BIODATA

Basic details

Name	Dr. Gireesh Babu P.
Designation	Senior Scientist
Specialization	Animal Biotechnology
Present position	Senior Scientist ICAR-Central NRC on Meat, Chengicherla Hyderabad, Telangana, Pin 500092, India
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Academic qualifications

Institution	Degree	Year	Class	Field of Study
Acharya N. G Ranga Agricultural University, India	B.F.Sc.	2003	**Distinction** (87.6%)	Fisheries Science including Aquaculture; Fisheries Biology; Fisheries Environment; Fisheries Microbiology; Pathology, Biotechnology
Central Institute of Fisheries Education, Mumbai, India	M.F.Sc.	2005	First Class (82.3%) ***Gold Medallist***	Fish Genetics and Biotechnology
Central Institute of Fisheries Education, Mumbai, India	PhD	2008	**Distinction** (92.7%)	Fish Biotechnology. Thesis Submitted " Characterization of zebrafish gadd45a promoter for use in transgenic zebrafish genotoxicity biosensors"

Research Interests

- Molecular tools for meat authentication and traceability
- Thanato-transcriptome studies for postmortem ageing and meat quality evaluation
- Bioprospecting of genes responsible for meat color and tenderness

Research Experience

- Identification and characterization of molecular markers like microsatellites and SNPs for stock and species identification
- Transcriptome sequencing and analysis for candidate gene identification

- RNA interference-based tools for vaccines and functional genomics studies
- Genetically engineered whole cell biosensors for heavy metal detection

Honours and awards

- Stood first in the national level examination conducted by Indian Council of Agricultural Research, New Delhi, India for the award of Junior Research Fellowship (JRF in Fish Genetics & Biotechnology)
- Selected as the seventh Best Fisheries Graduate of India by Professional Fisheries Graduate Forum for the year 2003
- Recipient of Gold Medal during Post Graduation
- Recipient of Dr. Jalihal Endowment Award for Best Masters' Thesis in Fisheries in India during 2006
- Recipient of Sir Dorabji Tata Overseas fellowship for ranking University first in PhD course work
- Recipient of Best Young Scientist Award from ICAR-Central Institute of Fisheries Education, Mumbai, India.
- M.F.Sc research of Mr. Mog Chowdhary received Dr. Jalihal Endowment Award for Best Masters' Thesis in Fisheries in India during 2012-13.

Students guided

- **M.F.Sc.: 10**
- **PhD.: 01**

Projects handled

	PI	**Co-PI**
Externally funded	**Nil**	**5**
Institutional projects	**1**	**4**

Publications

Research articles: 85 (International: 62; National: 23)
Training manuals: 10
Book chapters: 3
Popular articles: 3

Selected Publications (25)

1. Meena L.L., Goswami M., Chaudhari A., Nagpure N.S. Gireesh-Babu P. Dubey A., Das D.K., 2020. Development and characterization of a new DRCF cell line from Indian wild strain zebrafish *Danio rerio* (Hamilton 1822). Fish Physiol Biochem., https://doi.org/10.1007/s10695-020-00792-x
2. Ram, R., Pavan-Kumar, A., Jaiswar, A.K., Gireesh-Babu, P., Krishna, G., Chaudhari, A., 2020. Identification of fish and shellfish larvae from mangroves using DNA barcodes. Journal of Coastal Research, 00(0), 000–000. Coconut Creek (Florida), ISSN 0749-0208.

3. Meena L.L., Goswami M., Chaudhari A., Nagpure N.S. Gireesh-Babu P. Dubey A., Das D.K., 2020. Development and characterization of a new DRCF cell line from Indian wild strain zebrafish *Danio rerio* (Hamilton 1822). Fish Physiol Biochem., https://doi.org/10.1007/s10695-020-00792-x
4. Ram, R., Pavan-Kumar, A., Jaiswar, A.K., Gireesh-Babu, P., Krishna, G., Chaudhari, A., 2020. Identification of fish and shellfish larvae from mangroves using DNA barcodes. Journal of Coastal Research, 00(0), 000–000. Coconut Creek (Florida), ISSN 0749-0208.
5. Jafer Y. D., Purushothaman C.S., Kumar, S.H., Irfan A. B., Gireesh-Babu P., Ganie P. A., Bhat R. A. H., Vennila A., 2019. A combined approach of 16S rRNA and a functional marker gene, soxB to reveal the diversity of sulphur-oxidising bacteria in thermal springs. Archives of Microbiology, 201(7):951-967.
6. Haldar, C., Das, S.P., Pillai, B.R., Pavan-Kumar, A., Gireesh-Babu, P., Das, P. and Chaudhari, A., 2019. Single-nucleotide polymorphisms linked to body weight revealed in growth selected *Macrobrachium rosenbergii*. Aquaculture International, pp.1-12.
7. Acharya, A. P., Pavan-Kumar, A., Gireesh-Babu, P., Joshi, C.G., Chaudhari, A. and Krishna, G., 2019. Population genetics of Indian giant river-catfish, *Sperata seenghala* (Sykes, 1839) using microsatellite markers. Aquatic Living Resources, 32 (4). https://doi.org/10.1051/alr/2019002
8. Deepak Agarwal, Pathakota Gireesh-Babu, Annam Pavan-Kumar, Prakash Koringa, Chaitanya G. Joshi, Adnan Gora, Irfan Ahmad Bhat & Aparna Chaudhari (2018). Molecular characterization and expression profiling of 17-beta-hydroxysteroid dehydrogenase 2 and spermatogenesis associated protein 2 genes in endangered catfish, Clarias magur (Hamilton, 1822), Animal Biotechnology, DOI: 10.1080/10495398.2018.1545663.
9. Acharya AP, Pavan-Kumar A, Joshi CG, P. Namrata, A. Chaudhari, G. Krishna. 2018. Development and characterization of 15 novel polymorphic microsatellites for Giant river-catfish Sperata seenghala (Sykes, 1839) using next-generation sequencing approach. J Appl Ichthyol. 2018;00:1–3.
10. Priyadarshi, H., Das, R., Pavan-Kumar, A., Gireesh-Babu, P., Javed, H., Kumar, S., Marappan, M., Somdutt., Krishna G. and Chaudhari, A., 2017. Silencing and augmentation of IAG hormone transcripts in adult Macrobrachium rosenbergii males affects morphotype transformation. Journal of Experimental Biology, 15, 4101-4108.
11. Krishnan R., Gireesh Babu P., Jeena K., Tripathi G., Pani Prasad K., 2018. Molecular characterization, ontogeny and expression profiling of mitochondrial antiviral signaling adapter, MAVS from Asian seabass Lates calcarifer, Bloch (1790). Developmental and Comparative Immunology 79, 175-185.
12. Agarwal D., Aich N., Pavan-Kumar A., Kumar S., Sabnis S., Joshi C. G., Koringa P., Pandya D., Patel N., Karnik T., Bhingarde R., Gireesh-Babu P., Chaudhari A., 2016. SNP mining in transcripts and concomitant estimation of genetic variation in Macrobrachium rosenbergii stocks. Conservation Genetics Resources, DOI 10.1007/s12686-016-0528-9.
13. Pawar N., Gireesh-Babu P., Sabnis S., Rasal K., Murthy R., Zaidi SG., Sivasubbu S., Chaudhari A., 2016. Development of a fluorescent transgenic zebrafish biosensor for sensing aquatic heavy metal pollution. Transgenic Research 25(5):617-27.
14. Pavan-Kumar, A., Raman, S., Koringa, G.P., Patel, N., Shah, T., Singh, K. R., Krishna, G., Joshi, C.G., Gireesh-Babu, P., and Chaudhari, A. 2016. Complete mitochondrial genome of threatened mahseer Tor tor (Hamilton 1822) and its phylogenetic relationship within Cyprinidae family. Journal of Genetics, 95 (4): 853-863.

15. Tambireddy N., Gayatri T., Gireesh-Babu P., Pavan-Kumar A., 2016. Molecular characterization and phylogeny of some mazocraeidean monogeneans from carangid fish. ***Acta Parasitologica***, 61(2): 360–368.
16. Rekha Das, Gopal Krishna, Himanshu Priyadarshi, P Gireesh-Babu, A Pavan-Kumar, K V Rajendran, A K Reddy, M Makesh, Aparna Chaudhari (2015). Captive maturation studies in Penaeus monodon by GIH silencing using constitutively expressed long hairpin RNA. ***Aquaculture*** 448(448):512-520.
17. Sudhanshu Raman, A. Pavan-Kumar, Prakash G. Koringa, Namrata Patel, Tejas Shah, Rajeev K. Singh, Gopal Krishna, C. G. Joshi, P. Gireesh-Babu, Aparna Chaudhari, W. S. Lakra (2015). Ion torrent next-generation sequencing reveals the complete mitochondrial genome of endangered mahseer *Tor khudree* (Sykes, 1839). ***Mitochondrial DNA*** DOI:10.3109/19401736.2015.1060455.
18. Nagalakshmi Kannuchamy, Annam Pavan-Kumar, Venkateshwarlu Gudipati, Gireesh-Babu Pathakota, Wazir Singh Lakra (2015). Mislabeling in Indian seafood: An investigation using DNA barcoding. ***Food Control*** 59. DOI:10.1016/j.foodcont. 2015.05.018
19. Dhaval C. Bamaniya, A. Pavan-Kumar, P. Gireesh-Babu, Niti Sharma, Dhalongsaih Reang, Gopal Krishna, and W. S. Lakra 2015. DNA barcoding of marine ornamental fishes from India. ***Mitochondrial DNA*** DOI: 10.3109/19401736.2014.1003923.
20. Chowdhury L.M., Gireesh-Babu P., Pavan-Kumar A., Suresh Babu P.P., Chaudhari A., 2014. First report on vertical transmission of a plasmid DNA in freshwater prawn, *Macrobrachium rosenbergii*. ***Journal of Invertebrate Pathology*** 121, 24–27.
21. Pavan-Kumar A., Gireesh-Babu P., Babu P.P., Jaiswar A.K., Hari Krishna V., Prasad K.P., Chaudhari A., Raje S.G., Chakraborty S.K., Krishna G., Lakra W.S., 2014. Molecular phylogeny of elasmobranchs inferred from mitochondrial and nuclear markers. ***Mol Biol Rep*** 41(1):447-57.
22. Pavan-Kumar A; Gireesh-Babu P.; Suresh Babu; Jaiswar A.K; Pani Prasad; Chaudhari A; Raje SG, Chakraborty S.K; Gopal Krishna, Lakra W.S. 2013. DNA Barcoding of Elasmobranchs from Indian Coast and its Reliability in Delineating Geographically Widespread Specimens. ***Mitochondrial DNA***, *In Press*.
23. Gireesh-Babu, P., Pawar, N., Krishnan, P. Pavan Kumar, A. Zaidi, S. G. S., Bhartiya, D., Kumar, N., Sivasubbu, S., Rajendran, K.V., Chaudhari, A., 2012. Functional characterization of the zebrafish gadd45αb gene promoter and its application as a biosensor. ***Current Science***, 103 (4): 388 -394.
24. Gireesh-Babu P. and Chaudhari, A., 2012. Development of a broad-spectrum fluorescent heavy metal bacterial biosensor. ***Molecular Biolology Reports*** 39: 11225–11229.
25. Krishnan P., Gireesh-Babu P., Saravanan S., Rajendran K.V. and Chaudhari A., 2009. DNA constructs expressing long-hairpin RNA (lhRNA) protect *Penaeus monodon* against White Spot Syndrome Virus. ***Vaccine*** (27): 3849–3855.