



## DR. AMPADI AN ATTENDED TRAINING PROGRAM FOR CCSEA NOMINEES

Dr. Ampadi AN, Veterinary Officer has attended training program for nominees of CCSEA held at PSG Institute of Medical Sciences & Research, Coimbatore on 17 – 19 June, 2026.

## DR. NEBU GEORGE THOMAS AS CO-PRINCIPAL INVESTIGATOR FOR THE BLOCK FUNDING PROGRAM 2025 PROJECT

A research project titled “Innovative Squid Ink-Based Biocompatible Hydrogel Towards Enhanced Treatment Efficiency for Diabetic Foot Ulcers and Other Chronic Wounds” has been approved for funding under the Block Funding Program 2025 by the Deanship of Postgraduate Studies, Scientific Research and Innovation at the University of Technology and Applied Sciences (UTAS), Muscat, Sultanate of Oman.

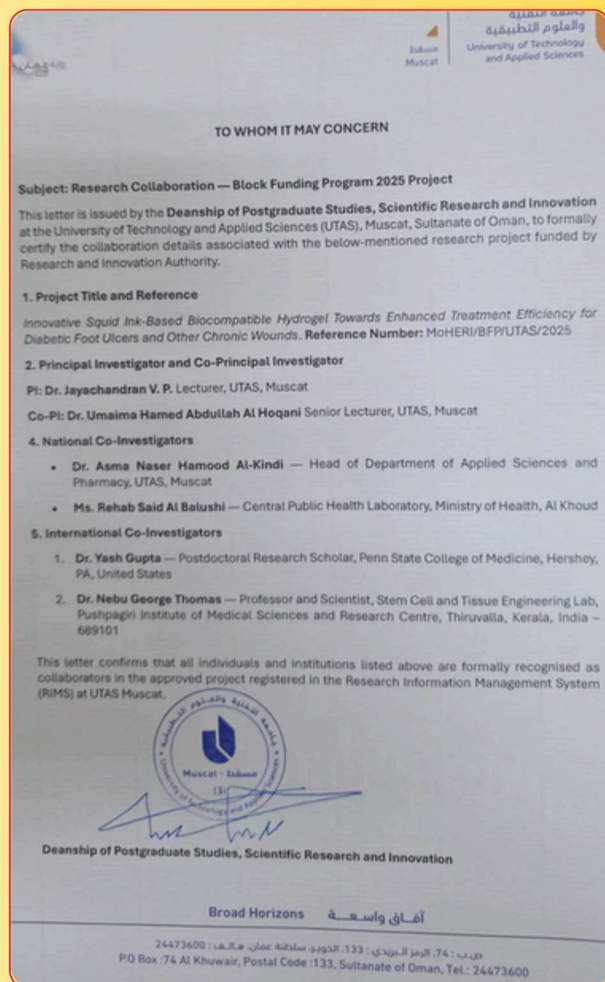
The project has secured funding of 17,300 OMR (approximately ₹43 lakhs) for a period of two years.

The project is led by Dr. Jayachandran V. P., Lecturer at UTAS, Muscat, who serves as the Principal Investigator.

The research team includes the following Co-Investigators:

- Dr. Umaina Hamed Abdullah Al Hoqani, Senior Lecturer, UTAS, Muscat
- Dr. Asma Naser Hamood Al-Kindi, Head of the Department of Applied Sciences and Pharmacy, UTAS, Muscat
- Ms. Rehab Said Al Balushi, Central Public Health Laboratory, Ministry of Health, Al Khoud
- Dr. Yash Gupta, Postdoctoral Research Scholar, Penn State College of Medicine, Hershey, Pennsylvania, USA
- Dr. Nebu George Thomas, Professor and Scientist, Stem Cell and Tissue Engineering Laboratory, Pushpagiri Institute of Medical Sciences and Research Centre, Thiruvalla, Kerala, India

The interdisciplinary collaboration brings together expertise from academia, healthcare, and biomedical research institutions across Oman, India, and the United States.





## JBI gLOCAL Solution Room hosted by PCEBP

The JBI gLOCAL Solution Room 2026 was organized by the Pushpagiri Centre for Evidence-Based Practice (PCEBP) - A JBI Centre of Excellence - in collaboration with the JBI Western Sydney Centre, Western Sydney University, Australia. The event was held on 5th June 2026 via Google Meet, with the PCEBP organizing team broadcasting live from Pushpagiri Research Centre conference hall. The two-hour webinar brought together public health enthusiasts from across India for an evidence-informed dialogue on NCD care in resource-constrained settings.

The session opened with a welcome address by Ms. Nisha Kurian, Director of PCEBP, who encouraged active engagement among participants and presenters. Dr. Sheeja Perumbil Pathrose, PhD, Director of the JBI Western Sydney Centre, provided an overview of the gLOCAL Solution Room initiative and introduced JBI's model of Evidence-Based Healthcare.

The keynote address was delivered by Dr. Dorothy Lall MD, PhD (Associate Professor in Community Medicine, CMC Vellore & Head of Unit, CMC Chittoor Campus), who drew on first-hand experience to address "NCD Care in India - Contextual Complexities in Implementing the Evidence."

This was followed by a panel discussion on "Implementing Evidence-Based Improvements in NCD Delivery Design in Primary Care in LMICs - Context and Challenges," moderated by Dr. Anu Mary Oommen MD, PhD (Professor, Department of Community Medicine, CMC Vellore).

The panel included the following experts:

Dr. Thomas Mathew MD, MBA – Professor In-Charge, School of Public Health, Kerala University of Health Sciences, Thiruvananthapuram

Dr. N Devadasan MPH, PhD – Course Director, India HPSR Fellowships Programme; Adjunct Faculty, Institute of Public Health, Bengaluru

Dr. Dorothy Lall MD, PhD – Associate Professor, Community Medicine, CMC Vellore

The Q&A session was lively and enriching. Dr. Oommen concluded with key take-home messages, and the vote of thanks was proposed by Dr. Sunu Alice Cherian, Deputy Director of PCEBP.

The feedback response was overwhelmingly positive-all respondents confirmed that the speakers held their attention throughout, satisfaction scores ranged only between 4 and 5 out of 5 (mean: 4.34/5), and 97% indicated they would attend a similar program again.

The gLOCAL Solution Room 2026 was a resounding success, fostering meaningful knowledge exchange on the complexities of NCD primary care in India. The event reinforced PCEBP's commitment to advancing evidence-based healthcare practice and provided delegates with actionable insights to carry forward in their work.





## VISIT TO INTER UNIVERSITY CENTRE FOR BIOMEDICAL RESEARCH & SUPER SPECIALTY HOSPITAL, MAHATMA GANDHI UNIVERSITY

Dr. Nebu George Thomas, Professor and Scientist, and Mr. Nikhil Krishnan, Research Assistant, visited the Inter University Centre for Biomedical Research & Super Specialty Hospital of Mahatma Gandhi University as part of ongoing efforts to strengthen research collaborations and explore advanced biomedical research opportunities. The primary objective of the visit was to explore the advanced research infrastructure and state-of-the-art facilities of the centre and to engage in discussions on potential areas of collaborative research. This visit open up avenues for future partnerships and joint research initiatives.



## DR. SOUMYA R. S. INVITED AS RESOURCE PERSON FOR NATIONAL WORKSHOP

Dr. Soumya R. S., Scientist, Cytogenetics and Biochemistry Lab was invited to serve as a Resource Person for the National Workshop titled “Advanced Animal Cell Culture: From Aseptic Techniques to Imaging”, organized by the Department of Life Sciences, Christ Christ (Deemed to be) University, Bengaluru, from 8–12 June 2026. The five-day workshop provided intensive hands-on training and theoretical insights into advanced animal cell culture methodologies, with a focus on aseptic techniques, cell culture maintenance, and contemporary analytical approaches. The program also covered specialized topics such as Flow Cytometry and Confocal Microscopy, enabling participants to gain practical exposure to cutting-edge tools and techniques widely used in biomedical and life science research.



DEPARTMENT OF LIFE SCIENCES  
Organises a national workshop on

### Advanced Animal Cell Culture: From Aseptic Techniques to Imaging

5-Day Workshop on Animal Cell Culture techniques, Flowcytometry and Confocal Microscopy.

Date: 08-12 June, 2026 | Time: 9.30 AM to 4.30 PM | Venue: 2nd Floor, R & D Block

**Registration**

Interested candidates can [Register Here](#) or scan the QR code

- Selection will be on a first-come, first-served basis.
- The payment link will be sent to the selected candidates.

**Workshop Fees**

- MSc Students and Research Scholars: ₹5000
- Post-doctoral fellows and faculty: ₹7500
- Industrial professionals: ₹8500

**Resource Persons**

Sebastian Vajia  
Application Scientist  
Tata Microsystems  
Bengaluru

Dr. Soumya R. S.  
Senior Scientist  
Pushpagiri Research Centre  
Kerala

Yama Choudhary  
Senior Application Scientist  
Flow cytometry: BD  
Bengaluru

By the end of the workshop, participants will have improved technical skills and a deeper understanding of modern cell-based assays

**For more details**

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Dharmaram College Post, Vessur Road, Bengaluru - 560029, Karnataka, India



## DR. SOUMYA R. S. INVITED AS EVALUATOR OF ORAL PRESENTATIONS AT BIOSPECTRUM 2K26

Dr. Soumya R. S., Scientist, Cytogenetics and Biochemistry Lab was invited to serve as an Evaluator of Oral Presentations at Biospectrum 2K26, an International Conference on “Recent Advances in Biological Sciences – Bridging Research to Breakthroughs” organised by Mar Athanasios College for Advanced Studies Tiruvalla (Autonomous) on 17th June 2026.



## DR. ANIKET NAHA AS RESOURCE PERSON AT ICMR-DHR SPONSORED NATIONAL WORKSHOP



Dr. Aniket Naha, Scientist, PRC has been invited as Resource person for ICMR-DHR sponsored National Workshop on ‘Innovative Biotechnological Approaches for Public Health Improvement’ at Nehru College of Arts and Sciences, Coimbatore on 1st June 2026. During this workshop, Dr. Aniket Naha provided Hands-on Training to participants on ‘Molecular Epidemiology and Phylogenetics for Public Health Applications’

## DR. ANIKET NAHA AS RESOURCE PERSON AT ICMR-DHR SPONSORED NATIONAL WORKSHOP

Dr. Aniket Naha, Scientist, PRC has been invited as Resource Person at ICMR-DHR sponsored National Workshop on “Hands-on Workshop on Integrated Molecular Diagnostics and Pathology for Precision Cancer Care: Biomarkers and PCR-Based Technologies” at Oxford College of Engineering Bangalore on 9th June 2026. He delivered a talk on ‘In-silico pipelines to predict theragnostic biomarkers and their validation strategies’ and also chaired a session in this event



# NOVEL BACTERIAL STRAINS FROM PRC AND SUBMITTED TO THE NATIONAL CENTRE FOR BIOTECHNOLOGY INFORMATION DATABASE (NCBI)

8 novel bacterial strains have been isolated in Medical Biotechnology and Computational Drug Designing Laboratory under Dr. Aniket Naha as a result of Masters dissertation. After 16S rDNA sequencing the strains have been submitted to the NCBI database and their accession numbers have been received

1. Enterobacter mori strain PRPC1- [PZ518361]
2. Klebsiella pneumoniae strain PRPC2 - [PZ518422]
3. Klebsiella pneumoniae strain PRPC3 - [PZ501994]
4. Streptococcus salivarius strain PRPC4 - [PZ493279]
5. Streptococcus salivarius strain PRCDC1 - [PZ449380]
6. Bacillus cereus strain PRCDC2 - [PZ449411]
7. Weissella cibaria strain PRCCC4 - [PZ493124]
8. Weissella cibaria strain PRCCC5 - [PZ493276]

## Enterobacter mori strain PRPC1 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ518361.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ518361.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ518361.1 1587 bp DNA Linear RT 10-Jan-2020                                                                                                                                          |       |         |
| DEFINITION: Enterobacter mori strain PRPC1 16S ribosomal RNA gene, partial sequence.                                                                                                         |       |         |
| ACCESSION: PZ518361.1                                                                                                                                                                        |       |         |
| VERSION: PZ518361.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Enterobacter mori                                                                                                                                                                    |       |         |
| ORGANISM: Enterobacter mori                                                                                                                                                                  |       |         |
| REFERENCE: 1 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Kishor, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with pineapple juice                                                                                                                        |       |         |
| REFERENCE: 2 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Kishor, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Jan-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |

## Klebsiella pneumoniae strain PRPC2 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ518422.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ518422.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ518422.1 1587 bp DNA Linear RT 10-Jan-2020                                                                                                                                          |       |         |
| DEFINITION: Klebsiella pneumoniae strain PRPC2 16S ribosomal RNA gene, partial sequence.                                                                                                     |       |         |
| ACCESSION: PZ518422.1                                                                                                                                                                        |       |         |
| VERSION: PZ518422.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Klebsiella pneumoniae                                                                                                                                                                |       |         |
| ORGANISM: Klebsiella pneumoniae                                                                                                                                                              |       |         |
| REFERENCE: 1 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Kishor, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with pineapple juice                                                                                                                        |       |         |
| REFERENCE: 2 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Kishor, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Jan-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |

## Klebsiella pneumoniae strain PRPC3 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ501994.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ501994.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ501994.1 1587 bp DNA Linear RT 10-Jan-2020                                                                                                                                          |       |         |
| DEFINITION: Klebsiella pneumoniae strain PRPC3 16S ribosomal RNA gene, partial sequence.                                                                                                     |       |         |
| ACCESSION: PZ501994.1                                                                                                                                                                        |       |         |
| VERSION: PZ501994.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Klebsiella pneumoniae                                                                                                                                                                |       |         |
| ORGANISM: Klebsiella pneumoniae                                                                                                                                                              |       |         |
| REFERENCE: 1 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Kishor, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with pineapple juice                                                                                                                        |       |         |
| REFERENCE: 2 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Kishor, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Jan-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |

## Bacillus cereus strain PRCDC2 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ449411.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ449411.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ449411.1 1547 bp DNA Linear RT 10-Nov-2020                                                                                                                                          |       |         |
| DEFINITION: Bacillus cereus strain PRCDC2 16S ribosomal RNA gene, partial sequence.                                                                                                          |       |         |
| ACCESSION: PZ449411.1                                                                                                                                                                        |       |         |
| VERSION: PZ449411.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Bacillus cereus                                                                                                                                                                      |       |         |
| ORGANISM: Bacillus cereus                                                                                                                                                                    |       |         |
| REFERENCE: 1 (bases 1 to 1547)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with dragon fruit pulp                                                                                                                      |       |         |
| REFERENCE: 2 (bases 1 to 1547)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Nov-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |

## Streptococcus salivarius strain PRCDC1 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ449380.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ449380.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ449380.1 1542 bp DNA Linear RT 10-Nov-2020                                                                                                                                          |       |         |
| DEFINITION: Streptococcus salivarius strain PRCDC1 16S ribosomal RNA gene, partial sequence.                                                                                                 |       |         |
| ACCESSION: PZ449380.1                                                                                                                                                                        |       |         |
| VERSION: PZ449380.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Streptococcus salivarius                                                                                                                                                             |       |         |
| ORGANISM: Streptococcus salivarius                                                                                                                                                           |       |         |
| REFERENCE: 1 (bases 1 to 1542)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with dragon fruit pulp                                                                                                                      |       |         |
| REFERENCE: 2 (bases 1 to 1542)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Nov-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |

## Bacillus cereus strain PRCDC2 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ449411.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ449411.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ449411.1 1547 bp DNA Linear RT 10-Nov-2020                                                                                                                                          |       |         |
| DEFINITION: Bacillus cereus strain PRCDC2 16S ribosomal RNA gene, partial sequence.                                                                                                          |       |         |
| ACCESSION: PZ449411.1                                                                                                                                                                        |       |         |
| VERSION: PZ449411.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Bacillus cereus                                                                                                                                                                      |       |         |
| ORGANISM: Bacillus cereus                                                                                                                                                                    |       |         |
| REFERENCE: 1 (bases 1 to 1547)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with dragon fruit pulp                                                                                                                      |       |         |
| REFERENCE: 2 (bases 1 to 1547)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Nov-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |

## Weissella cibaria strain PRCCC4 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ493124.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ493124.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ493124.1 1587 bp DNA Linear RT 10-Jan-2020                                                                                                                                          |       |         |
| DEFINITION: Weissella cibaria strain PRCCC4 16S ribosomal RNA gene, partial sequence.                                                                                                        |       |         |
| ACCESSION: PZ493124.1                                                                                                                                                                        |       |         |
| VERSION: PZ493124.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Weissella cibaria                                                                                                                                                                    |       |         |
| ORGANISM: Weissella cibaria                                                                                                                                                                  |       |         |
| REFERENCE: 1 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with green chutney                                                                                                                          |       |         |
| REFERENCE: 2 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Jan-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |

## Weissella cibaria strain PRCCC5 16S ribosomal RNA gene, partial sequence

|                                                                                                                                                                                              |       |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|
| GenBank: PZ493276.1                                                                                                                                                                          | FASTA | GenBank |
| Accession: PZ493276.1                                                                                                                                                                        | FASTA | GenBank |
| LOCUS: PZ493276.1 1587 bp DNA Linear RT 10-Jan-2020                                                                                                                                          |       |         |
| DEFINITION: Weissella cibaria strain PRCCC5 16S ribosomal RNA gene, partial sequence.                                                                                                        |       |         |
| ACCESSION: PZ493276.1                                                                                                                                                                        |       |         |
| VERSION: PZ493276.1                                                                                                                                                                          |       |         |
| KEYWORDS: -                                                                                                                                                                                  |       |         |
| SOURCE: Weissella cibaria                                                                                                                                                                    |       |         |
| ORGANISM: Weissella cibaria                                                                                                                                                                  |       |         |
| REFERENCE: 1 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Isolation of bacteria from food fermented with green chutney                                                                                                                          |       |         |
| REFERENCE: 2 (bases 1 to 1587)                                                                                                                                                               |       |         |
| AUTHOR: Naha, A., Sankar, S., Sankar, S., Sankar, S., Sankar, S., Sankar, S., and Sankar, S.                                                                                                 |       |         |
| TITLE: Direct Substitution                                                                                                                                                                   |       |         |
| JOURNAL: Submitted (20-Jan-2020) Medical Biotechnology and Computational Drug Designing Laboratory, Postgraduate Institute of Medical Sciences and Research Centre, Ranchi, Jharkhand, India |       |         |



## PRC ACADEMIC EXCELLENCE AWARD – HONOURING OUR BEST OUTGOING STUDENTS AND UNIVERSITY/COLLEGE TOPPERS

### UNIVERSITY TOPPERS:

- Ms. Anjana Venugopal – M.Sc. Biochemistry (2023-25) – 3rd Rank
- Ms. Megha Madhu – M.Sc. Biotechnology (2023-25) – 6th Rank
- Ms. Sona Sunil CK – M.Sc. Biochemistry (2023-25) – 9th Rank
- Ms. Ramsana Rahim – B.Sc. Medical Genetics (2024-26) – 1st Rank (Gold Medallist)



### COLLEGE TOPPERS:

- Ms. Amina Haris – M.Sc. Biotechnology (2021-23) – 1st Rank
- Ms. Treesa Sani – M.Sc. Biochemistry (2021-23) – 1st Rank
- Ms. Elizabeth Annie George – M.Sc. Biochemistry (2021-23) – 3rd Rank
- Ms. Sreelakshmi B – M.Sc. Biochemistry (2022-24) – 1st Rank
- Mr. Adwaith S – M.Sc. Biochemistry (2022-24) – 2nd Rank
- Ms. Minu Joy – M.Sc. Biotechnology (2023-25) – 1st Rank
- Ms. Ashitha Ashish – M.Sc. Microbiology (2022-24) – 5th Rank





## PRESENTATIONS IN INTERNATIONAL CONFERENCES

**Mr. Libin Samuel Mathew**, Research Trainee from Cytogenetics and Biochemistry Lab delivered an oral presentation titled “Synthesis, Characterization and Evaluation of Casein Functionalized Iron Oxide Nanoparticles for Rutin Delivery”, a work done under the guidance of Dr. Soumya R S, Scientist, Cytogenetics and Biochemistry Lab at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. The presentation focused on the synthesis, physicochemical characterization, and evaluation of casein-functionalized iron oxide nanoparticles as a potential carrier system for the delivery of rutin



**Mr. Jeff George**, Project Student from Cytogenetics and Biochemistry Lab delivered an oral presentation titled “In vitro Evaluation of Allamanda cathartica Extract Effect on Inflammatory Signalling Pathways in RAW 264.7 Cell Lines” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. Under the supervision of Dr. Soumya R. S., his research investigated how the methanolic flower extract modulates inflammatory responses and affects cell viability. The presentation detailed the extract's targeted interaction with inflammatory signaling mechanisms in RAW 264.7 macrophage models, emphasizing its therapeutic potential as a biocompatible anti-inflammatory agent.

**Ms. Sandra Ann Philip**, BSc student from Department of Life Sciences, Christ (Deemed to be) University, Bangalore delivered an oral presentation titled “Evaluation of Phytochemical Constituents and Therapeutic Potential of Methanolic Extract of Cissus quadrangularis Stem Through Antioxidant Studies” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. This study was performed under the supervision of Dr. Soumya R S, Scientist, Cytogenetics and Biochemistry Laboratory, PRC. The presentation outlined the characterization of bioactive compounds using UV-Vis, FTIR, and HPLC analysis, alongside various antioxidant profiling assays of the methanolic extract of Cissus quadrangularis. The study emphasized that the extract maintained HepG2 cellular morphology at lower concentrations and exhibited significant antioxidant activities, supporting its traditional medicinal use and potential as a valuable natural source of therapeutic agents.







**Ms. Lakshmi Priya K. J.**, BSc student from Department of Life Sciences, Christ (Deemed to be) University, Bangalore delivered an oral presentation titled “Exploring Oldenlandia corymbosa: A Natural Source of Bioactive Antioxidants, an In vitro Study” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. This study was performed under the supervision of Dr. Soumya R S, Scientist, Cytogenetics and Biochemistry Laboratory, PRC. The presentation focused on the phytochemical characterization, UV-Vis and FT-IR analysis, and multiple antioxidant assays of the methanolic extract of Oldenlandia corymbosa. The findings highlighted its low cytotoxicity towards normal L6 cells alongside considerable cytotoxic effects on HepG2 liver cancer cells, demonstrating its potential therapeutic value as a natural source of antioxidants with anticancer applications

**Ms. Devika Govind**, BSc student from Department of Life Sciences, Christ (Deemed to be) University, Bangalore delivered an oral presentation titled “A Study on Phytochemical Composition and Antioxidant Activity of Ethanolic Leaf Extract of Euphorbia hirta” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. This study was performed under the supervision of Dr. Soumya R S, Scientist, Cytogenetics and Biochemistry Laboratory, PRC. The presentation highlighted the chemical profile, HPLC analysis of major phenolic compounds, and strong antioxidant capacity of the ethanolic leaf extract of Euphorbia hirta, demonstrating its lack of significant cytotoxicity against HepG2 cells and its potential suitability for future pharmaceutical and nutraceutical applications.



**Ms. Ritty Gold P P**, Project Assistant, Cytogenetics and Biochemistry Laboratory delivered an oral presentation titled “Fatty acid Methyl Esters Induced Hepatic Steatosis in HepG2 cells; A Multi Parameter In vitro Evaluation”, a work done under the guidance of Dr. Soumya R S, and Dr. Mathew John at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. The study was conducted through a collaboration between the Cytogenetics & Biochemistry Laboratory, Pushpagiri Research Centre, Thiruvalla, and Jubilee Mission Medical College and Research Centre, Thrissur, Kerala.



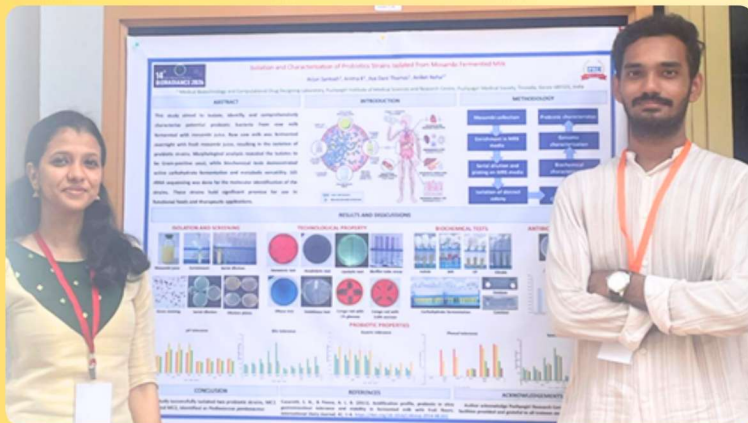
**Ms. Jiya Dani Thomas**, Project Student from Medical Biotechnology and Computational Drug Designing Laboratory delivered an oral presentation titled “Exploring the Antibacterial Potency of Indian Medicinal Plants in Tackling the Antimicrobial Resistance of Nosocomial Pathogens” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. This study was performed under the supervision of Dr. Aniket Naha, Scientist, Medical Biotechnology and Computational Drug Designing Laboratory, PRC.



**Mr. Sreedev Sreekumar**, Project Student from Medical Biotechnology and Computational Drug Designing Laboratory delivered an oral presentation titled “Probiotic Bacteria from Milk Fermented with Pineapple Juice - An In - Vitro Study” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. This study was performed under the supervision of Dr. Aniket Naha, Scientist, Medical Biotechnology and Computational Drug Designing Laboratory, PRC.

**Ms. Aishwarya Nair**, Project Student from Medical Biotechnology and Computational Drug Designing Laboratory delivered an oral presentation titled “Isolation and Characterization of Probiotic Bacteria from Dragon Fruit Fermented Milk” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. This study was performed under the supervision of Dr. Aniket Naha, Scientist, Medical Biotechnology and Computational Drug Designing Laboratory, PRC.

**Mr. Arjun Santosh**, Project Student from Medical Biotechnology and Computational Drug Designing Laboratory presented his poster titled “Isolation and Characterization of Probiotics Strains Isolated from Mosambi Fermented Milk” at the 14th International Conference Bioradiance 2026 organized by Pushpagiri Research Centre on 29th and 30th May, 2026. This study was performed under the supervision of Dr. Aniket Naha, Scientist, Medical Biotechnology and Computational Drug Designing Laboratory, PRC.





**Mr. Libin Samuel Mathew**, Research Trainee from Cytogenetics and Biochemistry Lab delivered an oral presentation titled “Green-Synthesized Casein-Coated Iron Oxide Nanoparticles for Rutin Delivery: Synthesis, Characterization, and Biocompatibility Assessment”, a work done under the guidance of Dr. Soumya R S, Scientist, Cytogenetics and Biochemistry Lab at BioSpectrum 2K26 International Conference, held at Mar Athanasios College for Advanced Studies, Thiruvalla, on 17–18 June 2026. The presentation highlighted the development, characterization, and biocompatibility evaluation of green-synthesized casein-coated iron oxide nanoparticles as a promising drug delivery system for rutin.



**Mr. Jeff George**, Project Student from Cytogenetics and Biochemistry Lab delivered an oral presentation titled “Investigation of the Anti-inflammatory Properties and Cytotoxicity of Allamanda cathartica Methanolic Flower Extract in RAW 264.7 cells” at the BioSpectrum 2K26 International Conference on Recent Advances in Biological Sciences, held at Mar Athanasios College for Advanced Studies, Thiruvalla, on 17–18 June 2026. The work, conducted under the supervision of Dr. Soumya R. S., highlighted the therapeutic potential and toxicity profile of the allamanda cathartica methanolic flower extract, evaluating its cytotoxic effects and anti-inflammatory properties in RAW 264.7 macrophage cells.

**Ms. Ritty Gold P P**, Project Assistant, Cytogenetics and Biochemistry Laboratory delivered an oral presentation titled “Multi-Parametric Assessment of Fatty Acid Methyl Ester Toxicity in HepG2 Cells: An In Vitro Evaluation”, a work done under the guidance of Dr. Soumya R S, and Dr. Mathew John in BioSpectrum 2K26, an international Conference on Recent Advances in Biological Sciences, held at Mar Athanasios College for Advanced Studies, Thiruvalla on 17–18 June 2026. The study was conducted through a collaboration between the Cytogenetics & Biochemistry Laboratory, Pushpagiri Research Centre, Thiruvalla, and Jubilee Mission Medical College and Research Centre, Thrissur, Kerala.





1. Thomas JT, Joseph B, Varghese S, Thomas NG, S K, Thomas T, Sorsa T, Anil S and Waltimo T (2026) Salivary biomarker profiling in prediabetes-associated periodontitis: role of adiponectin, resistin, and total matrix metalloproteinase-8. *Front. Dent. Med.* 7:1873996. doi: 10.3389/fdmed.2026.1873996



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## Salivary biomarker profiling in prediabetes-associated periodontitis: role of adiponectin, resistin, and total matrix metalloproteinase-8

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Nebu George Thomas<sup>1</sup>, Kavya S<sup>1</sup>, Toby Thomas<sup>1</sup>, Timo Sorsa<sup>1,4</sup>,  
Sukumaran Anil<sup>1,5</sup> and Tuomas Waltimo<sup>1,5</sup>

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**Aim:** This study evaluated the diagnostic potential of salivary total matrix metalloproteinase-8 (mMMP-8), adiponectin, and resistin in prediabetic adults with and without periodontitis and examined their associations with systemic and periodontal parameters.

**Materials and methods:** Systemically healthy and prediabetic adults, categorized by periodontal status, underwent clinical, anthropometric, and metabolic assessments. A total of 84 adults aged 25–55 years were enrolled and stratified into four groups: prediabetes with periodontitis (PreDM-PD, n = 24), prediabetes with periodontal health (PreDM-PH, n = 19), systemically healthy with periodontitis (SH-PD, n = 22), and systemically healthy and periodontally healthy controls (SH-PH, n = 19). Unstimulated saliva was collected to quantify mMMP-8, adiponectin, and resistin by sandwich ELISA. Statistical analyses included group comparisons (one-way ANOVA with Bonferroni post-hoc correction; Kruskal-Wallis with Dunn's test for non-normally distributed variables), correlation analysis of biomarkers with systemic and periodontal measures, and principal component analysis (PCA) to define a composite inflammatory profile.

**Results:** Participants with periodontitis had significantly higher periodontal parameters ( $p < 0.001$ ). Salivary mMMP-8 was elevated in prediabetic individuals with periodontitis compared to other groups ( $p < 0.001$ ), whereas adiponectin was lower in prediabetic groups versus controls ( $p < 0.01$ ). mMMP-8 correlated positively with BMI, HbA1c, probing pocket depth (PPD), and clinical attachment loss (CAL). Adiponectin inversely correlated with HbA1c, PPD, CAL, and bleeding on probing. Resistin showed a weak positive correlation with CAL. PCA revealed an inflammatory profile (high mMMP-8, low adiponectin) explaining 37.1% of variance (KMO = 0.58; Bartlett's  $\chi^2 = 22.86$ ,  $p < 0.001$ ), effectively distinguishing prediabetic with periodontitis from healthy controls (AUC = 0.925,  $p < 0.001$ ; sensitivity 87.5%, specificity 89.5%, Youden J = 0.77) and showing acceptable accuracy in periodontal health. Between-group differences for mMMP-8, adiponectin, PPD, CAL, and BOP remained statistically significant after adjustment for age (ANCOVA, all  $p < 0.01$ ).



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## A 4-methyl-substituted durlobactam analogue as a potential class-D oxacillinase inhibitor in *Acinetobacter baumannii*—an in silico study

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Sudha Ramalah<sup>1,2\*</sup>

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The emergence of extensively drug-resistant *Acinetobacter baumannii* expressing oxacillinases poses a significant challenge in nosocomial settings. Despite durlobactam being a potent  $\beta$ -lactam inhibitor, its long-term efficacy is limited, particularly against class-D  $\beta$ -lactamase-producing strains. In this study, an integrated computational approach was utilized to characterize a library of durlobactam analogues against two expressed class-D oxacillinases (OXA23 and OXA58) from the whole-genome sequences of pan-Indian clinical isolates. Tanimoto coefficient-based virtual screening identified analogues retaining the key pharmacophoric features of durlobactam. Pharmacokinetics and toxicity profiling indicated favourable drug-like properties with minimal predicted toxicity. Molecular docking and interaction analyses revealed a 4-methyl-substituted durlobactam analogue (CHEMBL3140305) exhibiting strong interactions with active serine residues (S79 for OXA23 and S83 for OXA58) within the conserved S-X-X-K motif that is critical for enzymatic activity of both  $\beta$ -lactamases. Quantum chemical simulations supported the structural stability and favourable reactivity profile of the predicted lead molecule. Molecular dynamics simulation further demonstrated stable and compact binding, characterized by persistent hydrogen bonding and a favourable thermodynamics profile. Binding free calculations and essential dynamics corroborated the affinity and conformational flexibility across both oxacillinases. Overall, in this computational study, we identify a 4-methyl-substituted durlobactam analogue as a promising expropriatory inhibitor of oxacillinases, thus offering a basis for further experimental validations.

**KEYWORDS**  
*Acinetobacter baumannii*, molecular dynamics simulation, oxacillinases, quantum chemical simulations, S-X-X-K motif

### 1 Introduction

*Acinetobacter baumannii*, an opportunistic, Gram-negative, non-fermentative coccobacillus, has been identified as a significant cause of nosocomial outbreaks, including urinary tract infections, ventilator-associated pneumonia, and bloodstream

2. George EA, Naha A and Ramaiah S (2026) A 4-methyl-substituted durlobactam analogue as a potential class-D oxacillinase inhibitor in *Acinetobacter baumannii*—an in silico study. *Front. Bioinform.* 6:1790411. doi: 10.3389/fbinf.2026.1790411