CURRICULUM VITAE

G. Ramachandran

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Research Papers Published	Book Chapter Published	No of Conferences	No of workshops	Total Citations	H-index	i-10 index
53	12	11	15	750	14	24

Objectives

- Seeking a challenging career in an organization where my skill, knowledge, hard work and sincere efforts can be put in for gaining experience and expertise.

Educational Qualification

Academic Detail	Year of Qualification/Degree	Institution	Grade (%)
Ph.D	2018-2021 (Microbiology)	Bharathidasan University, Tiruchirappalli.	84% **Highly Commended**
P.G.Dip	2016-Dairy Technology	Annamalai University, Chidambaram	63.01%
M.Sc	2007-09 Microbiology	Vinayaka Mission`s University, Salem	73.06%
DMLT	2005-2006	IIPT, Salem	70.09%
B.Sc	2002-2005 Microbiology	P.G.P College of Arts & Science, Periyar University, Namakkal	55.67%

My Research

Ph.D - **Discovery of novel compound from marine *Streptomyces xiamenensis* against Carbapenem-Resistant Bacteria.**

M.Sc – Isolation and identification of multi drug resistant bacteria from urinary tract infection patient urine samples.

Research Interest

- **Nanocomposites** – Anti-diabetic activities and anti-microbial activities against MDRs, ESBLs, biofilm, carbapenems producing bacteria, cancer cells.
- **Marine actinomycetes** compound against MDRs, ESBLs, biofilm, carbapenems producing bacteria & cancer cells.

Working Experience

- **Kamini Biotech-HiTech Research Laboratory,** Tamil Nadu, India - Working as a Research Assistant Director - 01.01.2022-30.12.2022.

- **Department of Agriculture (DWDA)** – WDT- Agronomist (Watershed projects) at Namagiripet in Namakkal, **Government of Tamil Nadu**, 5 1/2 years (2011-2016).

- **Dairy Industry - Hatsun Arokya milk** – Lab chemist (QC) , Salem, 6 months, (2008).

- **Water Plant** - Sri Venkateshwaraa Aqua Products, Microbiologist & Lab chemist (QC), Namakkal, 1.5 years (2006-2007).

Research Publications

1. **G. Ramachandran,** G. Rajivgandhi, C. Chenthis Kanisha, N. Manoharan, N.S. Alharbi, S. Kadaikunnan, J.M. Khaled, W.J. Li, Chitosan/silver nanocomposites enhanced the biofilm eradication in biofilm forming Gram positive *S. aureus*, **Journal of King Saud University-Sciences**, 35, 2023, 102597, **IF-4.022.**

2. **G. Ramachandran**, Gnanasekaran Chackaravarthy, G. Rajivgandhi, Franck Quero, Muthuchamy Maruthupandy, Naiyf S. Alharbi, Shine Kadaikunnan, Jamal M. Khaled, Wen-Jun Li, Biosorption and adsorption isotherm of Chromium (VI) ions in aqueous solution using soil bacteria *Bacillus amyloliquefaciens,* **Environmental Research,** 212 (2022) 113310**, IF-8.431.**

3. **G. Ramachandran**, G. Rajivgandhi∗, G. Chackaravarthi, C.C. Kanish, M.Z. Siddiqi, N.S. Alharbi, S. Kadaikunnan, N. Manoharan∗, Isolation and molecular identification of extended spectrum beta-lactamase producing bacteria from urinary tract infection, **Journal of Infection and Public Health,** 14 (2022) 1911–1916, **IF-7.537.**

4. **G. Ramachandran**, R. Govindan*, M. Sevanan, S.A. Naif, K. Shina, M.K. Jamal, N.A. Thagreed, M. Natesan, W.J. Li, 2020, Anti-carbapenamase activity of Camellia japonica essential oil against isolated carbapenem resistant *Klebsiella pneumoniae* (MN396685), **Saudi Journal of Biological Sciences**, 2269–2279, **IF-4.219.**

5. Rajivgandhi Govindan, Chackaravarthy Gnanasekaran, **Ramachandran Govindan***, Maruthupandy Muthuchamy, Franck Quero, Arunachalam Jothi, Chenthis Knaisha Chelliah, Arulraj Arunachalam, Mangalaraja Ramalinga Viswanathan, Manoharan Natesan, Shine Kadaikunnan, Wen-Jun Li, Anti-quorum sensing and anti-biofilm effect of *Nocardiopsis synnemataformans* RMN 4 (MN061002) compound 2,6-Di-tert-butyl, 1,4-benzoquinone against

biofilm producing bacteria, **Applied Biochemistry and Biotechnology, 2023, IF-3.0**.

6. C. Chenthis Kanisha, M. Murugan, N. Manoharan, G. Rajivgandhi, M. Maruthupandy, **G. Ramachandran**, M.R. Viswanathan, N.S. Alharbi, N.H. Alshammary, Phytochemical derivatives and secondary metabolites rich *Rhizophora mucronata* as an active anti-oxidant and anti-bacterial agent against multi drug resistant bacteria **, King Saud University-Sciences, 2023, IF-3.829**.
7. G. Chackaravarthi, Naiyf,S.A., MythiliGnanamangai, B.,**G. Ramachandran**, Chenthis Kanisha,C., G. Rajivgandhi, M. Maruthupandy, Franck, Q., Manoharan, N., Wen-Jun, L., Anti-biofilm efficacy of marine actinomycete mediated zinc oxide nanoparticles increased the intracellular damages in biofilm forming *K. pneumonia,* Journal of King Saud University - Science, 35, 2023, 102642, **IF-3.829,**
8. G. Rajivgandhi, **G. Ramachandran,** F. Quero, C. Chenthis Kanisha, N. Manoharan, N.S. Alharbi, S. Kadaikunnan, J.M. Khaled, W.J. Li, Morphological modification of Ag NPs against multi drug resistant bacteria and cytotoxicity effect in A549 lung cancer cells through *invitro* approaches, **Archive of Microbiology, IF-3.0.**
9. G. Rajivgandhi, S. Kadaikunnan, **G. Ramachandran**, G. Chackaravarthi, Chenthis Kanisha, C., M. Maruthupandy, M. Natesan, Franck, Q., Wen-Jun, L., Anti-cancer ability of chitosan nanoparticles loaded plant essential oil evaluated against A549 human lung cancer cells through invitro approaches, Journal of King Saud University - Science, **35,** 2023, 102598, **IF-4.022,**
10. G. Rajivgandhi, **G. Ramachandran***, C. Chenthis Kanisha, N.S. Alharbi, S. Muthuchamy Maruthupandy, Franck Quero, S. Vijayalakshmi*, Fahd A. AL-mekhlafi, Muhammad A. Wadaan, J. Ranjitha*, Wen-Jun Li*. Green Microalgal

strain *Chlorella vulgaris* isolated from industrial wastewater used for the biofuel production, **Environmental Technology & Innovation,** 28 (2022) 102597, **IF-7.758,**

11. G. Rajivgandhi, **G. Ramachandran**, G. Chackaravarthi, M. Maruthupandy, F. Quero, C. Chelliah, Natesan Manoharan, Naiyf S. Alharbi f, Shine Kadaikunnan f, Jamal M. Khaled f, Wen-Jun Li, Metal tolerance and biosorption of Pb ions by *Bacillus cereus* RMN 1 (MK521259) isolated from metal contaminated sites, **Chemosphere**, 308 (2022) 136270, **IF-8.943,**

12. **G. Ramachandran**, G. Rajivgandhi, M. Maruthupandy, N. Manoharan, Extraction and partial purification of secondary metabolites from endophytic actinomycetes of marine green algae Caulerpa racemosa against multi drug resistant uropathogens, Biocatalysis and Agricultural Biotechnology 17 (2019) 750–757. **IF-4.0.**

13. **Ramachandran G**, Rajivgandhi G, Maruthupandy M, Manoharan N. Isolation and Identification of Antibacterial Compound from Marine Endophytic Actinomycetes against Multi Drug Resistant Bacteria. Ann Microbiol Immunol. 2018; 1(1): 1003.

14. G. Rajivgandhi, S. Kadaikunnan, **G. Ramachandran**, G. Chackaravarthi, Chenthis Kanisha, C., M. Maruthupandy, M. Natesan, Franck, Q., Wen-Jun, L., Chitosan loaded plant essential oils efficiently eradicate the multi-drug resistant bacterial infection and lung cancer cells, Journal of King Saud University – Science, 2023, 102662, **IF-4.022.**

15. G.Chackaravarthi, N.S.Alharbi, B. MythiliGnanamangai, **G. Ramachandran**, Chenthis Kanisha,C., G. Rajivgandhi, M.Maruthupandy, F. Quero, M. Natesan, Wen-Jun, L. Anti-biofilm efficacy of marine actinomycete mediated zinc oxide nanoparticles increased the intracellular damages in biofilm forming *K.*

pneumonia, Journal of King Saud University-Sciences, 35, 2023, 102642, **IF-4.022.**

16. G. Rajivgandhi, **G. Ramachandran**, R. Vijayan, M. Maruthupandy, F. Quero, W-J Li, N. Manoharan, Molecular characterization and novel bioactive compounds of *Streptomyces xiamenensis* GRG 5 (KY457709) against multi drug resistant bacteria, **New Journal of Chemistry- RSC,** 2022, 46, 16495, **IF-3.946**

17. G. Rajivgandhi, **G. Ramachandran,** Franck Quero, M. Maruthupandy, N.S. Alharbi, S. Kadaikunnan, W.J. Li, Anti-biofilm potential of Zn and Ni substituted cobalt ferrite nanoparticles prepared by sol-gel technique, **Analytical Biochemistry,** 653 (2022) 114787, **IF-3.934,**

18. B.M. Gnanamangai, **G. Ramachandran***, M. Maruthupandy, V. Mohana Priya, G. Karthikeyan, R.A. Mothana, O.M. Noman, F.A. Nasr, Bioactive compounds coated 2D scaffold from seeds of *Carica papaya* for bacterial and parasitic skin infections, Physiological and Molecular Plant Pathology 117 (2022) 101778,

19. R. Govindan, C.K. Chelliah, **G. Ramachandran**, M. Natesan, A.M. Ramzi, A.S. Nasir, J.R. Adnan, U. Riaz, M.A. Omer, 2021, Phytochemical screening and anti-oxidant activity of Sargassum wightii enhances the anti-bacterial activity against Pseudomonas aeruginosa, Saudi Journal of Biological Sciences, 28, 1763–1769, **IF-4.219**,

20. R. Govindan, S.A. Naif, K. Shine, M.K. Jamal, C.K. Chelliah, **G. Ramachandran**, M. Natsean, F.A. Khalid, 2021, Identification of carbapenems resistant genes on biofilm forming K. pneumoniae from urinary tract infection., Saudi Journal of Biological Sciences, 28, 1750-1756, **IF-4.219**,

21. H. Zhao, M. Maruthupandy, F.A. Al-mekhlafi, G. Chackaravarthi, **G. Ramachandran**, C. Chelliah, Biological synthesis of copper oxide nanoparticles using marine endophytic actinomycetes and evaluation of biofilm producing bacteria and A549 lung cancer cells, Journal of King Saud University – Science 34 (2022) 101866, **IF-3.823**.
22. Rajivgandhi Govindan, G. Chackaravarthi, **G. Ramachandran**, Chenthis Kanisha C, Maruthupandy M, Franck Q, Ramzi A.M, Omar M.N, Nasir A.S, Wen-Jun L. Effective removal of biofilm formation in *Acinetobacter baumannii* using chitosan nanoparticles loaded plant essential oils, **Journal of King Saud University - Science**, 34, 2022, 101725, **IF-3.823**.
23. G. Rajivgandhi, **G. Ramachandran**, M. Rajesh Kannan, A.A. Joseph Velanganni, M.Z. Siddiqi, N.S. Alharbi, S. Kadaikunnan, W-J. Li, Photocatalytic degradation and anti-cancer activity of biologically synthesized Ag NPs for inhibit the MCF-7 breast cancer cells, Journal of King Saud University - Science, 34, 2022, 101725.
24. G. Rajivgandhi, B. Mythili Gnanamangai, **G. Ramachandran**, G. Chackaravarthy, C.K. Chelliah, M. Maruthupandy, N.S. Alharbi, S. Kadaikunnan, W-J. Li, Effective removal of heavy metals in industrial wastewater with novel bioactive catalyst enabling hybrid approach, Environmental Research, 204, Part C, 2022, 112337.
25. M. Murugan, K.R. Beula Rani, J. Albino Wins, **G. Ramachandran**, F. Guo, R.A. Mothana, O.M. Noman, F.A. Nasr, M.Z. Siddiqi, Green synthesized ZnO NPs as effective bacterial inhibitor against isolated MDRs and biofilm producing bacteria isolated from urinary tract infections, Journal of King Saud University – Science 34 (2022) 101737.
26. G. Rajivgandhi, G. Chackaravarthi, **G. Ramachandran**, C.K. Chelliah, M. Maruthupandy, M.S. Alharbi, N.S. Alharbi, J.M. Khaled, W-J. Li,

Morphological damage and increased ROS production of biosynthesized silver nanoparticle against MCF-7 breast cancer cells through in vitro approaches, Journal of King Saud University - Science, 2022, 101795.

27. G. Rajivgandhi, **G. Ramachandran**, C. Chenthis Kanisha, N.S. Alharbi, S. Kadaikunnan, J.M. Khaled, K.F. Alanzi, W-J. Li, Effect of Ti and Cu doping on the structural, optical, morphological and anti-bacterial properties of nickel ferrite nanoparticles. Results in Physics 23 (2021) 104065.
28. G. Rajivgandhi, G. Chackaravarthi, **G. Ramachandran**, N. Manoharan, R. Ragunathan, M.Z. Siddiqi, N.S. Alharbi, J.M. Khaled, W-J. Li, Synthesis of silver nanoparticle (Ag NPs) using phytochemical rich medicinal plant *Lonicera japonica* for improve the cytotoxicity effect in cancer cells, Journal of King Saud University - Science, 34, 2022, 101798.
29. S. Kadaikunnan, N.S. Alharbi, J.M. Khaled, A.S. Alobaidi, G. Rajivgandhi, **G. Ramachandran**, C. Gnanasekaran, C.K. Chelliah, K.F. Alanzi, N. Manoharan, Partially purified actinomycetes compounds enhance the intracellular damages in multi-drug resistant P. aeruginosa and K. pneumonia, Saudi Journal of Biological Sciences 28 (2021) 6057–6062. Corresponding Author.
30. K.S. Almaary, N.S. Alharbi, S. Kadaikunnan, J.M. Khaled, G. Rajivgandhi, **G. Ramachandran**, C. Chenthis Kanisha, M. Murugan, K.F. Alanzi, N. Manoharan, Anti-bacterial effect of marine sea grasses mediated endophytic actinomycetes against K. pneumonia, Journal of King Saud University – Science 33 (2021) 101528.
31. C. Gnanasekaran, A.S. Alobaidi, **R. Govindan**, C.K. Chelliah, S. Muhammad Zubair, S. Alagarsamy, N.S. Alharbi, S. Kadaikunnan, R. Govindan∗, N. Manoharan, Piperacillin/tazobactum and cefotaxime decrease the effect of betalactamase production in multi-drug resistant K.

pneumonia, Journal of Infection and Public Health 14 (2021) 1777–1782. Corresponding Author.

32. R. Govindan Nadar, G. Chackaravarthy, **G. Ramachandran**, N. Manoharan, M.Z. Siddiqi, N.S. Alharbi, A.S. Alobaidi, W-J. Li, Isolation and molecular identification of biofilm producing *P. aeruginosa* and *K. pneumoniae* from urinary tract infections patient urine sample, Journal of Infection and Public Health, 14, 2021, 1875-1880.

33. N.A. Tagreed, S.A. Alharbi, **G. Ramachandran**,C.K. Chelliah, R. Govindan, M. Natesan Manoharan, K. Shine, M.K. Jamal, F.A. Khalid, Anti-biofilm effect of Nerium oleander essential oils against biofilm forming Pseudomonas aeruginosa on urinary tract infections, Journal of King Saud University – Science 33 (2021) 101340, IF-4.011, Corresponding Author.

34. R. Govindan, S. Antony, C. Chenthis Kanisha, **G. Ramachandran**, M. Natesan, S.A. Naif, K. Shine, M.K. Jamal, F.A. Khalid, W.J. Li, 2021, Physiochemical characterization and anti-carbapenemase activity of chitosan nanoparticles loaded *Aegle marmelos* essential oil against *K. pneumoniae* through DNA fragmentation assay, Surfaces and Interfaces, 23, 100932, IF-4.837.

35. S.A. Naif, A.A. Sami, **G. Ramachandran**, C.K. Chelliah, K. Shine, M.K. Jamal, F.A. Khalid, R. Govindan*, M. Natesan, 2020, Screening of anti-oxidant and anti-bacterial metabolites from brown algae *Turbinaria ornata* for inhibits the multi-drug resistant *P. aeruginosa*, Journal of King Saud University Sciences, 32, 3447-3453, Corresponding Author,-IF-4.011.

36. R. Govindan, **G. Ramachandran**, C.K. Chelliah, J.L. Li, L. Yin, M. Natesan, S.A. Naif, S. Kadaikunnan, M.K. Jamal, W.J. Li, 2020, Anti-biofilm compound of 1, 4-diaza-2, 5-dioxo-3-isobutyl bicyclo[4.3.0] nonane from marine Nocardiopsis sp. DMS 2 (MH900226) against biofilm forming *K. pneumoniae*, Journal of King Saud University–Science, 32, 3495–3502, IF-4.011.

37. R. Govindan Nadar, **G. Ramachandran**, J.L. Li, L. Yin, M. Natesan, R.K. Moorthy, J.V. Antony Joseph, S.A. Naif, K. Shine, M.K Jamal, W.J. Li, 2020, Molecular identification and structural detection of anti-cancer compound from marine Streptomyces akiyoshiensis GRG 6 (KY457710) against MCF-7 breast cancer cells, Journal of King Saud University – Science, 32, 3463–3469, IF-4.011.

38. M.K. Jamal, A.A.. Sami, C.K. Chelliah, S.A. Naif, K. Shine, **G. Ramachandran**, F.A. Khalid, R. Govindan*, Vimala RTV., M. Natesan, 2021, Anti-biofilm activity of LC-MS based Solanum nigrum essential oils against multi-drug resistant biofilm forming P. mirabilis, Saudi Journal of Biological Sciences, 28, 302–309, IF-4.219, Corresponding Author.

39. Z. Feng, **G. Ramachandran**, A.M. Ramzi, M.N. Omar, A.A. Waleed, **R. Govindan**, M. Natesan, 2020, Anti-bacterial activity of chitosan loaded plant essential oil against multi drug resistant *K. pneumonia,* 27, 3449-3455. Saudi Journal of Biological Sciences, IF-4.219, Corresponding Author.

40. Z. Danjie, **G. Ramachandran**, A.M. Ramzi, A.S. Nasir, U. Riaz, M.A. Omer, R. Govindan, M. Natesan, 2020, Marine algae *Caulerpa Taxifolia* mediated silver nanoparticles enhances the anti-cancer activity against A549 lung cancer cell line through cytotoxicity effect/morphological damage. Saudi Journal of Biological Sciences 27, 3421-3427, IF-4.219. Corresponding Author.

41. T. Shan, R. Govindan*, **G. Ramachandran**, S.A. Naif, K. Shine, N.A. Tahreed, M. Natesan, V. Rajan, 2020. Anti-cancer activity of biosynthesized silver nanoparticles using *Avicennia marina* against A549 lung cancer cells through ROS/mitochondrial damages, Saudi Journal of Biological Sciences, 27, 3018-3024 -IF- 4.219, Corresponding Author.

42. Y. Xinjun, R. Govindan*, **G. Ramachandran**, S.A. Naif, S. Kadaikunnan, M.K. Jamal, N.A. Thagreed, M. Natesan, V. Rajan, Preparative HPLC fraction of *Hibiscus rosa sinensis* essential oil against biofilm forming *Klebsiella*

pneumoniae. Saudi Journal of Biological Sciences, 27, 2020, 2853-2862, IF-4.219, Corresponding Author.

43. **G. Ramachandran**, R. Govindan*, M. Sevanan, S.A. Naif, K. Shina, M.K. Jamal, N.A. Thagreed, M. Natesan, W.J. Li, 2020, Anti-carbapenamase activity of Camellia japonica essential oil against isolated carbapenem resistant *Klebsiella pneumoniae* (MN396685), Saudi Journal of Biological Sciences, 2269–2279, **IF-4.219.**

44. R. Govindan, **G. Ramachandran**, S.A. Naif, K. Shine, M.K. Jamal, M. Natesan, W.J. Li*, 2020, Substantial effect of Cr doping on the antimicrobial activity of ZnO nanoparticles prepared by ultrasonication process, Material Science and Engineering B, 263, 114817, IF-4.051.

45. R. Govindan, S. Kandasamy, **G. Ramachandran**, JL. Li, L. Yin, F. Quero, S.A Naiyf, K. Shine, M.K. Jamal, M. Natesan, W.J. Li 2020, Anti-cancer activity of Chitosan loaded *Morinda citrafolia* essential oil against A549 lung cancer cells through cell cycle arrest/mitochondrial damage, International Journals of Biological Macromolecules, 164, 4010-4021, IF-6.953.

46. R. Govindan, **G. Ramachandran**, M. Muthuchamy, M. Natesan, S.A. Alharbi, K. Shine, M.K. Jamal, N.A. Thagreed, W.J. Li*., 2020, Anti-oxidant, anti-bacterial and anti-biofilm activity of biosynthesized silver nanoparticles using Gracilaria corticata against biofilm producing *K. pneumonia*, Colloidal and Surfaces A, 600, 124830, IF-4.539.

47. G. Rajivgandhi, M. Maruthupandy, T. Muneeswaran, **G. Ramachandran**, N. Manoharan, F. Quero, M. Anand, Ji-Ming Songb Biologically synthesized copper oxide nanoparticles enhanced intracellular damage in ciprofloxacin resistant ESBL producing bacteria, Microbial Pathogenesis 127 (2019) 267–276.

48. G. Rajivgandhi, S. Naveen kumar, **G. Ramachandran**, N. Manoharan, Marine sponge alkaloid aaptamine enhances the anti-bacterial and anticancer activity against ESBL producing Gram negative bacteria and HepG 2 human liver carcinoma cells, Biocatalysis and Agricultural Biotechnology 17 (2019) 628–637.

49. S. Naveen kumar, G. Rajivgandhi, **G. Ramachandran**, N. Manoharan, A marine sponge Fascaplysinopsis sp. derived alkaloid fascaplysin inhibits the HepG2 hepatocellular carcinoma cell, Frontiers in Laboratory Medicine 2 (2018) 41–48.

50. G. Rajivgandhi, M. Maruthupandy, **G. Ramachandran**, M. Priyanga, N. Manoharan, Detection of ESBL genes from ciprofloxacin resistant Gram negative bacteria isolated from urinary tract infections (UTIs), Frontiers in Laboratory Medicine 2 (2018) 5–13.

51. G. Rajivgandhi, R. Senthil, **G. Ramachandran**, M. Maruthupandy, N. Manoharan, Antibiofilm activity of marine endophytic actinomycetes compound isolated from mangrove plant *Rhizophora mucronata,* Muthupet Mangrove Region, Tamil Nadu, India, J. Terr. Mar. Res. Vol. 2(4) 2018:1-7.

52. G. Rajivgandhi, **G. Ramachandran**, M. Maruthupandy, B. Vaseeharan, N. Manoharan, Molecular identification and structural characterization of marine endophytic actinomycetes Nocardiopsis sp. GRG 2 (KT 235641) and its antibacterial efficacy against isolated ESBL producing bacteria, Microbial Pathogenesis 126 (2019) 138–148.

53. **G. Ramachandran**, Govindan R, Muthuchamy M,Subramaniyan S, Natesan M, et al. Antibacterial Effect of Endophytic Actinomycetes from Marine Algae against Multi Drug Resistant Gram Negative Bacteria. Examines Mar Biol Oceanogr. 1(4). EIMBO.000522.2018.

Book Chapters

1. **G. Ramachandran,** Franck Quero, Natesan Manoharan, Gnanasekaran Chackaravarthi, Govindan Rajivgandhi*, Diagnosis of physical stimuli response enhance the anti-quorum sensing agents in controlling bacterial biofilm formation, 2023, Springer Publication.
2. Govindan Rajivgandhi, Vimala RTV, **G. Ramachandran**, Natesan Manoharan - Pharmaceutical Application of Extremozymes –Book of Microbial extremozymes – Novel source and potential applications - Elsevier Publication, 2021 (Publication Date: 24.082.2021- https://doi.org/10.1016/B978-0-12-822945-3.00007-5).
3. G. Rajivgandhi, **G. Ramachandran**, Natesan Manoharan and Wen-Jun Li* - Natural product from actinomycetes- An overview on natural product from endophytic actinomycetes- ISBN-9789811661327, Springer publication, Singapore, Editors: Rai, Ravishankar, Bai A, Jamuna, 2021.
4. Vimala. R.T.V, Rajivgandhi. G, S. Sridharan, Jayapriya. M, **Ramachandran. G**, Chenthis Kanisha. C, Manoharan. N, Wen-Jun Li, Nanoparticle synthesis, Biosynthesis and characterization of silver nanoparticles from actinobacteria, ISBN-9789811661327, Springer publication, Singapore, Editors: Rai, Ravishankar, Bai A, Jamuna.
5. Vimala. R.T.V, Rajivgandhi. G, S. Sridharan, Jayapriya. M, **Ramachandran. G**, Chenthis Kanisha. C, Manoharan. N, Wen-Jun Li., Biosynthesis and characterization of Gold nanoparticles from actinobacteria, ISBN-
6. Vimala. R.T.V, Rajivgandhi. G, S. Sridharan, Jayapriya. M, **Ramachandran. G**, Chenthis Kanisha. C, Manoharan. N, Wen-Jun Li, Antibiofilm activity of extracellular green-synthesized nanoparticles by actinobacteria, ISBN-9789811661327, Springer publication, Singapore, Editors: Rai, Ravishankar, Bai A, Jamuna.

7 .G. Rajivgandhi, Vimala RTV, **G. Ramachandran**, Natesan Manoharan, Wen-Jun Li* -"Microbiome-Host Interaction" - Soil microbiome: structural and functional distribution, Water microbiome: structural and functional distribution- Editors : Dhanasekaran,D., Dhiraj Paul, Amaresan, N., Sankaranarayanan, A., and Yogesh Shouche (Editors), CRC Press, Taylor & Francis Group, Boca Raton, FL, New York, USA, ISBN: 9780367479909 , Published April 1, 2021, 436 Pages 35.

08.G. Rajivgandhi, Vimala RTV, **G. Ramachandran**, Natesan Manoharan, Wen-Jun Li* - Industrial requirements and other techno-functional traits of probiotics - Advances in Probiotics: Microorganisms in Food and Health- lsevier Publication, Publication date:15 July 2021, ISBN: 978-0-12-822909-5, Elsevier, 125 London Wall, London EC2Y 5AS, United Kingdom 525 B Street, Suite 1650, San Diego, CA 92101.

Known Technique_Actinomycetes and nanoparticles

- **Actinomycetes:** Isolation and identification of actinomycetes from terrestrial, mangrove and marine sources. Morphology, biochemical, phenotypic, taxonomic, 16s rRNA, PCR amplification, sequences analysis and phylogenetic construction by using various techniques.
- **Endophytes:** Identification of endophytic actinomycetes from various marine plant and algae sources.
- **Screening of active compound**: Extraction, purification, TLC, UV-spectrometer, HPLC, Coloumn chromatography, GC-MS, LC-MS, NMR.
- **Biological Activity:** Antimicrobial activity, MIC, MBC, Anti-ESBL, Anti-carbapenemase.

- **Anti-cancer activity:** Graphene, ZnONP, Chitosan nanocomposite against various cell lines (MCF-7, MDA-MB231, HepG2 and A549) - MTT assay**,** CLSM, Florescence microscope, ROS membrane damage, mitochondrial damage, DNA fragmentation, chromatin condensation, cell cycle arrest by flow cytometery, western blotting.
- **Anti-biofilm activity:** TCP, CRA, ELIZA, staining of AO-EB, DCFH-DA, DAPI, Rhodamine, propidium iodide by CLSM, SEM
- **Nanoantibiotics:** Metal and Metal Oxide Nanoparticles, Biopolymer (chitosan and gelatin) and Protein (collagen) against ESBL (MDR strains) producing bacteria, larvicidal activity.
- **Biosensors**: Design of Bio-Nanocomposite Electrodes; Biological Routes to Nanomaterial Synthesis; Enzymatic Activity of Extracellular Nanostructures; Biomedical Sensor Applications. Bio-polymers/Nano Carriers for Drug Delivery Systems; Nanoparticle Mediated Delivery Systems.
- **Environmental Applications:** Nano Remediation: Nano Pollution, Air - Water – Soil Contaminants - Treatment of Industrial Waste Waters using Nanoparticles.

Technical Qualification

- Type writing (English and Tamil) – Higher and Lower.

Computer Knowledge

- ADCA-Word, Excel, Power point, Access, Data Entry operation
- COA-Computer On Office Automation (Govt. of Tamil nadu certificate)
- Word, Excel, Power point, Origin, Photoshop, Data Entry Operation and System Maintenance.

Seminar and workshops

- Participated in International Conference Reason Advances in Bioscience (ICRABS) Feb 12&13th, 2004 conducted by **PGP college of arts & science, Namakkal.**
- National Symposium on recent trends in biotechnology-Department of Microbiology-**Kandhasamy kandar`s College, Velur, Namakkal**, 13th March 2004.
- National symposium on recent trends in biotechnology-Department of Biotechnology-**P.G.P College of arts and science, Namakkal**,16th March2005
- Workshop on Advanced Techniques in Microbiology and Molecular Biology to Rural College Students organized by Department of Microbiology- **Selvamm Arts and Science College, Namakkal**, 28th.29th and 30th Sep 2011.

Agri clinic and Agri Business

- National Institute of Agricultured Extension management- Governmentof India. Agri-clinic & Agri-Business Training at CARE at Namakkal. Government of India,13-10-17 to 13-12-20017, 2 Months.

Sericulture

- Sericulture training 5 days Tamil Nadu Agriculture University - Coimbatore, 6 Days March-2017.

Mushroom cultivation

- Indian Bank Training (INDSETI) conducted by the institute mushroom cultivation at Namakkal (Govt of India) on 21-08-2015 to 27-08-2015 for 7 Days.

Agronomist Training

- Central soil & water conservation Research & Training institute Research centre-Ooty- ICAR. Govt of India. IWMP scheme 21 to 25 March-2011, 5 Days.
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Dairy Training

- Training in 5 Days Annamalai University, Chidambaram
- Training in 4 Month hatsun Dairy, Salem.

Maruthi-Hi-Tech lab

- Training in lab technician for 6 Month at Salem, 2017.

Personal Profile

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References

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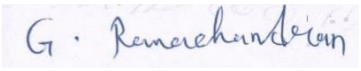
DECLARATION

I do here by confirm that the information given in this form is true to the best of my knowledge and belief.

Your's faithfully



(**G.Ramachandran**)