DR. P. SENTHILRAJA
ASSISTANT PROFESSOR

Contact

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Academic Qualifications: M.Sc., M.Phil., Ph.D.,

Degree /subject		Year of study	University
Ph. D	**Marine Biotechnology**	**2007 - 2011**	**Annamalai University**
M. Phil	**Biotechnology**	**2005 - 2006**	**Bharathidasan University**
M.Sc.,	**Bioinformatics**	**2002 - 2004**	**Bharathidasan University**
B.Sc.,	**Biochemistry**	**1998 - 2001**	**Bharathidasan University**

Teaching/ Research Experience: 18 Years

Areas of Research

My research focuses on molecular modeling, drug design, and marine microbial biotechnology. I explore bioactive compounds from marine yeasts and bacteria for anticancer and antimicrobial applications. My work integrates *in silico* and *in vitro* approaches to identify novel therapeutics.

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	03	01
	M.Phil.	01	-
Project	PG	85	-
	UG / Others	-	-

Student projects completion

Program of study	Year	Completed	Ongoing
BECH RUSA 2.0 (Entrepreneur ship) project	2022	03	-
	2023	03	-

Project under implementation

S. No	Agency	Period	Project Title	Role as PI/Co PI	Budget
1	TANSCHE	2021 - 2024	Validation of bio active compounds from marine bacteria (*Bacillus cereus*) against MCF-7 cell line: *In silico* and *in vitro* approach.	Principle Investigator	20,27,750

Publications

International		National		Others
journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
46	08	02	15	3

Cumulative Impact Factor (as per JCR) : 20.87
H-index : 14
i10 index : 20
Total Citations : 1053

Others:

1. **No. of PhD Thesis evaluated: 01**
2. **No. of PhD Public Viva Voce Examination conducted: 03**
3. **Sequences submitted in GenBank: 60**

Publications:

1. ShaliniT.S., Ragothaman Prathiviraj, Poomalai Senthilraja*(2025)Exploring the Therapeutic Promise of Trichodesma indicum: A Phytochemical, Antioxidant, and In Silico Insights into Anti-Arthritis Properties,Medicine in Microecology,Volume 25,pages 100129, https://doi.org/10.1016/j.medmic.2025.100129.
2. Thavasiaanatham Seenivasan Shalini, Ragothaman Prathiviraj, Poomalai Senthilraja*,(2025)Exploring the antimicrobial and antioxidative potential of Leucas aspera (Willd.) link: Phytochemical screening, molecular docking, and HR-LC/MS profiling against SARS-CoV-2 protein 3CLPro, Spike and RDB, Phytomedicine Plus,Volume 5, Issue 1, https://doi.org/10.1016/j.phyplu.2024.100700.
3. Thavasiaanatham Seenivasan Shalini, Ragothaman Prathiviraj, Poomalai Senthilraja*,(2024)Metagenomicanalysisandbioactiveprofilingofkombuchafermentation:antioxidant,anti bacterialactivities,andmoleculardockinginsightsintogastriccancertherapeutics, *Toxicology Research*, Volume 13, issue 6,https://doi.org/10.1093/toxres/tfae224.
4. Shalini, T. S., Manivel, G., Prathiviraj, R., & Senthilraja, P*. (2024). Secondary Metabolite Profiling Using HR-LCMS, Antioxidant and Anticancer Activity of Bacillus cereus PSMS6 Methanolic Extract: In silico and in vitro study. Biotechnology Reports Biotechnology Reports, Volume 42, https://doi.org/10.1016/j.btre.2024.e00842
5. Shalini T. S., Senthilraja P. and Manivel G. (2024) Molecular Docking, ADMET Property Analysis and Antibacterial Potency of Bioactive Compounds from Marine Bacillus cereus against ESPF (E. coli). World journal of pharmaceutical research Volume 13(7), 595-613.
6. Mani, A., Ramasamy, P., Prabhu, A. A. M., Senthilraja, P., & Rajendiran, N. (2024). Synthesis and analysis of Ag/olanzapine/cyclodextrin and Ag/Co/Olanzapine/cyclodextrin inclusion complex nanorods. Physics and Chemistry of Liquids, Volume 62, 2024 - Issue 3.
7. Mani, A., Ramasamy, P., Prabhu, A. A. M., Senthilraja, P., & Rajendiran, N. (2023). Synthesis and Characterization of Nanotube and Nanochain from Ag/Chloroquine/Cyclodextrin and Ag/Co/Chloroquine/Cyclodextrin Inclusion Complex, research square, volume 1 page 1-23.https://doi.org/10.21203/rs.3.rs-2941843/v1.

8. Kaliyamoorthy Kalidasan,Laurent Dufossé,Gunasekaran Manivel,Poomalai Senthilraja and Kandasamy Kathiresan (2022). Antioxidant and Anti-Colorectal Cancer Properties in Methanolic Extract of Mangrove-Derived Schizochytrium sp., Journal of Marine Science and Engineering.Volume10(3), Page 431
9. G Manivel, D Mathews Lurth Raj, R Prathiviraj, P Senthilraja* (2020) Distribution of phylogenetic proximity upon species-rich marine ascomycetes with reference to pichavaram mangrove soil sediment of southern India. Gene Reports, ElsevierVolume21, Pages100878
10. K.Dhurga, Senthilraja P, Manivel G, Anand K and stalin A (2017) Protein-protein docking analysis on WNT3A-FZD4 complex in WNT signaling pathway .Research Journal of Life Science, Bioinformatics, Pharmaceutical and Chemical Sciences. 3(5):52-61
11. K.Dhurga, Senthilraja P, Manivel G, Anand K and stalin A.(2017) In silico analysis on phytoestrogens from dried fruits as Beta-Catenin inhibitors in Liver cancer. Research Journal of Life Science, Bioinformatics, Pharmaceutical and Chemical Sciences:2(5):52-61
12. G.Manivel, P.Senthilraja, S.Manikandaprabhu, G.Durga, M.Prakash and G.Sakthivel. (2016) 6-oxa-3-thiaoctanoic acid has potential inhibitors against thyroid cancer in-silico analysis. International Journal of Pharmaceutical Sciences and Research. International Journal of Pharmaceutical Sciences and Research.,7(2),4963-4963
13. Dhurga K, Gunasekaran G, Senthilraja P, Manivel G, Stalin A (2016) Molecular Modeling and Docking Analysis of Pseudomonal Bacterial Proteins with Eugenol and its derivatives. Life Science Informatics Publication 2(1):42-50.
14. Thangapandiyan S, Miltonprabu S, Senthilraja P, (2016) Epigallocatechin gallate potentially abrogates fluoride induced lung oxidative stress, inflammation via Nrf2/Keap1 signaling pathway in rats: An in-vivo and in-silico study. International Immunopharmacology. 39:128-139.
15. Senthilraja P, Kayitare John, Manivel G, Manikandaprabhu S, Anand Krishnamurthy (2015). Potential compound derived from Catharanthus roseus to inhibit Non-Small Cell Lung Cancer (NSCLC). Int. J. Res. Ayurveda Pharm. 6(2): 265-271. DOI: 10.7897/2277-4343.06254
16. Manikandaprabhu S, Senthilraja P, Manju J, Prakash M, (2015). Molecular Identification and Docking Analysis of Marine Bacteria (Bacillus flexus). World Journal of Pharmaceutical Research, 4(9): 994-1010.
17. Manikandaprabhu S, Senthilraja P, Manivel G, Prakash M, Anand K, (2015). Bioactive Compounds From Marine Yeast Inhibits Lung Cancer. J App Pharm Sci, 5(2): 007-015.

18. Senthilraja.P, Sunil Kumar Sahu and Kathiresan.K, (2015). Isolation and Identification of Antimicrobial Protein from Saccharomyces cerevisiae and its Efficacy against the Human Pathogens. Research Journal of Microbiology, 10: 24-32.
19. Senthilraja.P, Kathiresan.K, (2015). In vitro cytotoxicity MTT assay in Vero, HepG2 and MCF-7 cell lines study of marine yeast, J. Appl. Pharm. Sci. 03 :080 -084
20. V. Ramachandran, R. Saravanan, P. Senthilraja (2014) Antidiabetic and antihyperlipidemic activity of Asiatic acid in diabetic rats, role of HMG CoA: In vivo and in silico approaches. Phytomedicine. 21(3):225-232.
21. Senthilraja P, Uwera Divine, Manikandaprabhu S, Kathiresan K, Prakash M. (2014) RNA secondary structure prediction: Analysis of Saccharomyces cerevisiae rRNAs. International Journal of Pharmaceutical Sciences Review and Research. 25(2): 287-291.
22. Senthilraja.P, Suganya. K, Manikandaprabhu. S, Kathiresan. K and Prakash. M. (2014) Mangrove Phytochemicals Inhibit Against West Nile Virus Replication In-Silico Analysis. International Journal of Plant, Animal and Environmental Sciences; 4(2): 5-11.
23. Sunil kumar sahu, kandasamy kathiresan, reena singh, and poomalai senthilraja (2013) Molecular docking analyses of avicennia marinaderived phytochemicals against white spot syndrome virus (wssv) envelope protein-vp28 bioinformation. 8(18): 897–900.
24. K saravanakumar, p senthilraja, k kathiresan (2013) bioethanol production by mangrove-derived marine yeast, *sacchromyces cerevisiae*. journal of king saud university25 (2):121-127
25. Arulprakash, G gunasekaran, M prakash, K loganathan, S balasubramanian, P senthilraja(2013) haemocytes classification and differential counts in the freshwater crab, paratelphusa hydrodromous 3(2):1-5
26. Loganathan k, arulprakash a, prakash m and senthilraja p (2013) lysozyme, protease, alkaline phosphatase and esterase activity of epidermal skin mucus of freshwater snake head fish channa striatus international journal of research in pharmaceutical and biosciences.3(1):17-20
27. Loganathan, K., Prakash, M., & Senthilraja, P. (2013). Antibacterial activities of ammonium precipitate extract of viral fish (Channa striatus) skin mucus. Int. J. Inno. Res, 1, 001-004.
28. Rulprakash, A., Gunasekaran, G., Prakash, M., Loganathan, K., Balasubramanian, S., & Senthilraja, P. (2013). Haemocytes classification and differential counts in the freshwater crab, Paratelphusa hydrodromous.
29. P. Senthilraja, Nyabuganda jean paul Aime,S.Manikandaprabhu, M.prakash (2013) Computational screening and docking analysis of natural compounds derived from

mangrove plant against Type-2 Diabetes, Myo-Inositol Oxygenase Enzyme (Miox) Int. J. Pharm. Sci.6(2)20-30

30. Senthilraja P, Manikandaprabhu S, Manju J, Loganathan K, Arulprakash A, Prakash M. (2013) Comparative docking analysis of Marine Red algae against hepatocellular carcinoma (Hcc) 1IJX Protein.
31. Kumar, P. S., Chezhian, A., Raja, P. S., & Sathiyapriya, J. S. (2012). Computational selections of terpenes present in the plant Calotropis gigantea as mosquito larvicide's by blocking the sterol carrying protein, AeSCP-2. Bangladesh Journal of Pharmacology|||, 7(1), 1-5.
32. Sureshkumar, P., Chezhian, A., Senthilraja, P., & Sathiyapriya, J. (2012). Computational selections of terpenes present in the plant Calotropis gigantea as mosquito larvicide's by blocking the sterol carrying protein. Bangladesh J Pharmacol, 7, 1-5.
33. Sureshkumar, P., Senthilraja, P., & Kalavathy, S. (2012). In-silicodocking analysis of Calotropisgigantea (L). R Br derived compound against anti-cervical cancer activity. World Res. J. Comput. Aided Drug Des, 1(1), 9-12.
34. Sahu, S. K., Kathiresan, K., Singh, R., & Senthilraja, P. (2012). Molecular docking analyses of Avicennia marinaderived phytochemicals against white spot syndrome virus (WSSV) envelope protein-VP28. Bioinformation, 8(18), 897.
35. Kumar, P. S., Chezhian, A., Raja, P. S., & Sathiyapriya, J. S. (2012). Computational selections of terpenes present in the plant Calotropis gigantea as mosquito larvicide's by blocking the sterol carrying protein, AeSCP-2. ||| Bangladesh Journal of Pharmacology|||, 7(1), 1-5.
36. Senthilraja, P., Sunil, K. S., & Kathiresan, K. (2012). Potential of mangrove derived compounds against dihydrofolate reductase: an in-silico docking study. J Comput Biol Bioinform Res, 4, 23-7.
37. Senthilraja, P., Sindhuraj, M., & Prakash, M. (2012). Potential of marine derived compounds against breast cancer (BRCA1): an in-silico docking study.
38. Balasubramanian, S., Baby Rani, P., Arul Prakash, A., Prakash, M., Senthilraja, P., & Gunasekaran, G. (2012). Antimicrobial properties of skin mucus from four freshwater cultivable fishes (Catla catla, Hypophthalmichthys molitrix, Labeo rohita and Ctenopharyngodon idella). African journal of microbiology research, 6(24), 5110-5120.
39. Senthilraja, P., Kathiresan, K., & Saravanakumar, K. (2011). Comparative analysis of bioethanol production by different strains of immobilized marine yeast. J Yeast Fungal Res, 2(8), 113-116.

40. Kathiresan, K., Saravanakumar, K., & Senthilraja, P. (2011). Bio-ethanol production by marine yeasts isolated from coastal mangrove sediment. International Multidisciplinary Research Journal, 1(1).
41. Loganathan, K., Muniyan, M., Prakash, A. A., Raja, P. S., & Prakash, M. (2011). Studies on the role of mucus from Clarias batrachus (Linn) against selected microbes. Int. J. Pharma. Appl, 2, 202-6.
42. Raja, S. P., Kathiresan, K., & Sahu, S. (2011). In silico docking analysis of mangrove-derived compounds against breast cancer protein (BRCA1). International Multidisciplinary Research Journal, 1(1), 9-12.
43. Arul Prakash, A., Balasubramanian, S., Gunasekaran, G., Prakash, M., & Senthil Raja, P. (2011). Control of clinical pathogens by the haemolymph of Paratelphusa hydrodromous, a Freshwater Crab. International Scholarly Research Notices, 2011.
44. Senthilraja, P., & Kathiresan, K. (2011). Computational selection of compounds derived from mangrove ecosystem for anti-cervical cancer activity. J Recent Sci Res, 2(4), 93-98.
45. Senthilraja, P., & Saravanakumar, K. (2011). Purification and characterization of protease from mangroves derived strain of Bacillus cereus. International Multidisciplinary Research Journal, 1(1).
46. Senthil Raja, P., & Kathiresan, K. (2011). Computational selection of mangrove-derived compounds as mosquito larvicides by blocking the sterol carrying protein, AeSCP-2, Res. Bioscientia, 2, 1-6.
47. Senthil Raja, P., & Kathiresan, K. (2011). Computational selection of mangrove-derived compounds as mosquito larvicides by blocking the sterol carrying protein, AeSCP-2, Res. Bioscientia, 2, 1-6.
48. Arul Prakash, A., Balasubramanian, S., Gunasekaran, G., Prakash, M., & Senthil Raja, P. (2011). Control of clinical pathogens by the haemolymph of Paratelphusa hydrodromous, a Freshwater Crab. International Scholarly Research Notices, 2011.

GenBank Submission list

NCBI 16S rRNA nucleotide sequence submission Gen Bank :59

Whole genome sequence submission for bacteria: 1

S. NO	Accession NO.	Species name	S. NO.	Accession NO.	Species name
1.	OR016446	*Enterococcus innesii* strain PSMS8	31.	KJ934694	Uncultured *Stenotrophomonas* sp. clone bpsr15

2.	OQ941778	*Bacillus nitratireducens* strain PSMS5	32.	KJ934693	Uncultured *Psychrobacter sp*. clone bpsr14
3.	OQ946985	*Pseudomonas sp.* strain PSMS7	33.	KJ934692	Uncultured *Acinetobacter sp*. clone bpsr13
4.	OQ946984	*Bacillus cereus* strain PSMS6	34.	KJ934691	Uncultured *Psychrobacter sp.* clone bpsr12
5.	OQ880550	*Stutzerimonas stutzeri* strain PSMS4	35.	KJ934690	Uncultured *Pseudomonas sp*. clone bpsr11
6.	OQ880549	*Bacillus luti* strain PSMS3	36.	KJ934689	uncultured *Psychrobacter* sp. clone bpsr10
7.	OQ880548	*Bacillus paramycoides* strain PSMS2	37.	KJ934688	Uncultured *Bacillus sp*. clone bpsr9
8.	OQ880547	*Bacillus thuringiensis* strain PSMS1	38.	KJ934687	Uncultured *Pseudomonas sp*. clone bpsr8
9.	KX965616	*Sagenomella sp.* internal transcribed spacer 1	39.	KJ934686	Uncultured *Lysinibacillus sp*. clone bpsr7
10.	KX965615	*Pichia kudriavzevii* internal transcribed spacer 1	40.	KJ934685	Uncultured *Bacillus sp*. clone bpsr6
11.	KX965614	*Candida orthopsilosis* internal transcribed spacer 1	41.	KJ934684	Uncultured *Psychrobacter sp*. clone bpsr5 16S
12.	KP760068	*Candida albicans* strain MMP1	42.	KJ934683	Uncultured *Acinetobacter sp*. clone bpsr4
13.	KP760067	*Trichoderma sp.* MPSf10	43.	KJ934682	Uncultured *Pseudomonas sp.* clone bpsr3
14.	KP760066	*Alternaria sp.* MPSf9	44.	KJ934681	Uncultured *Stenotrophomonas* sp.

					clone bpsr2
15.	KP760065	*Trichoderma asperellum* strain MPSf8	45.	KJ934680	Uncultured *Stenotrophomonas sp.* clone bpsr1
16.	KP760064	*Fusarium sp*. MPSf7	46.	KC964543	*Bacillus flexus* strain psrm 16S
17.	KP760063	*Fusarium proliferatum* strain MPSf6	47.	JQ768049	*Pseudomonas* sp. enrichment culture clone PSRMB1
18.	KP760062	*Hypocreales sp.* MPSf5	48.	JQ768048	*Candida tropicalis* strain PSRM6
19.	KP760061	*Penicillium sp*. MPSf4	49.	JN387604	*Saccharomyces cerevisiae*
20.	KP760060	*Fusarium verticillioides* strain MPSf3	50.	JF815176	*Geotrichum* sp. PSR4
21.	KP760059	*Fusarium sp*. MPSf2	51.	JF815175	*Kuraishia capsulata*
22.	KP760058	*Clonostachys rosea* strain MPSf1	52.	JF815174	*Pachysolen tannophilus*
23.	KJ934702	*Aspergillus sp*. enrichment culture clone fpsr4	53.	JF815173	*Candida wickerhamii*
24.	KJ934701	*Aspergillus sp. enrichment* culture clone fpsr3	54.	JF292453	*Lactobacillus sp. enrichment culture* clone PSR03
25.	KJ934700	*Cochliobolus sp.* enrichment culture clone fpsr2	55.	JF292452	*Lactobacillus sp.* enrichment culture clone PSR2
26.	KJ934699	*Aspergillus sp*. enrichment culture clone fpsr1	56.	JF292451	*Candida sp.* enrichment culture clone MPSR03
27.	KJ934698	Uncultured *Acinetobacter* sp. clone bpsr19	57.	JF292450	*Debaryomyces sp*. enrichment culture clone MPSR02
28.	KJ934697	Uncultured *Pseudomonas sp*.	58.	JF292449	*Candida sp*. enrichment culture clone MPSR01

		clone bpsr18			
29.	KJ934696	Uncultured *Bacillus* sp. clone bpsr17	59.	HQ292207	*Lactobacillus casei* strain PSR1
30.	KJ934695	Uncultured *Pseudomonas* sp. clone bpsr16	60.	SAMN36784344	WGS of *Shouchella rhizosphaerae* strain SRMWG01

List of Seminar/Workshop/Conference participated

S. No.	Name of the seminar/Conference/Workshop	Organization	Date
1.	International conference on Microbiological Research: Current challenges and Future perspective (ICMR: CCFP-2024)	Department of Microbiology Bharathidasan University Trichy	09.01.24-11.01.24
2.	Indian social science congress certification of membership and participation	XLVI Indian social science congress Allahabad & Bharathidasan University, Tiruchirappalli.	27.01.23 - 31.01.23
3.	UGC-sponsored online refresher course in Life sciences (Interdisciplinary) from.	UGC-HRDC, Bharathidasan University, Tiruchirappalli	08.09.2021 - 21.09.2021
4.	National symposium "Digital technologies for research impact and information quality"	Dept. of library and information science, Bharathidasan University, Tiruchirappalli	22.08.19-23.08.19
5.	Orientation Workshop on "SWAYAM"	UGC-HRDC, Bharathidasan University, Tiruchirappalli	03.05.2018
6.	Certificate of Membership	Asian Council of Science	31.12.2018
7.	National Seminar on "Challenges in Teaching and Learning Biology in the 21st Century"	Dept. of Biochemistry & Biotechnology, Annamalai University, Chidambaram	30.01.2018
8.	National Conference on "Advances in Toxicological Research - 2017"	Dept. of Zoology, Annamalai University, Chidambaram	22.09.2017 - 23.09.2017
9.	National Workshop on "Vermitechnology"	Dept. of Zoology, Annamalai University, Chidambaram	31.08.2017
10.	Training Programme on "Environmental Awareness in Recent Trends - 2017"	Dept. of Zoology, Annamalai University, Chidambaram	03.02.2017
11.	International Symposium on "Conservation of Aquatic & Terrestial Biodiversity (ISCATBIO - 2016)"	Thiruvalluvar University, Vellore	28.09.2016 - 30.09.2016
12.	National Workshop on "DNA Barcoding: Hands-on Practice for	Government Arts College, Udhagamandalam	30.03.2016 - 31.03.2016

	Beginners"		
13.	Training Programme on "Bioprocess Techniques Related to Aerobes and Anaerobes"	CAS-Marine Biology, Annamalai University, Chidambaram	14.03.2016
14.	National Seminar on "Advances in Toxicology and Serinanotechnology (ATS - 2015)"	Dept. of Zoology, Annamalai University, Chidambaram	23.07.2015 - 24.07.2015
15.	Staff Training Programme on "Writing, Winning and Managing Research Proposals"	IQAC, Annamalai University, Chidambaram	05.03.2014 - 06.03.2014
16.	National Workshop on "Trends and Techniques in Isolation of Bio-Active Molecules (IBAM - 2013)"	Dept. of Zoology, Annamalai University, Chidambaram	31.01.2013 - 02.02.2013
17.	National Conference on "Computer Aided Drug Designing"	Dept. of Bioinformatics, SRM University, Chennai	24.03.2011 - 25.03.2011
18.	Workshop on "Molecular Modelling and Simulation"	Dept. of Bioinformatics, SRM University, Chennai	22.03.2011 - 23.03.2011
19.	National Conference on "Advance in Environmental Research: An Interdisciplinary Approach"	Dept. of Zoology, Annamalai University, Chidambaram	11.03.2011 - 12.03.2011
20.	National Conference on "Aggrandize of Life Science"	Dept. of Zoology, Annamalai University, Chidambaram	29.03.2010 - 30.03.2010
21.	National Seminar on "Advances in Biological Sciences (ABS-2010)"	Dept. of Zoology, Annamalai University, Chidambaram	22.01.2010 - 23.01.2010
22.	National Seminar on "Recent Developments in Pharmaceutical Biotechnology"	Dept. of Pharmacy, Annamalai University, Chidambaram	07.03.2009 - 08.03.2009
23.	"Inter-Disciplinary Research Methodology Workshop"	Dept. of Economics, Annamalai University, Chidambaram	12.03.2009
24.	National Conference on "Recent Trends in Bioscience-21st Millennium "	Dept. of Zoology, Annamalai University, Chidambaram	07.03.2009
25.	National Symposium on "Biocomputing"	Annamalai University, Chidambaram	23.02.2009 - 24.02.2009
26.	National Level "Symposium on Bioinformatics-Motif'07'"	Dept. of Bioinformatics, Bharathiyar University, Coimbatore	28.09.2007