


Name	DR.G. SINGARAVELU	
Designation	ASSOCIATE PROFESSOR	
Mail Address	Department Of Zoology Thiruvalluvar University Vellore – 632 115	
Academic Qualifications	M. Sc., Ph.D.,	
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Teaching Experience: 22 years

Research Experience: 25 years

Research Area / Specialization (s): NANOSCIENCE, ENTOMOLOGY

Research Guidance / Supervision

Programmes of Study	Completed	Ongoing
Ph. D	16	8
M. Phil	63	3

Research Papers

Published in International Journals	Published in National Journals	Presented in International Conferences	Presented in National Conferences
38	32	18	28

Funded Research Projects (Completed)

S.No	Agency	Period		Project Title	Budget (Rs.lakhs)
		From	To		
1	DST, New Delhi	2007	2010	Silver nanoparticles potential application in Sericulture	14.47
2	DBT, New Delhi	2004	2007	Food and Nutritional security through Biological Approaches	15.20
3	ICMR, New Delhi	2012	2015	Biosynthesis of silver nanoparticles and their anti HIV activity	39.90

Funded Research Projects (Ongoing)

S.No	Agency	Period		Project Title	Budget (Rs.lakhs)
		From	To		
1	DST, New Delhi			Fungal mediated green chemistry approach on the synthesis of metal nanoparticles and its molecular mechanistic aspects	Approved
2	DBT, New Delhi	2015	2018	Biological synthesis and development of nano gold PTP1B inhibitors	56.40

Consultancy Projects ---

S.No	Agency	Period		Project Title	Budget (Rs.lakhs)
		From	To		

Number of Seminars / Conferences / Workshops / Events attended: 45

Number of Seminars / Conferences / Workshops / Events organized: 05

Number of Invited / Special Lectures delivered : 14

Number of Books / Chapters / Monographs / Manuals written : 04

Achievements / Awards / Honours:

- Member** – Conveners Committee, Thiruvalluvar University - 2006
- Member** – Syndicate, Thiruvalluvar University – 2005
- Member** – Academic Council, Thiruvalluvar University – 2003-2006
- Member** – Board of Research Studies – 2008-2011
- Member** – P.G Board of Studies – 2010-2012
- Member** – Academic Council, Thiruvalluvar University – 2013-2016
- Member** – UGC XI plan visiting committee - Guru Ghasidas University,
Bilaspur, Chhattisgarh – 2009
- UPSC** –Expert - 2015

Membership in Professional / National / International Bodies:

- Member** – International Nanotechnology Society, USA
- Life Member** – Society of Toxicology, Izatnagar
- Member** – The Academy of Environmental Biology, Lucknow
- Member** – Indian Academy of Sciences
- Fellow** – National Academy of Sciences
- Editorial board member** – Journal of Biopesticides
- Reviewer** – Elsevier, Springer

Additional Responsibilities: Head in Charge, Department of Zoology,
Thiruvalluvar University. 2002-2010

Countries Visited: Singapore, Malaysia

Others

- Patents – Filed: One
- Products developed: -----

Publications in Journals

Publications:

1. Uma Suganya KS, Govindaraju K Ganesh Kumar V, Stalin Dhas T, Karthick V, **Singaravelu G** and Elanchezhian M (2015) Size controlled biogenic silver nanoparticles as antibacterial agent against isolates from HIV infected patients. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 144: 266- 272 [Elsevier] (Impact Factor- 2.13).
2. Karthick V, Ganesh Kumar V, Dhas TS, Govindaraju K, Sweta Sinha and **Singaravelu G** (2015) Biosynthesis of Gold Nanoparticles and Identification of Capping Agent Using Gas Chromatography- Mass Spectrometry and Matrix Assisted Laser Desorption Ionization- Mass Spectrometry. *Journal of Nanoscience and Nanotechnology* 15: 4052- 4057 [ASP] (Impact Factor- 1.339).
3. Uma Suganya KS, Govindaraju K, Ganesh Kumar V, Stalin Dhas T, Karthick V, **Singaravelu G** and Elanchezhian M (2015) Blue green alga mediated synthesis of gold nanoparticles and its antibacterial efficacy against Gram positive organisms. *Materials Science and Engineering C* 47: 351–356 [Elsevier] (Impact Factor-2.736).
4. Geetha R, Ashokkumar T and **Singaravelu G** (2015) Facile Green Synthesis of Gold Nanoparticles and its cytotoxic activity against MCF-7 cell line. *Journal of the Indian chemical Society* 92:664-666.
5. Govindaraju K, Krishnamoorthy K, Alsagaby S, **Singaravelu G** and Premanathan M (2015) Green synthesis of silver nanoparticles for selective toxicity towards cancer cells. *IET Nanobiotechnology* 1-6, doi: 10.1049/iet-nbt.2015, 0001.
6. Ashokkumar T, Prabhu D, Geetha R, Govindaraju K, Manikandan R, Arulvasu C and **Singaravelu G** (2014) Apoptosis in liver cancer (HepG2) cells induced by functionalized gold nanoparticles. *Colloids and Surfaces B: Biointerfaces* 123:549-556 [Elsevier] (Impact Factor - 4.287).
7. Karthik V, Ganesh Kumar V, Stalin Dhas T, Govindaraju K, **Singaravelu G**, Mohamed Sadiq A and Govindaraju K (2014) Effect of biologically synthesized gold nanoparticles on alloxan-induced diabetic rats-An *in vivo* approach. *Colloids and Surfaces B: Biointerfaces*, 122: 505-511 [Elsevier] (Impact Factor - 4.287).
8. Arunkumar S, Tamilselvan S, Ashokkumar T, Geetha R, Govindaraju K, Ganesh Kumar V, **Singaravelu G** and Vijai Anand K (2014) One-pot room temperature novel synthesis of water soluble CdS nanotriangles via green route. *Materials Letters*, 134: 225-228 *Materials Letters* [Elsevier] (Impact Factor -2.269).
9. Saritha K, Saraswathi U, **Singaravelu G**, Revathi S and Jayanthi V (2014) Biological synthesis and characterization of gold nanoparticles using *Lemna minor*. *Asian journal of pharmaceutical and clinical research*, 7: 165-167.
10. Venkatachalam M, Govindaraju K, Mohamed Sadiq A, Tamilselvan S, Ganesh kumar V and **Singaravelu G** (2013) Functionalization of gold nanoparticles as antidiabetic nanomaterial. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 116, 331-338 [Elsevier] (Impact Factor -2.129).

11. Ashokkumar T, Dineshkumar S and **Singaravelu G** (2013) Biological synthesis of silver nanoparticles using Mangrove *Bruguiera cylindrica*. *World Congress on Research and innovations*. 283-285. ISBN: 978-93-83842-03-2.
12. Venkatachalam M, **Singaravelu G**, Govindaraju K, Jong Seog Ahn (2013) PTP 1B inhibitory action of a phytochemical Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl). *Current Science*, Vol,5, No.6, 827-832 (Impact Factor -1.00).
13. Vinodhini A, Govindaraju K, **Singaravelu G**, Mohamed Sadiq A and Ganesh Kumar V (2013) Biobased synthesis of gold nanoparticles and their cardioprotective action. *Colloids and Surfaces B: Biointerfaces* 117 (2014) 480–486 [Elsevier] (Impact Factor - 4.287).
14. Geetha R, Ashokkumar T, Tamilselvan S, Govindaraju K, Mohamed sadiq A and **Singaravelu G** (2013) Green synthesis of gold nanoparticles and their anticancer activity. *Cancer Nanotechnology*, Vol, 4, 4-5, 91-98 [Springer].
15. Ashokkumar T, Tamilselvan S, Geetha R, Govindaraju K and **Singaravelu G** (2012) Facile green synthesis of silver nanoparticles and their antiviral activity. In “NANOBIOMATERIALS” Eds K.E. Geckeler and V. Rajendran. BLOOMSBURY Publ. 309-318, ISBN: 978-93-82563-37-2.
16. Tamilselvan S, Ashokkumar T, Geetha R, Govindaraju K, Mohamed sadiq A and **Singaravelu G** (2012) Biogenic silver nanoparticles’ *Bombyxmori* nuclear polyhedrosis virus (BmNPV) inhibitory mechanism. In “NANOBIOMATERIALS” Eds K.E. Geckeler and V. Rajendran. BLOOMSBURY Publ. 203-208, ISBN: 978-93-82563-37-2.
17. Geetha R, Ashokkumar T, Tamilselvan S, Govindaraju K and **Singaravelu G** (2012). Green synthesis of gold nanoparticles and their anticancer activity. In “NANOBIOMATERIALS” Eds, K.E. Geckeler and V. Rajendran. BLOOMSBURY Publ. 319-328, ISBN: 978-93-82563-37-2.
18. Periyasamy Sivamani, **Singaravelu G**, Venkatesan Thiagarajan, Tamilarasu Jayalakshmi and Gopal Ramesh Kumar (2012) Comparative molecular docking analysis of essential oil constituents as elastase inhibitors. *Bioinformation*. 8 (10): 457-460.
19. Premanathan M, Radhakrishnan S, Kulangiappar K, **Singaravelu G**, Thirumalaiarasu V, Sivakumar T and Kathiresan K (2012) Antioxidant and anticancer activities of isatin 1*H*-indole-2,3-dione, isolated from the flowers of *Couroupita guianensis* Aubl. *Indian Journal of Medical Research.*, 136, 5, 822-826. ICMR. (Impact Factor -1.661).
20. Sasikala D, Govindaraju K, Tamilselvan S and **Singaravelu G** (2012) Soybean protein: a natural source for the production of green silver nanoparticles. *Biotechnology and Bioprocess Engineering.*, 17, 1176-1181 [Springer] (Impact Factor -1.220).
21. Govindaraju K, Tamilselvan S, Kiruthiga V, **Singaravelu G** (2011) Silvernanotherapy on the viral borne disease of silkworm *Bombyx mori* L. *Journal of Nanoparticles Research*- 13:6377-6388 [Springer] (Impact Factor -2.278).
22. Govindaraju K, Kiruthiga V, Manikandan R, Ashokkumar T and **Singaravelu G** (2011) β -glucosidase assisted biosynthesis of gold nanoparticles: a green chemistry approach. *Materials Letters*. 65:256-259 [Elsevier] (Impact Factor -2.269).

23. Govindaraju K, Kiruthiga V, Tamilselvan S and **Singaravelu G** (2010) Biogenic silver nanoparticles by *Solanum torvum* and its promising antimicrobial activity. Journal of Biopesticides. 3 (1):3394-339.
24. Khaleel Basha S, Govindaraju K, Manikandan R, Ahn JS, Bae EY and **Singaravelu G** (2010) Phytochemical mediated gold nanoparticles and their PTP 1B inhibitory activity. Colloids and Surfaces B: Biointerfaces.75:405-409 [Elsevier] (Impact Factor -4.287).
25. Sivamani P, Sumathi R, Thiagarajan V, **Singaravelu G** (2010) In *vitro* antifungal activity of essential oils of selected herbals against isolates from HIV/AIDS patients. Journal of Pharmacy Research. 3(5), 1049-1055 [Elsevier].
26. Ganesh Kumar V, Govindaraju K, **Singaravelu G** and Adhikesavelu D (2009) Antibacterial activity of viologen pendant indole stabilized silver nanoparticles. Journal of Biopesticides 2(2): 217-221.
27. Govindaraju K, Kiruthiga V, Ganesh Kumar V and **Singaravelu G** (2009) Extracellular synthesis of silver nanoparticles by a marine alga, *Sargassum wightii* Greville and their antibacterial effects. Journal of Nanoscience and Nanotechnology, 9: 5497-5501.
28. Govindaraju K, Khaleel Basha S, Ganesh Kumar V and **Singaravelu G** (2008) Silver, Gold and Bimetallic Nanoparticles Production Using Single Cell Protein (*Spirulina platensis*)Geitler, Journal of Materials Science, 43: 5115-5122 [Springer] (Impact Factor - 2.371).
29. Ganesh Kumar V, Inbakandan D, Radhiga Rajasree SR, Stantly Abraham L, Manoharan N, Govindaraju K and **Singaravelu G** (2008) Biological synthesis and applications of gold and silver Nanoparticles-A review. International Journal on Applied Bioengineering, 2: 62-65.
30. Mohamed Sadiq A, Govindaraju K and **Singaravelu G** (2008) UV impact on the digestive physiology of *Bombyx mori* L. Journal of Biopesticides, 1(2):226-228.
31. Govindasamy C, Vasudevan N and **Singaravelu G** (2008) Biodiversity of zooplankton communities in clive bazaar and talanur lakes, Arcot, Vellore. Pollution Research, 27(1):117-125.
32. Govindaraju K, Kiruthiga V and **Singaravelu G** (2008) Evaluation of biosynthesized silver nanoparticles against fungal pathogens of mulberry *Morus indica*. Journal of Biopesticides, 101-104.
33. **Singaravelu G**, Govindaraju K, Kiruthiga,V and Mohamed Sadiq A (2007) Influence of soybean (*Glycine max*) on the reproductive potentiality of silkworm *Bombyx mori* L. Journal of Entomological Research,31(4):341-345.
34. **Singaravelu G**, Arockiyamari J, Ganesh Kumar V. and Govindaraju K (2007) A novel extracellular biosynthesis of monodisperse gold nanoparticles using marine algae, *Sargassum wightii* Greville. Colloids and Surfaces B: Biointerfaces, 57,97-101 [Elsevier] (Impact Factor - 4.287)..
35. Valarmathi.R, **Singaravelu G** and Govindaraju K (2006) Nanobiological approach on the control of uzifly *Exorista bombycis* a notorious pest of sericulture. Journal Scott Research forum
forum ,Vol.III (Zoology),131-138.

36. Sumathi S and **Singaravelu G** (2004) Isolation and identification of antibacterial compound from *Lantana camera* against flacherie of silkworm *Bombyx mori*. Journal Scott Research forum. Sect. Vol (1):156-162.
37. **Singaravelu G**. Deepa K. Prabu P and Sakila M (2004) Biochemical action of BmNPV infection on certain tissues of silkworm *Bombyx mori* L. *Asian Journal Microbiology and Biotechnology and Environmental Science*,6(4):675-679.
38. **Singaravelu G** (2004) Back to Nature. The New Indian Express,1-5 2004.
39. **Singaravelu G**. Sumathi S. Prabu P and Jagapriya L (2004) Biological activity of azadirachtin on certain reproductive aspects of female moth of *Bombyx mori* L. *Toxicology International*.Vol.11 No. (2), pp 27-31.
40. **Singaravelu G**. Jayalakshmi J. Prabu P and Govindaraju K (2004) Effect of preservation of eggs of mulberry silkworm *Bombyx mori* L. *Journal of Entomological Research*. 28(2) : 127-135.
41. **Singaravelu G**.Anbu S.,Prabu P and Govindaraju K (2004) Effect of supplementation of micronutrient magnesium sulphate on certain aspects of silkworm *Bombyx mori* L. *Journal of Entomological Research*. 27(4) : 1-6 .
42. **Singaravelu G** and Sumathy (2002) Haematological investigation in control of human filariasis with Diethylcarbamazin citrate. *Journal of Applied Zoology Research* 14 (1).
43. **Singaravelu G** and Sumathy (2002). Biochemical investigations on baneroffian filariasis control with Diethylcarbamazin citrate – *Journal of Applied Zoology Research* 14.
44. **Singaravelu, G** and Jayashree (2002). Functional response of *Exorista bombycis* parasitizing mulberry silkworm *Bombyx mori* L. *Journal of Applied Zoology Research* 14 (1).
45. **Singaravelu G** and Dhananchezhian J (2003) Comparative efficiency of the microbial against *Bacillus thuringiensis* var israelensis and fenthion against filarial vector in Vellore. *Ecology and Environmental Conservation* 47, 65-69.
46. **Singaravelu G** and Dhanasekar M (2000) Toxic effect of some plant extracts on three species of mosquito larvae. *Journal of Experimental Zoology*. India Vol. 3. No. 2. PP. 133 – 136.
47. **Singaravelu G** and Mohamed Sadiq (2001). Biochemical and microbial changes as influenced by UV light and alcohol in mulberry leaves. *Journal Advanced Zoology*, 22, (2):120-125.
48. **Singaravelu G** and Mahalingam S (2002). Current evaluation of susceptibility status of certain mosquito vectors against some larvicide's. *Trends in life science*. 17(1):1-5.
49. **Singaravelu, Anbu S** and Mahalingam S (2001) Investigation on the population changes of larvivorous fish, *Gambusia affinis* in Vellore – A biochemical approach. *Journal Environmental Protection*. 21(1):33-37.
50. **Singaravelu G**, Mahalingam S and Jayanthi V (2000) Comparative evaluation on the diagnosis of malaria using conventional and saponin technique. *National Academy of Science*. 1923. 114 – 117.

51. **Singaravelu G**, Palani B and Sumathy S (2000) Biochemical alteration in filarial patients during the course of therapy. Proc. Tamil Nadu State Council for Science & Technology, 64 – 65.
52. **Singaravelu G**, Mahalingam S and Shanthalahiri (1999). Current evaluation of susceptibility status of synthetic pyrethroid cyfluthrin against different mosquito vectors. Journal of Communicable Diseases. 97 – 19: 344.
53. **Singaravelu G** and Selvam S (1999) Evaluation of juvenile hormones against mosquito vectors. Proc. Tamil Nadu State Council for Science & Technology, 64 – 65.
54. **Singaravelu G**, Mahalingam S and Sumathy S (1999) Estimation of different degrees of provocation of DEC (Diethylcarbamin citrate) medication in bancroftian filariasis in Vellore, Tamil Nadu. Indian Journal of Experimental Biology. 37:1142-1143.
55. Annadurai B, Palani B, Mahalingam S and **Singaravelu G** (1999) Production of Aflotoxin in contaminated stored grains. Journal Ecotoxicology and Environmental Monitoring. 9(1), 13 – 17.
56. **Singaravelu G** and Mahalingam S (1999) Sperm transfer mechanism in a ixodid tick, *Haemophysalis intermedia* (Acarina : Ixodidae). Journal Advanced Zoology. 20(1), 49-52.
57. **Singaravelu G**, Palani B and Mahalingam S (1998) Comparative bioassays of residual insecticides.(malathian,cyfluthrin) against certain species of mosquito vectors. Proc. Nat. Conf. Biological and Biotech Remedies to Environmental pollution,123-128.
58. **Singaravelu G**, Mahalingam S and Arunagirimuthu P (1998) Effects of malthion of haemoglobin content and its genotoxicity in occupationally exposed field workers of Vellore. Journal of Environmental Biology, 19(3) 187 – 192.
59. **Singaravelu G** and Mahalingam S (1998) Structure and formation of spermatophore in tick, *Haemophysalis intermedia* (Acarina: Ixodidae). Entomon. 23(1): 23-28.
60. Raghunathan M, **Singaravelu G** and Mahalingam S (1998) Concurrent effects light and eyestalk extract of briqan thorasaic ganglion and on the changes in the gonadal indices of female crab, *Paratephusa hydrodromeus*. Journal Endocrinology and Reproduction. 2(2), 46 – 53.
61. Annadurai B, Palani B, Mahalingam S. and **Singaravelu G** (1998) Effect of Aflotoxin on RBC, WBC and Heamoglobin of *Rattus rattus narvegicus*. Bio journal 1&2:165-172.
62. **Singarvelu G**, Raghunathan MG, Mahalingam S and Dhanasekhar M (1998) Toxic effects of some plants extracts on three species of mosquito larvae. Journal of Experimental Zoology. India,3(2):133-136.
63. **Singarvelu G**, Mahalingam S. and Shanmugapriya J (1998) Comparative efficacy of three insecticides against housefly. *Musca domestica* in a cholera endemic area Vellore. *Geobios* 25: 120 – 124.
64. **Singarvelu G**, Mahalingam S and Jayabharathi K (1997) Predatory efficiency of larvivorous fish *Gambusia affinis* on the mosquito larvae of *Aedes aegypti* and *Anopheles stephensi*. Current Science 72(7):512-514.

65. **Singarvelu G**, and Mahalingam S (1996) Mating behavior and spermatophore transfer in the cattle tick *Haemaphysalis intermedia*. In “Book – Readings in Behaviour”. Publ. New Age International Ltd., New Delhi.
66. Mahalingam S, Jeevanandam T and **Singarvelu G** (1993) A study on the fecundity of a tick *Haemaphysalis intermedia*. *Journal of Ecobiology* 5(2), 135-138.
67. Mahalingam S and **Singarvelu G** (1992). Occurrence of ticks populations on livestock in the North Arcot Ambedkar District of Tamil Nadu, *Indian Zoologist*, 16 (1 & 2) 165 – 168.
68. **Singarvelu G** (1991) Occurrence of elastic protein resilin in the spermatophore walls of a tick *Haemaphysalis intermedia*. *National Academy of Sciences Letters* 14 (3):147-149.
69. Mahalingam S, **Singarvelu G** and Jeevanandam T (1989) A study on the gametogenesis in a male tick *Haemaphysalis intermedia*. *Indian Zoologist* 13 (1 & 2) 61-63.
70. Mahalingam S, Jeevanandam T and **Singarvelu G** (1989) A study on some of the ixodid ticks with special reference to their veterinary and medical importance in the North Arcot Ambedkar District of Tamil Nadu, *Indian Zoologist* 13 (1&2), 27-29.

Books Published:

Recent Trends in Sericulture 2006 Supported by Tamil Nadu State Council for Science and Technology, Chennai.