

List of research publications

1. Rao M, Ramesha A, Dubey H, Shukla P, Ponnuvel KM, Sivaprasad V, Suresh K. Analysis of Expression, Mutation, and Alternative Splice Variants of Candidate Genes, MLO2 and MLO6A, Involved in Powdery Mildew Susceptibility in Mulberry (*Morus* spp.). *Plant Molecular Biology Reporter*. 2024 Apr 27:1-0.
2. Sarkar T, Ravindra KN, Sidhu GK, Doss SG, Raghunath MK, Gayathri T, Ramesha A, Raghavendra AS, Sivaprasad V, Mogili T, Arunakumar GS. Overexpression of phosphoenol pyruvate carboxylase gene of *Flaveria trinervia* in transgenic mulberry (*Morus* spp.) leads to improved photosynthesis rate and tolerance to drought and salinity stresses. *Plant Cell, Tissue and Organ Culture (PCTOC)*. 2024 Jan;156(1):26.
3. Subrahmanyam, G., Thirupathaiah, Y., Vijay, N., Debnath, R., Arunkumar, K.P., Gadwala, M., Sangannavar, P.A., Manthira Moorthy, S. and Chutia, M., 2024. Contrasting gut bacteriomes unveiled between wild *Antheraea assamensis* Helfer (Lepidoptera: Saturniidae) and domesticated *Bombyx mori* L. (Lepidoptera: Bombycidae) silkworms. *Molecular Biology Reports*, 51(1), p.666. *Molecular Biology Reports*, 51(1), 666.
4. Subrahmanyam G, Singh S, Arunkumar KP, Luikham RT, Keisa J and Vijaya Kumari KM. 2024. Muga Silkworm Diseases and Pests Control Measure. In: *Hand Book of Muga culture*; pp: 151-180. ISBN: 978-81-959292-8-3
5. Sing S, Subrahmanyam G, Mahesh DS, Arunkumar KP, Reeta Luikham, Amit Kumar, T. James Keisa, K. M. Vijaya Kumari. 2024. Host plants diseases and pest control measures. In: *Hand Book of Muga culture*; pp: 88-99. ISBN: 978-81-959292-8-3
6. Deepika, I., Ramesh, K. V., Kumar, I., Singh, A., Debnath, R., Dubey, H., Shukla, P., Ponnuvel, KM., Moorthy, M., Subrahmanyam, G. (2024). Molecular diagnostics in sericulture: A paradigm shift towards disease diagnosis in silkworms. *Entomologia Experimentalis et Applicata*. Vol 172, 372-382 <https://doi.org/10.1111/eea.13419>
7. Dubey, H., Pradeep, AR., Neog, K., Debnath, R., Aneesha, P. J., Shah, SK., Kamatchi, I., Ponnuvel, KM., Ramesha, A., Vijayan, K., Nongthomba, U., Bora, Utpal., Vankadara, S., VijayaKumari, KM., Arunkumar, KP. (2024) Genome Sequencing and Assembly of Indian Golden Silkworm, *Antheraea Assamensis* Helfer (Saturniidae, Lepidoptera). (Accepted in *Genomics - Elsevier*)
8. Kalyani, D., Varghese, A., Prabhuling, S.H. et al. Uncharacterized protein with amino acid deletions from *Bombyx mori* illustrates divergence from

- Bombyx mandarina* hemocytin and showed modulated gene expression after infection by *Nosema bombycis*. *Int J Trop Insect Sci* 43, 1623–1632 (2023). <https://doi.org/10.1007/s42690-023-01080-w>
9. Gundi, R., Vanitha, C., Tulsi, K.S.N. et al. Molecular Marker Assisted Breeding and Development of Bidensovirus Resistant and Thermo Tolerant Silkworm (*Bombyx mori*) Hybrids Suitable for Tropical Climatic Conditions. *Agric Res* (2023). Springer <https://doi.org/10.1007/s40003-023-00662-x>
 10. Raghavendar. G, Vanitha C. Naik KST*, A. Ramesha and K.M. Ponnuvel (2023) Development and Evaluation of Cross Breed Hybrids for BmBDV Resistance through Molecular Marker Assisted Breeding *Asian Jr. of Microbiol. Biotech. Env. Sc.* Vol. 25, No. (3): 2023: 580-589: <http://doi.org/10.53550/AJMBES.2023.v25i03.031>
 11. Maheswari, M., Naik, T., Chaudhuri, R. S., Lokesh, G., & Sreenivasa, B. T. (2023). Marker-assisted Selection of Bivoltine Silkworm Genetic Resources for Thermotolerance. *Current Journal of Applied Science and Technology*, 42(22), 17–33. <https://doi.org/10.9734/cjast/2023/v42i224165>
 12. Gogoi, P., Boruah, J.L.H., Yadav, A. Debnath, R, Saikia R (2023). Comparative seasonal analysis of Eri silkworm (*Samia ricini* Donovan) gut composition: implications for lignocellulose degradation. *Environ Sci Pollut Res.* <https://doi.org/10.1007/s11356-023-29893-9>
 13. Indumathi Kamatchi Balakrishnan, Kuni Sasaki, Diksha Khajje, Himanshu Dubey, Shantibala Tourangbam, Sinam Subharani Devi, Gangavarapu Subrahmanyam, Jun Kobayashi, Kangayam M. Ponnuvel and Rajal Debnath* (2023) Comparative pan-genomics of group I nucleopolyhedroviruses infecting *Antheraea proylei* and saturniid/bombycid silkmoths reveals genomic reassortments and divergences. *Int. J. Wild Silkworm & Silk* 24, 21–38
 14. Harshitha Prakash, Pawan Shukla*, A. Ramesha, Gondi S. Arunakumar, S. Gandhi Doss, and Kangayam M. Ponnuvel (2023) Evaluation of reference genes for accurate normalization of qPCR data under biotic stresses in mulberry (*Morus indica* L.). *Scientia Horticulturae* 323: 112507
 15. Veershetty, Channabasava, Harshitha Prakash, Pawan Shukla, and Kangayam M. Ponnuvel (2023) Study on the anatomy of the pink mealybug *Maconellicoccus hirsutus* (Hemiptera: Pseudococcidae) using stereo microscopy. *International Journal of Tropical Insect Science* 43, 861–867.
 16. Subrahmanyam, G., Das, R., Debnath, R., Chutia, M., Ponnuvel, K. M., Sathyanarayana, K. (2023). Characterization of bacterial pathogens in

- Muga silkworm, *Antheraea assamensis* Helfer (Lepidoptera: Saturniidae). *Journal of Environmental Biology*, 44: 479-484.
17. L. M. Borah, G. Subrahmanyam, S. Shah, D. J. Gogoi, D. S. Mahesh, C. Chikkaputtaiah K. M. Vijayakumari, K. P. Arunkumar. (2023). Cross-transmission of a microsporidian pathogen from muga silkworm, *Antheraea assamensis* Helfer to eri silkworm, *Samia ricini*. *Sericologia*, 62: 96-105.
 18. Kalyani, D., Varghese, A., Prabhuling, S.H., Makwana, P., Ponnuvel, K.M. and Pradeep, A.N.R. (2023). Uncharacterized protein with amino acid deletions from *Bombyx mori* illustrates divergence from *Bombyx mandarina* hemocytin and showed modulated gene expression after infection by *Nosema bombycis*. *International Journal of Tropical Insect Science*, pp.1-10.
 19. Subrahmanyam G, Ponnuvel KM. Arunkumar KP, Rahul K, Moorthy SM. (2023). Molecular methods for diagnosis of microbial pathogens in muga silkworm, *Antheraea assamensis* Helfer (Lepidoptera: Saturniidae). *International Journal of Industrial Entomology*, 46(3): 1-11.
 20. Tulsi Naik K S., Ismail, S., Pradeep, A.R. et al. (2023). Molecular Characterization of the Functional Genes Associated with Silk Assembly, Transport, and Protection in the Silk Glands of Popular Multivoltine Breeds of Silkworm *Bombyx mori*. *L. Appl Biochem Biotechnol Springer* 195, 2371–2394 <https://doi.org/10.1007/s12010-022-04158-2>
- Juthika Saikia, Rhitu Kotoky, Rajal Debnath, Niraj Kumar, Priyanka Gogoi, Archana Yadav, Ratul Saikia, (2023) De novo genomic analysis of *Enterobacter asburiae* EBRJ12, a plant growth-promoting rhizobacteria isolated from the rhizosphere of *Phaseolus vulgaris* L, *Journal of Applied Microbiology*, Volume 134, Issue 2, February 2023, 1xac090
21. Khajje, D., Devi, S. S., Subrahmanyam, G., Kobayashi, J., Sivaprasad, V., Terenius, O., & Ponnuvel, K. M. (2022). Investigation on Pathological Aspects, Mode of Transmission, and Tissue Tropism of *Antheraea proylei* Nucleopolyhedrovirus Infecting Oak Tasar Silkworm. *Journal of Insect Science*, 22(5), 9.
 22. Sandilya, S. P., Jeevan, B., Subrahmanyam, G., Dutta, K., Vijay, N., Bhattacharyya, N., & Chutia, M. (2022). Co-inoculation of native multi-trait plant growth promoting rhizobacteria promotes plant growth and suppresses *Alternaria* blight disease in castor (*Ricinus communis* L.). *Heliyon*, 8(12), e11886.
 23. Singh, S., Jigyasu, D. K., Subrahmanyam, G., Sangannavar, P., Kumar, R., Choudhury, B.N., & Vijayakumari, K. M. Conservation of muga silkworm, *Antheraea assamensis* Helfer in the natural habitats at different geographical location. *Plant Archives* 22, 230-239.

24. Kalita, M., Sangannavar, P. A., Chutia, M., Jha, D. K., Sathyanarayana, K., Kumar, J. S., & Subrahmanyam, G. (2022). Microbial biodesulfurization: a sustainable technology for refining fossil fuels. In *Microbial Resource Technologies for Sustainable Development* (pp. 333-351). Elsevier publisher
25. Chitara, M. K., Sharma, S., Parihar, M., Jeevan, B., Sangannavar, P. A., Kumar, A., & Subrahmanyam, G. (2022). The structure, function, and utility of the rhizosphere microbiome of cereal crops. In *Microbial Resource Technologies for Sustainable Development* (pp. 77-111). Elsevier publisher
26. Esvaran VG, Ponnuvel S, Jagadish A., Savithri, HS, Subramanya, HS, Ponnuvel KM. Cloning, Expression and Characterization of Spore Wall Protein 5 (SWP5) of Indian Isolate NIK-1S of *Nosema bombycis*. *The Protein Journal*, 2022, 41(6), 596-612.
27. Naik KS, Ismail S, Pradeep A R, Mishra RK. Molecular Characterization of the Functional Genes Associated with Silk Assembly, Transport, and Protection in the Silk Glands of Popular Multivoltine Breeds of Silkworm *Bombyx mori*. *L. Applied Biochemistry and Biotechnology*, 2022 1-24.
28. Raghavendar G, Gupta T, Ramesha A, Sivaprasad V, Ponnuvel KM. A real-time qPCR method for early detection of *Bombyx mori* Bidensovirus (BmBDV) infection in silkworm. *Animal Gene*. 2022 Jul 14:200132.
29. Ponnuvel KM, de Miranda JR, Terenius O, Li W, Ito K, Khajje D, Shamitha G, Jagadish A, Dubey H, Mishra RK. Genetic characterisation of an Iflavirus associated with a vomiting disease in the Indian Tropical tasar silkworm, *Antheraea mylitta*. *Virus Res*. 2022 Jan 30:198703.
30. Makwana P, Dubey H, Pradeep ANR, Sivaprasad V, Ponnuvel KM, & Mishra RK (2021). Dipteran endoparasitoid infestation actively suppressed host defense components in hemocytes of silkworm *Bombyx mori* for successful parasitism. *Animal Gene*, 22, 200118.
31. Gupta T, Raghavendar G, Terenius O, Ito K., Mishra RK, & Ponnuvel KM (2022). An investigation into the effects of infection and ORF expression patterns of the Indian bidensovirus isolate (BmBDV) infecting the silkworm *Bombyx mori*. *Virus Disease*, 1-8.
32. Jagadish A, Dubey H, Kamatchi I, Pradeep AR, Subrahmanyam G, Mishra RK, Ponnuvel KM (2021). Transcriptome analysis of *Nosema assamensis* infecting muga silkworms (*Antheraea assamensis*) reveals insights into candidate pathogenicity related genes and molecular pathways required for pathogenesis. *Annals of Parasitology*, 67: 671-682.

33. Jagadish A, Khajje D, Tony M, Nilsson A, de Miranda JR, Terenius O, Dubey H, Mishra RK, Ponnuvel KM (2021). Development and optimization of a TaqMan assay for *Nosema bombycis*, causative agent of pébrine disease in *Bombyx mori* silkworm, based on the β -tubulin gene. *Journal of Microbiological Methods* 186, 106238. <https://doi.org/10.1016/j.mimet.2021.106238>
34. Kalita M, Chutia M, Jha DK, & Subrahmanyam G (2022). Mechanistic understanding of *Gordonia* sp. in biodesulfurization of organosulfur compounds. *Current Microbiology*, 79(3), 1-15
35. Goswami J, Gogoi DK, Rasid N, Handique BK, Subrahmanyam G, Bora PP, & Raju PLN (2021). Development of a Muga disease early warning system—a mobile-based service for seri farmers. *Current Science*, 121(10), 1328-1334.
36. Ito K, Ponnuvel KM, Kadono-Okuda K (2021) Host Response against Virus Infection in an Insect Bidsenovirus Infection Effect on Silkworm (*Bombyx mori*). *Antioxidants* (Basel, Switzerland), 10(4).
37. Shambhavi H. Prabhuling, Pooja Makwana, A.R. Pradeep, K. Vijayan and R. K. Mishra (2021) Release of mediator enzyme β - hexosaminidase and modulated gene expression accompany hemocyte degranulation in response to parasitism in the silkworm *Bombyx mori*. *Biochemical Genetics*. 59(4)997-1017.
38. Esvaran V, Jagadish A, Terenius O, Suraporn S, Mishra RK, Ponnuvel KM (2020) Targeting essential genes of *Nosema* for the diagnosis of pebrine disease in silkworms. *Annals of Parasitology*, 66(3):303-310.
39. Hassan W, Nath BS, Ponnuvel KM, Mishra RK, Pradeep AR (2020) Evolutionary Diversity in the Intracellular Microsporidian Parasite *Nosema* sp. Infecting Wild Silkworm Revealed by IGS Nucleotide Sequence Diversity. *Journal of Molecular Evolution*, 88(4):345-360.
40. Ramesha, A, Himanshu Dubey, K. Vijayan, Kangayam M. Ponnuvel, Rakesh K. Mishra, K. Suresh. (2020). Genome wide characterization revealed MnMLO2 and MnMLO6A as candidate genes involved in powdery mildew susceptibility in mulberry. *Molecular Biology Reports*. 2889-2900 doi: 10.1007/s11033-020-05395-6 PMID: 32239465
41. Sahar Ismail, Tulsi Naik, KS, Rajam, MV et al. (2020). Targeting genes involved in nucleopolyhedrovirus DNA multiplication through RNA interference technology to induce resistance against the virus in silkworms. *Molecular Biology Reports* 47, 5333–5342 doi: 10.1007/s11033-020-05615-z;
42. Ramesha, A*, Himanshu Dubey, K. Vijayan, Kangayam M. Ponnuvel, Rakesh K. Mishra, K. Suresh. (2020). Genome wide characterization

revealed MnMLO2 and MnMLO6A as candidate genes involved in powdery mildew susceptibility in mulberry Molecular Biology Reports. 2889-2900 doi: 10.1007/s11033-020-05395-6 PMID: 32239465
*Corresponding author

43. Sahar Ismail, Tulsi Naik KS*, Ponnuvel KM, Rajam MV, Mishra RK (2020) BmNPV late expression factor (lef-1) a potent target for inducing virus resistance against Grasserie infected Bombyx mori by RNA interference technology. Biotechnology and Biological Sciences, CRC press Taylor & Francis Group, ISBN-978-0-367-43161-7 London <https://doi.org/10.1201/9781003001614>;
44. Hassan W, Nath BS, Ponnuvel KM, Mishra RK, Pradeep ANR*. (2020) Evolutionary diversity in the intracellular microsporidian parasite Nosema sp. infecting wild silkworm revealed by IGS nucleotide sequence diversity. Journal of Molecular Evolution 88(4):34 360. doi: 10.1007/s00239-020-09936-2. Epub 2020 Mar 12. PMID: 32166385.
45. Dyna Susan Thomas, Meenakshi Varma, Chitra Manoharan, Guru Prasad Rao, Kunjupillai Vijayan, Rakesh Kumar Mishra, Ravikumar Gopalapillai*, Deepak Kumar Sinha (2020). Molecular characterization and functional analysis of the vitellogenin receptor from eri silkworm, Samia ricini. Comparative Biochemistry and Physiology, Part B (Elsevier) 242 110417 (<https://doi.org/10.1016/j.cbpb.2020.110417>). * Corresponding author.
46. Shambhavi HP, P. Makwana, B. Surendranath, K.M. Ponnuvel, R.K. Mishra and A.R. Pradeep (2020) Phagocytic events, associated lipid peroxidation and peroxidase activity in hemocytes of silkworm Bombyx mori induced by microsporidian infection. Caryologia 73(1): 93-106. doi: 10.13128/caryologia-112.
47. Dyna Susan Thomas, Chitra Manoharan, Sandhya Rasalkar, Rakesh Kumar Mishra and Ravikumar Gopalapillai* (2020). Recombinant sericin-cecropin B fusion protein aids in the proliferation and cryopreservation of human dermal fibroblast cells. Bioscience Biotechnology Research Communication 13: 146-150.
48. Vijaya Gowri Esvaran, Anupama Jagadish, Olle Terenius, Siripuk Suraporn, Rakesh K Mishra and Kangayam Ponnuvel* (2020) Targeting essential genes of Nosema for the diagnosis of pebrine disease in silkworms. Annals of Parasitology 66: 303-310;
49. Sahar I, Tulsi Naik KS*, Rajam MV, Ponnuvel KM and Mishra RK (2019) Targeting immediate early gene (IE1) for inducing virus resistance against Grasserie disease caused by BmNPV by RNA interference technology. Sericologia 59: 39-44.

50. Aravind S, Sahar Ismail, Hariraj G, Tulsi Naik KS*, Pradeep AR, Mishra RK, Subhash. V. Naik. (2019). Comparative analysis of post cocoon characters associated with filament length between multivoltine races and multi x bivoltine cross breeds of the silkworm *Bombyx mori* L. *Innovative Farming*, 4(3): 123-128;
51. Dyna Susan Thomas, Chitra Manoharan, Ashok K. Kasukurthi, Gourab Roy, Kunjupillai Vijayan, Ravikumar Gopalapillai* and Mandan Kalidas (2019). Correlation between vitellogenin receptor gene expression and fecundity in silkworm, *Bombyx mori*. *Sericologia* 59: 82-87.
52. Shambhavi Prabhuling Hungund, A. R. Pradeep*, Pooja Makwana, Chandrashekhar Sagar & Rakesh K. Mishra (2019): Cellular defence and innate immunity in the larval ovarian disc and differentiated ovariole of the silkworm *Bombyx mori* induced by microsporidian infection, *Invertebrate Reproduction & Development*, DOI: 10.1080/07924259.2019.1669727
53. Shambhavi, P.H., M. Pooja, A.R. Pradeep* and R.K. Mishra. 2019. Immune suppression being the cause for establishment of *Nosema bombycis* parasitism in the silkworm *Bombyx mori*. *Innovative Farming*, 4: 155-161.
54. Vijaya Gowri Esvaran, Aarthi Mohanasundaram , Shruthi Mahadeva , Tania Gupta , Kangayam M Ponnuvel* (2019) Development and comparison of real-time and conventional PCR tools targeting β -tubulin gene for detection of *Nosema* infection in silkworms. *Journal of Parasitic Diseases* 43(1):31-38
55. Subrahmanyam, G*, Esvaran, V.G., Ponnuvel, K.M., Hassan W, Chutia M and R. Das (2019) Isolation and molecular identification of microsporidian pathogen causing nosemosis in muga silkworm, *Antheraea assamensis* Helfer (Lepidoptera: Saturniidae). *Indian Journal of Microbiology* 59: 525–529.
56. Pawan Shukla¹, Ramesha A. Reddy¹, Kangayam M. Ponnuvel, Gulab Khan Rohela, Aftab A. Shabnam, Shailendra Singh Chauhan, Mrinal K Ghosh, Rakesh Kumar Mishra (2019) Selection of suitable reference genes for quantitative real-time PCR gene expression analysis in Mulberry (*Morus alba* L.) under different abiotic stresses. *Mol Biol Rep.* <https://doi.org/10.1007/s11033-019-04631-y>. (Impact factor: 1.889)
57. Tania Gupta¹, Ramesha A. Reddy^{1*}, Rakesh K. Mishra, Manthira Moorthy, Vankadara Sivaprasad, and Kangayam M. Ponnuvel (2019) Functional marker assisted improvement of productive mulberry silkworm breeds conferring resistance to *Bombyx mori* Bidensovirus (*BmBDV*). *Agri Gene* 11: 100079 (Elsevier Journal)

58. Pawan Shukla^{1*}, Ramesha A. Reddy¹, Kangayam M. Ponnuvel, Gulab Khan Rohela, Aftab Ahmad Shabnam, S. S. Chauhan, Mrinal Kanti Ghosh, Rakesh Kumar Mishra (2018) Comparative analysis of gene expression profiles among contrasting mulberry varieties under cold stress condition. *J. Exp. Biol. Agric. Sci.* Vo.6 (6): p 973-982.
59. Vijayagowri Esvaran, Tania Gupta, A.R. Narasimha Nayaka, Vankadara Sivaprasad, Kangayam M. Ponnuvel. Molecular characterization of *Nosema bombycis* methionine aminopeptidase 2 (MetAP2) gene and evaluation of anti-microsporidian activity of Fumagilin-B in silkworm *Bombyx mori*. *3 Biotech* (2018) 8:386 (Impact factor: 1.479).
60. Vijayagowri Esvaran, Tania Gupta, A Mohanasundaram, Kangayam M. Ponnuvel. Development of isothermal amplification assay for detection of *Nosema bombycis* infection in silkworm *Bombyx mori* targeting polar tube protein1 gene. *Invertebrate Survival Journal* (2018) 15:352-361 (Impact factor: 0.806)
61. Vijayagowri Esvaran, Aarthi Mohanasundaram, Shruthi Mahadeva, Tania Gupta, Kangayam M. Ponnuvel. Development and comparison of real-time and conventional PCR tools targeting β -tubulin gene for detection of *Nosema* infection in silkworms. *Journal of Parasitic Disease* (2018)-Accepted (Impact factor: 0.66)
62. G. Ravikumar, D. S. Thomas, M. Chitra, K. Vijayan and R. K. Mishra. Development of a Sensitive Real-Time PCR Assay for the Detection of Microsporidia In Silkworms. 2018. *Sericologia* 58(2): 122-124.
63. Gupta T, Ito K, Kadono-Okuda K, Murthy GN, Vijayagowri E, Ponnuvel KM. Characterization and genome comparison of Indian isolate of bidensovirus infecting silkworm *Bombyx mori*. *Archives of Virology* (2018), 163:125-134. (Impact factor 2.11)
64. Tulsi Naik K, S., Ponnuvel K, M., & Awasthi A, K., (2017) "Transkingdom RNA interference approach to improve resistance against grasserie disease in *Bombyx mori*. L A review" *Sericologia* 57(1), 1-9.
65. Pooja M, Pradeep AR, Hungund SP, Sagar C, Ponnuvel KM, Awasthi AK and Trivedy K (2017) Oxidative stress and cytotoxicity elicited lipid peroxidation in hemocytes of *Bombyx mori* larva infested with dipteran parasitoid, *Exorista bombycis*. *Acta Parasitologica*, 2017, 62(4), 000-000; ISSN 1230-2821. DOI: 10.1515/ap-2017-00.
66. Pooja M, Pradeep AR, Hungund SP, Ponnuvel KM, and Trivedy K. (2017) The dipteran parasitoid *Exorista Bombycis* induces pro- and anti-oxidative reactions in the silkworm *Bombyx mori*: Enzymatic and genetic analysis. *Archives of Insect Biochemistry & Physiology* (2017) Feb; 94(2). doi: 10.1002/arch.21373. Epub 2017 Jan 17.

67. Pradeep ANR, Asea A, Kaur P (2016) Nucleolin Transports Hsp72 to the Plasma Membrane Preparatory to its Release into the Microenvironment. *Journal of Cell Science & Therapy* 7: 254. doi: 10.4172/2157-7013.1000254.
68. Rajni Bala, Ulfath Saba, Meenakshi Varma, Dyna Susan Thomas, Deepak Kumar Sinha, Guruprasad Rao, Kanika Trivedy, Vijayan Kunjupillai and Ravikumar Gopalapillai (2016). Cloning and Functional Characterization of a Vertebrate Low-Density Lipoprotein Receptor Homolog from Eri Silkmoth, *Samia ricini*. *Journal of Molecular Biochemistry* 5: 87-94.
69. Dyna Susan Thomas, Chitra Manoharan, Kanika Trivedy, Kunjupillai Vijayan, Ravikumar Gopalapillai (2016) Lipophorin and its Immunological Properties of Eri Silkmoth, *Samia ricini*. *Sericologia* 56: 74-83.
70. Lekha, G., Gupta, T., Vijyagowri, E., Awasthi, A.K., Ponnuel, K. M. (2015) Genome-wide identification, characterization of sugar transporter genes in the silkworm *Bombyx mori* and role in *Bombyx mori* Nuclear Polyhedrovirus (BmNPV) infection. *Gene* 579: 162-171.
71. Lekha G., Gupta T, Awasthi A.K, Murthy, G.N., Trivedy K. and Ponnuvel K.M. (2015) Genome wide microarray-based expression profiles associated with BmNPV resistance and susceptibility in Indian silkworm races of *Bombyx mori*. *Genomics* 106: 393-403.
72. Pradeep A.R, Anitha J, Panda A, Pooja, M., Awasthi A.K., Geetha N.M., Ponnuvel KM and Trivedy K (2015). Phylogeny of host response proteins activated in silkworm *Bombyx mori* in response to infestation by Dipteran endoparasitoid revealed functional divergence and temporal molecular adaptive evolution. *J Clin Cell Immunol* 6:5.
73. Gupta T., Kadono-Okudo K., Ito K., Trivedy K. and Ponnuvel K.M. (2015). Dengue virus infection in silkworm *Bombyx mori* and genes associated with disease resistance. *Invertebrate Survival Journal* 12: 118-128.
74. Bhuvaneswari G. and Surendra Nath B. (2015). Molecular characterization and phylogenetic relationships among microsporidia cross infecting silkworm *Bombyx mori* isolated from seven Lepidopteran pests of mulberry gardens based on small subunit rRNA (SSU-rRNA) gene sequence analysis. *Clon. Transgen.* 4:1.
75. Bhuvaneswari G. and Surendra Nath B. (2015). Molecular characterization and phylogenetic relationships of seven microsporidian isolates from different Lepidopteran pests cross infecting silkworm *Bombyx mori* based on Intergenic spacer sequence analysis. *Journal of Entomology and Zoology Studies* 3(2):324-33.

76. Wazid Hassan and Surendra Nath B. (2015). Genetic characterization of microsporidians infection Indian non-mulberry silkworms (*Antheraea assamensis* and *Samia Cynthia ricini*) by using PCR based ISSR and RAPD marker assay. *Int. J. Indust. Entomol.* 30 (1): 6-16.
77. Ponnuvel K. M., Sasibhushan S., Geetha N. Murthy and Rao C.G.P. (2015). Diapause-Related Gene Expression in Eggs of Multivoltine *Bombyx mori* L. Silkworm Races. Chapter in *New Horizons in Insect Science: Towards Sustainable Pest Management*, A. K. Chakravarthy (ed.), pp 187-198.
78. Hassan W, Nath BS. (2015). Genetic characterization of microsporidia infecting Indian tasar silkworm, *Antheraea mylitta* by using morphology and inter simple sequence repeat-PCR (ISSR-PCR). *Folia parasitologica* 62: 034.
79. Lekha G, T. Gupta, K.Trivedy and KM Ponnuvel (2015). Paralogous gene conversion, allelic divergence of attacin genes and its expression profile in response to BmNPV infection in silkworm *B. mori*. *Invertebrate Survival J.* 12: 214-224.
80. Rati Sudha, Geetha N. Murthy, Arvind K. Awasthi, Kangayam M. Ponnuvel (2015). Attacin gene sequence variations in different ecoraces of tasar silkworm *Antheraea mylitta*. *Bioinformation* 11(10): 481-483.
81. Chandrakanth N, K.M.Ponnuvel, S.M.Moorthy, S. Sasibhushan and V.Sivaprasad (2015) analysis of trasncrypt of heat shock protein genes in silkworm, *Bombyx mori* (Lepidoptera: Bombycidae). *Eur J Entomol* 112 (4) 676-687.
82. Chandrakanth N, S.M. Moorthy, K.M.Ponnuvel and V.Sivaprasad (2015) Identification of microsatellite markers linked to thermotolearnace in silkworm by bulk segregant analysis and IN SILCO mapping. *Genetika* 47(3) 1063-1078.
83. Chandrakanth N, S. M. Moorthy, Kariayappa, K. M.Ponnuvel and V.Sivaprasad (2015) Reeling performance of F2 and backcross populations under high temperature conditions. *Journal of Entomology and Zoological Studies.* 3(6) 219-222.
84. Wazid Hassan and B.Surendra Nath (2014). Genetic diversity and phylogenetic relationships among microsporidian isolates from the Indian tasar silkworm *Antheraea mylitta*, as revealed by RAPD fingerprinting technique. *Intl. J. Indus. Ento.* 29(2): 169-178.
85. Lekha G, Vijaya Gowri E, Sasibhushan S, Sivaprasad V, Ponnuvel KM (2014). Differential level of host gene expression associated with nucleopolyhedrovirus infection in silkworm races of *Bombyx mori*. *Intl. J. Indus. Ento.* 29(2): 145-152.

86. Anitha J, Pradeep AR, Sivaprasad V. [2014]. Upregulation of Atg5 and AIF gene expression in synchronization with programmed cellular death events in integumental epithelium of *Bombyx mori* induced by a dipteran parasitoid infection. *Bull. Entomol Res. (Cambridge)* 23:1-7. Impact factor: 1.895
87. Dyna Susan Thomas, Chitra Manoharan, Kanika Trivedy, Kunjupillai Vijayan, Ravikumar Gopalapillai (2016) Lipophorin and its Immunological Properties of Eri Silkmoth, *Samia ricini*. *Sericologia*.
88. Ravikumar Gopalapillai, Vardhana K. Vasantkumar, Rajni Bala, Venkateswarlu Modala, Guruprasad Rao and Vikas Kumar (2014). Yeast two-hybrid screen reveals novel protein interactions of the cytoplasmic tail of lipophorin receptor in silkworm brain. *J. Mol. Recog.* 27:190-196. Impact factor: 3.01
89. Jayaram A, Pradeep AN, Awasthi AK, Murthy GN, Ponnuvel KM, Sasibhushan S, Rao GC. (2014). Coregulation of host-response genes in integument: switchover of gene expression correlation pattern and impaired immune responses induced by dipteran parasite infection in the silkworm, *Bombyx mori*. *J Appl Genet.* 55(2): 209-21.
90. Kadono-Okuda K, K. Ito, Geetha N. Murthy, V. Sivaprasad and K. M. Ponnuvel (2014). Molecular mechanism of Dengue virus resistance in silkworm *Bombyx mori*. *Sericologia* 54: 1-10.
91. Geetha N. Murthy, Kangayam M. Ponnuvel, A.K. Awasthi, C.G.P. Rao, B.K. Chandrasekhar Sagar (2014). The Indian isolate of Dengue virus-2 – Impact of infection and mechanism of resistance in *Bombyx mori* L. *Journal of Invertebrate Pathology* 115 (2014).
92. Sirigineedi S., Vijayagowri E., Murthy G.N., Rao G., Ponnuvel K.M. (2013). Molecular characterization of DnaJ 5 homologs in silkworm *Bombyx mori* and its expression during egg diapause *Insect Sci.* doi: 10.1111/1744-7917.12048. Impact factor – 1.786
93. Ravikumar G and Vijayaprakash NB (2013). Lipophorin Receptor of Insects. *Resonance* 18: 748-755.
94. Sasibhushan S, Ponnuvel K M and Vijayaprakash N B (2013) Changes in diapause related gene expression pattern during early embryonic development in HCl-treated eggs of bivoltine silkworm *Bombyx mori* (Lepidoptera:Bombycidae). *Brazilian Archives of Biology and Technology* 56: 1-10. Impact factor – 0.443
95. Sasibhushan Sirigineedi, Geetha N Murthy, Guruprasada Rao and Kangayam M Ponnuvel (2013). Paralytic Peptide Binding Protein (PP-BP) Gene Expression during Egg Diapause and Its Multi-Gene Organization

in the Silkworm *Bombyx mori*. *International Journal of Industrial Entomology* 26(1), 31-40

96. Pradeep ANR, Jayaram Anitha, Arvind K. Awasthi, Mohd. A. Babu, Murthy N. Geetha, Hariharan K. Arun, Sagar Chandrashekhar, Guruprasad C. Rao, Nanjappa B. Vijayaprakash (2013). Activation of autophagic programmed cell death and innate immune gene expression reveals immuno-competence of integumental epithelium in *Bombyx mori* infected by a dipteran parasitoid. *Cell and Tissue Research* 352 (2): 371-385.
97. M.Venkateswarlu, G.Ravikumar, N.B.Vijayaprakash, C.G.P.Rao, C.K.Kamble and A.Tikader (2012). Molecular phylogeny of *Morus* species differentiation based on chloroplast matK sequences. *Indian Journal of Sericulture* 51: 16-19.
98. Kaur P., AR Pradeep and Alexzander Asea (2012). Chapter 8: Cellular trafficking of cell stress proteins in health and disease - Nucleolin: A novel intracellular transporter of HSPA1A -. *Heat Shock Proteins* 6: 115-124.
99. Surendranath B, SK Gupta and AK Bajpai (2012). Molecular characterization and phylogenetic relationships among microsporidian isolates infecting silkworm, *Bombyx mori* using small subunit rRNA (SSU-rRNA) gene sequence analysis. *Acta Parasitologica* 57(4): 342-353.
100. Vijayan K., Srivastava P.P., Raju P. J., Saratchandra, B. (2012) Breeding for higher productivity in mulberry. *Czech Journal of Genetics and Plant Breeding* 48(4): 147-156.
101. Ponnuvel K M, K Nithya, S Sasibhushan and Awasthi AK (2012). In vitro antiviral activity of an alkaline trypsin from the digestive juice of *Bombyx mori* larvae against nucleopolyhedro virus. *Archives of Insect Biochemistry and Physiology* 81 (2): 90-104.
102. Devi K.I., Ponnuvel K.M., Singh L.S., Singh K.C. and Dutta K. (2012). Genetic diversity among Indian Oak tasar silkworm, *Antheraea proylei* J. revealed by ISSR markers. *International Journal of Industrial Entomology* 24 (1): 57-61.
103. Arun Kumar K.P., A. K. Sahu, A. R. Mohanty, A. K. Awasthi, A.R.Pradeep, S. Raje Urs and J. Nagaraju (2012) Genetic diversity and population structure of Indian golden silkmoth (*Antheraea assama*) *PLoS ONE* 7,(8)43716, doi:10.1317/journal.pone.0043716.)
104. Sasibhushan,S, Ponnuvel, KM and Vijayaprakash, NB (2012) Diapause specific gene expression in the eggs of multivoltine silkworm *Bombyx mori* identified by suppressive subtractive hybridization. *Comparative Physiology and Biochemistry Part B* 161: 371-379.

105. Ravikumar G, K.V. Vardhana and H.K.Basavaraja (2011). Characterization of lipophorin receptor mediating the binding of high density lipophorin in silkworm *Bombyx mori*. *Journal of Insect Science (USA)*, 2: 150-158.
106. Ponnuvel K.M., Geetha N. Murthy, P.R. Koundinya*, A K. Awasthi, C.G.P. Rao, N.B.Vijayaprakash and C.K.Kamble** (2011). Report on identification of densovirus-2 (dnv-2) in flacherie diseased silkworm of *Bombyx mori*. *Indian Silk* 2(5): 4-6.
107. Pradeep, AR, Awasthi AK, Singh KC, Anuradha HJ, Rao CGP and Vijayaprakash NB (2011), Genetic evaluation of eri silkworm *Samia cynthia ricini*: Loci specific to high and low altitude regimes and quantitative attributes. *Journal of Applied Genetics* 52:345-353.
108. Pradeep, AR, Anuradha HJ, Singh KC, Awasthi A K, Vikas Kumar, Rao CGP and Vijayaprakash NB (2011). Genetic analysis of scattered populations of the India eri silkworm, *Samia Cynthia ricini* Donavan: Differentiation of sub-populations. *Genetics and Molecular Biology* 34 (3): 502-510.
109. Ravikumar G, Raje Urs S, Vijayaprakash NB, Rao CGP and Vardhana KV (2011). Development of a multiplex polymerase chain reaction for the simultaneous detection of microsporidians, nucleopolyhedrovirus and densovirus affecting silkworms. *Journal of Invertebrate Pathology* 107(3): 193-197.
110. Ponnuvel K. M., Natarajan S., Sirigineedi S., Murthy G.N. and Vijayaprakash, N. B. (2010). Molecular evolution of the cecropin multigene family in silkworm *Bombyx mori*. *Bioinformation* 5(3): 97-103.
111. Ponnuvel K. M., Geetha N.Murthy, Awasthi, A. K., Rao, C.G.P. and Vijayaprakash N.B. and Kamble C.K. (2010). Screening of *Bombyx mori* Silkworm Races for Detection of Densovirus-2 Resistance Genes (Nsd-2). *Sericologia* 51(2): 145-156
112. Ponnuvel K. M., Murthy G.N., Awasthi, A. K., Rao C.G.P. and Vijayaprakash N.B. (2010). Differential gene expression during early embryonic development in diapause and non-diapause eggs of multivoltine silkworm *Bombyx mori* *Indian Journal of Experimental Biology* 48 (11).
113. Pradeep, A. R., A. K. Awasthi, Raje Urs, S. 2008. Association of A/T rich microstellite with response to artificial selection and differentiation of larval development duration in silkworm *Bombyx mori*. *Molecules and Cells* 26: 1
114. Kar, P.P.Srivastava, A.K.Awasthi and S.Raje Urs 2008. Genetic variability and association of ISSR markers with some biochemical traits

in mulberry (*Morus* spp.) genetic resources available in India. *Tree Genetics & Genomes* 4:75-83.

115. Awasthi A.K., P.K. Kar, P. P. Srivastava, Nidhi Rawat, K. Vijayan, A. R. Pradeep and S. Raje Urs 2008. Molecular evaluation of bivoltine, polyvoltine and mutant silkworm (*Bombyx mori* L.) with RAPD, ISSR and RFLP-STS markers. *Indian Journal of Biotechnology* 7:188-194.
116. Awasthi A.K., A. R. Pradeep, P. P. Srivastava, K. Vijayan, Vineet Kumar and S. Raje Urs 2008. PCR detection of densovirus isolates in silkworm (*Bombyx mori*) from India and its nucleotide variability. *Indian Journal of Biotechnology* 7:56-60.
117. Pradeep A.R., Anuradha H.J. and S.Raje Urs (2007). Molecular markers for biomass traits: Association, Intercalation and Genetic divergence in silkworm, *Bombyx mori*. *Biomarker Insights* 2: 197- 217.
118. Pradeep A.R., S.N. Chatterjee, B. Saratchandra and S. Raje Urs 2005. Allelic variants of a juvenile hormone responsive gene, which connote genetic differentiation in strains of the silkworm *Bombyx mori*. *Journal of Genetics and Breeding* 59 (3-4): 213-223.
119. Nageswara Rao S, B. Surendra Nath, G. Bhuvaneshwari and S. Raje Urs 2007. Genetic diversity and phylogenetic relationships among microsporidia infecting the silkworm, *Bombyx mori*, using random amplification of polymorphic DNA: Morphological and ultrastructural characterization. *Journal of Invertebrate Pathology* 96(3): 193-276.
120. Srivastava P.P, P.K. Kar, A.K. Awasthi and S. Raje Urs 2007. Molecular approach for identification of markers associated with thermal stress in polyvoltine silkworm *Bombyx mori*. *Genetika* 43(8): 1038-1045.
121. Venkateswarlu M, S. Raje Urs, B. Surendra Nath, H. E. Shashidhar, M. Maheswaran, T. M. Veeraiyah and M. G. Sabitha 2006. A first genetic linkage map of mulberry (*Morus* spp.) using RAPD, ISSR, and SSR markers and pseudotestcross mapping strategy. *Tree Genetics and Genomes* 3:15-24.
122. Vijayan K, Anuradha HJ, Nair CV, Pradeep AR, Awasthi AK, Saratchandra B, Rahman SAS, Singh KC, Chakraborti R, Urs SR 2006. Genetic diversity and differentiation among different populations of Indian Eri silkworm, *Samia cynthia ricini* revealed by ISSR markers. *Journal of Insect Science* 6:30.
123. Vijayan K, P.P. Srivastava, C.V. Nair, A.K. Awasthi, A. Tikader, B. Sreenivasa and S. Raje Urs 2006. Molecular characterization and identification of markers associated with yield traits in mulberry using ISSR markers. *Plant Breeding* 125:298-301.

124. Vijayan K, A.Tikader, P.K.Kar, P.P.Srivastava, A.K.Awasthi, K., Thangavelu and B. Saratchandra 2006. Assessment of genetic relationships between wild and cultivated mulberry (*Morus*) species using PCR based markers. *Genetic Resources and Crop Evolution* 53: 873-882.
125. Nagaraja G.M., G Mahesh, V Satish, M Madhu, M Muthulakshmi and J Nagaraju 2005. Genetic mapping of Z chromosome and identification of W chromosome-specific markers in the silkworm, *Bombyx mori*. *Heredity* 95: 148–157. doi:10.1038/sj.hdy.6800700.
126. Kar, P.K.; Vijayan, K.; Mohandas, T.P.; Nair, C.V.; Saratchandra, B.; Thangavelu, K. 2005. Genetic Variability and Genetic Structure of Wild and Semi-domestic Populations of Tasar Silkworm (*Antheraea mylitta*) Ecorace Daba as Revealed through ISSR Markers. *Genetica* 125 [2-3]: 173-183.
127. Pradeep A.R., Chatterjee, S.N., Nair, C.V. 2005. Genetic differentiation induced by selection in an inbred population of the silkworm *Bombyx mori*, revealed by RAPD and ISSR marker systems. *Journal of Applied Genetics* 46 [3]: 291-298.
128. Rao SN, Muthulakshmi M, Kanginakudru S, Nagaraju J 2004. Phylogenetic relationships of three new microsporidian isolates from the silkworm, *Bombyx mori*. *Journal of Invertebrate Pathology* 86:87-95.
129. Arvind K Awasthi¹, GM Nagaraja¹, GV Naik, Sriramana Kanginakudru, K Thangavelu and Javaregowda Nagaraju 2004. Genetic diversity and relationships in mulberry (genus *Morus*) as revealed by RAPD and ISSR marker assays. *BMC Genetics* 5:1 doi:10.1186/1471-2156-5-1.
130. Chatterjee S.N.; Vijayan K.; Roy G.C.; Nair C.V. 2004. ISSR Profiling of Genetic Variability in the Ecotypes of *Antheraea mylitta* Drury, the Tropical Tasar Silkworm. *Russian Journal of Genetics* 40 [2]: 152-159.
131. Vijayan, K., Awasthi, A. K., Srivastava, P. P. and Saratchandra, B. 2004. Genetic analysis of Indian mulberry varieties through molecular markers. *Hereditas* 141: 8–14. doi: 10.1111/j.1601-5223.2004.01813.x
132. Chatterjee S.N., T P Mohandas 2003 Identification of ISSR markers associated with productivity traits in silkworm, *Bombyx mori* L. *Genome*.46(3):438-47
133. Nagaraju J, K Damodar Reddy, G M Nagaraja and B N Sethuraman 2001. Comparison of multilocus RFLPs and PCR-based marker systems for genetic analysis of the silkworm, *Bombyx mori* *Heredity* 86: 588–597; doi:10.1046/j.1365-2540.2001.00861.x

134. Reddy KD, Abraham EG, Nagaraju J 1999. Genetic characterization of the silkworm, *Bombyx mori* by inter-simple sequence repeat (ISSR) - anchored PCR. *Heredity* 83: 681-687.
135. Reddy KD, Abraham EG, Nagaraju J. 1999. Microsatellites in the silkworm, *Bombyx mori*: abundance, polymorphism and strain characterization. *Genome*. 42(6):1057-65.
136. Nagaraju JG, Singh L. 1997. Assessment of genetic diversity by DNA profiling and its significance in silkworm, *Bombyx mori*. *Electrophoresis* 18(9):1676-81.
137. Nagaraju J 1996. Sex Determination and Sex-Limited traits in the silkworm, *Bombyx mori* and their applications in sericulture. *Indian Journal of Sericulture* 35:83-89.
138. Nagaraju J, Sharma A, Sethuraman BN, Rao GV, Singh L 1995. DNA fingerprinting in silkworm *Bombyx mori* using banded krait minor satellite DNA derived probe. *Electrophoresis* 16:1639-1642
139. Nagaraju J, Abraham EG 1995. Purification and characterisation of amylase in tasar silkworm, *Antheraea mylitta*. *Comparative Biochemistry and Physiology B*. 110B: 201-209.
140. Abraham EG, Nagaraju J, Salunke D, Gupta H, Datta RK 1995. Purification and partial characterization of an antibacterial protein from silkworm, *Bombyx mori*. *J Invert. Pathol.* 65(1):17-24.
141. Javaregowda Nagaraju and Tumuluri Pavan Kumar 1995. Effects of selection on cocoon filament length in divergently selected lines of the silkworm *Bombyx mori* *Journal of Sericultural Science of Japan* 64[2] 103-109.
142. Ganachari M. Nagaraja and Dr. Javaregowda Nagaraju 1995 Genome fingerprinting of the silkworm, *Bombyx mori*, using random arbitrary primers *Electrophoresis* 16(1): 1633-1638.