

Suresh Balakrishnan

PROFESSOR OF ZOOLOGY



+91-9227612311



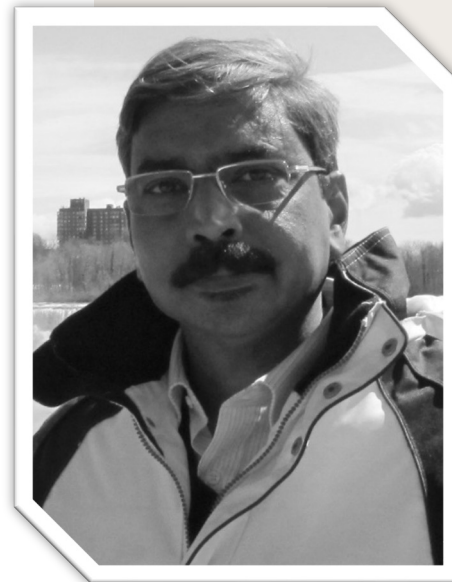
b.suresh-zoo@msubaroda.ac.in



Dept. of Zoology, Faculty of Science,
The M. S. University of Baroda, Vadodara 390
002



www.drbalakrishnanlabmsub.com



PROFILE INFO

Our laboratory focuses on understanding the molecular details behind scar-free wound healing in the amputated tail of wall lizard (northern house gecko). Parallely , working to unearth the molecular mechanisms behind the pesticide - induced structural anomalies in the chick embryo . The lab has the expertise and equipment for proteomic and transcriptomic analysis of biological samples.

EXPERIENCE

ADMINISTRATIVE RESPONSIBILITY

Head, Department of Zoology
Chairman, Board of Studies, Zoology
Associate Coordinator, Cell & Mol. Bio. Programme

DISCIPLINE/AREA OF SPECIALIZATION

Developmental Biology, Systemic Toxicology

TEACHING EXPERIENCE/EMPLOYMENT HISTORY

23 years as permanent staff at MSUB

PH.D. CANDIDATES GUIDED/AWARDED

23 (Awarded Ph.D.) and 07 (Currently registered for Ph.D.)

MAJOR RESEARCH PROJECTS

Ongoing: 01 (GSBTM) Completed: 08(DBT, DST-SERB, CSIR)

EDITORIAL ACTIVITY/JOURNAL REVIEWER

Editorial broad member of 2 journals/Reviewer in 06

NUMBER OF PUBLICATIONS (INTERNATIONAL/NATIONAL)

54/20

BOOKS PUBLISHED

01

EDUCATION

Ph.D. Zoology

The M. S. University of Baroda

M. Phil. Biosciences

Veer Narmad South Gujarat University

M. Sc. Zoology

University of Kerala

RESEARCH

ORCID

0000-0002-6559-022X

SCOPUS

54986663500

RESEARCHER

Y-6386-2019

GOOGLE SCHOLAR

AeckASEAAAAJ&hl

CITATIONS

550

H-INDEX

10

MEMBERSHIP

Member, Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA)

Life Member, Indian National Science Academy, New Delhi

Articles published as Corresponding author during the last five years

1. Buch, P.R., Desai, I., and **Balakrishnan, S.** 2018. COX-2 activity and expression pattern during regenerative wound healing of tail in lizard *Hemidactylus flaviviridis*. *Prostaglandins & Other Lipid Mediators* **135**: 11-15. doi.org/10.1016/j.prostaglandins. PMID: 29414669. **IF2.79**
2. Murawala, H., Ranadive, I., Patel, S., Desai, I., and **Balakrishnan, S.** 2018. Protein expression pattern and analysis of differentially expressed peptides during various stages of tail regeneration in *Hemidactylus flaviviridis*. *Mechanisms of Development*. **150**:1-9. doi: 10.1016/j.mod.2018.02.001. PMID: 29410260. **IF2.126**
3. Sharma, S., Uggini, G.K., Patel, V., Desai, I and **Balakrishnan, S.** 2018. Exposure to sub-lethal dose of a combination insecticide during early embryogenesis influences the normal patterning of mesoderm resulting in incomplete closure of ventral body wall of chicks of domestic hen. *Toxicology Reports*. **5**:302-308. doi: 10.1016/j.toxrep.2018.02.005. PMID: 29556477.
4. Murawala, H., Patel, S., Ranadive, I., Desai, I. and **Balakrishnan, S.** 2018. Variation in expression and activity pattern of *mmp2* and *mmp9* on different time scales in the regenerating caudal fin of *Poecilia latipinna*. *J Fish Biol.*, **92**: 1604-1619. doi:10.1111/jfb.13618 **IF1.519**
5. Buch, P.R., Ranadive, I., Desai, I., and **Balakrishnan, S.** 2018. Cyclooxygenase-2 interacts with MMP and FGF pathways to promote epimorphic regeneration in lizard *Hemidactylus flaviviridis*. *Growth Factors*. **36**(1-2):69-77. doi: 10.1080/08977194.2018.1497021. PMID: 30196771. **IF1.8**
6. Ranadive, I., Patel, S., Buch, P., Uggini, G.K., Desai, I., **Balakrishnan, S.** 2018. Inherent variations in the cellular events at the site of amputation orchestrate scar-free wound healing in the tail and scarred wound healing in the limb of lizard *Hemidactylus flaviviridis*. *Wound Repair Regen*. **26**: 366-380. doi:10.1111/wrr.12659. **IF 2.952**
7. Karandikar, S., Soni, R., Soman, S.S., Umar, S. and **Balakrishnan, S.** 2018. 1,2-Benzisoxazole-3-acetamide derivatives as dual agents for DPP-IV inhibition and anticancer activity. *Synthetic Communications*, **48**(22): 2877-2887, DOI: 10.1080/00397911.2018.150872. **IF1.796**
8. Patel, S., Ranadive, I., Rajaram, S., Desai, I. and **Balakrishnan, S.** 2019. Ablation of BMP signaling hampers the blastema formation in *Poecilia latipinna* by dysregulating the extracellular matrix remodeling and cell cycle turnover. *Zoology*. **133**: 17-26. doi.org/10.1016/j.zool.2019.02.003. **IF1.938**
9. Patel, S., Ranadive, I., Desai, I. and **Balakrishnan, S.** 2019. Regeneration of caudal fin in *Poecilia latipinna*: Insights into the progressive tissue morphogenesis. *Organogenesis*. 15(2): 35-42, DOI: 10.1080/15476278.2019.1633168. **IF2.321**
10. Ranadive I, Patel S, Mhaske A, Uggini GK, Desai I., **Balakrishnan S.** 2019. Evaluation of multikinase inhibitor LDN193189 induced hepatotoxicity in teleost fish *Poecilia latipinna*. *Drug Chem Toxicol*. **42** (6): 565-576. doi:10.1080/01480545.2018.1441865. **IF2.405**
11. Sharma, S., Uggini, G.K., Patel, V., Desai, I and **Balakrishnan, S.** 2019. A combination insecticide at sub-lethal dose debilitated the expression pattern of crucial signalling molecules that facilitate craniofacial patterning in domestic chick *Gallus domesticus*. *Neurotoxicology and Teratology*. **76**: 1-11. doi.org/10.1016/j.ntt.2019.106836. **IF3.274**
12. Pillai, A., Patel, S., Ranadive, I., Desai, I. and **Balakrishnan, S.** 2020. Fibroblast growth factor-2 signaling modulates matrix reorganization and cell cycle turnover rate in the regenerating tail of *Hemidactylus flaviviridis*. *Acta Histochemica* **122**: 1-11. doi.org/10.1016/j.acthis.2019.151464. PMID: 31780191, **IF2.107**
13. Umar, S., Soni, R., Durgapal, S.D., Soma, S., and **Balakrishnan, S.** 2020. A synthetic coumarin derivative (4-fluorophenylacetamide-acetyl coumarin) impedes cell cycle at G0/G1 stage, induces apoptosis, and inhibits metastasis via ROS-mediated p53 and AKT signaling pathways in A549 cells. *J Biochem Mol Toxicol*. doi:10.1002/jbt.22553. PMID: 32578917, **IF 3.606**
14. Verma U, Khaire K, Desai I, Sharma S, **Balakrishnan, S.** 2020. Early embryonic exposure to chlorpyrifos-cypermethrin combination induces pattern deficits in the heart of domestic hen. *Environmental Toxicology*. doi: 10.1002/tox.23074. PMID: 33270332, **IF 3.118**
15. Verma U, Gautam M, Parmar B, Khaire K, Wishart DS, **Balakrishnan S.** 2021. New insights into the obligatory nature of cyclooxygenase-2 and PGE₂ during early chick embryogenesis. *Biochim Biophys Acta Mol Cell Biol Lipids*. doi: 10.1016/j.bbalip.2021.158889. **IF 4.56**
16. Khaire, K., Verma, U., Buch, P., Patel, S., Ranadive, I. and **Balakrishnan, S.** 2021. Site-specific variation in the activity of COX-2 alters the pattern of wound healing in the tail and limb of northern house gecko by differentially regulating the expression of local inflammatory mediators. *Zoology (Jena, Germany)*, 148, p.125947. DOI: 10.1016/j.zool.2021.125947. PMID: 34333369. **IF 2.24**
17. Patel S, Ranadive I, Buch P, Khaire K, and **Balakrishnan, S.** 2022. De Novo Transcriptome Sequencing and Analysis of Differential Gene Expression among Various Stages of Tail Regeneration in *Hemidactylus flaviviridis*. *Journal of Developmental Biology*. 10(2):24. DOI:10.3390/jdb10020024. PMID: 35735915
18. Parmar BK, Verma UR, Vaishnav JA, **Balakrishnan S.** 2023. Cyclooxygenase-2 plays a crucial role during myocardial patterning of developing chick. *Int J Dev Biol*. doi: 10.1387/ijdb.220153sb. Epub ahead of print. PMID: 36571200. **IF 3.14**