

Dr. A. GNANAMANI

List of Publications

1. H. Periasamy, S. Iswarya, N. Pavithra, S. Senthilnathan and A. Gnanamani., 2019. In vitro antibacterial activity of plumbagin isolated from *Plumbago zeylanica* L. against methicillin-resistant *Staphylococcus aureus*. Letters in Applied Microbiology, DOI doi:10.1111/lam.13160
2. Thanikachalam, T., Selvaraj, T.K.R., Ayyappan, M. and **Arumugam, Gnanamani.**, 2019. Gap closure of different shape wounds: In vitro and in vivo experimental models in the presence of engineered protein adhesive hydrogel. *Journal of tissue engineering and regenerative medicine*, 13(2), pp.174-178. [IF-4.089]
3. Santhakumaran, I., Kesavan, S.S. and **Arumugam, Gnanamani.**, 2019. Aspergillone pretreatment protects HaCaT cells from UVB irradiation induced oxidative damages: Assessment under in vitro and in vivo conditions and at molecular level. *Journal of cellular biochemistry* <https://doi.org/10.1002/jcb.28363> [IF-2.595]
4. Sripriya N., Vasantharaj S., Mani U., Shanmugavel M., Jayasree R., **Gnanamani A.** 2019 Encapsulated enhanced silver nanoparticles biosynthesis by modified new route for nano-biocatalytic activity. *Biocatalysis & Agricultural Biotechnology*. 18, Article id 101045
5. Santhakumaran, I., Shanuja, S.K., Narayanaswamy, R. and **Gnanamani, A.**, 2019. Aspergillone prevents HDF cells from UVB irradiation damages: An elaborated study. *Journal of cellular biochemistry*, 120(5), pp.7560-7572. [IF-2.595]
6. Bagavad Gita, J, Ann V George, Pavithra, N, Chandrasekaran, S.C, Latchumanadhas, K, and A. **Gnanamani** 2019 Dysregulation Of miR-146a by Periodontal Pathogens: a risk for Acute Coronary , *Journal of Periodontology*, 1-10, <http://doi.org/10.1002/JPER.18-0466> [IF- 3.392]
7. Jenifer, P., Kalachaveedu, M., Viswanathan, A., **Gnanamani, A.** and Mubeena, 2018. Fabricated approach for an effective wound dressing material based on a natural gum impregnated with *Acalypha indica* extract. *Journal of Bioactive and Compatible Polymers*, 33(6), pp.612-628. [IF-2.5]
8. Manikandan, A., Raja, S.T.K., Thiruselvi, T., Vaishnavi, M., Siva, R. and **Gnanamani, A.**, 2018. Engineered protein hydrogel for open wound management in Canines. *Wound medicine*, 22, pp.32-36. [IF-0.5]
9. Shanmugavel, M., Vasantharaj, S., Yazhmozhi, A., Bhavsar, P., Aswin, P., Felshia, C., Mani, U., Ranganathan, B. and **Gnanamani, A.**, 2018. A study on pectinases from

Aspergillus tamarii: Toward greener approach for cotton bioscouring and phytopigments processing. *Biocatalysis and agricultural biotechnology*, 15, pp.295-303. [IF-0.887]

10. Shanuja, S.K., Iswarya, S., Sridevi, J. and **Gnanamani, A.**, 2018. Exploring the UVB-protective efficacy of melanin precursor extracted from marine imperfect fungus: Featuring characterization and application studies under in vitro conditions. *International Microbiology*, pp.1-13. [IF-0.796]
11. Manikandan, A., Thirupathi Kumara Raja, S., Thiruselvi, T. and **Gnanamani, A.**, 2018. Engineered fish scale gelatin: An alternative and suitable biomaterial for tissue engineering. *Journal of Bioactive and Compatible Polymers*, 33(3), pp.332-346. [IF-2.5]
12. Karthick, N.A., Thangappan, R., Arivanandhan, M., **Gnanamani, A.** and Jayavel, R., 2018. A Facile Synthesis of Ferrocene Functionalized Graphene Oxide Nanocomposite for Electrochemical Sensing of Lead. *Journal of Inorganic and Organometallic Polymers and Materials*, 28(3), pp.1021-1028. [IF-1.754]
13. Aruna, S.T.R., Shilpa, M., Lakshmi, R.V., Balaji, N., Kavitha, V. and **Gnanamani, A.**, 2018. Plasma Sprayed Hydroxyapatite Bioceramic Coatings from Coprecipitation Synthesized Powder: Preparation, Characterization and in vitro Studies. *Transactions of the Indian Ceramic Society*, 77(2), pp.90-99. [IF-0.761]
14. Shanuja, S.K., Iswarya, S. and **Gnanamani, A.**, 2018. Marine fungal DHICA as a UVB protectant: Assessment under in vitro and in vivo conditions. *Journal of Photochemistry and Photobiology B: Biology*, 179, pp.139-148. [IF-3.165]
15. Vasantharaj, S., Sripriya, N., Shanmugavel, M., Manikandan, E., **Gnanamani, A.** and Senthilkumar, P., 2018. Surface active gold nanoparticles biosynthesis by new approach for bionanocatalytic activity. *Journal of Photochemistry and Photobiology B: Biology*, 179, pp.119-125. [IF-3.165]
16. Gita, J.B., Aishwarya, A.B., Pavithra, N., Chandrasekaran, S.C., George, A.V. and **Gnanamani, A.**, 2018. A molecular technique to explore the relationship between *Porphyromonas gingivalis* and severity of chronic periodontitis: A clinical approach. *Anaerobe*, 49, pp.1-4. [IF-2.742]
17. Pravin, M.D. and **Gnanamani, A.**, 2018. Preparation, characterization and reusability efficacy of amine-functionalized graphene oxide-polyphenol oxidase complex for removal of phenol from aqueous phase. *RSC Advances*, 8(67), pp.38416-38424. [IF-2.936]
18. Chris Felshia, S., AshwinKarthick, N., Thilagam, R. and **Gnanamani, A.**, 2018. Elucidation of 2, 4-Dichlorophenol degradation by *Bacillus licheniformis* strain SL10. *Environmental technology*, pp.1-12.

19. Shanuja, S.K., Iswarya, S., Rajasekaran, S., Dinesh, M.G. and **Gnanamani, A.**, 2018. Pre-treatment of extracellular water soluble pigmented secondary metabolites of marine imperfect fungus protects HDF cells from UVB induced oxidative stress. *Photochemical & Photobiological Sciences*, 17(9), pp.1229-1238. [IF-2.902]
20. Bhowmick, A., Banerjee, S.L., Pramanik, N., Jana, P., Mitra, T., **Gnanamani, A.**, Das, M. and Kundu, P.P., 2018. Organically modified clay supported chitosan/hydroxyapatite-zinc oxide nanocomposites with enhanced mechanical and biological properties for the application in bone tissue engineering. *International journal of biological macromolecules*, 106, pp.11-19. [IF-3.909]
21. Saranya K., Thirupathi Kumara Raja S., Subhasree R.S., Gnanamani A., Das S.K., Rajendran N. 2017 Fabrication of nanoporous sodium niobate coating on 316L SS for orthopaedics. *Ceramics International* 43 (15) 11569 – 79.
22. Chris Felshia S, N. Aswin Karthick , R. Thilagam , A. Chandralekha , K.S.M.S. Raghavarao , **A. Gnanamani** 2017 Efficacy of free and encapsulated *Bacillus licheniformis* strain SL10 on degradation of Phenol: A comparative study of degradation kinetics. *Journal of Environmental Management*. 197, 373-383.[IF-2.197] [IF-2.197]
23. S.Thirupathi Kumara Raja, T. Prakash, **A. Gnanamani** 2017. Redox responsive albumin autogenic nanoparticles for the delivery of cancer drugs. *Colloids and Surfaces B: Biointerfaces*, 152, 393-405 [IF-3.909]
24. Thiruselvi, T., Raja, S.T.K., Shanuja, S.K., Iswarya, S. and **Gnanamani, A.**, 2017. Induced oxidative stress management in wounds through phenolic acids engineered fibrous protein: An in vitro assessment using polymorphonuclear (PMN) cells. *International Journal of Biological Macromolecules*, 96, pp.485-493.[IF-3.909]
25. Bhowmick, A., Pramanik, N., Jana, P., Mitra, T., **Gnanamani, A.**, Das, M. and Kundu, P.P., 2017. Development of bone-like zirconium oxide nanoceramic modified chitosan based porous nanocomposites for biomedical application. *International Journal of Biological Macromolecules*, 95, pp.348-356. [IF-3.909]
26. Bhowmick A., Pramanik N., Mitra T., **Gnanamani A.**, Das M., Kundu P.P. 2017. Mechanical and biological investigations of chitosan-polyvinyl alcohol based ZrO₂ doped porous hybrid composites for bone tissue engineering applications. *New Journal of Chemistry*, 41 (15) 7524 -30
27. Bhowmick, A., Pramanik, N., Mitra, T., **Gnanamani, A.**, Das, M. and Kundu, P.P., 2017. Fabrication of porous magnetic nanocomposites for bone tissue engineering. *New Journal of Chemistry*, 41(1), pp.190-197.[IF-3.277]

28. Venkatesan, R., Karuppiyah, P.S., **Arumugam, G.** and Balamuthu, K., 2017. β -Asarone Exhibits Antifungal Activity by Inhibiting Ergosterol Biosynthesis in *Aspergillus niger* ATCC 16888. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*, 89(1), pp.173-184. [IF-0.396]
29. Baskaran, J., **A. Gnanamani**, V. Amalan Stanley, M. Kamaraj and Shaleesha A. Stanley 2017. In vivo preclinical evaluation of rasagenthi mezhugu, a siddha formulation, on anti cancer potential in Balb/c mice with CT26 murine colon carcinoma. *Indo American Journal of Pharmacy*, Vol. 3(5), 266-277. [IF-3.6]
30. Baskaran, J., **A. Gnanamani**, V. Amalan Stanley and Shaleesha A. Stanley 2017. Studies on the anticancer potential (GI50) of the siddha formulation, rasagenthi mezhugu on human cell lines. *Journal of chemical and Pharmaceutical research* Vo. 9(9), 254-257.
31. Raut A.V., Yadav H.M., Gnanamani A., Pushpavanam S., Pawar S.H. 2016. Synthesis and characterization of chitosan-TiO₂:Cu nanocomposite and their enhanced antimicrobial activity with visible light. *Colloids and Surfaces B: Biointerfaces* 148, 566 – 75
32. Jana, P., Mitra, T., Selvaraj, T.K.R., **Gnanamani, A.** and Kundu, P.P., 2016. Preparation of guar gum scaffold film grafted with ethylenediamine and fish scale collagen, cross-linked with ceftazidime for wound healing application. *Carbohydrate Polymers*, 153, pp.573-581.[IF-5.158]
33. Bhowmick, A., Jana, P., Pramanik, N., Mitra, T., Banerjee, S.L., **Gnanamani, A.**, Das, M. and Kundu, P.P., 2016. Multifunctional zirconium oxide doped chitosan based hybrid nanocomposites as bone tissue engineering materials. *Carbohydrate Polymers*, 151, pp.879-888. [IF-5.19]
34. Raut, A.V., Satvekar, R.K., Rohiwal, S.S., Tiwari, A.P., **Gnanamani, A.**, Pushpavanam, S., Nanaware, S.G. and Pawar, S.H., 2016. In vitro biocompatibility and antimicrobial activity of chitin monomer obtain from hollow fiber membrane. *Designed Monomers and Polymers*, 19(5), pp.445-455.
35. Venkataraman M., Mishra R., Subramaniam V., **Gnanamani A.**, Kotresh T.M., Militky J. 2016. Dynamic heat flux measurement for advanced insulation materials. *Fibers and Polymers*. 17(6) 925-31
36. Bhowmick, A., Mitra, T., **Gnanamani, A.**, Das, M., Kundu, P.P. 2016 Development of biomimetic nanocomposites as bone extracellular matrix for human osteoblastic cells *Carbohydrate Polymers*, 141, pp. 82-91. [IF – 4.074]
37. Hariharan, P., Paul-Satyaseela, M., **Gnanamani, A.** 2016 In vitro profiling of antimethicillin-resistant *Staphylococcus aureus* activity of thymoquinone against

- selected type and clinical strains. *Letters in Applied Microbiology*, 62 (3), pp. 283-289. [IF – 1.659]
38. Thiruselvi, T., Thirupathi Kumara Raja, S., Aravindhana, R., Shanuja, S.K., **Gnanamani, A.** 2016 Handling and managing bleeding wounds using tissue adhesive hydrogel: A comparative assessment on two different hydrogels. *RSC Advances*, 6 (24), pp. 19973-19981. [IF- 3.84].
 39. Jana, P., Sarkar, K., Mitra, T., Chatterjee, A., **Gnanamani, A.**, 2016 Chakraborti, G., Kundu, P.P. Synthesis of a carboxymethylated guar gum grafted polyethyleneimine copolymer as an efficient gene delivery vehicle. *RSC Advances*, 6 (17), pp. 13730-13741. [IF- 3.84]
 40. Iswarya, S., Subha, T.S., Sundar, J. and **Gnanamani, A.**, 2016. Microsphere formulation of essential oil of *Acorus calamus* l. controls *Aspergillus niger* growth in finished leather at an extended period of storage: featuring extraction, formulation and evaluation. *International journal of Pharmacognosy*, 3(7), 254 [IF-0.59]
 41. Gita, J.B., Chandrasekaran, S.C., Darshani, D.D. and **Gnanamani, A.**, 2016. Gram-Positive Anaerobes in Periodontal Pathogenesis: New Kids on the Block? A Mini Review. *J Bacteriol Mycol Open Access*, 2(7), p.00052.
 42. Rao, S.R., Subbarayan, R., Dinesh, M.G., **A. Gnanamani** and Raja, S.T.K., 2016. Differentiation of human gingival mesenchymal stem cells into neuronal lineages in 3D bioconjugated injectable protein hydrogel construct for the management of neuronal disorder. *Experimental & molecular medicine*, 48(2), p.e209. [IF – 3.446].
 43. Raja, S.T.K., Thiruselvi, T., Mandal, A.B., **Gnanamani, A.** 2015 PH and redox sensitive albumin hydrogel: A self-derived biomaterial. *Scientific Reports*, 5, art. no. 15977. [IF – 5.578]
 44. Manna, P.J., Mitra, T., Pramanik, N., Kavitha, V., **Gnanamani, A.**, Kundu, P.P. 2015 Potential use of curcumin loaded carboxymethylated guar gum grafted gelatin film for biomedical applications. *International Journal of Biological Macromolecules*, 75, pp. 437-446. [IF – 3.096]
 45. Thirupathi Kumara Raja, S., Thiruselvi, T., Mandal, A.B., **Gnanamani, A.** 2015 Serum albumin as a source of natural hydrogel precursor. *Materials Today*. [IF-10.850]
 46. Thirupathi Kumara Raja, S., Thiruselvi, T., Aravindhana, R., Mandal, A.B., **Gnanamani, A.** 2015 In vitro and in vivo assessments of a 3-(3,4-dihydroxyphenyl)-2-propenoic acid bioconjugated gelatin-based injectable hydrogel for biomedical applications *Journal of Materials Chemistry B*, 3 (7), pp. 1230-1244. [IF – 4.7]
 47. Kavitha, V., Mandal, A.B., **Gnanamani, A.** 2015 Biotransformation of soybean oil to a self-healing biopolymer *Biocatalysis and Biotransformation*, 33 (1), pp. 29-37. (IF-0.691)

48. Mercy Lavanya., **Gnanamnai A.**, Ilavarasan R. 2015 Evaluation of the antibacterial activity of the extracts of the whole plant of *Orthosiphon thymiflorus* (Roth.) Sleesen. *Journal of chemical and pharmaceutical Research* 7 (2): 872-875.
49. Mitra, T., Manna, P.J., Raja, S.T.K., **Gnanamani, A.**, Kundu, P.P. 2015 Curcumin loaded nano graphene oxide reinforced fish scale collagen-a 3D scaffold biomaterial for wound healing applications . *RSC Advances*, 5 (119), pp. 98653-98665. [IF- 3.84].
50. Bhowmick, A., Pramanik, N., Manna, P.J., Mitra, T., Raja Selvaraj, T.K., **Gnanamani, A.**, Das, M., Kundu, P.P. 2015 Development of porous and antimicrobial CTS-PEG-HAP-ZnO nano-composites for bone tissue engineering. *RSC Advances*, 5 (120), pp. 99385-99393. [IF- 3.84].
51. Pramanik, N., Mitra, T., Khamrai, M., Bhattacharyya, A., Mukhopadhyay, P., **Gnanamani, A.**, Basu, R.K., Kundu, P.P. 2015 Characterization and evaluation of curcumin loaded guar gum/polyhydroxyalkanoates blend films for wound healing applications. *RSC Advances*, 5 (78), pp. 63489-63501. [IF- 3.84]
52. Sreedhar Swaathy, Varadharajan Kavitha, Arokiyasamy Sahaya Pravin, Ganesan Sekaran, Asit Baran Mandal, **Arumugam Gnanamani**. 2014 Microbial surfactant mediated degradation of anthracene in aqueous phase by marine *Bacillus licheniformis* MTCC 5514. *Biotechnology Reports* 4; 161 – 170
53. Varadharajan Kavitha and **Arumugam Gnanamani**. 2014 Microbial mediated dimerization of fattyacids of sunflower oil: An effective role of lipase and biosurfactant. *Journal of applied polymer science*. DOI: 10.1002/APP.40555 [IF 1.6]
54. Saba Maanvizhi, N. Radhakrishnan, **A. Gnanamani**. 2014 HAA Inhibitory effect of embelin and its metal complexes on diabetic complications: An approach with molecular docking studies, *Journal of Chemical and Pharmaceutical Research*. 2014, 6(2):679-682
55. Mohammed, H., Aysanew, G., Aravindhan, R., **Gnanamani, A.**, Raghava Rao, J., Chandrababu, N.K. 2014 Studies on Ethiopian sheep skins as an opportunity for value addition part I: Histological, microscopic and chemical characterization of Abyssinian and Wanke Sheepskins. *Journal of the American Leather Chemists Association*, 109 (3), pp. 76-81. (IF- 0.5).
56. Saba Maanvizhi, Radhakrishnan Narayanaswamy, Lam Kok Wai , **Arumugam Gnanamani** 2014 Molecular docking analysis of embelin and its metal complexes as human aldose reductase (HAR) inhibitor. *Der Pharmacia Lettre* 6 (2)165-168. (IF- 0.654)
57. Saba Maanvizhi, Tejaswi Boppana, Chitra Krishnan, **Gnanamani Arumugam** 2014 Metal complexes in the management of Diabetes Mellitus: A new therapeutic strategy. *International Journal of Pharmacy and Pharmaceutical Sciences*, 6(7), 40-44

58. Radhakrishnan Narayanaswamy, Majumder Shymatak, Suvro Chatterjee, Lam Kok Wai, **Gnanamani Arumugam**. 2014 Inhibition of Angiogenesis and Nitric Oxide Synthase (NOS), by Embelin & Vilangin Using in vitro, in vivo & in Silico Studies. Advanced Pharmaceutical Bulletin 4 (Suppl 2): 543 -548.
59. Chris Felshia Sailas Gnanadoss, Yazhmozhi Anbarasu, Kavitha Varadharajan, Asit Baran Mandal, Sekaran Ganesan, **Gnanamani Arumugam**. 2014 Maximum phenol tolerance and subsequent degradation profile of a *Bacillus pumilus* strain MCG 03 an isolate from tannery wastewater contaminated soil. International Journal of Current Research 6(11) 9734-9744 [IF – 3.845]
60. Barakath Nisha, Ishwarya, S., Kavitha, V, A.B. Mandal, **Gnanamani, A.** 2014. Anti-aspergillus activity of *Lantana camara* Linn. International Journal of Pharmaceutical Science and Research. 5(10) 1000-05. [IF - 2.2]
61. Varadharajan Kavitha, Asit Baran Mandal and **Arumagam Gnanamani** 2014. Microbial biosurfactant mediated removal and or solubilization of crude oil contamination from soil and aqueous phase. International Biodeterioration & Biodegradation 94; 24-30. [IF-2.0]
62. S. Swaathy, V. Kavitha, A. Sahaya Pravin, G. Sekaran and AB Mandal, **Arumguam Gnanamani** (2014). A study on anthracene degradating potential of marine Bacillus sps.and the gene responsible for the catabolism. Pollution Research 33(2) 1-8.
63. Iswarya Kumar, V. Kavitha, N. Radhakrishnan, **A. Gnanamani** 2014. Collagenase inhibiting activity of Indian medicinal plants: An approach to moderate collagen turnover. International Journal of Bioassays. 3 (05), 2075-2078. [IF – 2.76]
64. Kajal Ghosal, Sabu Thomas, Nandakumar Kalarikkal, **Arumugam Gnanamani** 2014 Collagen coated electrospun polycaprolactone (PCL) with titanium dioxide (TiO₂) from an environmentally benign solvent: preliminary physico-chemical studies for skin substitute. J Polym Res 21:410.
65. Mohanapriya Venkataraman, Rajesh Mishra, V. Subramaniam, **A. Gnanamani**, and T. S. Subha 2014 Application of Silver Nanoparticles to Industrial Sewing Threads: Effects on Physico-functional Properties & Seam Efficiency. Fibers and Polymers , Vol.15, No.3, 510-518
66. Radhakrishnan, N., **Gnanamani, A.** 2014. 2, 5-dihydroxy-3-undecyl-1, 4-benzoquinone (embelin)-a second solid gold of india- a review. International journal of pharmacy and pharmaceutical sciences. 6(2), 23-30.

67. R. Aravindhana, Srilatha, P. T. Perumal, **A. Gnanamani**. 2014 Synthesis and biological profile of metal and azo-metal complexes of embelin. *Complex metals*. 1(1), 69-79.
68. Swaathy S, V. Kavitha, A. Sahaya Pravin, G. Sekaran, A. B. Mandal, **A. Gnanamani**. 2014 Phylogenetic framework and biosurfactant gene expression analysis of marine *Bacillus* spp. of eastern coastal plain of Tamil Nadu. *International Journal of Bacteriology*. Article ID – 860491
69. Tapas Mitra, Sailakshmi and **A. Gnanamani** 2014. Could glutaric acid (GA) replace glutaraldehyde in the preparation of biocompatible biopolymers with high mechanical and thermal properties? *Journal of Chemical Sciences*. 126, 127-140. [IF- 1.3].