

Faculty Profile of Dr. S. R. Prabakaran



Dr. S. R. Prabakaran

Professor

Department of Biotechnology

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Research Area

- Microbial diversity & Taxonomy
- Metabolism in Extremophiles
- Molecular Diagnostics & Anaerobes

Education & Career

Education

Ph. D.

Subject :Microbiology, Molecular Biology, Biotechnology

Institution :Department of Biotechnology

Affiliated University :Pondicherry University

Year of Award : 1996

M. Sc.,

Subject: Agriculture – Seed Technology

Institution :Dept. of Seed Science and Technology

Affiliated University :TNAU, Coimbatore

Year of Award : 1996

B. Sc.,

Subject:Agricultural Sciences

Institution: Pandit Jawaharlal Nehru College of Agriculture, Karaikal

Affiliated University:TNAU, Coimbatore

Year of Award:1993

H.Sc.,

Subject:Biology, Physics, Chemistry, Mathematics

Institution: Fatima Higher Secondary School, Pondicherry

Affiliated University:Board of Secondary Exams, Tamilnadu

Year of Award:1989

Matriculation

Subject:General subjects

Institution: Fatima Higher Secondary School, Pondicherry

Affiliated University:Board of Exams, Tamilnadu

Year of Award:1987

Career**At Bharathiar University (Reverse Order)**

1. Professor : 28-Aug-2020 to Till Date
2. Associate Professor : August 2017 to 27-Aug 2020
3. Assistant Professor (phase III) : August 2014 to August 2017
4. Assistant Professor (phase II) : September 2009 to August 2014

Past Experience

1. Lecturer:12.4.2009 to August 2009 at Bharathiar University, coimbatore, India.
2. Lecturer:12.4.2005 to till date at Bharathiar University, coimbatore, India.
3. Research Associate:14.11.2001 to 8.4.2005 at CCMB, Hyderabad

Awards

Travel Awards

Funding agency : Indo-IS Science and Technology Forum

Name of conference : American Society of Microbiology Meeting

Country : USA

Title of paper : Arsenic Resistance Determinants of Bacteria Isolated from Bengal Basin of Asia.

Date of Award : May 18-21, 2013

Academic Awards

Awarding agency : Dept of Biotechnology (GoI), New Delhi.

Country : India

Purpose of award : Post Doctoral fellowship

Date of Award : 2001-2005

Awarding agency : Dr.K.S.Krishnan Research Fellowship.

Country : Department of Atomic energy, GOI, Mumbai.

Purpose of award : Utilized for Ph.D

Date of Award : 1996 - 2001

Awarding agency : ICAR Junior Research Fellowship .

Country : Indian Council for Agricultural Research, New Delhi

Purpose of award : Utilized for M.Sc (Ag.)

Date of Award : 1993 - 1996

Awarding agency : Pondicherry Post-matric Merit Scholarship .

Country : Govt. of Pondicherry

Purpose of award : Utilised for B.Sc (Agri.)

Date of Award : 1989-1993

Awarding agency : Annual Flower show.

Country : Department of Agriculture, Govt. of Pondicherry, Pondicherry

Purpose of award : Establishing a feature garden in Botanical Garden

Date of Award : 6.2.1994

Awarding agency : National Science Day.

Country : TNAU,Coimbatore.

Purpose of award : Science Exhibition

Date of Award : 28.2.1994

Membership

Professional Bodies

Organization : American Society for Microbiology.

Type of Membership :Annual

Period : 2013-2014

Organization :Association of Microbiologists of India.

Type of Membership :Vice President (Coimbatore Chapter)

Period :2019

Visits

Country Visited : United States of America .

Duration of Visit : 1 year

Month and Year : November 2012 to 2013

Purpose of Visit : Indo-US Science & Technology Fellowship.

Collaborators

Others

Projects

Funded Projects(National level)

- [Ongoing](#)
- [Completed-6](#)

1.Population dynamics of Microbial consortia in human waste digesters.

Principle Investigator:S.R. PRABAGARAN

Funding Agency :Defence Research & Development Organization.

Amount : Rs.4,46,000.

Duration : 2008 – 2010

2.Novel ars operon homologues from arsenic resistant indigenous bacterial strain *Bacillus indicus*.

Principle Investigator:S.R. PRABAGARAN

Funding Agency : Department of Biotechnology, (GOI),

Amount : Rs.13,79,000.

Duration : 2008-2011

3.Bacterial Diversity in Western Ghats - in search of novel species.

Principle Investigator:S.R. PRABAGARAN(CO.PI)

Funding Agency :Department of Science and Technology.

Amount :Rs. 20,35,200.

Duration : 2008-2011

4.Investigating microbial diversity of the honey bee gut for probiotics.

Principle Investigator:S.R. PRABAGARAN(CO.PI)

Funding Agency : University Grants Commission.

Amount : Rs.10,27,000

Duration : 2009-2012

5.Rapid sensitivity diagnosis of bacterial infection in ocular diseases through loop-mediated isothermal amplification (LAMP) assay.

Principle Investigator:S.R. PRABAGARAN(Co. PI)

Funding Agency : RUSA 2.0 BEICH Project

Amount : Rs. 8,00,000.

Duration : 2019

6.To identify predominant microbiota for the causative of colorectal cancer (CRC) and potential intervention with Indian probiotics as effective remedy for the prevention or control.

Principle Investigator:S.R. PRABAGARAN(Co. PI)

Funding Agency : RUSA 2.0 - BCTRC Project

Amount : Rs. 7.88 Lakhs

Duration : 2011

Consultancy Projects

- [Ongoing](#)
- [Completed](#)

Research Guidance

- [Post Doc.](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.](#)

Ongoing

Title

Name

Completed

Title

Name

Ongoing

Sample Data.

Completed

Sample Data.

Ongoing

Sample Data.

Completed

Sample Data.

Ongoing

Sample Data.

Completed

Sample Data.

Research Publication

- [International](#)
- [National](#)

- [Patents](#)
- [Conferences](#)
- [Books / Chapters](#)
- [Database](#)

1. Anand R. D., Baskar V. and Prabakaran. S. R. 2021.
Molecular characterization of stress tolerance genes associated with D. indicus strain under extreme environment conditions.
Envir. Geochem. Health(accepted).
2. Cibichakravarthy. B, Princy. S. and Prabakaran. S. R. 2021.
Phytobiomes and bioremediation.
Microbiomes and Plant Health (Elsevier). pp 301-316
3. Deepthi K.N.G and Prabakaran. S. R. 2020.
Ocular bacterial infections: Pathogenesis and diagnosis.
Microbial Pathogenesis. 145:104-206
4. Princy. S. Sathish S.S. Cibichakravarthy B. and Prabakaran. S. R. 2020.
Hexavalent chromium reduction by *Morganella morganii* (1Ab1) isolated from tannery effluent contaminated sites of Tamil Nadu, India.
Biocat. Agric. Biotechnol. 23:101469.
5. Princy. S. and Prabakaran. S. R. 2020.
Reduction of Cr (VI) by Bacillus species isolated from tannery effluent contaminated sites of Tamil Nadu, India.
Materials Today: Proceedings.
6. Balaji. S, Shekaran. S. G. and Prabakaran. S. R. 2020.
Cultivable bacterial communities associated with the salivary gland of *Aedes aegypti*.
International Journal of Tropical Insect Science. Pp 1-9.
7. Balaji. S, Jayachandran. S, and Prabakaran. S.R. 2019.
Evidence for the natural occurrence of *Wolbachia* in *Aedes aegypti* mosquitoes.
FEMS Microbiology Letters. 366(6):1-23.
8. Cibichakravarthy. B, Venkatachalam. S. and Prabakaran. S. R. 2019.
Unleashing extremophilic metabolites and its industrial perspectives.
New and Future Developments in Microbial Biotechnology and

Bioengineering. Pp 119-130.

9. Madheshlu. M, Mani. S, Kasiviswanathan. D. and Prabakaran. S. R. 2019. Antagonistic actinobacterial diversity of marine sediments collected from coastal Tamil Nadu.
Asian J Pharm Clin Res. 12(1):478-486.
10. Manikandan. M, Gowdaman. V, Duraimurugan. K and Prabakaran. S.R. 2019. Taxonomic characterization and antimicrobial compound production from *Streptomyces chumphonensis* BDK₀₁ isolated from marine sediment.
3 Biotech. 9(167): 1-13.
11. Deepthi. K.N.G, Jayasudha. R, Girish. R. N, Manikandan. P, Ram. R, Narendran. V and Prabakaran. S.R. 2018. Polybacterial community analysis in human conjunctiva through 16S rRNA gene libraries.
Experimental eye Research. 174: 1-12.
12. Cibichakravarthy. B, Abinaya. S and Prabakaran. S.R. 2017. Syntrophic association of termite gut bacterial symbionts with bifunctional characteristics of cellulose degrading and polyhydroxyalkanoate producing bacteria.
Int. J. Biol. Macromol. 103: 613-620.
13. Prabakaran. S. R., Kalaiselvi V., Chandramouleeswaran N., Deepthi K.N.G., Brahmadathan K.N. and Mani M. 2017. Molecular diagnosis of *Salmonella typhi* and its virulence in suspected typhoid blood samples through nested multiplex PCR.
J. Microbiol. Meth. 139:150-154
14. Vijay V., K.B. Vandana, Kumar R. M. and Prabakaran S.R. 2017. Genetic analysis of arsenic metabolism in *Micrococcus luteus* BPB1, isolated from the Bengal basin.
Annals of microbiology. 67(1), PP-79-89
15. Sonia.S, Jayasudha. R, Jayram N. D., Kumar.P.S., Mangalaraj. D and Prabakaran S.R. 2016. Synthesis of hierarchical CuO nanostructures: Biocompatible antibacterial agents for Gram-positive and Gram-negative bacteria.
Current Applied Physics 16(8): 914-921

16. Venkatachalam, S and Prabakaran.S.R. 2015.
Comparative assessment of microbial communities from Himalayan Mountains of Nepal and India. In:
ENVIS Bulletin on Himalayan Ecology. 23: 9-14.
17. Kanimozhi G, Avinash V. S, Vandana K. B and Prabakaran S. R. 2014.
Poly-Hydroxyalkanoate (PHA) Maximization from *Bacillus megaterium* Strain SE13 Isolated from Coimbatore. 237 – 248. (**In Innovations in Science**, edited by V. Vijaya Padma, P. Saravana Bhavan, V. Ramasubramanian, and S.R. Prabakaran, ISBN: 788-19-23306-93-5)
18. Venkatachalam S, Gowdaman V, Prabakaran S.R. 2014.
Culturable and culture independent bacterial diversity and the prevalence of cold adapted enzymes from the Himalayan mountain ranges of India and Nepal. *Microbial Ecology* 69 (3), 472-491 (DOI 10.1007/s00248-014-0476-4)
19. Revathi Prabha M, CibichakravarthyB, Prabakaran S. R, Rajendran S. P. 2014.
Synthesis ofthiazoloquinolineschiffbases as potential antibacterial agents.
International Journal ofChemical and PharmaceuticalSciences. 5(1):24-27
20. Gowdaman V, Venkatachalam S, Prabakaran S.R. 2014.
Predominance of *Bacillus* sp. in soil samples of the southern regions of Western Ghats, India.
Annals of Microbiology. 65 (1), 431-441 (DOI. 10.1007/s13213-014-0876-1)
21. Jayasudha R, Narendran V, Manikandan P, Prabakaran S. R. 2014.
Identification of Polybacterial Communities in Patients with Postoperative, Posttraumatic, and Endogenous Endophthalmitis through 16S rRNA Gene Libraries.
Journal of Clinical Microbiology. 52(5):1459. *Impact Factor* - 3.993
22. Gowdaman V, MathanKumar R, Venkatachalam S, and Prabakaran S. R. 2014.
Comparison of DNA Fingerprinting Analysis for Identification of *Bacillus* Species. **International Journal of Research in Advent Technology.** 2(1): 278-288.
23. Venkatachalam S, Sivaprakash M, Gowdaman V, Prabakaran S. R. 2014.
Bioprospecting of Cellulase Producing Extremophilic Bacterial Isolates from India.

24. Srinivas, T.N, Singh, S.M, Pradhan. S, Pratibha. M.S, Kishore. K.H, Singh. A.K, Begum. Z, Prabakaran. S.R, Reddy. G.S, Shivaji. S. 2011.
Comparison of bacterial diversity in proglacial soil from Kafni Glacier, Himalayan Mountain ranges, India, with the bacterial diversity of other glaciers in the world.
Extremophiles. 15:673-90.
25. Shivaji.S, Pratibha. M.S, Sailaja. B, Kishore. K, Singh.A.K, Begum. Z, Anarasi. U, Prabakaran.S.R, Reddy.G.S, Srinivas.T.N. 2011.
Bacterial diversity of soil in the vicinity of Pindari glacier, Himalayan mountain ranges, India, using culturable bacteria and soil 16S rRNA gene clones.
Extremophiles.15:1-22
26. Reddy, G.S., S.R. PRABAGARAN, S. Shivaji. 2008.
Leifsonia pindariensis sp. nov., isolated from the Pindari glacier of the Indian Himalayas and emended description of the genus *Leifsonia*.
Int J Syst Evol Microbiol. 58:2229-34.
27. Saravanan, P., S.R PRABAGARAN, Y. Venkata Nancharaiah, V. P. Venugopalan and S. Jayachandran. 2007.
Isolation and characterization of *Pseudoalteromonas ruthenica* (SBT033), an EPS - producing biofilm bacterium, from seawater intake point of a tropical power station.
World. J. Microbiol. Biotech. 24:509-515
28. PRABAGARAN, S.R., R. Manorama, D. Delille and S. Shivaji. 2006.
Predominance of *Roseobacter*, *Sulfitobacter*, *Glaciecola* and *Psychrobacter* in seawater collected off Ushuaia, Argentina, Sub-Antarctica.
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Int. J. Sys. Evol. Microbiol. 56:199-204.
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Hexachlorocyclohexane-degrading bacterial strains *Sphingomonas paucimobilis* B90A, UT26 and Sp+, having similar lin genes, represent three

distinct species, *Sphingobium indicum* sp. nov., *Sphingobium japonicum* sp. nov. and *Sphingobium francense* sp. nov., and reclassification of [*Sphingomonas*] *chungbukensis* as *Sphingobium chungbukense* comb. nov.
Int. J. Sys. Evol. Microbiol. 55:1965-1972.

31. PRABAGARAN, S.R., K. Suresh, R. Manorama, D. Delille and S. Shivaji. 2005. *Marinomonas ushuaensis* sp. nov., isolated from coastal seawater in Ushuaia, Argentina, Sub-Antarctica.
Int. J. Sys. Evol. Microbiol. 55:309-313.
 32. PRABAGARAN, S.R., K. Pakshirajan, T. Swaminathan and S. Jayachandran. 2004.
Media optimization of *Bacillus thuringiensis* PBT-372 using Response surface methodology.
Chem. Biochem. Engg. Q. 18:13-19.
 33. Suresh, K., S.R. PRABAGARAN, S. Sengupta and S. Shivaji. 2004. *Bacillus indicus* sp., nov. an arsenic resistant bacterium isolated from an aquifer in West Bengal, India.
Int. J. Sys. Evol. Microbiol. 54:1369-1375.
 34. Bala, S., R. Khanna, M. Dadhwal, S. R. PRABAGARAN, S. Shivaji, J. Cullum and Rup Lal. 2003.
Reclassification of *Amycolatopsis mediterranei* DSM 46095 as *Amycolatopsis rifamycinica* sp. nov., Int. **J. Sys. Evol. Microbiol.** 54:1145-1149.
 35. PRABAGARAN, S.R., S.J. Nimal and S. Jayachandran. 2002.
Phenotypic and genetic diversity of *Bacillus thuringiensis* strains isolated in India active against *Spodoptera litura*.
Appl. Biochem. Biotechnol. 102-103:213-26.
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1. Prabagaran. S.R. Princy. S and Venkatachalam. S. 2017.
Reduction of toxic hexavalent Chromium by indigenous bacteria isolated from tannery effluent contaminated site of Dindigul District, Tamilnadu. In:

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2. Poly-Hydroxyalkanoate (PHA) Maximization from *Bacillus megaterium* Strain SE13 Isolated from Coimbatore. In: Innovations in Science, edited by V. Vijaya Padma, P. 788-19-23306-93-5 Saravana Bhavan, V. Ramasubramanian, and S.R. Prabakaran Prabakaran S. R. Kanimozhi G, Avinash V. S and Vandana K. Bharathiar University Publications. 237 – 248. 2014

Alumini Reflections: