

CURRICULUM VITAE

Dr. SATHISH KUMAR, B. Y.

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EDUCATION

- **Ph.D., in Zoology (Medical Entomology)**, University of Mysore, India 2007 – Title of the thesis - “**Comparative studies on the systematics, biochemical and molecular aspects of forest and rural area mosquitoes in Karnataka**”.
- **M. Sc., Zoology (Cytogenetics)**, Department of Studies in Zoology, University of Mysore, India, 1999.
- **B. Sc., (Biochemistry, Botany and Zoology)**, Yuvaraja college, University of Mysore, India, 1997.

PROFESSIONAL APPOINTMENTS

- **Assistant Professor and Chairman, Postgraduate Department of Biotechnology, JSS College (Autonomous, NAAC Accredited – A Grade and Identified by UGC as College with Potential for Excellence), Ooty Road, Mysore. (7th September 2007 – to date). And Co-ordinator, JSS Biotechnology Skill Enhancement Programme (2011 – to date)**
- Lecturer, Post Graduate Department of Biotechnology and Genetics, M. S. Ramaiah College (Postgraduate Centre), Bangalore (1st February 2007 – 6th September 2007).
- Research Scholar, Department of Studies in Zoology, University of Mysore, Mysore (9th February 2006 – 25th November 2006) working on ‘Comparative studies on the systematics, biochemical and molecular aspects of forest and rural area mosquitoes in Karnataka’ (for continuation of the Doctoral degree).

- **Research Officer**, Department of Speech-Language Sciences, All India Institute of Speech and Hearing, Mysore (9th February 2005 – 8th February 2006) under the project “Evolution of Voice in Species”.
- Research Scholar, Department of Studies in Zoology, University of Mysore, Mysore (1st November 2002 – 8th February 2005) working on ‘Comparative studies on the systematics, biochemical and molecular aspects of forest and rural area mosquitoes in Karnataka’ (for the Doctoral degree).
- **Project Assistant**, Department of Studies in Zoology, University of Mysore, Mysore (16th August 2001 – 31st October 2002) under the project “Survey of Ticks and Mosquitoes in Rajiv Gandhi National Park (Nagarahole)”.(World Bank Aid Project – Karnataka Forest Department)
- **Lecturer**, National College, Basavanagudi, Bangalore (2nd July – 15th August 2001)
- **Lecturer**, Gramantha Composite Pre-University College, Mandya (1st July 1999 – 31st March 2001).

RESEARCH PROJECT

Completed

UGC funded project – Rs. 1,30,000-00

“Biochemical detection of insecticide resistance mechanism in the populations of *Aedes aegypti* – A Dengue and Chikungunya vector”

Completed

VGST – Govt. of Karnataka funded project – Rs. 4,00,000-00

“Purification and characterization of anti-stress molecules from *Glycyrrhiza glabra* (Athimadhura) and *Convolvulus pluricaulis* (Shankhapushpi)”

Completed

ICMR – Govt. of India – Rs. 8,42,578-00

“Studies on Diversity of *Culex* Mosquitoes and their bionomics in a disease endemic district of Karnataka”

PH.D., GUIDED – 02

Thesis Titles

1. "Expression of *Helicobacter pylori* CagA, VacA and NapA (HP_NAP) vaccine antigens in *Nicotiana benthamiana*"
2. “Development of transgenic brinjal (*Solanum melongena*) expressing cagA and iceA1 genes of *Helicobacter pylori*”

PROFESSIONAL RECOGNITION

RECOGNIZED Ph.D., GUIDE in Biotechnology, University of Mysore, Mysore

CHAIRMAN - Board of Studies, Post-Graduate Department of Bio-technology, JSS College (Autonomous). **2011 – Till date**

CO-ORDINATOR – Biotechnology Finishing School, JSS College, Ooty Road, Mysore – 25 - 2011 – Till date

CHAIRMAN – Board of Examiners, M. Sc., Biotechnology, JSS College (Autonomous) - 2012, 2013, 2014, 2015, 2016

CHAIRMAN - Board of Studies, Biotechnology Finishing School, JSS College (Autonomous) – October 2011

CHAIRMAN – Board of Examiners, M. Sc., Biochemistry, JSS College (Autonomous) – Jan 2012 – Dec 2012

CHAIRMAN – Board of Examiners, Biotech Finishing School Program, JSS College (Autonomous) – 2012 – Till date

MEMBER - Institutional Animal Ethics Committee (IAEC) (approved by CPCSEA, Govt of India), Vipragen Biosciences Pvt. Ltd., Mysore. 2013-16

MEMBER – Executive Committee, Association of Microbiologists of India (Mysore Chapter), Mysore – 2012-13

SECRETARY – Association of Microbiologists of India (Mysore Chapter), Mysore – 2013-14

MEMBER – Academic Council, JSS College (Autonomous), Ooty Road, Mysore - 2011-13, 2019-21

MEMBER – Board of Studies, Dept. of Zoology, Yuvaraja's College (Autonomous), Mysore – 2010-2012

ASSOCIATE EDITOR – Journal of Medicinal Plant Research.

Member – Technical Advisory Committee, M/s. Aigle Biosolutions Pvt. Ltd., Bangalore.

MEMBER – Board of Examiners, PGDBTFS Board, Bangalore University, Bangalore – 2015-16.

Member – Board of Examiners, Food Processing and Nutraceuticals, Bangalore University, Bangalore – 2020-21

Member – Board of Examiners, Medical Biotechnology, Bangalore University, Bangalore – 2020-21

MEMBER – Board of Studies, Dept. of Biotechnology, Yuvaraja's College (Autonomous), Mysore – 2016-18

AWARDS RECEIVED

1. **“The Best Performance Award”** for the Poster Presentation in ‘8th International Symposium on Vector and Vector-Borne diseases’ held at Madurai, Tamilnadu, India. (2006)
2. **“Seed Money to Young Scientist for Research”** award from Vision Group on Science and Technology, Dept. of Science and Technology, Ministry of Science and Technology, Govt. of Karnataka, Bangalore. (2010-11)

PUBLICATIONS

1. **Sathish Kumar B. Y.**, Ganesh K. N. and Vijayan V. A. (2004). Mosquito diversity in the Rajiv Gandhi Nation Park (Nagarahole), Karnataka, India. *Journal of entomological Research Society*, Vol – 6, page 1-13.
2. **Sathish Kumar B. Y.** and Vijayan V. A. (2005) Mosquito fauna and breeding habitats in the rural area of Mysore and Mandya districts, Karnataka state, India. *Entomon*, Vol.30 No.2. page 123-128.
3. Savithri, S. R., Jayaram, M. and **Sathish Kumar, B. Y.** (2005) On the evolution of voice in animals – A preliminary study. *J. Acous. Soc. Ind.*, Vol.33, page 316-321.
4. **Sathish Kumar, B. Y.** and Vijayan, V. A. (2006) Cytochrome P450 confers single or multiple factorial resistance? *Resistant Pest Managament Newsletter*, Vol. 16, No. 1. page 12-13.
5. Vijayan V. A., **Sathish Kumar B. Y.**, Ganesh K. N., Urmila J. and Fakoorziba M. R. (2007) Efficacy of piperonyl butoxide (PBO) as a synergist with deltamethrin on five species of mosquitoes at Mysore. *J. Commun. Dis.* Vol. 39(3), page 159-163.
6. Arun Kumar, N. and **Sathish Kumar, B.Y.** (2010) A Study On Anti-Stress Property of *Convolvulus Pluricaulis* (Shankhapushpi) On Stress Induced *Drosophila melanogaster*. *Dros. Inf. Serv.* Vol. 93, pp 30-35.
7. Sowmya, M. and **B.Y. Sathish Kumar** (2010) Antistress property of *Glycyrrhiza glabra* (Athimadhura) on stress induced *Drosophila melanogaster*. *Journal of Stress Physiology and Biochemistry*, Vol. 6 No. 4, pp. 18-27.
8. Shilpashree, R. and **Sathish Kumar, B. Y.** (2011) A Study on anti-stress property of *Nardostachys jatamansi* on stress induced *Drosophila melanogaster*. *Journal of Stress Physiology and Biochemistry*. Vol. 7. No. 3 pp.159-164.

9. Deepthi, B.K., and **B. Y. Sathish Kumar**. (2011) Anti-stress property of Rauwolfia serpentine (Sarpagandha) on stress induced *Drosophila melanogaster*. *Dros. Inf. Serv.* Vol. 94, pp 34-40.
10. Achala Pandith, Arun Kumar, N. and **Sathish Kumar, B. Y.** (2012) Study on stress tolerance and effect of *Gnelima arborea* (root) on stress induced *Drosophila*. *JSSCM Journal*. Vol. 1. pp. 8-11.
11. Vasanth Patil, H. B. and **Sathish Kumar, B. Y.** (2013) Isolation and partial purification of antimicrobial peptides/proteins from dung beetle, *Onthophagus taurus* immune hemolymph. *Journal of Microbiology, Biotechnology and Food Sciencse*. Vol. 2 (6). Pp. 2414-2418.
12. Fathima, A., Vasanth Patil, H. B. and **Sathish Kumar, B. Y.** (2014) Suppression of elevated reactive oxygen species by *Acorus calamus* (Vacha) a sweet flag in *Drosophila melanogaster* under stress full conditions. *Int J Pharm Sci Res*, Vol. 5(4), pp. 1431-39.
13. Riya Peter, H. B. Vasanth Patil and **B. Y. Sathish Kumar** (2014) Antistress ability of *Myristica fragrans* (Japatrae) a Nutmeg to detoxify Reactive oxygen species in stress induced *Drosophila melanogaster*. *r Dros. Inf. Serv.* Vol. 97, pp. 6-15.
14. Vasanth Patil H.B., Nithin K.S. and **Sathish Kumar B. Y.** (2015) Insecticide Confrontation in Dengue Vector: Enzymatic Characterization of Tolerance Level in the Mysore Field Populations of *Aedes aegypti*. *Journal of Mosquito Research*. Vol.5(15), pp. 1-15.
15. Chimatahalli S. Karthik, Lingappa Mallesha, Shivashankarappa Nagashree, Puttaswamappa Mallu, Vasanth Patil and **Sathish Kumar** (2016) Schiff bases of 4-(methylthio) benzaldehydes: Synthesis, characterization antibacterial, antioxidant and cytotoxicity Studies. *Current Chemistry Letters*. Vol. 5, pp. 71-82.
16. Nandini, C., **Sathish Kumar, B. Y.**, Jayashree, K., Mruthunjaya, K., Jhonson, K., Manjula, S. N. (2016) Platelet enhancing effect of *Eclipta alba* in alcohol induced thrombocytopenic model in rats. *Int J Pharm Sci Res*. Vol 7(5), pp. 1000-1012.
17. **Sathish Kumar, B. Y.** and Vasanth Patil, H. B. (2016) A Case Study on Salivary Amylase: A Non Invasive Biomarker of Stress in Humans under Pathological and Strenuous Situations. *International Journal of Applied Research*. Vol. 2(4), pp. 621-625.
18. Shilpa K.N, **Sathish Kumar B.Y.**, Subramanya Raj Urs, Vasanth Patil H.B, Jayadevappa H.P., Latha B.V., Nithin Kundachira Subramani, Sachhidananda S. (2016) Adsorptive Removal of Cu (II) From Aqueous Solution Using Nanostructured Lithium Zincate. *International Journal of Engineering Science and Computing*. Vol. 6 (7), 8463 – 8468.
19. **Sathish Kumar B. Y.** (2016) Production of Bio-Diesel from Non-Feed Stock Areca catechu Shell. *International Journal of Engineering Science and Computing*. Vol. 6 (8), 2242 – 2247.
20. Abhijith M Singh, BV Latha, M Chethankumar and **B. Y. Sathish Kumar** (2016) A comparative study on fungal (*Aspergillus niger*) amylase and elephant foot yam (*Amorphophallus campanulatus*) amylase with yam starch as substrate. *International Journal of Applied Research*. Vol. 2(6), pp. 1006-1010.

21. **B. Y. Sathish Kumar** (2016) Studies on antioxidant and antimicrobial activity of *Acorus calamus* and *Myristica fragrans*. *International Journal of Applied Research*. Vol. 2(7), pp. 292-297.
22. **B. Y. Sathish Kumar** (2016) Protease inhibiting and other biological activities of Schiff base derivatives. *International Journal of Applied Research*. Vol. 2(7), pp. 439-454.
23. Mukunda Chethan Kumar, Syeda Hajira Banu, Latha, B. V., Sathish Kumar, B. Y. and Mallesha, L. (2016) Studies on Inhibition of H₂O₂ Induced TGF- β 1 Expression in Peripheral Blood Mononuclear Cells by Novel Pyridine Appended Lutein Derivative. *MOJ Cell Sci Rep* Vol. No. 3(4), pp. 61-66.
24. **B. Y. Sathish Kumar** and Eram Fathima (2017) *Mirabilis jalapa*: Phytochemical screening and antistress activity of methanolic leaf extract. *Journal of Pharmacognosy and Phytochemistry* Vol. No. 6(6), pp. 1502-1508.
25. **B. Y. Sathish Kumar**, Eram Fathima, M. Chethan Kumar, B. V. Latha and L. Mallesh. (2017) *Abrus precatorius* seed coat: Phytochemical screening and antibacterial evaluation. *European Journal of Biomedical and Pharmaceutical sciences* Vol. 4(12), pp. 824-829.
26. Praveen N. M., Kiran B Muchadi, Manasa S. and **Dr. B. Y. Sathish Kumar** (2018) Bipolar disorder impact on age onset with genetic imbalance. *World Journal of Pharmaceutical Research*. Vol. 7(15), pp. 1028-1037.
27. Praveen N M, Manasa S, Kiran B Muchadi, VashniR, Abignan Gurukar and **Sathish Kumar B Y.** (2018) A Review: Brain glucose activity of Alzheimer's disease in neurodegenerative. *Journal of research in health science*. Vol. 1 (3): 116-124.
28. Praveen, N. M., M. Vijayasimha, **B. Y. Sathish Kumar** (2018) Case Study: A patient with Type 2 Diabetes diagnosed acute gastroenteritis and essential hypertension. *Journal of research in health science*. Vol. 1, No. 3, 2018, pp. 103-106.
29. Vasanth Patil H. B., Nithin KS, Sachhidananda, Siddaramaiah, Chandrashekar K. T., **Sathish Kumar B. Y.** (2019) Mycofabrication of Bioactive Silver Nano Particles: Photo Catalysed Synthesis and Characterization to attest its augmented Bio-efficacy. *Arabian Journal of Chemistry*. Vol. 12, pp. 4596-4611.
30. Praveen NM, Manasa S, Kiran B Muchadi, **Sathish Kumar BY** (2019) Isolation, characterization and physicochemical properties of starch from Ginger (*Zingiber officinale*). *International Journal of Research in Pharmacy and Pharmaceutical Sciences*. Vol 4(1) pp. 50-52.
31. Rambod Barzigar, Nanjundappa Haraprasad, **Basaralu Yadurappa Sathish Kumar**, Mohammad Javad Mehran (2020) Challenges and recent developments associated with vaccine antigens production against *Helicobacter pylori*. *International Journal of Applied Pharmacuetics*. Vol 12, Issue 4, pp. 45-50.
32. Rambod Barzigar, Nanjundappa Haraprasad, Basaralu Yadurappa Sathish Kumar, Mohammad Javad Mehran (2021) Cloning and Expression of Vacuolating Cytotoxin A (VacA) Antigenic Protein in *Nicotiana benthamiana* Leaves a Potential Source of the Vaccine against *Helicobacter pylori*. *Int. J. Pharm. Investigation*, 11(1):88-93.

33. B. Y. Sathish Kumar (2021) Evaluation of Anti-stress property of *Dracaena trifasciata* (Snake plant) on stress induced *Drosophila melanogaster* flies. *Drosophila Information Services*. 104: pp 11-15.
34. Mohammad Javad Mehran, Basaralu Yadurappa Sathish Kumar, Nanjundappa Haraprasad, Rambod Barzigar, Bashasab Fakrudin, Sayan Paul (2021) Cloning and Expression of *Helicobacter pylori* ulcer Associated Gene - *iceA1* in Brinjal (*Solanum melongena* L.) *Int. J. Pharm. Investigatio*, 11(3) : 338-344.
35. Mohammad Javad Mehran, Basaralu Yadurappa Sathish Kumar, Nanjundappa Haraprasad, Rambod Barzigar, Bashasab Fakrudin, Sayan Paul (2021) Evaluation of *iceA1* Gene Expression of *Helicobacter pylori* Risk Factor of Gastric Cancer in Transgenic Brinjal. *Indian Journal of Pharmaceutical Education and Research*, Vol 55(4): 1197-1206.
36. Rambod Barzigar, Mohammad Javad Mehran, Nanjundappa Haraprasad, **Basaralu Yadurappa Sathish Kumar**, Bashasab Fakrudin (2022) Transient recombinant expression of highly immunogenic *CagA*, *VacA* and *NapA* in *Nicotiana benthamiana*. *Biotechnology Reports*. Vol. 33 (In press)

Six short articles in ‘**PRANIVIGJNANA VISHWAKOSHA**’ (Encyclopedia of Zoology) [in regional language – Kannada published by the **UNIVERSITY OF MYSORE**, 2006.

CONVENER & MEMBER OF ORGANIZING COMMITTEE

Convenor – State Level Seminar on ‘Emerging Trends and Future Prospects in Phytopharmaceuticals’ sponsored by UGC - 8th December 2011

Convener, UGC Sponsored National Seminar on “Intellectual Property Rights in Bioinformatics” held on 8th November 2012.

Member, National Seminar on “Applications of Science and Technology to promote Agricultural Growth and Value Addition” held on 2nd and 3rd December 2012

Convener- UGC Sponsored National Workshop on “Basic Techniques in Molecular Biology and Bioinformatics” held from 15-18 March 2013

Coordinator – Regional Conference on ‘Science and Technology for Education and Health Care’ sponsored by Karnataka Science and Technology Academy, Govt. of Karnataka – 21st and 22nd February 2014

Convener- KSTA open lecture series (for science students) sponsored by KSTA, DST, Govt. of Karnataka- 29th January 2015.

Organizing Secretary- UGC Sponsored two days National Symposium on “Microbes and Human Welfare” held on 6th and 7th March 2015

Coordinator- Training-Cum-Awareness Programme on “Protection of Plant Varieties and Farmers Right Act” Sponsored by PPV and FRA, Govt. of Karnataka- 16th March 2015.

Coordinator – Conference on ‘Science and Technology’ (in regional language – Kannada) sponsored by Karnataka Science and Technology Academy, Govt. of Karnataka – 15th and 16th November 2017.

Coordinator – National Workshop on “Fermentation Process and Liquid Chromatography” sponsored by Karnataka Science and Technology Academy, Govt. of Karnataka – 14th and 16th March 2019.

Organising Secretary – National seminar on “Transgenics and Protein Therapeutics” sponsored by Karnataka Science and Technology Academy, Govt. of Karnataka – 28th March 2022.

PARTICIPATION AND PRESENTATIONS IN SCIENTIFIC CONFERENCES/ SEMINARS

1. Participated in the 6th International symposium on Vectors and Vector borne Diseases, held at Bhubaneshwar, India from 9th February – 12th February 2002.
2. Presented paper entitled ‘Biodiversity of mosquito fauna in Rajiv Gandhi National Park, Karnataka, India’ in ‘Conference on Zoology – A vision for 21st century’ held in Bangalore, India from 28th December – 31st December 2002.
3. Presented paper entitled ‘Genetic variability in *Aedes albopictus* population from forest and rural areas’ in ‘3rd Global meet on Parasitology’ held at Bangalore, India from 12th January to 16th January 2004
4. Presented paper entitled ‘On the evolution of voice in animals – A preliminary study’ in ‘National symposium on Acoustics - 2005’ held at Bangalore, India from 15th December to 16th December 2005.
5. Presented paper entitled ‘Genetic differentiation of *Aedes aegypti* (Linnaeus) and *Aedes albopictus* (Skuse) from rural and forest habitats’, in ‘8th International symposium on Vector and Vector Borne Diseases’ held at Madurai, India, from 13th to 15th October 2006.

6. Presented paper entitled 'Morphological differences between *Aedes aegyti* and *Aedes albopictus* form rural and forest areas of Karnataka' in 'National Conference on Parasitic diseases' held at Bangalore from 13th to 15th April 2007.
7. Presented paper entitled 'A study on stress tolerance and effect of *Gmelina arborea* on stress induced *Drosophila melanogaster*' in National Conference on Recent Trends in Animal Physiology held at University of Mysore, Mysore from 29th to 30th October, 2009.
8. Participated in One Day Symposium on 'Microbial Energy' held at University of Mysore, Manasagangothri, Mysore, on 15th September 2010.
9. Participated in one day State level seminar on 'Ayurveda and Phytopharmacueticals' held at JSS College, Ooty Road, Mysore, on 21st January 2011.
10. Attended one day orientation program on Life Skill and ICT enabled teaching held on 2nd Feb 2012 at JSSCACS, Ooty Road, Mysore
11. Participated in International Conference and Trade Show "Bangalore India Bio-2012" organized by Dept. of IT and BT, Govt. of Karnataka held at Hotel Lalit Ashok, Bangalore during 6-8 February 2012.
12. Participated in International Conference and Trade Show "Bangalore India Bio-2013" organized by Dept. of IT and BT, Govt. of Karnataka held at Hotel Lalit Ashok, Bangalore 9-11, February 2013.
13. Participated and presented a paper entitled "Biodiesel production from Non-Feed stock *Areca ctechu* shell" in National symposium on Innovations in Science and Technology for Inclusive Development held at University of Mysore, Mysore from 3rd to 4th January 2014.
14. Participated in International Conference and Trade Show "Bangalore India Bio-2014" organized by Dept. of IT and BT, Govt. of Karnataka held at Hotel Lalit Ashok, Bangalore from 9-11, February 2014.
15. Presented a paper entitled "Suppression of elevated reactive oxygen species by *Acorus calamus* (Vacha) a sweet flag in *Drosophila melanogaster* under stress full conditions" in KSTA Regional Conference on "Science and Technology for Education and Health Care" held at JSS College, Ooty Road, Mysore from 21st to 22nd February 2014.
16. Participated in International Conference and Trade Show "Bangalore India Bio-2015" organized by Dept. of IT and BT, Govt. of Karnataka held at Hotel Lalit Ashok, Bangalore from 9-11, February 2015.

17. Presented a paper (poster) paper entitled “Microwave Assisted Synthesis of Novel Zinc Oxide Nanoceramics: A Potent Biological Agents with Therapeutic Characters” in UGC sponsored national conference on “Current trends in chemical biology” on 2nd and 3rd March 2015, organized by PG Dept. of Chemistry JSS College, Ooty Road, Mysore.
18. Presented a paper entitled “Flower extracts could empower PVA coated Nano particles to resist microbial growth: Applicable for food packaging” in UGC sponsored National conference on ‘Microbes and Human Welfare’ held on 23 and 24th March 2015, organized by PG Dept. of Biotechnology, JSS College, Ooty Road, Mysore.

WORKSHOPS ATTENDED

1. Undergone training in identification of ticks and mosquitoes at National Institute of Virology (Field Station), Bangalore, India, from 8th October – 12th October 2001.
2. Underwent Training in identification of mosquitoes and ticks at Vector Control Research Centre (ICMR), Pondicherry, India form 7th October – 14th October 2002.
3. Attended UGC sponsored workshop “Chromosome Biology of Insects” held at Maharani’s college, University of Mysore, Mysore.
4. Underwent Training in Molecular biology techniques at ‘Vector Control Research Centre’ (ICMR) [a World Health Organization collaborating training centre], Pondicherry form 16th May – 15th June 2006.
5. Attended workshop on ‘Genetics’ organized by Sri Bhaghavan Mahaveer Jain College, J. C. Road Bangalore, from 9th to 10th February 2007.
6. Attended workshop on ‘Choice Based Credit System’ organized by JSS College, Ooty road, Mysore, on 10th December 2009.

PH.D., GUIDED Successfully - 02

PROJECTS GUIDED FOR M.Sc., STUDENTS > 150

SATHISH KUMAR, B. Y.