



Dr. S. GOWRISHANKAR
Assistant Professor

Contact

Address : Department of Biotechnology,
Science Campus,
Alagappa University,
Karaikudi 630 003
Tamil Nadu, India

Employee Number : 54405

Contact Phone (Office) : +91 4565 223327

Contact Phone (Mobile) : +91 9994933559

Contact e-mail(s) : gowrishankar.alu@gmail.com;
gowrishankars@alagappauniversity.ac.in

Skype id : [gowrishankar.alu@gmail.com](https://www.skype.com/people/gowrishankar.alu@gmail.com)

Website : <https://alagappauniversity.ac.in/academics/faculty-of-science/school-of-biological-sciences/department-of-biotechnology>

Academic Qualifications

Degree	Year of Passing	Subject	Class	Institution
Ph.D.	December 2016	Biotechnology	Awarded	Department of Biotechnology, Alagappa University
Post M.Sc., Diploma	June 2010	Advanced Diploma in Molecular Diagnostics	First class with Distinction	Department of Biotechnology, Alagappa University, Karaikudi
M.Sc.	May 2009	Microbiology	First class with Distinction	Bharathidasan University, Tiruchirappalli
B.Sc.	April 2007	Microbiology	First class	Kongu College of Arts & Science, Karur - 639 006

Teaching Experience

Total Teaching Experience : 8 Years

Position	Institution	Duration
Assistant Professor (Academic Level 10)	Department of Biotechnology Alagappa University, Karaikudi 630 003.	Jan 30, 2016 to Jan 30, 2020
Assistant Professor (Academic Level 11)		Jan 31, 2020 to Till date

Research Experience

Total Research Experience : 13 Years

Position	Institution	Duration
Junior Research Fellow in Department of Biotechnology (DBT), Govt. of India, Sponsored project "Bioprospecting marine microbial wealth through metagenomics" (Project reference: BT/PR/99114/NDB/52/134/2009)	Department of Biotechnology Alagappa University, Karaikudi 630 003.	Oct, 2010 to May, 2011
UGC- Rajiv Gandhi National - Junior Research Fellow		June, 2011 to May, 2013
UGC- Rajiv Gandhi National - Senior Research Fellow		June, 2013 to Jan, 2016

Academic and Additional Responsibilities

S. No	Position	University Bodies	Period	
			From	To
1	Coordinator	Department level Non-Major Elective (NME) Course, MOOCs, SWAYAM & NAD Coordinator	Since Dec, 2019	Till Date
2	Coordinator	Department level IQAC and NIRF Coordinator	Since 2018	Till Date
3	Coordinator	Department level Village Extension Programme (VEP) Coordinator	Since 2016	Till Date
4	Coordinator	Department level SWACHH BHARAT Coordinator	Since 2018	2023
5	Coordinator	Department level Placement Coordinator	Since January 2017	Till Date
6	Deputy Warden	Post Graduate Men's Hostel	22.02.2021	01.06.2023
7	Deputy Warden	International Students' Hostel	26.09.2023	01.06.2023
8	Faculty level Coordinator	Entrepreneurship Innovation & Career (EIC) Hub for the Faculty of Science	August, 2021	Till Date
9	Department level Coordinator	Cultural Club	Since 2016	Till Date

Area of Research

- ✚ **Molecular Epidemiology:** Molecular characterization of multidrug resistant clinical pathogens, especially MRSA.
- ✚ **Antivirulence Therapy -“Pathoblockers”:** An alternative approach to combat AMR.
- ✚ Molecular insights into the mode of action of antivirulence agents through **OMICS** approach.
- ✚ **Phage Therapy:** Therapeutic characterization of phages against human and aquaculture pathogens.
- ✚ **Repurposing of Antifungal Drugs:** success through synergistic combination with antivirulence agents.

Patents Filed

S. No	Title	Inventors	Patent Number	Filing Date	Current Status
1	ANTI-BACTERIAL COMPOSITION, PROCESS FOR PREPARING AND IMPLEMENTATION THEREOF	Sangavi, R, Jothi R, Gowrishankar S , Pandian SK	Application No.: 202241011110	01.03.2022	Published 01.09.2023
2	ANTI-BIOFILM COMPOSITION AND METHOD OF PREPARATION THEREOF	Jothi R, Gowrishankar S , Prasath KG, Pandian SK	Application No.: 202141026689	17.06.2021	Published 16.12.2022

Research Supervision/Guidance

Program of Study		Completed	Ongoing
Research	PDF	--	--
	Ph.D	02	04
	M.Phil	--	--
Project	PG	22	05
	UG/ Summer Interns	08	--

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books/ Chapters/Monographs/Manuals
45	29	-	10	08

Research Achievements

✚ No. of Research Publications	: 46
✚ Cumulative and Average Impact Factor	:204.417 (Avg. IF: 4.54)
✚ h-index (As per Google Scholar Citation Index)	:26
✚ i-10 index	:36
✚ Total Citations((As per Google Scholar Citation Index)	:1658 (As on 29.07.2024)
✚ Scopus Author ID	:55372051100
✚ Orcid ID	:0000-0001-5728-6837
✚ No. of Conferences Attended	:27
✚ No. of Seminars and Workshops Attended	:15

Funded Research Projects

✚ Ongoing Projects:

S. No	Agency	Period		Project Title	Budget (in Rs.)
		From	To		
1	Entrepreneur in Residence-Alagappa University -EIC Hub of RUSA 2.0 [Student Project]	2023	2024	Natural anticariogenic agent(s) based improved oral hygiene product	2,90,000 [As PI & my student as Co-PI]
2	Entrepreneur in Residence-Alagappa University -EIC Hub of RUSA 2.0 [Faculty Project]	2023	2024	Development of antivirulence based formulations for advancing vaginal care products	7,83,000 [As the only PI]
3	Indian Council of Medical Research (ICMR), New Delhi	2021	2024	Identification of potential drug target(s) in <i>Streptococcus mutans</i> : an essential step for developing improved dental care products	21,09,040 [As the only PI]

✚ Completed Projects:

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	Department of Science & Technology (DST), SERB, New Delhi	2020	2023	Refocusing Nature's destroyer of bacteria -Phages and their lysins as promising therapy against infections associated with ESKAPE pathogens	38,94,000 [As the only PI]
2	AURF Start-Up Grant (AURF)	2018	2019	Efficacy evaluation of phytochemical(s) from <i>Achyranthes aspera</i> L. (amaranthaceae) against various virulence traits of certain human pathogens	1,00,000 [As the only PI]

3	University Grants Commission (UGC), New Delhi	2017	2019	“Deciphering the antivirulence mechanism of marine cyclic dipeptide cyclo(l-leucyl-l-prolyl) against <i>Listeria monocytogenes</i> through proteomic approach”	8,00,000 [As the only PI]
---	---	------	------	--	------------------------------

Distinctive Achievements / Awards

S. No.	Name of Award	Awarding Agency	Year
1	BEST ORAL PRESENTATION AWARD in the International Conclave on “Antimicrobial Resistance”	Centre of Excellence in Life Sciences, PSGR Krishnammal College for Women, Coimbatore	March 04 th & 5 th , 2024.
2	Best Oral Presentation Award- 2023 (secured First Position) in the International Conference of Algae: FOOD, FEED, FUELS & FINE CHEMICALS - ICA-F ⁴ 23	Department of Microbiology, Bharathidasan University, Trichy	September 06 th to 8 th , 2023
3	Appreciation Award - 2023 presented by Alagappa University for Outstanding Academic and Research Excellence in acquiring the Patent & Projects during the Academic Years through 2020-21 to 2022-23	Alagappa University	Sept 5 th , 2023
4	Promising Researcher Award - 2022 presented in recognition of the contribution made towards ‘EXCELLENCE IN RESEARCH’	Alagappa University	Sept 5 th , 2022
5	Vallal Alagappa Research Recognition Award - 2020 in recognition of contribution towards the enhancement of Research Outcome of the University in the form of ‘h’ index.	Alagappa University	2020
6	Dr. APJ Abdul Kalam Award for Young Scientist Award - 2019	MARINA LABS, Reserach & Development, Chennai.	24 th Nov, 2019
7	Outstanding Researcher Award -2019 at the International Conference “Horizon 2019” - <i>The Epitome of Biomedical Research</i>	Saveetha Dental College & Hospitals, SIMATS, Chennai	28 th February to 1 st March 2019.
8	Start-up Grant (of Rs. 10 lakhs) for the newly joined faculties of Basic Sciences	UGC, New Delhi	2017
9	International Travel Awards (To attend the 25 th European Congress of Clinical Microbiology and Infectious Diseases held during April 25 th -28 th , 2015 at Copenhagen, Denmark).	Indian Council of Medical Research (ICMR) Centre for International Co-operation in Science (CICS)	2015
10	First prize for oral presentation in the National Conference on “Bioactive Peptides-Application in Veterinary, Medical and Food Sciences”	Department of Animal Biotechnology, Madras Veterinary College, Chennai, India	December 18 th - 19 th , 2014

11	Best poster and cash award in the “National Seminar on Role of Microbes in Health, Agriculture and Industry”	Department of Biotechnology, Alagappa University, Karaikudi, India.	26 th - 27 th - March 2012
12	Second prize for poster presentation in the International Conference on “Regulatory Network Architecture in Bacteria”	Sastra University, Thanjavur, India	March 9 th - 11 th , 2012
13	Rajiv Gandhi National Fellowship	UGC, New Delhi	2011-2016
14	Awarded Studentship (Rs. 5000 per month for one year) for pursuing Post M.Sc., Advanced Diploma in Molecular Diagnostics Programme	Department of Biotechnology (DBT), Government of India	July 2009 to June 2010
15	State Eligibility Test for Lectureship (SET) in Life sciences	Bharathiar University, Government of Tamil Nadu.	2008
16	INTERNATIONAL TRAVEL AWARD (To participate and present my research work in the American Society for Microbiology (ASM)-MICROBE-2024 Int. Conf. held during June 13 th -17 th , 2024 at Atlanta, USA).	Anusanthan National Research Foundation (ANRF) SERB ITS	May, 2024

Number of Seminars /Conferences /Workshops/ Events organized:

Position	Programme	Duration	Institution
Organizing Member	International Conference cum Workshop on <i>Caenorhabditis elegans</i> based OMICS for Future Challenges	09.09.2019 to 13.09.2019	Dept. of Biotechnology, Alagappa University
Organizing Member	International Online Seminar on “Alternatives to Antibiotics”	03.06.2020 and 04.06.2020	Dept. of Biotechnology, Alagappa University
Organizing Member	BIO-OMICS-2022	27.05.2022 and 28.05.2022	Dept. of Biotechnology, Alagappa University

Events Participated

Conferences / Seminars / Workshops: 29/01/10

Membership

1. Life Member : Microbiologists Society, India (MBSI) (MS/LM/476)
2. Life Member : Proteomic Society, India (PSI) (Reg. No. 458)
3. Life Member : Biotech Research Society of India (BRSI) (LM:1672)
4. Global Outreach – Contributing Membership: American Society for Microbiologist

Overseas Exposure / Visits



Visited **Copenhagen, Denmark** to participate and present my research work as poster in the **25th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID 2015)** during 25th -28th April 2015.



Visited **Atlanta, USA** to participate and present my research work as poster in the **American Society for Microbiology (ASM) MICROBE-2024** International Conference during 13th -17th June 2024.

Ph.D. Thesis Guided

- No. of Ph.D., Thesis evaluated : 01
- No. of PhD Public Viva Voce Examination conducted : 01

S. No	Name of the Scholar	Title of the Thesis	Year of Completion
1.	Dr. R. Jothi	Therapeutic Alternatives and their Sub-Clinical Evaluation through Topical Formulations for Treatment of Bacterial and Fungal	2024

List of Research Articles / Recent Publications

S. No.	Authors, Title and Journal details	Impact Factor
1	Thasnim P. M., Abinaya S. T., Jothi, R., Gowrishankar, S , Marappan V., Suman P., and Sankaralingam M *, 2024. Investigation of the inherent characteristics of copper(II) Schiff base complexes as antimicrobial agents. New Journal of Chemistry [Royal Society of Chemistry, England] (Accepted)	3.3
2	Jothi, R., and Gowrishankar, S* , 2024. Synergistic anti-virulence efficacy of citral and carvacrol against mixed vaginitis causing <i>Candida albicans</i> and <i>Gardnerella vaginalis</i> : An <i>in vitro</i> and <i>in vivo</i> study. The Journal of Antibiotics [Nature Publishing Group, UK] (Accepted).	3.3
3	Jothi, R., Kamaladevi, A., Malligarjunan, N., Muthuramalingam, P., Pandian, S.K. and Gowrishankar, S* , 2024. Untargeted metabolomics uncovers prime pathways linked to antibacterial action of citral against bacterial vaginosis-causing <i>Gardnerella vaginalis</i> : an <i>in vitro</i> and <i>in vivo</i> study. Heliyon [Cambridge, MA 02139, USA: Cell Press] https://doi.org/10.1016/j.heliyon.2024.e27983 (Accepted).	4.0
4	Jothi, R., Hong, ST., Enkhtsatsral, M., Pandian, S.K. and Gowrishankar, S* , 2023. ROS mediated anticandidal efficacy of 3-Bromopyruvate prevents vulvovaginal candidiasis in mice model. PLoS ONE 2023 Dec 28;18(12):e0295922. [San Francisco, CA : Public Library of Science] https://doi.org/10.1371/journal.pone.0295922	3.752

5	Sangavi, R., Muthumanickam, S., Malligarjunan, N., Jothi, R., Boomi, P., Arivudainambi S., Raman, M., Joshi, CG., Pandian, S.K. and Gowrishankar, S* , 2023. <i>In silico</i> analysis unravels the promising anticariogenic efficacy of fatty acids against dental caries causing <i>Streptococcus mutans</i> . Journal of Biomolecular Structure & Dynamics [Taylor & Francis] https://doi.org/10.1080/07391102.2023.2283155	5.2
6	Karthika, C., Malligarjunan, N., Jothi, R., Kasthuri, T., Ravi, AV., Pandian, S.K. and Gowrishankar, S* , 2023. Two novel phages PSPa and APPa inhibit planktonic, sessile and persister populations of <i>Pseudomonas aeruginosa</i> , and mitigate its virulence in Zebrafish model. Scientific Reports [Springer Nature]. https://doi.org/10.1038/s41598-023-45313-x	4.996
7	Athulya, D., Sangavi, R., Gowrishankar, S. , Kumar, R., Sankaralingam, M., 2023. Deciphering the Mechanism of MRSA Targeting Copper(II) Complexes of NN^{2-} Pincer Type Ligands. Inorganic Chemistry . https://doi.org/10.1021/acs.inorgchem.3c02480	4.6
8	Kannappan, A., Jothi, R., Tian, X., Pandian, SK., Gowrishankar, S. ,* Chunle, S.,* 2023. Antibacterial activity of 2-hydroxy-4-methoxybenzaldehyde and its possible mechanism against <i>Staphylococcus aureus</i> . Journal of Applied Microbiology . https://doi.org/10.1093/jambio/lxad144 .	4.0
9	Jothi, R., Sangavi, R., Raja, V., Kumar, P., Pandian, S.K. and Gowrishankar, S* , 2023. Alteration of Cell Membrane Permeability by Cetyltrimethylammonium Chloride Induces Cell Death in Clinically Important <i>Candida</i> Species. International Journal of Environmental Research and Public Health . 20(1), p.27. DOI: https://doi.org/10.3390/ijerph20010027 .	4.6
10	Sowndarya, J., Suresh, D., Venkatachalam, S., Thamotharanc, S., Shanmugasundaram, K., Vincent, P., Sekarane, S., Gowrishankar, S. , Pandian, SK., and P, Nithyanand. 2022. Heteroleptic pincer palladium (II) complex coated orthopedic implants impede the AbaI/ AbaR quorum sensing system and biofilm development by <i>Acinetobacter baumannii</i> . Biofouling [Taylor & Francis] 29:1-11. https://doi.org/10.1080/08927014.2021.2015336 .	3.797
11	Jothi, R., Hariprasath, N., Gowrishankar, S* , Pandian, S.K., 2021. Bacterial quorum sensing molecules as promising natural inhibitors of <i>Candida albicans</i> virulence dimorphism: An <i>in silico</i> and <i>in vitro</i> study. Frontiers in Cellular and Infection Microbiology [Lausanne: Frontiers Media SA] https://doi.org/10.3389/fcimb.2021.781790 .	6.073
12	Jothi, R., Sangavi, R., Kumar, P., Pandian, S.K., Gowrishankar, S* , 2021. Catechol thwarts virulent dimorphism in <i>Candida albicans</i> and potentiates the antifungal efficacy of azoles and polyenes. Scientific Reports [Springer Nature]. DOI: 10.1038/s41598-021-00485-2.	4.996
13	Muthumanickam, S., Boomi, P., Nachiyappan, M., Balajee, R., Vidhyavathi, R., Poorani, GP., Gowrishankar, S. , Wang, Y., Biruntha, M., Subaskumar, R., Balakumar, C., Bayan, M.F., Ravikumar, S., Jeyakanthan, J., Prabu, H.G., King, S. 2021. <i>In Silico</i> Screening of Natural Phytoconstituents Towards Identification of Potential Lead Compounds to Treat COVID-19. Frontiers in Molecular Biosciences [Lausanne: Frontiers Media SA] 02 July 2021. https://doi.org/10.3389/fmolb.2021.637329	5.2

14	Muthumanickam, S [✉] , Kamaladevi, A [✉] , Boomi, P., Gowrishankar, S* , and Pandian, S.K. 2021. Indian ethnomedicinal phytochemicals as promising inhibitors of RNA binding domain of SARS-CoV-2 nucleocapsid phosphoprotein: an in silico study. <i>Frontiers in Molecular Biosciences</i> [Lausanne: Frontiers Media SA] (In press) https://doi.org/10.3389/fmolb.2021.637122 ✉Equally Contributed * Corresponding author	5.2
15	Gowrishankar, S* , Muthumanickam, S [✉] , Kamaladevi, A [✉] , Karthika, C., Jothi, R., Boomi, P., Maniazhagu, D., and Pandian, S.K. 2021. Promising phytochemicals of traditional Indian herbal steam inhalation therapy to combat COVID-19 – an <i>in silico</i> study. <i>Food and Chemical Toxicology</i> [Elsevier, France] 148, 111966. https://doi.org/10.1016/j.fct.2020.111966 ✉Equally Contributed * Corresponding author	6.02
16	Muthuramalingam, P., Jeyasri, R., Valliammai, A., Selvaraj, A., Karthika, C., Gowrishankar, S. , Pandian, S.K., Ramesh, M., and Chen J.T., 2020. Global multi-omics and systems pharmacological strategy unravel the multi-targeted therapeutic potential of natural bioactive molecules against COVID-19: An <i>in silico</i> approach. <i>Genomics</i> [Elsevier, Amsterdam], 112(6): 4486–4504. https://doi.org/10.1016/j.ygeno.2020.08.003	5.7
17	Saraswathi, M.S.S.A., Rana, D., Divya, K., Gowrishankar, S. , Nagendran, A., 2020. Versatility of hydrophilic and antifouling PVDF ultrafiltration membranes tailored with polyhexanide coated copper oxide nanoparticles. <i>Polymer Testing</i> [Elsevier, Amsterdam], Volume 84, April 2020, 106367. https://doi.org/10.1016/j.polymertesting.2020.106367	5.1
18	Soumiya, G., Gowrishankar, S. , Prabhu, MR. 2020. Influence of phosphotungstic acid in sulfonated poly (ether ether ketone)/poly (amide imide) based proton conductive membranes and its impact on the electrochemical studies of microbial fuel cell application. <i>Ionics</i> 26, 1841–1852(2020) [Springer Nature Switzerland AG]. https://doi.org/10.1007/s11581-019-03415-5	2.8
19	Mahomoodally, F.M., Lobine, D., Rengasamy, K.R.R., Gowrishankar, S. , Tewari, D., Zengin, G., Kim, D.H., Sivanesan, I. 2019. Marine algae - a potential resource for anti-HSV molecules. <i>Processes</i> [MDPI AG, Switzerland] 7(12), 887. doi.org/10.3390/pr7120887. https://doi.org/10.3390/pr7120887	2.8
20	FarisaBanu, S., Thamocharan, S., Gowrishankar, S. , Pandian, S.K., Nithyanand, P., 2019. Marine bacterial DNase curtails virulence and disrupts biofilms of <i>Candida albicans</i> and non-albicans <i>Candida</i> species <i>Biofouling</i> [Taylor & Francis] 29:1-11. doi: 10.1080/08927014.2019.1680650	2.8
21	Saraswathi, M.S.S.A., Rana, D., Divya, K., Gowrishankar, S. , Sakthivel, A., Alwarappan, S., Nagendran, A., 2020. Highly permeable, antifouling and antibacterial poly (ether imide) membranes tailored with poly (hexamethylene biguanide) coated copper oxide nanoparticles. <i>Materials Chemistry and Physics</i> [Elsevier, Amsterdam] 240, 122224. https://doi.org/10.1016/j.matchemphys.2019.122224	4.094
22	Saraswathi, M.S.S.A., Rana, D., Alwarappan, S., Gowrishankar, S. , Vijayakumar, P., Nagendran, A., 2019. Polydopamine layered poly (ether imide) ultrafiltration membranes tailored with silver nanoparticles designed for better permeability, selectivity and antifouling. <i>Journal of Industrial and Engineering Chemistry</i> (In	6.064

	Press, Available online 14 March 2019) [Elsevier, Amsterdam] 76: 141-149. https://doi.org/10.1016/j.jiec.2019.03.014	
23	Rameshkumar, R., Pandian, S., Rathinapriya, P., Selvi, C.T., Satish, L., Gowrishankar, S. , Leung, D.W.M., Ramesh, M., 2019. Genetic diversity and phylogenetic relationship of <i>Nilgirianthus ciliatus</i> populations using ISSR and RAPD markers: Implications for conservation of an endemic and vulnerable medicinal plant, Biocatalysis and Agricultural Biotechnology . <i>Biocatalysis and Agricultural Biotechnology</i> [Elsevier, USA] 18: 101072. https://doi.org/10.1016/j.bcab.2019.101072	4.0
24	Rubini, D., FarisaBanu, S., Prabha, S., Vedhahari, B.N., Gowrishankar, S. , Pandian, S.K., Wilson, A., Nithyanand, P., 2019. Extracted chitosan disrupts quorum sensing mediated virulence factors in urinary tract infection causing pathogens. <i>Pathogens and Disease</i> [FEMS, Oxford University Press, USA] 77(1). pii: ftz009. https://doi.org/10.1093/femspd/ftz009	3.166
25	Sri Abirami Saraswathi, A., Rana, D., Alwarappan, S., Gowrishankar, S. , Kanimozhi, P., Nagendran, A., 2019. Cellulose acetate ultrafiltration membranes customized with bio-inspired polydopamine coating and in situ immobilization of silver nanoparticles. <i>New Journal of Chemistry</i> [Royal Society of Chemistry, England]. 43, 4216-4225. https://doi.org/10.1039/C8NJ04511A	3.591
26	Gowrishankar, S* , Pandian, S.K., Balasubramaniam, B., Balamurugan, K., 2018. Quorum quelling efficacy of marine cyclic dipeptide -cyclo(L-leucyl-L-prolyl) against the uropathogen <i>Serratia marcescens</i> . <i>Food and Chemical Toxicology</i> [Elsevier, France] 123, 326-336. https://doi.org/10.1016/j.fct.2018.11.013	4.679
27	Chokpaisarn, J., Y, Kanyatorn., Sanpinit, S., Pandian, S.K., Nandhini, J.R., Gowrishankar, S. , Limsuwan, S., Kunworarath, N., Voravuthikunchai, S.P., Chusri, S., 2019. Effects of a traditional Thai polyherbal medicine 'Ya-Samarn-Phlae' as a natural anti-biofilm agent against <i>Pseudomonas aeruginosa</i> . <i>Microbial Pathogenesis</i> [Elsevier, London] 128 (2019): 354 – 362. https://doi.org/10.1016/j.micpath.2019.01.036	2.914
28	Rameshkumar, R., Satish, L., Pandian, S., Rathinapriya, P., Rency, P.S., Gowrishankar, S. , Pandian, S.K., Leung, W.M.D., 2018. Manikandan Ramesh. Production of squalene with promising antioxidant properties in callus cultures of <i>Nilgirianthus ciliates</i> . <i>Industrial Crops and Products</i> [Elsevier, Netherlands] 126, 357 – 367. https://doi.org/10.1016/j.indcrop.2018.10.031	4.244
29	Rengasamy, K.R.R [®] , Khan, H [®] , Gowrishankar, S[®] , Lagoa, R.J.L., Mahomoodally, F.M., Khan, Z., Suroowan, S., Tewari, D., Zengin, G., Hassan, S.T.S., Pandian, S.K., 2018. The role of flavonoids in autoimmune diseases: therapeutic updates. <i>Pharmacology and Therapeutics</i> [Elsevier, France] 194:107-131. https://doi.org/10.1016/j.pharmthera.2018.09.009 [®] Equally Contributed.	10.557
30	Hassan, S.T.S., Šudomová, M., Berchová-Bímov, K., Gowrishankar, S. , Rengasamy, K.R.R., 2018. Antimycobacterial, enzyme inhibition and molecular interaction studies of psoromic acid on <i>Mycobacterium tuberculosis</i> : Efficacy and safety investigations. <i>Journal of Clinical Medicine</i> [MDPI AG, Switzerland] 20;7(8). pii: E226. https://doi.org/10.3390/jcm7080226	5.583
31	Fang, J., Chen, Q., He, B., Ca, J., Yao, Y., Xu, S., Gowrishankar, S. , Pandian, S.K., 2018. Tanshinone IIA attenuates TNF- α induced PTX3 expression and monocyte adhesion to endothelial cells through the p38/ NF- κ B pathway. <i>Food and</i>	4.679

	Chemical Toxicology [Elsevier, France] 121: 622-630. https://doi.org/10.1016/j.fct.2018.09.063	
32	Rubini, D., FarisaBanu, S., Vellingiri, V., RamyaDevi, D., Gowrishankar, S. , Pandian, S.K., Nithyanand, P., 2018. Chitosan extracted from marine biowaste mitigates staphyloxanthin production and biofilms of Methicillin- resistant <i>Staphylococcus aureus</i> . Food and Chemical Toxicology [Elsevier, France] 118:733-744. https://doi.org/10.1016/j.fct.2018.06.017	4.679
33	FarisaBanu, S., Rubini, D., Murugan, R., Vellingiri, V., Gowrishankar, S. , Pandian, S.K., Nithyanand, P., 2018. Exploring the antivirulent and sea food preservation efficacy of Essential oil combined with DNase on <i>Vibrio paraholyticusaem</i> . LWT Food Science and Technology [Elsevier, France] 95 (2018): 107-115. https://doi.org/10.1016/j.lwt.2018.04.070	4.006
34	FarisaBanu, S., Rubini, D., Shanmugavelan, P., Murugan, R., Gowrishankar, S. , Pandian, S.K., Nithyanand, P., 2018. Effect of patchouli and cinnamon essential oil on biofilm and hyphae formation by <i>Candida</i> spp. Journal of Medical Mycology [Elsevier, France] (2):332-339. https://doi.org/10.1016/j.mycmed.2018.02.012	1.606
35	Satish, L [®] ., Santhakumari, S [®] ., Gowrishankar, S[®] ., Pandian, S.K., Ravi, A.V., Ramesh, M., 2017. Rapid biosynthesized AgNPs from <i>Gelidiella acerosa</i> aqueous extract mitigates quorum sensing mediated biofilm formation of <i>Vibrio</i> species - An <i>in vitro</i> and <i>in vivo</i> approach. Environmental Science and Pollution Research [Germany (Berlin): Springer] 24(35):27254-27268. https://doi.org/10.1007/s11356-017-0296-4 [®] Equally Contributed.	3.056
36	Kannappan, A., Gowrishankar, S. , Srinivasan, R., Pandian, S.K., and Ravi, A.V., 2017. Antibiofilm activity of <i>Vetiveria zizanioides</i> root extract against methicillin-resistant <i>Staphylococcus aureus</i> . Microbial Pathogenesis [Elsevier, London] 110 (2017): 313e324. https://doi.org/10.1016/j.micpath.2017.07.016	2.581
37	FarisaBanu, S., Rubini, D., Rakshithaa, S., Sekar, C.K., Wilson, A., Gowrishankar, S. , Pandian, S.K., and Nithyanand, P., 2017. Antivirulent properties of underexplored Cinnamomum tamala essential oil and its synergistic effects with DNase against <i>Pseudomonas aeruginosa</i> biofilms - an <i>in vitro</i> study. Frontiers in Microbiology [Lausanne: Frontiers Media SA] https://doi.org/10.3389/fmicb.2017.01144	4.259
38	Gowrishankar, S. , & Pandian, S.K, 2017. Modulation of <i>Staphylococcus epidermidis</i> (RP62A) extracellular polymeric layer by marine cyclic dipeptide-cyclo(L-leucyl-L-prolyl) thwarts biofilm formation. Biochim Biophys Acta Biomembranes [Elsevier, The Netherlands] 14;1859(7):1254-1262. https://doi.org/10.1016/j.bbamem.2017.04.009	3.79
39	Sivaranjani, M, Prakash, M, Gowrishankar, S , Nandhini, J.R, Pandian, S.K, 2017. <i>In vitro</i> activity of α -mangostin in killing and eradicating <i>Staphylococcus epidermidis</i> RP62A biofilms. Applied Microbiology and Biotechnology . [Springer International, New York] 101(8):3349-3359. [Impact Factor: 3.67]. https://doi.org/10.1007/s00253-017-8231-7	3.67
40	Gowrishankar, S. , Kamaladevi, A., Balamurugan, K., and Pandian, S.K., <i>In vitro</i> and <i>in vivo</i> biofilm characterization of community-acquired methicillin-resistant <i>Staphylococcus aureus</i> from patients associated with pharyngitis infection. BioMed	2.583

	Research International [Hindawi Publishing Corp., New York] 2016, 1-14 Article ID 1289157. https://doi.org/10.1155/2016/1289157	
41	Sivaranjani, M., Gowrishankar, S. , Kamaladevi, A., Pandian, S.K., Balamurugan, K., and Ravi, A.V., 2016. Morin inhibits biofilm production and reduces the virulence of <i>Listeria monocytogenes</i> - An <i>in vitro</i> and <i>in vivo</i> approach. International Journal of Food Microbiology [Elsevier, The Netherlands] 237, 73-82 [Impact Factor: 4.006]. https://doi.org/10.1016/j.ijfoodmicro.2016.08.021	4.006
42	Gowrishankar, S. , Sivaranjani, M., Kamaladevi, A., Ravi, A.V., Balamurugan, K., Pandian, S.K., 2016. Cyclic dipeptide cyclo(L-leucyl-L-prolyl) from marine <i>Bacillus amyloliquefaciens</i> mitigates biofilm formation and virulence in <i>Listeria monocytogenes</i> . Pathogens and Disease [FEMS, Oxford University Press, USA] 74, 4, 49-60. https://doi.org/10.1093/femspd/ftw017	2.483
43	Gowrishankar, S. , Kamaladevi, A., Ayyanar, K.S., Balamurugan, K., Pandian, S.K., 2015. <i>Bacillus amyloliquefaciens</i> -secreted cyclic dipeptide – cyclo(L-leucyl- L-prolyl) inhibits biofilm and virulence production in methicillin-resistant <i>Staphylococcus aureus</i> . RSC Advances [Royal Society of Chemistry, England] 5, 95788-95804. https://doi.org/10.1039/C5RA11641D	3.840
44	Gowrishankar, S. , Poornima, B., Pandian, S.K., 2014. Inhibitory efficacy of cyclo(L-leucyl-L-prolyl) from mangrove rhizosphere bacterium- <i>Bacillus amyloliquefaciens</i> (MMS-50) toward cariogenic properties of <i>Streptococcus mutans</i> . Research in Microbiology [Elsevier, New York, USA] 165, 278-289. https://doi.org/10.1016/j.resmic.2014.03.004	3.217
45	Gowrishankar, S. , Thenmozhi, R., Balaji, K., Pandian, S.K., 2013. Emergence of methicillin-resistant, vancomycin-intermediate <i>Staphylococcus aureus</i> among patients associated with group A Streptococcal pharyngitis infection in southern India. Infection, Genetics and Evolution [Elsevier, New York, USA] 14, 383-389 https://doi.org/10.1016/j.meegid.2013.01.002	3.264
46	Gowrishankar, S. , Mosioma, N.D., and Pandian, S.K., 2012, Coral-associated bacteria as a promising antibiofilm agent against methicillin-resistant and -susceptible <i>Staphylococcus aureus</i> biofilms. Evidence-Based Complementary and Alternative Medicine [Hindawi Publishing Corp., New York] 2012, 862374 https://doi.org/10.1155/2012/862374	4.774

Book Chapters Published

S. No.	Particulars	Publisher and Year
1	Malligarjuna, N., ^ψ , Sangavi, R ^ψ , and Gowrishankar, S* . Antibiofilm activity of Postbiotics. In: Dharumadurai D. (eds) "Protocol Book on POSTBIOTIC".	Springer Nature Publications 2023
2	Gowrishankar, S* , Kamaladevi, A., Pandian, S.K. MALDI-TOF Analysis of Actinobacterial Peptides with Respect to MASCOT Database. In: Dharumadurai D. (eds) Methods in Actinobacteriology.. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-1728-1_36 .	Springer Protocols Handbooks 2022
3	Jothi, R., Karthika, C., Kamaladevi, A., Satish, L., Pandian, S.K., and	Elsevier Press,



	Gowrishankar, S* . CRISPR based bacterial genome editing and removal of pathogens. In: Reprogramming of the Genome: Applications of CRISPR-Cas in non-mammalian systems Volume 180, Vijaisingh (Ed.) Chapter 03.	Cambridge MA 2021
4	Satish, L., Lavanya, G., Kasthuri, T., Kalaivaani, A., Shamili, S., Muthuramalingam, P., Gowrishankar, S. , Pandian, SK., Singh, V., Sitrit, Y., and Kushmaro, A. CRISPR based development of RNA editing and the diagnostic platform. . In: Reprogramming of the Genome: Applications of CRISPR-Cas in non-mammalian systems Volume 180, Vijaisingh (Ed.). Chapter 05.	Elsevier Press, Cambridge MA 2021
5	Gowrishankar, S* , Kamaladevi, A., & Pandian, S.K., Prebiotics Mechanism of Action: An Overview In: Advances in Probiotics: Microorganisms in Food and Health, D Dhanasekaran (Ed.). Chapter 11.	Elsevier Press, Cambridge MA 2020
6	Gowrishankar, S* , Kamaladevi, A., & Pandian, S.K., Structure and functional role of microbiome associated with specific organs of healthy individuals. In: Microbiome-Host Interactions, D Dhanasekaran (Ed.). Chapter 33.	CRC Press, Taylor and Francis Group, USA 2020
7	Kamaladevi, A., Gowrishankar, S. , & Balamurugan, K., 2017. Klebsiella spp. as a pathogen: Epidemiology, pathogenesis, identification, treatment and prevention. In: A bacterial infection Series, Handbook of Foodborne Diseases, Dongyou Liu (Eds.) . Chapter 33.	CRC Press, Taylor and Francis Group, USA 2017
8	Gowrishankar, S. , & Pandian, S.K., Flavonoids in the Treatment of Pulmonary Lung Diseases. In: Recent Advances in the Molecular Mechanism of Flavonoids, K Pandima Devi (Ed.) [ISBN: 978-93-85046-21-6].	Studium Press (India) Pvt. Ltd 2017

Sequences submitted in Public Databank

- GenBank : **42**
- Multilocus sequence typing (MLST) : **33**

Resource persons in various capacities

National Conferences :	<ul style="list-style-type: none"> ✚ Chaired a Session in a “National Symposium on Promoting Nutritional Diets through Millets” organised by the Department of Nutrition and Dietetics, Alagappa University, Karaikudi, Tamil Nadu on 12th April, 2024 ✚ Delivered a Special Lecture on the title “Advancing Strategies to Envision ‘Alternative to Antibiotics’” in the Two Day National Conference on ‘Advanced Bio-Chem Development’ (ABCD-2024) organised by the Department of Biochemistry and Department of Biotechnology, Sri Sarada Niketan College for Women, Amaravathipudur, Karaikudi on 01.02.2024. ✚ Participated as Resource Person and Delivered a talk on “Intellectual Property Rights with Special Reference to Indian Patents” in the One Day Webinar on ‘<i>Intellectual Property Rights</i>’ organized by the Internal Quality Assurance Cell (IQAC), Nirmalagiri College, Kuthuparamba, on 20th of October 2021. ✚ Lead a online session as <i>Lead Moderator</i> on the title “How to write an abstract and improve your article” in a Faculty Development Program- “Gearing up for Research & Research Writing” organized by Department of Biotechnology, School of Bio and Chemical Engineering, Kalasalingam Academy of Research and Education, Krishnankoil on 23rd May, 2020.
International Conferences :	<ul style="list-style-type: none"> ✚ Chaired a Session in an International Conference of Algae: FOOD, FEED, FUELS & FINE CHEMICALS – ICA-F⁴ 23 organised by the Department of Microbiology, Bharathidasan University, Trichy during September 06th to 8th, 2023.
Invited Lectures :	<ul style="list-style-type: none"> ✚ Delivered Inaugural Address and Technical Lecture in the “International Symposium on Innovations in Life Sciences” organized by School of Life Sciences, PG & Research Department of Zoology, Holy Cross College (Autonomous), Trichy on 31st January 2023. ✚ Delivered a Special Lecture on the title “The Future of Biotechnologist” in the Induction Programme for UG and PG students of Biotechnology organized by Wilmut Club of PG and Research Department of Biotechnology, J.J. College of Arts and Science, Pudukottai on 25.11.2021. ✚ Invited lecture delivered on the title “Post Translational Modification and Folding of Newly Assembled Polypeptides” (online session) on 06th May, 2020 organized by Department of Biotechnology, AJK College of Arts and Science, Coimbatore – 641 105. ✚ Invited lecture delivered on the title “Half a decade journey that links blue, red and white Biotechnology” at Srimad Andavan Arts and Science College, Tiruchirappali on 21st Feb, 2020.
External Member In BoS	<ul style="list-style-type: none"> ✚ Srimad Andavan Arts and Science College, Tiruchirappalli (UG, PG Biotechnology) (since 2021) ✚ JJ College of Arts and Science, Pudukkottai (UG, PG Biotechnology) (since 2021)

	 Thassim Beevi Abdul Kader College for Women (UG, PG Microbiology) (Autonomous), Kilakarai (since 2023)  Holy Cross College (UG, PG Biotechnology) (Autonomous), Tiruchirappalli (since 2023).
--	---

*****Updated as on 29.07.2024*****