



Dr. S. Karutha Pandian
Honorary Visiting Professor

Contact

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

Contact Phone (Office) : +91 4565 225215
Contact Phone (Mobile) : +91 9442318144
Contact e-mail(s) : sk_pandian@rediffmail.com; pandiansk@gmail.com
pandiansk@alagappauniversity.ac.in

[ORCiD 0000-0003-2925-0575](https://orcid.org/0000-0003-2925-0575) ; Scopus ID [8707856700](https://scopus.com/authid/detail.uri?authorid=8707856700) ; Vidwan ID [41059](https://vidwan.inria.fr/vidwan/41059); Researcher Id [6765-2018](https://publons.com/urn:lsid:publons.com:authorid/6765-2018)

Academic Qualification

Degree	Institution	Year	Branch	Class
B.Sc.,	Madurai Kamaraj University (PMT College, Melaneelithanallur)	1980-1984	Zoology (Ancillaries: Botany and Chemistry)	I (Distinction)
M.Sc.,	University of Madras (Forensic Sciences Department, Chennai)	1984-1986	Forensic Science (Specialization: Forensic Biology and Serology) (Faculty of Medicine)	I (University II Rank)
Ph.D.,	University of Madras (Forensic Sciences Department, Chennai)	1990-1995	Forensic Science (Biotechnology in Forensic – DNA Fingerprinting) (Faculty of Medicine)	-
D.Sc.,	Alagappa University (Department of Biotechnology)	2017	Biotechnology (Faculty of Science)	-

Teaching and Research Experience: 30 years +

Designation	Institution	From	To
Senior Professor & Head, Biotechnology (Level 15)	Alagappa University	May 25, 2015	May 31, 2022
Professor & Head, Biotechnology	Alagappa University	May 25, 2005	May 24, 2015

Reader & Head, Biotechnology	Alagappa University	March 11, 2002	May 24, 2005
Faculty in Genetic Engineering, School of Biotechnology	Madurai Kamaraj University	August 07, 1998	March 10, 2002
Post Doctoral Fellow	Tsing Hua University, Taiwan	September 1997	July 1998
Post Doctoral Fellow	CSIR-CCMB, Hyderabad	December, 1995	September 1997
CSIR-SRF/Research Fellow	Forensic Sciences Department, Chennai	Feb 1990	December 1995
Junior Scientific Officer	Forensic Sciences Department, Chennai	February, 1987	January 1990

Additional Academic Responsibilities Held

- 2006-2020 : Coordinator: Bioinformatics Infrastructure Facility (funded by DBT, Govt. of India)
- 2008-2013 : Coordinator: Post M.Sc., Advanced Diploma in Molecular Diagnostics (funded by DBT, Govt. of India)
- 2002- 2022 : Coordinator: M.Sc., Biotechnology Programme (supported by DBT, GoI since 2020-21)
- 2009- 2021 : Chairperson of Project Implementation Group, DST-FIST Programme (Level 1-Phase I and II)
- 2011-2016 : Coordinator: UGC-SAP (DRS-I); 2018- (DRS-II)
- 2013-2014 : Coordinator: DST-PURSE Scheme

Area of Research

- **Alternative to Antibiotics:** Exploration of natural sources (which do not exert any Darwinian selection pressure) as anti-quorum sensing and antibiofilm agents against human and aquaculture pathogens.
- **Functional Genomics and Proteomics:** Elucidation of mechanism of action of antibiofilm compounds against bacterial and fungal pathogens through transcriptomic and proteomic approaches.
- **Understanding the molecular basis of Group A Streptococcal pathogenesis.**
- **Microbial Genomics and Molecular Phylogeny:** Molecular cataloguing and bioprospecting of bacterial diversity associated with various ecosystems of Gulf of Mannar and Palk Bay through culture dependent and independent (including metagenomics and metaproteomic) approaches.
- **Translational Biotechnology:** Development and evaluation of biocosmeceuticals and formulations thereof.

Additional Administrative Responsibilities Held

S. No	Position	University Bodies	Period	
			From	To
1	Member of the VC Officiating Committee*	Alagappa University	27.09.2013	04.06.2015
2	Member of the Syndicate*	Alagappa University	22.01.2013	21.01.2016
3	Member of the Finance Committee	Alagappa University	22.12.2014	21.01.2016
4	Member of the Planning Board*	Alagappa University	27.01.2012	26.01.2015
5	Member	Senate, Alagappa University	2002	2022
6	Member	Standing Committee on Academic Affairs, Alagappa University	2002	2022
7	Dean (Research)	Alagappa University	04.11.2010	19.02.2014
8	Dean: Faculty of Science	Alagappa University	09.05.2013 13.02.2020	08.05.2016 31.05.2022
9	Director: Science Campus	Alagappa University	27.05.2013	20.02.2017
10	Member, Internal Quality Assurance Cell	Alagappa University	18.07.2006-	08.05.2016
11	Special Officer (Planning & Development)	Alagappa University	14.05.2007-	30.06.2008
12	Warden, PG Men's Hostel	Alagappa University	11.10.2004	09.05.2007
13	Warden, Science Block-Women's Hostel	Alagappa University	18.06.2012	19.02.2014
14	Member	NAAC Steering Committee	2004	2005
15	Member, Building Committee	Alagappa University	25.01.2011	24.01.2014
16	Director, IQAC	Alagappa University	07.07.2017	06.02.2022
17	Coordinator: UGC Paramarsh	Alagappa University	30.12.2019	30.09.2021

*Nominated by the Governor-Chancellor.

Leadership Training Undergone

Successfully completed three weeks “**LEADERSHIP FOR ACADEMICIANS PROGRAMME (LEAP)**” held during Dec 18th to 21st, 2019 (IIT-BHU) and Jan. 20th to 24th, 2020 (UK), organized by the Indian Institute of Technology (BHU) Varanasi, India in collaboration with Judge Business School, University of Cambridge, UK and supported by Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) Scheme, MHRD, Government of India.

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	30	3
Project	PG	105	-
	Post M.Sc., Adv Dip in Molecular Diagnostics	43	-
	UG (B. Tech.)	10	-

Research Supervision / Guidance

Sl. No.	Name of the student	Title of the Ph.D. Thesis	Date of Award
1	T. Ganesh Babu	Identification of cultivable bacteria associated with stripped goat skin by 16S rDNA sequencing and evaluation of cetyltrimethylammonium bromide for short term preservation	19.11.2007
2	J. Muniyandi	Screening, production, purification, characterization and application of an extracellular serine protease with dehairing function from <i>Bacillus pumilus</i> TMS55	06.10.2009
3	P. Nithyanand	Molecular phylogenetic diversity of bacteria associated with the coral <i>Acropora digitifera</i> from the Gulf of Mannar by 16S rRNA gene sequence analysis	24.05.2010
4	R. Thenmozhi	Molecular characterization of virulence factors in clinical isolates of <i>Streptococcus pyogenes</i> and development of species specific SCAR marker	26.02.2011
5	C. Nithya	Phylogenetics, metagenomics and biotechnological prospects of bacteria from Palk Bay Sediment	19.09.2011
6	K. Syed Ibrahim	Production, purification, immobilization, characterization and structure analysis of alkaline serine protease from <i>Bacillus pumilus</i>	13.01.2012
7	D. Bakkiyaraj	Identification and characterization of anti-pathogenic agents from marine bacteria	29.01.2014
8	K. Balaji	Culture independent detection and characterization of <i>Streptococcus pyogenes</i> and its transcriptional gene regulation upon subinhibitory exposure to antibiotics	29.01.2014
9	B. Jancy Kalpana	Production, purification and characterization of alpha amylase from marine <i>Bacillus subtilis</i> S8-18 and its clinical and industrial applications	08.02.2014
10	R. Beema Shafreen	Identification and exploration of antibacterial and antibiofilm compounds against different protein targets of <i>Streptococcus pyogenes</i> through <i>in silico</i> and <i>in vitro</i> approaches	04.04.2014
11	A. Padmavathi	Screening, purification, characterization and evaluation of anti-infective agents against certain nosocomial bacterial and fungal pathogens	03.08.2015
12	R. Salini	Screening, characterization and evaluation of bioactive compounds from plants attenuating bacterial virulence	16.12.2015
13	S. Gowrishankar	Efficacy of antivirulence agents from marine bacteria against certain Gram positive bacteria	01.12.2016
14	M. Rajalaxmi	Screening and characterization of antibiofilm agents from seawater against <i>Vibrio</i> species through culture dependent and metagenomic approaches	02.12.2016
15	D. Viszwapriya	Exploration of seaweed and seagrass epiphytic bacterial	20.12.2016

		diversity and their antibiofilm potential against Group A <i>Streptococcus</i> through culturable and metagenomic approaches	
16	C. Sivasankar	Screening and characterization of antagonistic agents from natural resources against human dermatological pathogens	17.03.2017
17	G.Ashwinkumar Subramenium	Isolation and characterization of antibacterial and antibiofilm agents from natural sources against <i>Streptococcus</i> spp. and elucidation of molecular mechanism through transcriptomic and proteomic approaches	25.03.2017
18	S. Sethupathy	Efficacy of quorum sensing and biofilm inhibitors from natural sources against certain bacterial pathogens and their effect on the proteome of <i>Pseudomonas aeruginosa</i> and <i>Serratia marcescens</i>	27.03.2017
19	C. Aravindraja	Exploration of bacterial diversity and functional aspects of marine sediment through metagenomics and metaproteomics	27.09.2017
20	J. Rathna@Nandhini	Evaluation of edible mushrooms and marine fungal metabolites for their antibacterial and antibiofilm potential against <i>Candida</i> species and fabric dyeing potential	24.10.2017
21	S. Muthamil	Screening and characterization of antibiofilm agents from medicinal plants against <i>Candida</i> spp. and deciphering the molecular mechanism through transcriptomic and proteomic approaches	31.01.2020
22	K. Ganesh Prasath	Anti-pathogenic potential of myristic acid and palmitic acid from <i>Myristica fragrans</i> and their synergistic efficacy against dimorphic <i>Candida</i> species: Proteomics and <i>in vivo</i> study	27.01.2021
23	A. Selvaraj	Deciphering the molecular mechanisms driving the antibiofilm potential of myrtenol and citral against methicillin-resistant <i>Staphylococcus aureus</i> and <i>Acinetobacter baumannii</i> through transcriptional and proteomic approaches	15.02.2021
24	A. Valliammai	Unraveling the molecular mechanism of certain natural antibiofilm agents against Methicillin-resistant <i>Staphylococcus aureus</i> using transcriptional and proteomic approaches and <i>in vitro</i> assessment of synergistic antibiofilm coating for implant applications	15.02.2021
25	S. Alagu Lakshmi	Studies on a peculiar alpha-amylase and docosanol from <i>Streptomyces griseus</i> and assessment of their antibiofilm potential against human pathogenic bacteria through <i>in vitro</i> , <i>in vivo</i> and proteomics analyses	03.03.2021
26	Rajeev Meora	Studies on bacterial diversity and community composition in the vicinity of a coastal power plant through culture-dependent and Next Generation Sequencing approaches	29.03.2021
27	T. K. Swetha	Anti-infective potential of certain natural actives / combination against single- and mixed-species of <i>Staphylococcus epidermidis</i> and <i>Candida albicans</i>	16.06.2021
28	A. Priya	Evaluation of anti-infective potency of selected bioactives against oral candidiasis and dental caries	17.11.2021
29	T. J. Sushmitha	Assessment of micro- and macro-fouling community composition in the vicinity of a coastal power plant and evaluation of their antagonistic potential	12.06.2023
30	T. Kasthuri	Effect of bioactive leads on transcriptome and proteome of <i>Pseudomonas aeruginosa</i> and evaluation of their therapeutic potential against nosocomial pathogens	06.11.2023

Publications

International		National		Others
Journals (SCI)	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
250	190	--	149	Book 01 Chapters: 39 Reviews : 09 Manuals : 02

Cumulative Impact Factor (as per JCR) : 775
h-index : 62
i10 index : 213
Total Citations : 13034

<https://scholar.google.co.in/citations?user=brc-mRAAAAAJ&hl=en>

Patents

S. No.	Title	Inventors	Patent Number	Filing Date	Current Status
1.	A composition comprising of <i>curcuma aromatica</i> oil, and undecanoic acid and uses thereof	Sivasankar Chandran, S K Pandian , Gayathri Subramanyam and James Prabhanand Bhaskar	1732/CHE/2015	31.03.2015	Published on 07.10.2016; In order for Grant under section 43, awaiting NBA Approval
2	A composition comprising of embelin, and at least one anti-fungal agent and uses thereof	Sivasankar Chandran, S K Pandian , Gayathri Subramanyam and James Prabhanand Bhaskar	1734/CHE/2015	31.03.2015	Granted on 28.01.22 Patent No. 387232
3	Personal care compositions for Anti-aging	Prasanth Mani Iyer, Balamurugan Krishnaswamy, S K Pandian , Gayathri Subramanyam and James Prabhanand Bhaskar	676/KOL/2015	18.06.2015	Granted Application Patent Number 337898 (03.06.20)
4	Personal care compositions for Anti-aging	Prasanth Mani Iyer, Balamurugan Krishnaswamy, S K Pandian , Gayathri Subramanyam and James Prabhanand Bhaskar	679/KOL/2015	18.06.2015	Published on 20.10.2017
5	Personal care compositions for Anti-aging	Prasanth Mani Iyer, Balamurugan Krishnaswamy, S K Pandian , Gayathri Subramanyam and James Prabhanand Bhaskar	766/KOL/2015	15.07.2015	Published In order for Grant under section 43, awaiting NBA Approval
6	Personal care compositions for Anti-aging	Prasanth Mani Iyer, Balamurugan Krishnaswamy, S K Pandian , Gayathri Subramanyam and James Prabhanand Bhaskar	779/KOL/2015	17.07.2015	Published In order for Grant under section 43, awaiting NBA Approval

7	An anti-acne synergistic composition and process thereof	Sivasankar C, SK Pandian and Balamurugan K	Application No. 201641010057	22.03.2016	Granted on 03.11.21 Patent No. 381269
8	A formulation comprising phytochemicals and applications thereof	Muthamil S, Sivasankar C and Pandian SK	Application No. 2017741011854	31.03.2017	Published on 05.10.2018; Application awaiting Examination
9	A composition comprising phytochemicals and preparation process thereof	Swetha TK, Sivasankar C and Pandian SK	Application No. 2017741011855	31.03.2017	Granted on 28.09.23 Patent No. 455506
10	An antibacterial composition and implementations thereof	Swetha TK, Pandian SK , Sivasankar C, Balamurugan K, Veera Ravi A, Bhaskar JP, Venkateswaran K, Deepa M, Das SS	Application No. 201831008480	07.03.2018	Granted on 04.11.22 Patent No. 410864
11	A composition comprising phytochemicals and applications thereof	Swetha TK, Pandian SK , Sivasankar C, Balamurugan K, Veera Ravi A, Bhaskar JP, Venkateswaran K, Deepa M, Das SS	Application No. 201831008481	07.03.2018	Granted on 18.11.21 Patent No. 411150
12	A composition comprising phytochemicals and applications thereof	Swetha TK, Pandian SK , Sivasankar C, Balamurugan K, Veera Ravi A, Bhaskar JP, Venkateswaran K, Deepa M, Das SS	Application No. 201831008482	07.03.2018	Published on 13.09.2019; Awaiting Request for Examination
13	Antibacterial composition and uses thereof	Swetha TK, Pandian SK , Sivasankar C, Balamurugan K, Veera Ravi A,	Application No. 201831008483	07.03.2018	Published on 13.09.2019; Awaiting Request for Examination

		Bhaskar JP, Venkateswaran K, Deepa M, Das SS			
14	Phytochemical formulations against Early Mortality Syndrome (EMS)	Ravi AV, Santhakumari S, Durgadevi R, Alexpandi R and Pandian SK	Application No. 201841010325	21.03.2018	Granted Application Patent Number 345407 (28.08.2020)
15	Phytochemical formulations against Early Mortality Syndrome (EMS)	Ravi AV, Santhakumari S, Durgadevi R, Alexpandi R and Pandian SK	Application No. 201841010346	21.03.2018	Published on 27.09.2019; Application in amended examination.
16	Composition exhibiting Antibiofilm and Antihyphal activity	Prasath GK and Pandian SK	Application No. 201941007130	22.02.2019	Published on 28.08.2020; Awaiting Request for Examination
17	Anti-biofilm composition of phytochemicals	Valliammai A and Pandian SK	Application No. 202041002710	23.01.2020	Published on 23.07.2021
18	Phytochemicals exhibiting Antibiofilm activity	Prasath GK and Pandian SK	Application No. 202041002711	23.01.2020	Granted on 28.06.23 Patent No.436067
19	Anti-biofilm composition of phytochemicals and implementations thereof	Valliammai A and Pandian SK	Application No: 202041017519	23.04.2020	Published on 29.10.2021
20	Anti-biofilm formulation and method of its preparation and application thereof	Valliammai A and Pandian SK	Application No: 202041029479	10.07.2020	Granted on 16.01.24 Patent No. 499602
21	Anti-biofilm composition and implementations thereof	Selvaraj A and Pandian SK	Application No: 202041048910	09.11.2020	Granted on 24.11.23 Patent No. 472781
22	Antibiofilm and antihyphal composition	Priya A and Pandian SK	Application No: 202041045963	21.10.2020	Published on 22.02.2022

	comprising phytochemicals				
23	Phytochemical composition exhibiting anti-biofilm and anti-hyphal activity	Priya A and Pandian SK	Application No: 202041055881	22.12.2020	Granted on 22.09.23 Patent No.453930
24	Phytochemical-based cleaning composition and applications thereof	Kasthuri T, Swetha TK and Pandian SK	Application No: 202141010992	15.03.2021	Granted on 01.11.23 Patent No. 464747
25	Phytochemical-oral composition, method of preparing the same and applications thereof	Priya A, Pandian SK	Application No: 202141019569	28.04.2021	Published on 02.12.2022
26	Synergistic antibiofilm combination of phytochemicals and implementation thereof	Priya A, Malligarjunan N, Muthamil S and Pandian SK	Application No: 202141023944	28.05.2021	Granted on 31.01.24 Patent No. 505853
27	Anti-biofilm composition and method of preparation thereof	Jothi R, Gowrishankar S, Prasath KG and Pandian SK	Application No: 202141026689	28.07.2021	Published on 03.02.2023
28	Phytochemical-based antibacterial composition and applications thereof	Abirami G, Ravi AV, Alexpandi R, Roshni PS, and Pandian SK	Application No: 202241007803	14.02.2022	Filed
29	A composition for aquaculture, process for preparing the composition and implementations thereof	Alexpandi R, Ravi AV, Abirami G, Roshni PS, and Pandian SK	Application No: 202241007807	14.02.2022	Filed
30	Anti-bacterial composition, process for preparing and	Sangavi R, Jothis R, Gowrishankar S and Pandian SK	Application No: 202241011110	01.03.2022	Filed

	implementation thereof				
31	Combinatorial approach of potential actives with antibiofilm and antihyphal effectuality against <i>Candida albicans</i>	Sushmitha TJ, Rajeev M, Hari Prasath N and Pandian SK	Application No: 202241011345	02.03.2022	Filed
32	Antimicrobial composition, process for preparing the composition, and implementations thereof	Hari Prasath N, Priya A, Kasthuri T, Sushmitha TJ and Pandian SK	Application No: 202241011546	03.03.2022	Filed
33	Phytochemical-based antibiofilm composition and applications thereof	Roshni PS, Ravi AV, Alexpandi R, Abirami G and Pandian SK	Application No: 202241011677	03.03.2022	Filed
34	Antibiofilm composition and preparation thereof	Kasthuri Thirupathi, Pandian SK , Hari Prasath N, Swetha TK, Beema Shafreen R and Alagu Lakshmi S	Application No: 202241054402	22.09.2022	Filed
35	A phytochemical composition for bacterial biofilms and implementations thereof	Kasthuri T, Pandian SK , Hari Prasath N, Alagu Lakshmi S, Beema Shafreen R and Swetha TK	Application No: 202241054403	22.09.2022	Filed
36	Synergistic activity of chlorine containing oral inorganic drugs against <i>Streptococcus mutans</i> and formulation thereof	Hari Prasath N, Karthikeyan K, Priya A, Kasthuri T, Sushmitha TJ and Pandian SK	Application No: 202241054404	22.09.2022	Filed
37	Antibiofilm combination comprising phytochemicals	Kasthuri T, Pandian SK , Hari Prasath N, Beema Shafreen R, Alagu Lakshmi S and Swetha TK	Application No: 202241054406	22.09.2022	Filed

38	Composition for biofilm inhibition and process thereof	Kasthuri T, Pandian SK , Hari Prasath N, Alagu Lakshmi S, Beema Shafreen R and Swetha TK	Application No: 22.09.2022 202241054405	Filed
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RESEARCH /CONSULTANCY PROJECTS CARRIED OUT AS PI/PROJECT COORDINATOR

Sl. No.	Funding Agency	Title of the Project and Reference Number	Duration	Amount in lakh Rs.
1	CSIR (NMITLI)	Identification and cataloguing of microflora in skin by 16S rRNA gene typing, RAPD and multilocus DNA fingerprinting (under Biotechnology for Leather: Towards Cleaner Processing) – Phase I. (Ref. No. 5/258/13/2001-NMITLI dated 31.03.2002)	2002-2005	24.690
2	DCI*	Environmental Impact Monitoring (EIM) of Sethusamudram Ship Channel Project (SSCP) (Microbiological Parameters) (Ref. No. DCI/OPS/LC/SSCP/2005 dated 23.06.2005)	06/2005 to 10/2005	71.580
3	CSIR (NMITLI)	Further evaluation and formulation of natural and synthetic products for preservation of goat skin and evaluation and validation of marine bacterial enzymes for application in leather industry. Phase II. (Ref. No. 5/258/13/2002-NMITLI dated 02.01.2006).	2006-2011	32.280
4	DBT**	Evaluation of bacterial diversity associated with the coral <i>Acropora digitifera</i> by 16S rRNA gene sequences and screening for antiviral activity against the aquaculture pathogen blotched snakehead virus (BSNV). (Ref. No. BT/PR3987/ AAQ/03/198/2003 dated 22.09.2006).	2006 -2009	36.315
5	UGC	Screening and molecular characterization of Group A Streptococcus by 16S rDNA sequencing and Emm protein serotyping (Ref. No: F.No.34-263/2008 (SR) dated 31.12.08)	2009 -2012	10.472
6	DBT	Bioprospecting marine microbial wealth through metagenomics. (Ref. No. BT/PR99114/NDB/52/134/09 dt 13.09.2010).	2010 -2013	49.36
7	ITC	Part-I: Antimicrobials from marine sources & Part-II: Anti-aging: Role of “Target Genes”.	2011-2014	40.63
8	ICMR	Gene expression and protein profiling of Group A Streptococcus upon treatment with quorum quenching agents from marine bacteria (Sanction No. 58/20/2011-BMS dated 19.03.2012)	2012-2015	22.01525
9	CSIR	Production, purification and characterization of α -amylase from marine sediment bacterium <i>Bacillus subtilis</i> S8-18 and its evaluation for antibiofilm activity against human pathogens (Sanction No. 37(1552)/12/EMR-II dated 03.07.2012)	2012-2015	21.42
10	DBT***	Antipathogenic potential of marine cyanobacteria in preventing quorum sensing dependent bacterial infections among aquaculture organisms (Sanction	2012-2015	55.09915

		No. BT/PR4815/AAQ/3/587/2012 dated 29.09.2012)		
11	AERB	Studies on microbial diversity and ecology in the vicinity of a coastal nuclear power plant in relation to water quality and nutrients. (AERB/CSRP/Proj. No. 60/10/2105 dated 13 April 2015)	2015-2019	41.03623
12	DBT (Network)	Programme support on Biotechnology Approaches for Conservation and Sustainable Utilization of Plant Wealth of Western Ghats. Component B: Bioprospecting and Basic Biology. Project B5: Characterization, recombinant expression, process scale up and validation of selected hydrolases from native actino-bacteria for commercial exploitation. (BT/PR12720/COE/34/21/2015 dated 14.05.2015)	2015-2020	39.20
13	ITC	Part I: Natural actives & Part-II: <i>In vivo</i> models for health and hygiene application	2016-2019	83.60
14	BRNS	Assessment & Monitoring of Biofouling Diversity of Cooling Water System of KKNPP & its control (No: 51/14/06/2019-BRNS/ Date: 10/07/2019)	2019-2023	49.40
15	ITC	Identification and use of antiviral Natural Actives using in silico, in vitro & in vivo models (MoA signed on 07.10.2020)	2020-2023	46.728
16	EID Parry	Analysis of Spirulina/Spirulina extracts and molecular characterization of phycocyanin	20.12.2021-19.03.2022	4.75835
17	ITC	Identification of Bio-Activity and Evaluation of Neem Leaf Markers	Jan-June 2024	11.25720

* As a joint venture with the Department of Industrial Chemistry and Department of Oceanography and Coastal Area Studies.

** In collaboration with Fisheries College and Research Institute (Tamil Nadu Veterinary and Animal Sciences University), Thoothukkudi 628 008.

*** In collaboration with Department of Microbiology, Bharathidasan University, Tiruchirappalli 620 024.

FUNDS RECEIVED FOR OTHER SCHEMES AS COORDINATOR/GROUP LEADER:

Sl. No.	Funding Agency	Title of the Scheme and Reference Number	Duration	Amount in lakh Rs.
1	DBT	Bioinformatics Infrastructure Facility (As Coordinator) (Sanction No. BT/BI/04/055/2001 dated 22.09.06; 14.09.07, 24.06.08, 04.08.09, 16.11.09, 11.08.10, 23.08.11 and BT/BI/25/015/2012 19.09.12 and BT/BI/25/015/2012(BIF) 28.01.14 ; BT/BI/25/015/2012 (BIF) 12.09.14; BT/BI/25/015/2012(BIF) 14.12.15; BT/BI/25/015/2012(BIF) 07.02.17; BT/BI/25/015/2012(BIF) 30.12.17 BT/BI/25/015/2012(BIF) 16.02.18 BT/BI/25/015/2012(BIF)20.09.2018	2006-	146.949

2	DBT	Post M.Sc., Advanced Diploma in Molecular Diagnostics (As Course Coordinator) (Ref. No. DCI/OPS/LC/SSCP/2005 dated 23.06.2005)	2008-2013	104.325
3	DST	FIST (Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions) -Level I (As Programme Coordinator) (Sanction No. SR/FST/LSI-087/2008 dated 09.01.09)	2009-2014	44.50
4	DBT	M.Sc., Biotechnology Programme (As Course Coordinator) (Sanction No. BT/HRD/01/04/2009 dated 05.10.09 and 19.09.12) (One Time Grant)	2009	35.00
5	UGC	SAP (DRS-I) (As Coordinator) (Sanction No: F. 3-28/2011 (SAP-II) dated 01.04.2011)	2011 – 2016	75.88532
6	DST	DST-PURSE (As Coordinator) (Sanction No: SR/S9/Z-23/2010/42© dated 24 th May 2011)	2011-2014	600.00
7	DST	FIST (Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions) -Level I -Phase II (As Programme Coordinator) (Sanction No. SR/FST/LSI-639/2015© dated 02.06.2016)	2016-2021	121.00
8	UGC	SAP (DRS-II) (As Coordinator) (Sanction No: F. 5-1/2018/DRS-II (SAP-II) dated 19.04.2018)	2018 – 2023	132.00
9	DBT	M.Sc., Biotechnology Programme (As Course Coordinator) (Sanction No. BT/HRD/01/37/2020 dated 26.02.2021)	2020-2025	180.00

Distinctive Achievements / Awards

S. No	Award	Awarded by	Field/Category for which the award was given	Year of Award
1	UGC-BSR Mid-Career Award (Rs. 1000000)	UGC, New Delhi	For having guided 15 Scholars successfully for Ph.D.	2018
2	Malaviya Memorial Award for Senior Faculty -2017 (Certificate, Citation, Memento and Cash award of Rs. 15000)	Biotech Research Society, India (BRSI)	Outstanding contribution in the field of Medical Microbiology and Microbial Biotechnology	2017
3	Professor of Excellence (Certificate, Gold Medal and Cash award of Rs. 25000)	Alagappa University, Karaikudi	For excellent academic contribution for more than a decade as a Professor	2018

4	Appreciation Award (Certificate and Cash award of Rs. 20000)	Alagappa University, Karaikudi	In recognition of having received TANSA	2018
5	Shri. PK Das Memorial Lifetime Achievement Award - 2016 (Certificate, Citation and Cash award of Rs. 25000)	Nehru Group of Institutions, Coimbatore	Outstanding contribution in the field of Education	2016
6	Alagappa Excellence Award for Research (2015-2016) (Certificate, Citation and Gold Medal and Cash award of Rs. 15000)	Alagappa University, Karaikudi	Biotechnology	2016
7	Tamil Nadu Scientist Award (Certificate, Citation and Cash award of Rs. 25000)	Tamil Nadu State Council for Science and Technology, Chennai	Biological Sciences	2012
8	Shri. PK Das Memorial Best Faculty Award (Certificate, Citation and Cash award of Rs. 10000)	Nehru Group of Institutions, Coimbatore	Biotechnology (Senior Category)	2012
9	Recipient of the Certificate of Achievement and Cash award of Rs. 10000	Alagappa University, Karaikudi	Academic Performance in the areas of Research Publication and Generation of Research Grants under Performance Linked Incentive Scheme	2006
<p>School Topper in Secondary School Leaving Certificate (SSLC), P. K. Government High School, Mullikulam, Tirunelveli District, April 1978 (Register No.313118)</p>				

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: **24**

Overseas Exposure / Visits

1. Germany
2. Israel
3. Japan
4. Malaysia
5. People's Republic of China
6. Portugal
7. Republic of Korea
8. Switzerland
9. Taiwan
10. Thailand
11. The Netherlands
12. United Kingdom

Membership in Professional Bodies

Professional Bodies

1. Life Member (1699-2005): Association of Microbiologists of India
2. Life Member: Society of Biological Chemists, India
3. Life Member (L14558): The Indian Science Congress Association
4. Life Member: Proteomics Society, India
5. Life Member (LM1664): The Biotech Research Society, India

Fellowship in Academy

1. Elected Fellow of the The Academy of Sciences, Chennai

Editorial Board

S. No	Position	Name	Period	
			From	To
1	Editor	Indian Journal of Microbiology (Springer) (2016 Impact Factor: 1.143)	Jan 2011	Dec 2019
2	Editor	Journal of Medical Microbiology [Society for General Microbiology, UK]. (Impact Factor: 2.159).	April 2017	Jan 2020

Reviewer for more than 25 SCI Journals.

Advisory Board

- 23.09.2016- 18.02.2018: External Member in Research Committee, Bharathidasan University
- 22.08.2016-present: Member of the Advisory Committee for the Centre “National Centre for Alternatives to Animal Experiments ”at Bharathidasan University, Tiruchirappalli under the scheme “Centre with Potential for Excellence in Particular Area (CPEPA) (nominated by the Chairman, University Grants Commission (UGC))
- 06.09.2017- present: Member, Research Advisory Board, Aravind Medical Research Foundation, Madurai.
- Feb 2018- present: Member of the Advisory Board of Appasamy Ocular Device (P) Ltd, Chennai
- 09.03.18 onwards: External Member, Board of Research Studies, Periyar University, Salem
- 12.07.2018-11.07.2020: Member of Research Advisory Committee, Karpagam University
- 02.04.2019- present: External Member in Research Committee, Madurai Kamaraj University
- 23.02.2021- present: External Member in Research Committee, Bharathidasan University
- 26.06.2020-present: Outside Expert, Institutional Biosafety Committee, Aravind Medical Research Foundation, Madurai
- 22.10.2020-present: DBT Nominee, Institutional Biosafety Committee, Madurai Kamaraj University
- June 2008-present : Member Secretary, Institutional Ethics Committee, Alagappa University
- 14.03.2018-present - Chairman, Institutional Animal Ethics Committee, Alagappa University
- 22.10.2020-present - Chairman, Institutional Biosafety Committee, Alagappa University
- 23.08.2018-present - Director, IPR Cell, Alagappa University

Academic Bodies (such as Board of Studies etc.,)

Membership in Board of Studies /Expert Committee/Selection Committee in Autonomous Colleges/Other Universities: **70**

Resource persons in various capacities

LECTURES DELIVERED IN REFRESHER COURSES: **49**

SPECIAL & INVITED LECTURES DELIVERED **83**

GARDUATION DAY ADDRESSES DELIVERED **3**

Others

1. Articles published in Newspapers / Magazines : **1**
 2. **Popularization of Science through media**
 - All India Radio, Madurai broadcast a 15 min Talk on “Forensic Science” on 05.07.2003 at 07:30AM.
 - A 30 min programme on “DNA fingerprinting” was broadcast on 20.07.2003 at 09:00 AM as part of Popularization of Biotechnology by the All India Radio, Madurai. This programme was produced by Vigyan Prachar (New Delhi), AIR (Madurai) and Tamil Nadu Science Forum (Madurai).
 3. Products developed **02**
 4. No. of PhD Thesis evaluated & Viva conducted **26**
 5. No. of PhD Thesis evaluated **20**
 6. No. of PhD Public Viva Voce Examination conducted **24**
 7. Sequences submitted in
 1. GenBank
 - 16S rRNA gene sequences **663**
 - ITS region sequences **29**
 - *emm* gene sequences **34**
 - ESBL gene sequences **20**
 - rpoB gene sequences **6**
 2. Metagenomic clone derived gene sequences **2**
 3. Complete sequence of plasmid submitted in GenBank **1**
(Novel cryptic plasmid pRK10 from *Serratia marcescens*; Plasmid 62:183-190).
 4. European Nucleotide Archive (ENA): **53**
(V3 Hypervariable regions of 16S rRNA gene sequences of epibacterial community from seaweeds and sediments).
 5. MLST Database (Welcome Trust) **33**
 - MRSA and MSSA isolated from pharyngitis patients
 6. Whole genome sequence (WGS) of bacteria **2**
 7. NGS **89**
- www.alagappabiotech.org/Biobank/BioBank%20index%20page.htm.

Selected Research Publications in SCI Journals

1. Jothi R, Hong S-T, Enkhtsatsral M, **Pandian SK**, Gowrishankar S (2023) ROS mediated anticandidal efficacy of 3-Bromopyruvate prevents vulvovaginal candidiasis in mice model. PLoS ONE [Public Library of Science, USA] 18(12): e0295922. <https://doi.org/10.1371/journal.pone.0295922>. (Impact Factor:3.752).
2. Sangavi R, Muthumanickam S, Malligarjunan N, Jothi R, Boomi P, Arivudainambi S, Raman M, Joshi CG, **Pandian SK** and Gowrishankar S (2023). *In silico* analysis unravels the promising anticariogenic efficacy of fatty acids against dental caries causing *Streptococcus mutans*. Journal of Biomolecular Structure & Dynamics [Taylor & Francis] (Impact Factor: 5.2).
3. Karthika C, Malligarjunan N, Jothi R, Kasthuri T, Ravi AV, **Pandian SK** and Gowrishankar S (2023). Two novel phages PSPa and APPa inhibit planktonic, sessile and persister populations of *Pseudomonas aeruginosa*, and mitigate its virulence in Zebrafish model. Scientific Reports [Springer Nature] (Impact Factor: 4.6).
4. Sushmitha TJ, Rajeev M, Sriyutha MP, Rao TS and **Pandian SK** (2023). Planktonic and early-stage biofilm microbiota respond contrastingly to thermal discharge-created seawater warming. Ecotoxicology and Environmental Safety [Elsevier] 264: 115433 (Impact Factor: 6.8).
5. Sushmitha TJ, Rajeev M, Kathirkaman V, Shivam S, Rao TS and **Pandian SK** (2023). 3-Hydroxy coumarin demonstrates anti-biofilm and anti-hyphal efficacy against *Candida albicans* via inhibition of cell-adhesion, morphogenesis, and virulent genes regulation. Scientific Reports [Springer Nature] 13(1) 11687 (Impact Factor: 4.6).
6. Kannappan A, Jothi R, Tian X, **Pandian SK**, Gowrishankar S and Chunle S (2023). Antibacterial activity of 2-hydroxy-4-methoxybenzaldehyde and its possible mechanism against *Staphylococcus aureus*. Journal of Applied Microbiology 134 (7), 1xad144 (Wiley-Blackwell) (Impact Factor:4.059).
7. Jothi R, Sangavi R, Raja V, Kumar P, **Pandian SK** and Gowrishankar S (2023) Alteration of Cell Membrane Permeability by Cetyltrimethylammonium Chloride Induces Cell Death in Clinically Important *Candida* Species. [International Journal of Environmental Research and Public Health](#) (MDPI) (Impact Factor:4.614).
8. Praseetha S, Sukumaran ST, Dan M, Augustus AR, **Pandian SK** and Sugathan S (2023). The Anti-Biofilm Potential of Linalool, a Major Compound from *Hedychium larsenii*, against *Streptococcus pyogenes* and Its Toxicity Assessment in *Danio rerio*. [Antibiotics](#) 12, 545. (MDPI) (Impact Factor: 5.222)
9. Kasthuri, Barath S, Nandhakumar M and **Pandian SK** (2022). Proteomic profiling spotlights the molecular targets and the impact of the natural antivirulent umbelliferone on stress response, virulence factors, and the quorum sensing network of *Pseudomonas aeruginosa*. [Frontiers in Cellular and Infection Microbiology](#) 12, 1646. (Frontiers) (Impact Factor: 5.293).
10. Kasthuri T, Swetha TK, Bhaskar JP and **Pandian SK** (2022). Rapid-killing efficacy substantiates the antiseptic property of the synergistic combination of carvacrol and nerol against nosocomial pathogens. [Archives of Microbiology](#) 204:1-21 (Springer, Germany) (Impact Factor: 2.667).
11. Priya A and **Pandian SK** (2022). Biofilm and hyphal inhibitory synergistic effects of phytoactives piperine and cinnamaldehyde against *Candida albicans*. [Medical Mycology](#) <https://doi.org/10.1093/mmy/myac039> (Oxford Academic) (Impact Factor: 3.48).

12. Lakshmi SA, Alexpandi A, Shafreen RMB, Tamilmuhilan K, Srivathsan A, Kasthuri T, Ravi AV and **Pandian SK** (2022). Evaluation of antibiofilm potential of four-domain α -amylase from *Streptomyces griseus* against exopolysaccharides (EPS) of bacterial pathogens using *Danio rerio*. [Archives of Microbiology](#) 204:1-10 (Springer, Germany) (Impact Factor: 2.667).
13. Lakshmi SA, Prasath KG, Tamilmuhilan K, Srivathsan A, Shafreen RMB, Kasthuri T, **Pandian SK** (2022). Suppression of Thiol-Dependent Antioxidant System and Stress Response in Methicillin-Resistant *Staphylococcus aureus* by Docosanol: Explication Through Proteome Investigation. [Molecular Biotechnology](#) (Springer, USA) 64 (5), 575-589. doi: 10.1007/s12033-021-00434-4 (Impact Factor: 2.860).
14. Priya A, Nivetha S and **Pandian SK** (2022). Synergistic Interaction of Piperine and Thymol on Attenuation of the Biofilm Formation, Hyphal Morphogenesis and Phenotypic Switching in *Candida albicans*. [Frontiers in Cellular and Infection Microbiology](#), 1417 (Impact Factor: 5.293).
15. Aravindraja C, Viszwapriya D, Valliammai A and **Pandian SK** (2022). Community- Based 16S rDNA Fingerprinting Analysis of Geographically Distinct Marine Sediments of Unexplored Coastal Regions of Palk Bay and Gulf of Mannar. [Current Microbiology](#) (Springer, USA) 79:1-10. doi: 10.1007/s00284-021-02692-6 (Impact Factor: 2.343).
16. Jothipandiyar S, Suresh D, Sankaran SV, Thamocharan S, Shanmugasundaram K, Vincent P, Sekaran S, Gowrishankar S, **Pandian SK**, Nithyanand P (2022). Heteroleptic pincer palladium (II) complex coated orthopedic implants impede the AbaI/AbaR quorum sensing system and biofilm development by *Acinetobacter baumannii*. [Biofouling](#) (Taylor & Francis) 38:55-70 (Impact Factor: 3.209).
17. Adarshan S, Muthuramalingam P, Jeyasri R, Lakshmi MA, Sathishkumar R, **Pandian SK**, Shin H, Chen J-T, Ramesh M (2022). *Vitex negundo* L. derived specialized molecules unveil the multi-targeted therapeutic avenues against COPD: a systems pharmacology approach. [Frontiers in Bioscience Landmark](#). 27(3): 087, doi.org/10.31083/j.fbl2703087 (Impact Factor : 4.009).
18. Muthuramalingam P, Jeyasri R, Rakkammal K, Satish L, Shamili S, Karthikeyan A, Valliammai A, Priya A, Selvaraj A, Gowri P, Wu Q-S, **Pandian SK**, Shin H, Chen J-T, Baskar V, Thiruvengadam M, Akilan M, Ramesh M (2022) Multi-Omics and Integrative Approach towards Understanding Salinity Tolerance in Rice: A Review. [Biology](#) 11:1022 (MDPI) (Impact Factor: 5.168).
19. Priscilla L, Rajeev M, **Pandian SK** and Malathi E (2022). Gut associated culturable bacterial community in intertidal polychaete worms (Annelida: Polychaeta), their characterization and implications in captive shrimp aquaculture. [Regional Studies in Marine Science](#) (Elsevier) 52, 102274 (Impact Factor: 1.624).
20. Alexpandi R, Abirami G, Murugesan B, Jayakumar R, Ponraj JP, Cai Y, **Pandian SK** and Ravi AV (2022). Sunlight-active phytol-ZnO@ TiO₂ nanocomposite for photocatalytic water remediation and bacterial-fouling control in aquaculture: A comprehensive study on safety-level assessment. [Water Research](#) (Elsevier) 118081 (Impact Factor: 11.236).
21. Alexpandi R, Gendrot M, Abirami G, Delandre D, Fonta I, Mosnier J, Mariadasse J, Jeyakanthan J, **Pandian SK**, Pradines B and Ravi AV (2022). Repurposing of Doxycycline to Hinder the Viral Replication of SARS-CoV-2: From in silico to in vitro Validation. [Frontiers in Microbiology](#) 13 (Impact Factor: 6.064).

22. Priya A, Selvaraj A, Divya D, and **Pandian SK** (2021). In Vitro and In Vivo Anti-infective Potential of Thymol Against Early Childhood Caries Causing Dual Species *Candida albicans* and *Streptococcus mutans*. [Frontiers in Pharmacology](#) 12: 760768-760768. (Impact Factor: 5.81).
23. Sowndarya J, Suresh D, Sankaran V, Thamotharan S, Kumaravel S, Preethi V, Saravanan S, Gowrishankar S, **Pandian SK** and Nithyanand P (2021). Heteroleptic Pincer Palladium (II) Complex coated orthopedic implants impedes AbaI/AbaR quorum sensing system and biofilm development of *Acinetobacter baumannii*. [Biofouling](#) (Taylor & Francis) doi.org/10.1080/08927014.2021.2015336 (Impact Factor: 3.209).
24. Jothi R, Hariprasath N, Gowrishankar S and **Pandian SK** (2021). Bacterial quorum sensing molecules as promising natural inhibitors of *Candida albicans* virulence dimorphism: An in silico and in vitro study. [Frontiers in Cellular and Infection Microbiology](#) (Frontiers) Accepted (Impact Factor: 5.293).
25. Shafreen RMB, Lakshmi SA, **Pandian SK**, Kim Y-M, Deutsch J, Katrich E and Gorinstein S (2021). In Vitro and in Silico Interaction studies with Red Wine Polyphenols Against Different Proteins from Human Serum. [Molecules](#) [MDPI] [Impact Factor: 4.418] (In press)
26. Jothi R, Sangavi R, Kumar P, **Pandian SK** and Gowrishankar S (2021). Catechol thwarts virulent dimorphism in *Candida albicans* and potentiates the antifungal efficacy of azoles and polyenes. [Scientific Reports](#) [Springer Nature] (Impact Factor: 4.379) (In press).
27. Sushmitha TJ, Rajeev M, Sriyutha Murthy P, Ganesh S, Toleti SR and **Pandian SK** (2021). Bacterial community structure of early-stage biofilms is dictated by temporal succession rather than substrate types in the southern coastal seawater of India. [PLoS One](#) [Public Library of Science, USA] (Impact Factor: 3.24) (Accepted).
28. Rajeev M, T J Sushmitha, Aravindraja C, Toleti SR and **Pandian SK** (2021). Thermal discharge-induced seawater warming alters richness, community composition and interactions of bacterioplankton assemblages in a coastal ecosystem. [Scientific Reports](#) (Impact Factor: 4.379) [Nature, UK] (Accepted).
29. Sushmitha TJ, Rajeev M, Toleti SR and **Pandian SK** (2021). Complete genome sequence of *Halomonas boliviensis* strain kknpp38, a chlorine-resistant bacterium isolated from the early-stage marine biofilm. [Marine Genomics](#) (Elsevier, The Netherlands) (Impact Factor: 1.71) (Accepted).
30. Valliammai A, Selvaraj A, Muthuramalingam P, Priya A, Ramesh M and Pandian SK (2021). Staphyloxanthin inhibitory potential of thymol impairs antioxidant fitness, enhances neutrophil mediated killing and alters membrane fluidity of methicillin resistant *Staphylococcus aureus*. [Biomedicine & Pharmacotherapy](#) (Elsevier) Accepted (Impact Factor - 6.529).
31. Swetha TK, Subramenium GA, Kasthuri T, Sharumathi R and **Pandian SK** (2021). 5-hydroxy-2-furaldehyde impairs *Candida albicans* - *Staphylococcus epidermidis* interaction in co-culture by suppressing crucial supportive virulence traits. [Microbial Pathogenesis](#) (Elsevier) (Accepted) (Impact Factor: 2.914).
32. Selvaraj A, Valliammai A, Premika M, Priya A, James PB, Krishnan V and **Pandian SK** (2021). *Sapindus mukorossi* Gaertn. and its bioactive metabolite oleic acid impedes methicillin-resistant *Staphylococcus aureus* biofilm formation by down regulating adhesion genes expression. [Microbiological Research](#) (Elsevier) 242:126601 (Impact Factor: 3.970).

33. Priya A, Manish Kumar C, Valliammai A, Selvaraj A and **Pandian SK** (2021). Usnic acid deteriorates acidogenicity, acidurance and glucose metabolism of *Streptococcus mutans* through downregulation of Two-component signal transduction systems. [Scientific Reports](#) 11(1): 1-15 [Nature, UK] (Impact Factor: 3.998).
34. Valliammai A, Selvaraj A, Mathumitha P, Aravindraja C and **Pandian SK** (2021). Polymeric antibiofilm coating comprising synergistic combination of citral and thymol prevents methicillin-resistant *Staphylococcus aureus* biofilm formation on titanium. [Materials Science and Engineering C](#) 121:111863 (Elsevier) (Impact Factor: 5.880).
35. Rajeev M, T J Sushmitha, Toleti SR and **Pandian SK** (2021). Whole-Genome Sequence of *Pseudoalteromonas tetraodonis* strain kknpp56, a potent biofilm-forming bacterium isolated from the early-stage marine biofilm. [Microbiology Resource Announcements](#) (American Society for Microbiology, USA) (Accepted).
36. Lakshmi, SA, Shafreen, RB, Balaji, K, Ibrahim KS, Shiburaj S, Gayathri, V and Pandian, SK (2021). Cloning, expression, homology modelling and molecular dynamics simulation of four domain-containing α -amylase from *Streptomyces griseus*. [Journal of Biomolecular Structure and Dynamics](#) (Taylor & Francis) 39: 2152–2163. doi: 10.1080/07391102.2020.1745282. (Impact Factor: 3.310).
37. Prasath KG, Alexpandi R, Parasuraman R, Pavithra M, Ravi AV and **Pandian SK** (2021). Anti-inflammatory potential of myristic acid and palmitic acid synergism against systemic candidiasis in *Danio rerio* (Zebrafish). [Biomedicine & Pharmacotherapy](#) (Elsevier) 133:111043. Doi:<https://doi.org/10.1016/j.biopha.2020.111043> (Impact Factor: 4.545).
38. Jeyasri R, Muthuramalingam P, Satish L, **Pandian SK**, Jen-Tsung Chen, Sunny Ahmar, Xiukang Wang, Freddy Mora-Poblete and Ramesh M (2021). An Overview of Abiotic Stress in Cereal Crops: Negative Impacts, Regulation, Biotechnology and Integrated Omics. [Plants](#), 10(7), p.1472. (Impact Factor :3.935).
39. Jeyasri R, Muthuramalingam P, Satish L, Adarshan S, Aishwarya Lakshmi M, **Pandian SK**, Jen-Tsung Chen, Sunny Ahmar, Xiukang Wang, Freddy Mora-Poblete and Ramesh M (2021). The role of OsWRKY genes in rice when faced single and multiple abiotic stresses. [Agronomy](#) (MDPI) 11:1301 (Accepted) (Impact Factor: 3.417).
40. Muthumanickam S, Kamaladevi A, Boomi P, Gowrishankar S and **Pandian SK** (2021). Indian ethnomedicinal phytochemicals as promising inhibitors of RNA binding domain of SARS-CoV-2 nucleocapsid phosphoprotein: an *in silico* study. [Frontiers in Molecular Biosciences](#) [Lausanne: Frontiers Media SA] DIO: 10.3389/fmolb.2021.637329.
41. Muthuramalingam P, Jeyasri R, Selvaraj A, Kalaiyarasi D, Aruni W, **Pandian SK** and Ramesh M (2021). Global transcriptome analysis of novel stress associated protein (SAP) genes expression dynamism of combined abiotic stresses in *Oryza sativa* (L.). [Journal of Biomolecular Structure and Dynamics](#) (Taylor & Francis) 39:2106-2117. doi: 10.1080/07391102.2020.1747548 (Impact Factor: 3.310).
42. Gowrishankar S, Muthumanickam S, Kamaladevi A., Karthika C, Joth R, Boomi P, Maniazhagu, D and **Pandian SK** (2021). Promising phytochemicals of traditional Indian herbal steam inhalation therapy to combat COVID-19 – an *in silico* study. [Food and Chemical Toxicology](#) [Elsevier, France] [Impact Factor: 4.679] (In press).
43. Swetha TK, Vikraman A, Nithya C, Prasath NH and **Pandian SK** (2020). Synergistic antimicrobial combination of carvacrol and thymol impairs single and mixed-species biofilms

of *Candida albicans* and *Staphylococcus epidermidis*. [Biofouling](#) (Taylor & Francis) 36(10):1256-1271. doi: 10.1080/08927014.2020.1869949 (Impact Factor: 2.351).

44. Rajeev M, Sushmitha, TJ, Aravindraja C, Toleti SR and **Pandian SK** (2020). Exploring the impacts of heavy metals on spatial variations of sediment-associated bacterial communities. [Ecotoxicology and Environmental Safety](#) (Elsevier) (Impact Factor: 4.872) (in press).
45. Selvaraj A, Valliammai A, Sivasankar C, Suba M, Sakthivel GK and **Pandian SK** (2020). Antibiofilm and antivirulence efficacy of myrtenol enhances the antibiotic susceptibility of *Acinetobacter baumannii*. [Scientific Reports](#) (Impact Factor: 3.998) [Nature, UK] (Accepted).
46. Selvaraj A, Valliammai A, Muthuramalingam P, Priya A, Suba M, Ramesh M and **Pandian SK** (2020). Carvacrol targets SarA and CrtM of methicillin-resistant *Staphylococcus aureus* to mitigate biofilm formation and staphyloxanthin synthesis: An in vitro and in vivo approach. [ACS Omega](#). (Impact Factor: 2.87) (Accepted).
47. Selvaraj A, Valliammai A, Muthuramalingam P, Sethupathy S, Ashwinkumar GS, Ramesh M and **Pandian SK** (2020). Proteomic and systematic functional profiling unveils citral targeting antibiotic resistance, antioxidant defense and biofilm associated two component systems of *Acinetobacter baumannii* to encumber biofilm and virulence traits. [mSystems](#) (ASM) 5(6), e00986 (Impact Factor: 6.633).
48. Durgadevi R, Abirami G, Swasthikka RP, Alaxpandi R, **Pandian SK** and Ravi AV (2020). Proteomic analysis deciphers the multi-targeting antivirulence activity of tannic acid in modulating the expression of MrpA, FlhD, UreR, HpmA and Nrp system in *Proteus mirabilis*. [International Journal of Biological Macromolecules](#) (Elsevier) 165:1175-1186 (Impact Factor: 5.162).
49. Valliammai A, Selvaraj A, Sangeetha M, Sethupathy S and **Pandian SK** (2020). 5-Dodecanolide inhibits biofilm formation and virulence of *Streptococcus pyogenes* by suppressing core regulons of virulence. [Life Sciences](#) (Elsevier) 262:118554 (Impact Factor: 3.647).
50. Lakshmi SA, Beema R, Priyanga A, Shiburaj S and **Pandian SK** (2020). A highly divergent α -amylase from *Streptomyces* spp.: An evolutionary perspective. [International Journal of Biological Macromolecules](#) (Elsevier) 163: 2415-2428 (Impact Factor: 5.162).
51. Rajeev M, Sushmitha, TJ, Toleti SR. and **Pandian SK** (2020). Sediment-associated bacterial community and predictive functionalities are influenced by choice of 16S ribosomal RNA hypervariable region(s): An amplicon-based diversity study. [Genomics](#) (Elsevier) 112:4968-4979 (Impact Factor: 6.205).
52. Durgadevi R, Kaleeswari R, Swetha TK, Alaxpandi R, **Pandian SK** and Ravi AV (2020). Attenuation of *Proteus mirabilis* colonization and swarming motility on indwelling urinary catheter by antibiofilm impregnation: an in vitro study. [Colloids and Surfaces B: Biointerfaces](#) (Elsevier) 194:111207 (Impact Factor: 3.973).
53. Muthuramalingam P, Jeyasri R, Valliammai A, Selvaraj A, Karthika C, Gowrishankar S, **Pandian SK**, 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 in silico approach. [GENOMICS](#) (Elsevier) 112: 4486- 4504 (Impact Factor: 6.205).
54. Valliammai A, Selvaraj A, Yuvashree U, Aravndraja C and **Pandian SK** (2020). sarA dependent antibiofilm activity of thymol enhances the antibacterial efficacy of rifampicin

against *Staphylococcus aureus*. [Frontiers in Microbiology, Section Antimicrobials, Resistance and Chemotherapy](#) [Frontiers Research Foundation, Switzerland]11:1744 (Impact Factor: 4.235).

55. Muthuramalingam P, Jeyasri R, Selvaraj A, **Pandian SK** and Ramesh M. (2020). Integrated transcriptomic and metabolomic analyses of glutamine metabolism genes unveil key players in *Oryza sativa* (L.) to ameliorate the unique and combined abiotic stress tolerance. [International Journal of Biological Macromolecules](#) (Elsevier) 164:222-231 (Impact Factor: 5.162).
56. Alexpandi R, Gopi CVVM, Durgadevi R, Him HJ, **Pandian SK** and Ravi AV (2020). Metal sensing-carbon dots loaded TiO₂-nanocomposite for photocatalytic bacterial deactivation and application in aquaculture. [Scientific Reports](#) [Nature, UK] 10:12883 (Impact Factor: 4.011).
57. Alexpandi R, De Mesquita JF, **Pandian SK** and Ravi AV (2020). Quinolines-based SARS-CoV-2 3CLpro and RdRp inhibitors and Spike-RBD-ACE2 inhibitor for drug-repurposing against COVID-19: An in silico analysis. [Frontiers in Microbiology](#) [Frontiers Research Foundation, Switzerland] 11:1796 (Impact Factor: 4.259).
58. Alexpandi R, Prasanth MI, Ravi AV, Balamurugan K, Durgadevi R, Srinivasan R, De Mesquita JF, **Pandian SK** (2019). Protective effect of neglected plant *Diplocyclos palmatus* on quorum sensing mediated infection of *Serratia marcescens* and UV-A induced photoaging in model *Caenorhabditis elegans*. [Journal of Photochemistry and Photobiology B: Biology](#) (Elsevier) 201, 111637. (Impact Factor: 4.067)
59. Muthamil S, Prasath KG, Priya A, Precilla P and **Pandian SK** (2020). Global proteomic analysis deciphers the mechanism of action of plant derived oleic acid against *Candida albicans* virulence and biofilm formation. [Scientific Reports](#) [Nature Publishing Group, UK] 10:5113 (Impact Factor: 4.525).
60. Valliammai A, Sethupathy S, Ananthi S, Priya A, Selvaraj A, Nivetha V, Aravindraja C, Mahalingam S and **Pandian SK** (2020). Proteomic profiling unveils citral modulating expression of IsaA, CodY and SaeS to inhibit biofilm and virulence in Methicillin-resistant *Staphylococcus aureus*. [International Journal of Biological Macromolecules](#) (Elsevier) 158:208-221. doi: 10.1016/j.ijbiomac.2020.04.231 (Impact Factor: 3.327).
61. Priya A & **Pandian SK** (2020). Piperine impedes biofilm formation and hyphal morphogenesis of *Candida albicans*. [Frontiers in Microbiology](#) 11: 756 (Impact Factor: 4.259).
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