

Curriculum-Vitae

Dr. A. PRIYA M.Sc, M.Phil, B.ED, Ph.D

Assistant Professor

V.O. Chidambaram College

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Tamil Nadu,India.

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Career Objective

Seeking a challenging and progressive career to enhance my strength, skills and knowledge in the research field and want to deliver my best to the organization.

Educational Qualifications:

Examination Passed	Name of Board/ University	Year of Passing	% of marks obtained	Division
Ph.D	Bharathiar University Zoology	2020	-	Highly commented
M.Phil	Bharathiar University Zoology	2013	-	Highly commented
M.Sc.	Bharathiar University Zoology	2011	64%	1 st class
B.Ed	Tamil Nadu university(TM)	2009	88%	1 st class with Distinction
B.Sc.	Govt arts and Science college Bharathiar University Zoology	2008	67%	1 st class
12 th	Tamil Nadu State Board(TM)	2005	61 %	1 st class
10 th	Tamil Nadu State Board(TM)	2003	81 %	1 st class
Computer Proficiency	PGDCA			1st class

Awards and Honours: - Awarded **Junior Research Fellowship** (DST-SERB) from 2014 to 2016.

Research Experience: -

- Synthesis of nanomaterials and engineering, Evaluation of nanomaterials against diseases.
- Green synthesis of metal nanoparticles against mosquito vectors, *Anopheles stephensi*, *Aedes aegypti* and *Qulex quinquefasciatus*.
- Antibacterial, antioxidant, antidiabetic, antimalarial and antidengue activity of Plant extract and Essential oil synthesis of Ag, Au, ZnO, FeO nanoparticles and Nanoemulsion.
- Essential oil encapsulated different nanoparticles against mosquito vectors and agricultural pest management.

Overview of My Research Work:-

Mosquitoes are vectors for many pathogens that cause human diseases such as malaria, dengue fever, yellow fever, Rift Valley fever, Chikungunya and Zika Virus. The mosquito-borne viral infection found in tropical and subtropical regions around the world. Insect pests inflict important damages to humans, farm animals, crops, stored products either directly or indirectly and impacts on agricultural production and market access, the natural environment, and our lifestyle. Therefore, hence, there is an urgent need to develop new techniques to control this insects control. Plants offer an alternative source of Mosquito vector and insect pest control agents as they contain wide range of bioactive compounds many of which are selective and have little or no harmful effects on non-targeted organisms and environment unlike synthetic insecticides. The Plant secondary natural products are natural chemicals extracted from plants and used as an excellent alternative to synthetic pesticides. Nanotechnology has been proposed to considerable extent and has been applied in numerous formulations to create many new products with a wide range of applications in several fields such as textile, geosensing technology, food, fertilizers, pesticides, plant protection, nutrition paint, food bio fuel, biomass, biocomposites and agrochemical industries. Nowadays all kinds of biomaterials utilized with

applications of nanocomposites. Nanomaterials were synthesized or used from natural materials to make different forms and chemical composition including metal, metal oxides, semiconductor quantum dots, carbon, ceramics, silicates, lipids, polymers, proteins, dendrimers and emulsions. NP-based drug is used in the field of the biological system, living organisms, medicine, plant management, pest control, agricultural aspects with better efficiency and preferred target of the green method related to antibacterial, microbial, larvicidal, pesticidal, anti-inflammatory, antiplatelet activity, anti-angiogenesis and anti-viral activity. Hence based on the facts, in this research attempt has been made to produce a potential essential oil from plant synthesized different nano-biopesticide using against Mosquito vector and Insect pest. Finally, we have confirmed, that plant extract and essential oil fabricated nanoparticles were proved high insecticidal efficacy against mosquito species and agriculture eco-friendly, profitable by reducing the usage of crop protection chemicals, crop growth, pest and disease attack.

DISSERTATION/THESIS WORK

Ph.D. (2014-2019) Specialization in Entomology and Nanobiotechnology.

Studies on mosquitocidal properties of *millingtonia hortensis* fabricated nanocrystals with selective toxicity against dengue vector *aedes aegypti* and microbial pathogens.

Under the Guidance of **Dr. K. Murugan**, Professor and Head Department of Zoology, Bharathiar University, Coimbatore-46, India

M. Phil (2011-2013) Specialization in Entomology and Nanobiotechnology.

Studies on the effect of *ponngamia pinnata* and *melia azedarach* with silver nanoparticles on the larvicidal, pupicidal and repellent activities against dengue vector *aedes aegypti*

Under the Guidance of **Dr. k. Murugan**, Professor and Head Department of Zoology, Bharathiar University, Coimbatore-46, India

M.Sc. (2009-2010) Specialization in Entomology and Nanobiotechnology.

Studies on the effect of *neem oil* and *musa paradisiacal* extract on the larvicidal, pupicidal and repellent activities on malarial vector, *anopheles stephensi* (Insecta:diptera: culicidae).

Under the Guidance of **Dr. k.Murugan**. Professor and Head Department of Zoology, Bharathiar University, Coimbatore-46, India

RESEARCH PUBLICATIONS: (National/International journals)

List of Papers:

1. Anbazhagan Priya Kadarkarai Murugan Anitha Jaganathan Vasu Sujitha Christina Mary Samidoss1 Sudalaimani Jayashanthani1 Mosquitocidal, Antimalarial and Antidiabetic Potential of *Musa paradisiaca*-Synthesized Silver Nanoparticles: In Vivo and In Vitro Approaches July 2016 Journal of Cluster Science 28(1)DOI 10.1007/s10876-016-1047-2.

2. Anbazhagan Priya, Murugan, K., Madhiyazhagan, P., Dinesh, D., Subramaniam, J., Panneerselvam, C., Suresh, U., Alarfaj, A.A., Munusamy, M.A., Higuchi, A. and Hwang, J.S., 2016. Green-synthesised nanoparticles from *Melia azedarach* seeds and the *cyclopoid crustacean* *Cyclops vernalis*: an eco-friendly route to control the malaria vector *Anopheles stephensi*?. Natural product research, 30(18), pp.2077-2084.

3. Priya, S., Murugan, K., Priya, A., Dinesh, D., Panneerselvam, C. and Devi, G.D., 2014. Green synthesis of silver nanoparticles using *calotropis gigantea* and their potential mosquito larvicidal property. J. Pure Appl. Zool, 2, pp.128-137.

4 .Palanimuthu Aruna , Kadarkarai Murugan, Anbazhagan Priya, Vasu Sujitha larvicidal, pupicidal and repellent activities of gaultheria oil (Plantae:Eriaceae)against the filarial vector, *culex quinquefasciatus* (insecta:Diptera culicidea)

5. Kandasamy Kalimuthu,, Palanisamy Mahesh Kumar Anbazhagan Priya 2 Li-Chun Tseng1Kadarkarai Murugan2 Predatory efficiency of copepod *Mesocyclops aspericornis* and the toxicity effect of *Madhuca longifolia* cake against dengue vector *Aedes aegypti*

6. Priya Anbazhagan. Kadarkarai Murugan *millingtoniahortensis* modified Silvernanoparticles exhibits antiviral activity in Dengue Virus type 2 Infection

Citation

Total citation: 65

ATTENDED SEMINARS/CONFERENCE:

- Science Academies Lecture Workshop on Insights in Life science organized by the Department of Biochemistry, Bharathiar University on 22 to 24 January 2018.
- National conference on advances in Biological sciences,(NCAB-2014) St. Josephs college.
- Seminar on “Motivation Seminar on Life Skills” Organized by Department of Zoology, Bharathiar University, Coimbatore on 24th& 25th February, 2011.
- National Seminar on Biodiversity and Conservation (NSBC-2015) Organized by Department of Environmental Sciences, Bharathiar University on 30th March 2015.
- National Seminar on Current Zoology Organized by Department of Zoology, Periyar University, Salem, Tamilnadu, India on 21st January, 2014.
- National Seminar on Current Scenario in Botanical Research organized by department of Botany Bharathiar University 13th December, 2013.
- DST- PURSE Phase II lecture Workshop on Biological Techniques Organized by the Department of Microbial Biotechnology, Bharathiar University on 1st & 2nd March 2018.
- Seminar on Role of Youth in Promotion of Agricultural & Environment Organized by the Department of Environmental Sciences, Bharathiar University, Coimbatore, India on 3rd October, 2018.
- National workshop on “Advanced Instruments for Characterization” Organized by department of nanoscience and technology, Bharathiar University, Coimbatore on 27th March, 2012.

Conference/Symposium Participated

- International 3rd Asian Lepidoptera Conservation Symposium at Bharathiar University Coimbatore on 25 – 29 October, 2010, Department of Zoology.
- 2nd International Congress on Global Warming on Biodiversity of Insects: Management and Conservation at Bharathiar University, Coimbatore on 24 – 26 August, 2011, Department of Zoology.
- International Symposium on Environmental Risk Assessment 2011 at Bharathiar University Coimbatore on 17 – 19 October, 2011, Department of Zoology.
- International Conference on Genes, Health and Diseases Assessment 2011 At Bharathiar University Coimbatore On 9- 11 December, 2011, Department Of Zoology.
- National symposium on science of Nano (SCINO 13) POSTER PRESENTATION. Held Bharathiar University, Coimbatore at 6 nd 7 December 2013
- 3rd International Congress on Global Warming on Biodiversity of Insects: Management and Conservation at Bharathiar University, Coimbatore on 26 – 28 novembar 2013, Department of Zoology.
- 10th National Conference on Recent trends in Life Sciences: Research, Practices and Application for Sustainable Development Organized by Departments of Botany and Zoology, Bharathiar University, Coimbatore on 7th & 8th September, 2017.
- International Conference on Recent Biotechnological Innovation In Aquaculture (RBIA) Organized by Department of Zoology, Bharathiar University, Coimbatore on 27th & 28th February, 2020.

Training and Awarness Programme Participated

- UGC sponsored Training Programme on Research Methodology in Zoology organized by the Department of Zoology, Bharathiar University, Coimbatore on 21st to 25th January 2014.
- Institutional Bio safety committee (IBSC) Bharathiar University, Coimbatore on 27st September, 2014.

- World Environmental Health Rally-2019 Organized by the Department of Zoology and Nature Club of Bharathiar University on 26th September, 2019..
- Awareness Programme Traffic and Road Safety Organized by Human Rights and Law Awareness Club, Bharathiar University, Coimbatore on 29th February, 2012.

ACTIVITIES

Skills: Parasite Ecology, Molecular Entomology, Vector Biology and Control, Vector-Borne Diseases, Insect Vectors, Parasite Biology, Parasitic Diseases, Zoonotic Diseases, Tropical Diseases, Medical Entomology, Veterinary Entomology, Mosquito Ecology.

Insect Culture Techniques:

Lepidopteran Insect Pests: *Helicoverpa armigera* (cotton bollworm), *Spodoptera litura* and *Plutella xylostella*. Ecto-and endoparasitoids of above insects.

Mosquito vectors: *Anopheles stephensi*, (malarial vector), *Aedes aegypti* (dengue vector) and *Culex quinquefasciatus* (filarial vector).

Technical Experience

- ❖ Life history parameters of insects, Quantitative food utilization by gravimetric methods, life table analysis, toxicity bio-assay techniques, feeding deterrent, anti- oviposinal studies and repellent bioassay
 - ❖ Phytochemical extractions of plant compounds and Nanoparticle extractions etc.,
 - ❖ Analytical Instrumentation: HPLC, AGE, PAGE GCMS and Fluorescent Microscope.
 - ❖ Phytochemistry: Isolation and Purification of Secondary Metabolites.
 - ❖ Molecular biology: RT-PCR, Western Blot.
 - ❖ In vitro biology: Culturing of Mammalian cells and Animal viruses
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Other information

I have had the privilege of being taught by world class public health experts and leading academicians and researchers. My Supervisor Dr.K. Murugan Ph.D, D.Sc., were world-wide experts and World Top Scientist (Mycology and Parasitology) 134th rank at the global level by Stanford University scientist- 2020, the profoundly knowledgeable and resourceful Entomologists with over fifteen years' experience in teaching as well as research. I was exposed to up-to-date research with field exposure and practice, illustrations drawn from the recent studies of different programme around the world and on developing and implementing R&D program on Entomology and Vector Control. I would indeed like to work in a challenging and analytical environment where I can exploit my experience and set standards to follow. Personally, I am a conscientious and charismatic character with superior verbal, written, interpersonal, organisational, team-building and co-operative skills. I am generally a competent academic and professional, who is highly ambitious, hard-working, focused and always keen and zealous to learn more and to effectively contribute to achieve both individual and organisational goals and vision.

Personal details

Father Name: C Anbazhagan
Mother Name: A. Sivakami
Husband Name: C. Vivek
Date of Birth: 10.06.1987
Nationality: Indian
Status: Married
Language: Tamil, English

Permanent Residential Address

Dr. A. PRIYA W/O C. VIVEK

5L/1A NGO COLONY, GANESH NAGER

THOOTHUKUDI-628008

REFERENCES

Declaration

I affirm that all information supplied by me as above is true and correct. I also fully understand that if at any stage, it is discovered that any attempt has been made by me to wilfully conceal or misrepresent the facts, my candidature is liable to be summarily rejected or employment terminated.

Place: Thoothukudi

Signature of the candidate

Date:

(Dr. A. PRIYA)