar K Patil (2020). GAL4-UAS system for genetic labelling and visualization of specific regions of brain. **Corresponding author**
7. **Shamprasad Varija Raghu** and Rajashekhar K Patil (2020). Study of food preference in *Drosophila* to test the palatability and discrimination of food. **Corresponding author**
8. **Shamprasad Varija Raghu**, Sanmitha Jujare and Rajashekhar K Patil (2020). pH profile of the gastrointestinal tract in *Drosophila melanogaster* larvae. **Corresponding author**
9. Rajashekhar K Patil and **Shamprasad Varija Raghu** (2020). Labeling and identification of chemo- and mechano-sensilla on the appendages of *Drosophila melanogaster*. **Corresponding author**
10. **Shamprasad Varija Raghu**, Avinash K. Kudva and Rajashekhar K. Patil (2020). A study of the distribution of campaniform sensilla on the wings of *Drosophila melanogaster*. **Corresponding author**
11. **Shamprasad Varija Raghu**, Avinash K. Kudva and Rajashekhar K. Patil (2020). A simple apparatus for exercise-training adult fruit flies. **Corresponding author**

Papers/ poster presentations in Conferences / Seminars / Symposia (list)

International

1. **Shamprasad Varija Raghu** and Alexander Borst (2006). 47<sup>th</sup> Annual *Drosophila* Research Conference. Houston, Texas, USA (29 March to 2 April 2006).
2. **Shamprasad Varija Raghu** and Alexander Borst (2009). 8<sup>th</sup> Gottingen Meeting of the German Neuroscience Society. Gottingen, Germany (25-29 March 2009).
3. **Shamprasad Varija Raghu** and Alexander Borst (2010). Francis Crick Symposium on Neuroscience. Cold Spring Harbor Asia Conference, Suzhou, China (12-17 April 2010).
4. **Shamprasad Varija Raghu** and Alexander Borst (2010). EMBO/EMBL Symposium: Structure and Function of Neural Circuits. EMBL, Heidelberg, Germany (5-8 September 2010).
5. **Shamprasad Varija Raghu** and Adam Claridge-Chang(2013). 5<sup>th</sup> DUNES Scientific Symposium. DUKE-NUS Graduate Medical School, Singapore (11 October 2013).
6. **Shamprasad Varija Raghu** and Adam Claridge-Chang (2014). 55<sup>th</sup> Annual *Drosophila* Research Conference. San Diego, CA, USA (26-30 March 2014).

#### National

1. **Shamprasad Varija Raghu** (2016). Young Investigator Meeting. Faridabad, India (28 February to 2 March 2016).
2. **Shamprasad Varija Raghu** (2016). National Conference on Frontiers in Genetics and Genomics. Department of Genomic Science, Central University of Kerala, Kasaragod (7-8 April 2016). **Best Oral Presentation Award**

#### Regional

Invited / plenary talks delivered (list) (if applicable)

1. **Shamprasad Varija Raghu** (2004). Friday Seminar Series. Max Planck Institute of Neurobiology, Munich, Germany (August 2004).

2. **Shamprasad Varija Raghu** (2006). Friday Seminar Series. Max Planck Institute of Neurobiology, Munich, Germany (September 2006).
3. **Shamprasad Varija Raghu** (2009). Joint Fly Meeting Seminar Series. Max Planck Institute of Neurobiology and Max Planck Institute of Biochemistry, Munich, Germany (18 May 2009).
4. **Shamprasad Varija Raghu** (2009). Friday Seminar Series. Max Planck Institute of Neurobiology, Munich, Germany (January 2009).
5. **Shamprasad Varija Raghu** (2010). Guest talk at Centre for Neuroscience, Indian Institute of Science, Bangalore (17 March 2010). **Invited Talk**
6. **Shamprasad Varija Raghu** (2011). Joint Fly Meeting Seminar Series. Max Planck Institute of Neurobiology and Max Planck Institute of Biochemistry, Munich, Germany (29 November 2011).
7. **Shamprasad Varija Raghu** (2011). Friday Seminar Series. Max Planck Institute of Neurobiology, Munich, Germany (February 2004).
8. **Shamprasad Varija Raghu** (2011). Guest talk at Dept of Cell Biology, University of Virginia School of Medicine, USA (14 February 2011). **Invited Talk**
9. **Shamprasad Varija Raghu** (2013). Neuroscience Retreat. Duke-NUS Graduate Medical School, Singapore. **Invited Talk**
10. **Shamprasad Varija Raghu** (2015). DST-SERB School in Insect Biology, Central University, Hyderabad (15 December 2015). **Invited Talk**
11. **Shamprasad Varija Raghu** (2016). National Conference on Genetics and Human Diseases, Central University of Kerala, Kasaragod (3-4 November 2016). **Invited Talk**
12. **Shamprasad Varija Raghu** (2016). 5th annual Symposium of the Society of Biological Chemists (SBC), Manipal University, Manipal (5<sup>th</sup> November 2016). **Invited Talk**
13. **Shamprasad Varija Raghu** (2016). Guest Lecture at Nitte University Centre for Science Education and Research (NUCSER), Nitte University, Mangalore (7th October 2016). **Invited Talk**
14. **Shamprasad Varija Raghu** (2016). International Symposium on "Understanding the Molecules of Life in the Era of New Biology", Davangere University, Davangere (20- 22 October 2016). **Invited Talk**

15. **Shamprasad Varija Raghu** (2017). International Conference on Non-mammalian models in Biomedical Research held at Nitte University, Mangalore (5-6 October 2017). **Invited Talk**
16. **Shamprasad Varija Raghu** (2018). National Seminar on “Current Trends in Biosciences” at Sri Sai Institute of Higher Learning (SSIHL), Anantapur, Andhrapradesh (22-23rd January 2018). **Invited Talk**
17. **Shamprasad Varija Raghu**(2018).Manipal Research colloquium-2018 at Manipal University, Manipal. (3-5th April 2018). **Invited Talk**
18. **Shamprasad Varija Raghu** (2019). Guest talk at Bhandarkar’s College, Kundapura. (27<sup>th</sup> February 2019). **Invited Talk**
19. **Shamprasad Varija Raghu** (2019). Guest talk at Poornaprajna College, Udupi. (7<sup>th</sup> March 2019). **Invited Talk**
20. **Shamprasad Varija Raghu** (2019). Guest talk at Dept of Biotechnology, St. Aloysius College, Mangalore (25<sup>th</sup> March 2019). **Invited Talk**
21. **Shamprasad Varija Raghu** (2019). Guest talk at Yenepoya Research Centre (YRC), Deralakatte (25<sup>th</sup> April 2019). **Invited Talk**
22. **Shamprasad Varija Raghu** (2019). Guest talk for ANKURAM 360, Narayana Guru College, Mangalore. **Invited Talk**
23. **Shamprasad Varija Raghu** (2019). Guest talk at Vivekananda Arts and Science College, Puttur (3rd August 2019). **Invited Talk**
24. **Shamprasad Varija Raghu** (2019). Guest talk at Dept of Biosciences, Mangalore University (6th September 2019). **Invited Talk**
25. **Shamprasad Varija Raghu** (2019). National Conference on Current Trends in Entomology and InsectPlant interactions at St Aloysius College, Mangalore (12th September 2019). **Invited Talk**
26. **Shamprasad Varija Raghu** (2019). Guest talk at Dept of Biochemistry, Mangalore University (7<sup>th</sup> November 2019). **Invited talk**
27. **Shamprasad Varija Raghu** (2019). Resource person for Faculty Development Program (FDP) at St Aloysius College, Mangalore (13<sup>th</sup> November 2019). **Invited Talk**



Impact of publications in terms of (Non-science faculty can leave out this item, if unable to fill up).

h-index : 11

i10 index : 11

Citation index

Conferences / Seminars / Workshops / Symposia organized(if applicable)

1. **Webinar talks by Dr. Pradeep Punnakkal**, Department of Biophysics, PGIMER, Chandigarh on 5th November 2020
2. **Webinar talks by Professor Ravi Ram Kristipati**, Principal Scientist, Embryotoxicology Laboratory, CSIR-Indian Institute of Toxicology Research, Lucknow on 6th November 2020

Awards / Fellowship / Recognition (Specify)(if applicable)

1. DAAD (Deutscher Akademischer Austausch Dienst) Fellow in the University of Freiburg, Germany (2002)
2. Max Planck Postdoctoral fellowship (2003-2011), Germany
3. ASTAR Research fellowship (2011-2013), Singapore
4. Duke NUS Graduate Medical School fellowship (2013-2015), Singapore
5. Young Investigator Meeting (YIM) Travel grant (2016), India Bioscience, India
6. DBT Ramalingaswami re-entry fellowship (2015-2020), India
7. DST Ramanujan Fellowship (2015-2020), India
8. Visiting Fellow – Newyork University, Abu Dhabi (2016)

Membership of Professional Bodies

1. Indian Science Congress Association (Life Member)
2. Indian Academy of Neurosciences (Life Member)
3. Indian Society of Developmental Biologists (Life Member)

Any other Information:

1. The lab is supported by Dept of Biotechnology (DBT), Govt of India and well equipped for molecular biology, neurobiology, Animal behaviour and Radiation biology work. The lab is also recognized by the **Indian Academy of Sciences (IAS)** for training summer fellows.
2. **Chief Editor** for the book released by Mangalore University on “Biodiversity of Mangalore University Campus, Mangalagangothri” (March 2018).

3. One of the brain images was selected as a cover page for the “**Science Signalling**” journal (7 May 2013).  
(<http://stke.sciencemag.org/content/vol6/issue274/cover.dtl>).
4. **Recognized Ph.D. Guide in Dept of Applied Zoology, Mangalore University.**
5. **Member of Organizing Committee** - National workshop on Emerging Targets and Biomarkers in Cancer Therapy (16-18 May 2016).
6. **Member of Board of Studies (BOS), St Aloysius College, Mangalore (2019-2022)**
7. **Examiner for Ph.D. and MSc exams** at Manipal University, Yenepoya University, Nitte University and St Aloysius College.
8. **Member of National Education Policy (NEP) Implementation committee, Mangalore University**