

Faculty profile

Name : Dr. G. SINGARAVELU
Designation : Assistant Professor
Specialization : Nanoscience, Sericulture, Entomology



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Membership:

1. Member- International Nanotechnology Society, USA
2. Life Member, Society of Toxicology, Izatnagar.
3. Member, The Academy of Environmental Biology, Lucknow.
4. Member, Indian Academy of Science.
5. Member -Editorial Board, Journal of Biopesticide.
6. Referee – Elsevier, Springer, Indian Journal of Biotechnology, CSIR, Academic Journal, USA.

Projects (Total Projects: 5)

S. No	Funding Agency	Title of the projects	Duration	Amount sanctioned
1.	DST, New Delhi	Silver nanoparticles potential application in Sericulture	3 years (Completed)	13.47
2.	DBT, New Delhi	Food and Nutritional Security through Biotechnological Approaches	3 years (Completed)	15.20
3.	TNSCST, Chennai	Financial Assistance under Popularization of Science- Sericulture	(Completed)	0.25
4.	DST, New Delhi	Indo-Tunisia Collaborative Project	3 years (Approved)	4.50
5.	ICMR, New Delhi	Biosynthesis of silver nanoparticles and their anti HIV activity	3 years (Ongoing)	39.0

Research Supervision

Courses	Total number of Students completed	Number of students working
M.Phil	40	2
Ph.D	9- Degree Awarded 4-Thesis Submitted	7

Patent

Name of Inventors : **G.Singaravelu**, V. Kiruthiga and K.Govindaraju.

Title of the Invention : “A process for producing silver nanoparticles impregnated surgical suture thread”

Application No. : 306/CHE/2010 IPR, Anna University, Chennai.

Publication Date : 19.03.2010

Publications:**Books (Total Books 2)**

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

Book Edited

Entrepreneurship Development Training Programme - Manual on processing and preservation of Fruits and Vegetables 2006 Supported by Ministry of Food Processing Industries, New Delhi.

Proceedings of Abstracts of National Conference on Interplay of Biological and Chemical Sciences, January 6-8, 2010

Journals (Total Journals 56)

1. M. Venkatachalam, **G. Singaravelu**, K. Govindaraju, Jong Seog Ahn. 2013. PTP 1B inhibitory action of a phytochemical Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandrost-8-en-17-yl). *Current Science* (Under Review).
2. Ashokkumar. T, Tamilselvan. S, Geetha. R, K. Govindaraju and **G. Singaravelu**. 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.
3. Tamilselvan. S, Ashokkumar.T, Geetha. R, K. Govindaraju and **G. Singaravelu**. 2012. Biogenic silver nanoparticles' *Bombyxmorin* 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.
4. Geetha.R, Ashokkumar. T, Tamilselvan. S, K. Govindaraju and **G. Singaravelu**. 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.
5. Periyasamy Sivamani, **Ganesan Singaravelu**, 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.
6. S. Tamilselvan, T. Ashokkumar, R. Geetha, K. Govindaraju and **G. Singaravelu**. 2012. Facile green technology for the synthesis of monodisperse semiconductor CdS nanotriangles. *Materials Letters* (Under Review).
7. V. Kiruthiga, K. Govindaraju, V.Ganesh Kumar and **G. Singaravelu**. 2012. Silkworm silk: A natural source for the production of nanogold-silk bioconjugate and gold nanoparticles. *Journal of the Saudi Society of Agricultural Sciences* (Under Review).
8. A.Vinodhini, K.Govindaraju, **G.Singaravelu**, A.Mohamed Sadiq and V.Ganesh Kumar. 2012. Biobased synthesis of gold nanoparticles and their cardioprotective action. *International Journal of Cardiology* (Under Review)
9. M.Venkatachalam, K.Govindaraju, A.Mohamed Sadiq, S.Tamilselvan and **G.Singaravelu**. 2012. Biofabrication of gold nanoparticles and their antidiabetic activity. *Journal of Nanoparticles Research* (Under Review)

10. M.Premanathan, S.Radhakrishnan, K.Kulangiappar, **G.Singaravelu**, V. Thirumalaiarasu, T. Sivakumar and K. Kathiresan. 2012. Antioxidant and anticancer activities of 1*H*-indole-2,3-dione, isolated from the flowers of *Couroupita guianensis* Aubl. *Indian Journal of Medical Research.*, 136, 5, 822-826.
11. D.Sasikala, K. Govindaraju, S. Tamilselvan and **G. Singaravelu**. 2012. Soybean protein: a natural source for the production of green silver nanoparticles. *Biotechnology and Bioprocess Engineering.*,17, 1176-1181.
12. K.Govindaraju., S.Tamilselvan., V.Kiruthiga., **G.Singaravelu**. 2011. Silvernanotherapy on the viral borne disease of silkworm *Bombyx mori* L. *Journal of Nanoparticles Research*- 13:6377-6388.
13. K.Govindaraju, V. Kiruthiga., R. Manikandan., T. Ashokkumar and **G. Singaravelu**. 2011. β -glucosidase assisted biosynthesis of gold nanoparticles: a green chemistry approach. *Materials Letters.* 65:256-259.
14. Govindaraju, K., Kiruthiga, V., Tamilselvan, S., and **G. Singaravelu**. 2010. Biogenic silver nanoparticles by *Solanum torvum* and its promising antimicrobial activity. *Journal of Biopesticides.* 3 (1):3394-339.
15. Khaleel Basha, S., Govindaraju, K., Manikandan, R., Ahn, J.S., Bae, E.Y and **G.Singaravelu**. 2010. Phytochemical mediated gold nanoparticles and their PTP 1B inhibitory activity. *Colloids and Surfaces B: Biointerfaces.*75:405-409.
16. Ganesh Kumar, V., Govindaraju, K., **Singaravelu, G** and D. Adhikesavelu. 2009. Antibacterial activity of viologen pendant indole stabilized silver nanoparticles. *Journal of Biopesticides* 2(2): 217-221.
17. Govindaraju, K., Kiruthiga, V., Ganesh Kumar. V and **G. Singaravelu**. 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.
18. Govindaraju,K., Khaleel Basha,S., Ganesh Kumar, V and **G. Singaravelu**. 2008. Silver, Gold and Bimetallic Nanoparticles Production Using Single Cell Protein (*Spirulina platensis*)Geitler, *Journal of Materials Science*, 43: 5115-5122.
19. Ganesh Kumar, V., Inbakandan, D., Radhiga Rajasree, S. R., Stantly Abraham, L., Manoharan, N., Govindaraju, K and **G.Singaravelu**.2008. Biological synthesis and applications of gold and silver Nanoparticles-A review. *International Journal on Applied Bioengineering*, 2: 62-65.
20. Mohamed Sadiq, A., Govindaraju, K and **G. Singaravelu**. 2008. UV impact on the digestive physiology of *Bombyx mori* L. *Journal of Biopesticides*, 1(2):226-228.
21. Govindasamy,C., Vasudevan,N and **G.Singaravelu**, 2008. Biodiversity of zooplankton communities in clive bazaar and talanur lakes, Arcot, Vellore. *Pollution Research*, 27(1):117-125.
22. Govindaraju,K., Kiruthiga,V and **G.Singaravelu**, 2008. Evaluation of biosynthesized silver nanoparticles against fungal pathogens of mulberry *Morus indica*. *Journal of Biopesticides*, 101-104.

23. **Singaravelu, G.**, Govindaraju, K., Kiruthiga, V and A. Mohamed Sadiq, 2007. Influence of soybean (*Glycine max*) on the reproductive potentiality of silkworm *Bombyx mori* L. *Journal of Entomological Research*, 31(4):341-345.
24. **Singaravelu, G.**, Arockiyamari, J., Ganesh Kumar, V. and K. Govindaraju. 2007. A novel extracellular biosynthesis of monodisperse gold nanoparticles using marine algae, *Sargassum wightii* Greville. *Colloids and Surfaces B: Biointerfaces*, 57, 97-101.
25. Valarmathi, R, **G. Singaravelu** and K. Govindaraju. (2006). Nanobiological approach on the control of uzifly *Exorista bombycis* a notorious pest of sericulture. *Journal Scott Research forum*, Vol. III (Zoology), 131-138.
26. Sumathi, S. and **G. Singaravelu** (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.
27. **Singaravelu, G.** Deepa, K. Prabu, P and M. Sakila (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.
28. **Singaravelu, G.** 2004. Back to Nature. *The New Indian Express*, 1-5 2004.
29. **Singaravelu, G.** Sumathi, S. Prabu, P and L. Jagapriya (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.
30. **Singaravelu, G.** Jayalakshmi, J. Prabu, P and K. Govindaraju, (2004). Effect of preservation of eggs of mulberry silkworm *Bombyx mori* L. *Journal of Entomological Research*. 28(2) : 127-135.
31. **Singaravelu, G.** Anbu, S., Prabu, P and K. Govindaraju, (2004). Effect of supplementation of micronutrient magnesium sulphate on certain aspects of silkworm *Bombyx mori* L. *Journal of Entomological Research*. 27(4) : 1-6 .
32. **Singaravelu, G** and Sumathy (2002). Haematological investigation in control of human filariasis with Diethylcarbamazin citrate. *Journal of Applied Zoology Research*. (2003) 14 (1).
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34. **Singaravelu, G** and Jayashree (2002). Functional response of *Exorista bombycis* parasitizing mulberry silkworm *Bombyx mori* L. *Journal of Applied Zoology Research* (2003) 14 (1).
35. **Singaravelu, G** and J. Dhananchezhian. (2003). Comparative efficiency of the microbial against *Bacillus thuringiensis* var israelensis and fenthion against filarial vector in Vellore. *Ecology and Environmental Conservation* (2003) 47, 65-69.
36. **Singaravelu, G** and M. Dhanasekar. (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.
37. **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.

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39. **Singaravelu, G**. 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.
40. **Singaravelu, G**. Mahalingam, S and V. Jayanthi (2000). Comparative evaluation on the diagnosis of malaria using conventional and saponin technique. *National Academy of Science*. 1923. 114 – 117.
41. **Singaravelu, G**. Palani, B and S. Sumathy (2000). Biochemical alteration in filarial patients during the course of therapy. *Proc. Tamil Nadu State Council for Science & Technology*, 64 – 65.
42. **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.
43. **Singaravelu, G** and S. Selvam (1999). Evaluation of juvenile hormones against mosquito vectors. *Proc. Tamil Nadu State Council for Science & Technology*, 64 – 65.
44. **Singaravelu, G**. Mahalingam, S and S. Sumathy,(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.
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46. **Singaravelu, G** and S. Mahalingam, (1999). Sperm transfer mechanism in a ixodid tick, *Haemophysalis intermedia* (Acarina : Ixodidae). *Journal Advanced Zoology*. 20(1), 49-52.
47. **Singaravelu, G**. Palani. B and S. Mahalingam, (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.
48. **Singaravelu, G**. Mahalingam, S and P. Arunagirimuthu, (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.
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55. **Singarvelu. G**, and S. Mahalingam (1996). Mating behavior and spermatophore transfer in the cattle tick *Haemaphysalis intermedia*. In “Book – Readings in Behaviour”. Publ. *New Age International Ltd.*, New Delhi.
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58. **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.
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60. Mahalingam. S. Jeevanandam. T and **G. Singaravelu.** (1989). A study on some of the ixodis 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.