

BIODATA

NAME & QUALIFICATION: Dr. P. Priya Dharsini., M.Sc., M.Phil.,
PGDHT, NET, PDF

DESIGNATION : Assistant Professor

DEPARTMENT NAME : Microbiology

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SPECIALIZATION : Actinobacterial Secondary Metabolites

PROFESSIONAL MEMBERSHIP: Life member in Indian Association for Biomedical Scientist - L.M. No.676.

RESEARCH EXPERIENCE : Five Years

No. of research articles published in UGC CARE / SCOPUS / WEB of SCIENCE indexed journals: **Nine**

PATENT

Patent Published on Extraction and Identification of Antibacterial and Antiviral compounds from polyherbal extract with spices - An *invitro* and *insilico* analysis. Application number 202241047109dated 18.8.2022.

Patent Filed on Portable Device for Measuring Sugar Level Through Saliva. Application number 398671001dated 28.10.2023.

LEADING ROLES

Reviewer in Journal of Pure and Applied Microbiology (ISSN No 0973 - 7510) 24, New Maulana Azad Colony, Idgah Hills, Bhopal - 462001, Madhya Pradesh, India.

Reviewer in PLOS ONE Journal.

Organizing member in the International Conference on Emerging Outlook and Recent Trends in Microbiology organized by Department of Microbiology, Shrimati Indira Gandhi College, Trichy on August 26th 2022.

Organizing member in the International Conference on Unveiling the Frontiers in Life Sciences organized by Department of Biochemistry and PG and Research Department of Microbiology, Shrimati Indira Gandhi College, Trichy on August 17th and 18th 2023.

ADDITIONAL RESPONSIBILITIES

1. Member in IPR Cell, Shrimati Indira Gandhi College, Trichy.
2. Act as a faculty coordinator in Training and Placement Cell, SIGC, Trichy

AWARDS AND HONOURS

1. **Qualified ICAR N.E.T.** examination, December 2018 (First Attempt)
2. **Post-Doctoral Fellowship**, University Grants Commission- Post-Doctoral Fellowship for Women (PDFWM) Scheme, October 2015 to October 2020.
3. **Senior Research Fellowship**, University Grants Commission -Rajiv Gandhi National Fellowship (RGNF) Scheme, 2013-2014.
4. **Junior Research Fellowship**, University Grants Commission -Rajiv Gandhi National Fellowship (RGNF) Scheme, 2009-2012.

LIST OF ARTICLES PUBLISHED IN JOURNALS:09

INTERNATIONAL JOURNALS:

1. **P. Priyadharsini**, D. Dhanasekaran and B. Kanimozhi (2013): Isolation, structural identification and herbicidal activity of N-phenylpropanamide from *Streptomyces* sp. KA1-3, Archives of Phytopathology and Plant Protection, 46:3, 0.290.
2. **P. Priyadharsini**, D. Dhanasekaran and B. Kanimozhi (2012): Isolation and Structural characterization of N-(naphthalen-1-yl) propanamide, an herbicidal compound from *Streptomyces* sp KA₁-3. Microbiological Research in Agroecosystem Management (Chapter 13)187-195.
3. **P. Priyadharsini** and Dhanasekaran, D (2015): Diversity of Soil Allelopathic Actinobacteria in Tiruchirappalli district, Tamilnadu, India, Journal of the Saudi Society of Agricultural Sciences, 14, 54-60.
4. **P. Priyadharsini**, P.M. Gopinath, S. Megala and D. Dhanasekaran (2014): Medium Optimization for Herbicidal Compound Production from *Streptomyces anulatus* using Response Surface Methodology, Scientific transactions in environment and technovation,8:1, 20-26.
5. A. Ranjani, P. M. Gopinath, K. Rajesh, D. Dhanasekaran and **P. Priyadharsini** (2016): Diversity of Silver Nanoparticle Synthesizing Actinobacteria Isolated from Marine Soil, Tamil Nadu, India, Arabian Journal of Science and Engineering, 41, 25-32.
6. **P. Priyadharsini**, D. Dhanasekaran, K. Ramanathan, V. Shanthi, S. Chandraleka and Bhaskar Biswas (2017): Spectroscopic Identification and Molecular Modelling of Diethyl,7-hydroxytrideca-2, 5, 8, 11-tetraenedioate: a Herbicidal Compound from *Streptomyces* sp, Arabian Journal of Science and Engineering, 42, 2217- 2227.

7. **P. Priya Dharsini** and P. Selvamani. (2019): Actinobacterial species selection for production of antimicrobial peptide using PROMETHEE GAIA. International Journal of Pharmacy and Biological Sciences, 9(2), 259-268.
8. S. Latha, P. Selvamani, **P. Priya Dharsini** and P. Sathish Kumar. (2020): Formulation and Evaluation of Novel Drug Delivery System of Stavudine Niosomes for the treatment of HIV. International Journal of Pharmaceutical Sciences and Research. **(Accepted)**.
9. **P. Priya Dharsini**, P. Selvamani and S. Latha. (2020). Current Strategies in Peptide Conjugated Nanoparticles: A novel approach in the Field of Biomedicine. Handbook of Research on Nano-Strategies for Combatting Antimicrobial Resistance and Cancer. 1- 19.

LIST OF BOOK CHAPTER PUBLISHED :02

1. M. Rajeswari, V. Priya Barathi, P. Dhanalakshmi, P. Priya Dharsini and A. Winny Fred Crossia. Theranostic Property of Pigments Producing Actinobacteria. Futuristic Trends in Biotechnology. (ACCEPTED).
2. G. Parasakthi, R. Divya, K. Israth banu, K. Nanthini and P. Priya Dharsini. Role of Artificial Intelligence in Biotechnology. Futuristic Trends in Biotechnology. (ACCEPTED).

LIST OF PAPERS PRESENTED IN SEMINARS / CONFERENCES:14

NATIONAL SEMINARS / CONFERENCES:

1. Symposium on “Bioresources in the Development of Medicine and 28th Annual Conference of Indian Association of Biomedical Scientist” held at National Facility for Marine Cyanobacteria, Bharathidasan University, Tiruchirappalli on 20th to 22nd Sep, 2007.
2. National seminar on “Advances in Microbiology” organized by PG and research Department of Microbiology Kurunji college of Arts and Science, Tiruchirappalli on 5th Oct, 2007. Title: Biofertilizer for efficient nitrogen use in maize, sorghum, raddish and ladies finger.
3. National seminar on “Medicinal Plant Research and Marketing - Present Scenario” organized by Department of Herbal Technology, Srimad Andavan Arts and Science college, Tiruchirappalli on 2nd and 3rd Feb, 2008.
4. National seminar on “Prospects and Retrospects in Microbial Technology” held at Department of Microbiology and Biotechnology, Cauvery College for Women, Tiruchirappalli on 17th& 18th Feb, 2012. Title - Characterization of actinobacterial secondary metabolites for herbicidal activity against selected weeds.
5. National Seminar on “Microbiological Research in 21st Century” held at Department of

Microbiology, Bharathidasan university, Tiruchirappalli on 27th and 28th Feb, 2012 and received the best poster award. Title - Evaluation of Herbicidal Compound from *Streptomyces* sp against weeds.

6. National Seminar on “Cutting Edge Microbial Research and Challenges” held at Department of Microbiology, Bharathidasan University, Tiruchirappalli on 25th and 26th Feb, 2013. Title – Allelophytic actinobacterial diversity from paddy field soils of Tiruchirappalli district.
7. National Seminar on “Microbiology and Microbial Technology “organized by Department of Botany, St. Teresa’s college, Ernakulum on October 7th and 8th, 2013. Title - Characterization and Biological Evaluation of Herbicidal Compounds from Actinobacteria.
8. National Seminar on “Microbes and Human Welfare” organized by National Academy of Biological Sciences and Department of Microbiology, Bharathidasan university held on July 20th and 21th 2013. Received best poster award. Title - Allelopathic properties of Herbicidal Compound from Actinobacteria.
9. State level symposium on “Microbe- A remedy for Environmental pollutants” held at PG and Research Departments of Microbiology, Adhiparasakthi College of Arts and Science, Kalavai on 19th December 2018. Title -Preliminary assessment of antimicrobial peptide producing *Streptomyces* sp. for multidrug resistance.
10. National seminar on “Recent Trends in Ethics and Healthy by Nature” held at PG and Research Department of Zoology, Abdul Hakeem College, Melvisharam on 1st March, 2018. Title - Characterization and Biological attributes of antimicrobial peptide from *Streptomyces rochei*.
11. National symposium on “Multidrug resistance microbes and its impact” held at PG and Research Departments of Microbiology, Adhiparasakthi College of Arts and Science, Kalavai on 18th September 2019. Title - Characterization of crude antimicrobial peptide from actinobacteria for multidrug resistance pathogens.

INTERNATIONAL CONFERENCES:

1. International conference on “Recent Advances in Biosciences” held at Department of Microbiology, Dhana Lakshmi Srinivasan college of Arts and sciences for Women, Perambalur on January 8th and 9th, 2008.
2. International conference on “Recent trends in Biomedical Sciences” held at PG and Research Departments of Zoology, Biotechnology and Bioinformatics, Holy Cross College, Tiruchirappalli on January 7th to 9th, 2014. Title - Herbicidal compound and its allelopathic activity of terrestrial Actinobacteria.

3. International conference on “Converging Research Approaches in Life Science for Future Advancement” organized by PG and Research Department of Microbiology of Sengamala Thayaar Educational Trust Women’s College, Mannargudi on 15th February 2023. Title - Actinobacterial temperament of PET crumbs in cement composites.

PARTICIPATION IN WORKSHOP / CONFERENCES / SEMINARS / FDP: 13

1. National seminar on “Emerging Trends in Microbial Diseases and Traditional System of Medicines” organized by Department of Microbiology, Srimad Andavan Arts and Science college, Tiruchirappalli on 5th and 6th October 2006.
2. National seminar on “Recent Trends in Chemical Signaling” organized by Center for Pheromone technology, department of animal science Bharathidasan University, Tiruchirappalli on 2nd Feb, 2009.
3. National Conference on “New Opportunities and Challenges in Microbial Research” organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli on 5th and 6th September, 2013.
4. International conference on “Innovations and challenges in Biomedical Sciences Research” held at Holy Cross College, Tiruchirappalli on December 12th to 14th, 2017.
5. National workshop on “Recent Development in Genetic Engineering and Gene Therapy through Bactofection” organized by PG and Research Department of Zoology, Bishop Heber College, Tiruchirappalli on 26th and 27th February 2019.
6. Faculty development program on “Innovative Pedagogies of the Future in Teaching Learning Process” organized by Department of Management Studies, Shrimati Indira Gandhi College, Tiruchirappalli on 17th to 19th March, 2022.
7. Workshop on “Cytochemical staining Techniques” organized by the Department of Biochemistry of Shrimati Indira Gandhi College, Tiruchirappalli on 15th September 2022.
8. Faculty Enrichment Programme on “Shape yourself with Siddha” organized by the Department of Chemistry, Shrimati Indira Gandhi College, Tiruchirappalli on 14th July 2022.
9. Awareness program on “National Intellectual Property Awareness Mission (NIPAM)” conducted by Controller General of Patents, Designs and Trade Marks, at Shrimati Indira Gandhi College on 26.04.2023.
10. Participated in the Five-day International Virtual Faculty Development Programme on “Digital Productivity and AI Fluency” organized by Naan Mudhalvan in partnership with

Microsoft from 28.08.2023 to 01.09.2023.

11. Participated in the Five-day International Virtual Faculty Development Programme on “Recent trends in Biological sciences” – (RTBS 2023) organized by the Department of Botany, Seethalakshmi Ramasamy College from 16.10.2023 to 20.10.2023.
12. Participated in the Six-day International Virtual Faculty Development Programme on “Biotechnology fro Entrepreneurship and Startup” organized by the Department of Biotechnology & IIC, Bon Secours College for Women from 20.11.2023 to 25.11.2023.
13. Participated in the Five - Day Virtual Faculty Development Programme on “ Recent Advances in chemical Sciences” organized by the Department of Chemistry. KSR college of Arts and Science for Women from 27.11.2023 to 01.12.2023.

SHORT TERM COURSE: 2

1. Global Initiative of Academic Networks organized a course on “A recent Trends in Life Science Research with Special Reference to Molecular Imaging, proteomics and Metabolomics” held at Department of Animal Science, Bharathidasan University, Tiruchirappalli on 12th to 16th February, 2018.
2. UGC- Academic Staff College organized a refresher course on” Methods in Life Science Research” held at Bharathidasan University, Tiruchirappalli on BharathidasanUniversity.

NUCLEOTIDE SEQUENCE DEPOSITED AT NCBI, USA

Streptomyces rochei - MG774931

Streptomyces sp. GRD - JX512257

COMPOUND DEPOSITED AT NCBI(PUDMED), USA

Compound Accession No	Name of the compound	Source
CID 73345169	5-methylhex-4-en-3-yl 2-(5-hydroxy-3-methylhexanoyl) benzoate	<i>Streptomyces anulatus</i>
CID 73345171	Diethyl 7- hydroxytrideca - 2, 5,8,11 - tetraenedioate	<i>Streptomyces anulatus</i>
CID 73345170	3-hydroxy-N-((3E, 5E)-6-(4-hydroxyphenyl) hexa-3, 5-dien-2-yl)-2-methylpentanamide	<i>Actinomadura helvata</i>

MODELED PROTEIN SUBMITTED IN THE PROTEIN MODEL DATABASE

PM00827

