RESEARCH CENTRE NEWS

Pushpagiri Research Centre (PRC) has successfully organized and conducted the 12th annual conference, Bioradiance – 2024, spanned from 16th – 18th May, 2024. This year's conference, themed "Frontiers in Antimicrobial Sciences: International Conference on Global Advances & Updates on Antimicrobial Research and Resistance Strategies", saw its expansion to an international platform, drawing over 250 delegates from more than 25 institutes have participated and over 64 abstracts for oral and poster presentations were received under basic and medical research from across the globe in hybrid mode. The conference was co-sponsored by the Department of Biotechnology (DBT), New Delhi and the Kerala State Council for Science, Technology and Environment (KSCSTE) implicating the importance of antibiotic stewardship and one-health approach programmes in alignment to Nation's health plans schemes. The Kerala University of Health Sciences (KUHS) have wholeheartedly endorsed the programme and supported with us with medical and dental credit points. The inaugural session witnessed esteemed dignitaries gracing the occasion and lighting the holy lamp. Significant personnel being Prof. Dr. Mohanan Kunnummal, Vice Chancellor of KUHS who has honored the event as the Chief Guest. Highlighting on the motto of the conference 'Defeat Superbugs, Preserve Future', Prof. Kunnummal highlighted the importance of such conferences and congratulated the organizing team for discussing such significant topics at a conference of such international standardand emphasized growth of research cultures in medical college setups. Motivating doctors and scientists, he highlighted that importance of translational research as the need of the hour in clinical health care settings. Prof. Dr. Nandakumar Kalarikkal, Senior Professor from Mahatma Gandhi University, was the Guest of Honour who too highlighted the emerging trends of multi-drug resistance and extensively drug resistance bacterial isolates in recent years. Rev. Dr. Mathew Mazhavancheril, Director & Head, PRC, delivered the Welcome Speech, followed by an inspiring Presidential Address by Rev. Dr. Biju Varghese, CEO of Pushpagiri Group of Institutions. Additionally, Rev. Fr. George Valiyaparambil (Director, PIMS&RC), Dr. Jacob Abraham (Vice principal, PG Academics) and Prof. Dr. A. Devadathan (Dean Dentistry, KUHS) graced the event with their felicitation addresses. Dr. Aniket Naha, Scientist-PRC and General Secretary – BIORADIANCE-2024 extended heartfelt thanks to all the delegates on and off the dais, plenary speakers, participants, organizing committee and all who have helped for the successful conduction of the conference. A total of 12 national and international speakers, stalwarts in the field of antimicrobial drug discovery has delivered their plenary talks on topics such as Antibiotic Stewardship, One Health Approach, Sustainable Therapy, AMR Surveillance, Machine Learning, and Artificial Intelligence. The international and national delegates were Prof. Mark Toleman and Prof. Dr. Paul Livingstone from Cardiff Metropolitan University, UK; Prof. Donghyuk Kim (UNIST, South Korea), Dr. Anand Manoharan (GSK, UK); Prof. Anand Anbarasu (Vellore Institute of Technology, Vellore); Dr. Maneesh Paul (Microvioma, Bangalore); Prof. Murugan Sevanan (Karunya Institute of Technology and Sciences, Coimbatore); Prof. Dr. Anindya Sundar Ghosh (Indian Institute of Technology, Kharagpur), Prof. Perumal Vivekanandan (Indian Institute of Technology, Delhi); Prof. Dr. Amitabha Bhattacharjee (Assam University, Silchar); Dr. Karthik Gunasekaran (Christian Medical College & Hospital); Dr. Muruganandam Nagarajan (Regional Medical Research Centre, ICMR). A consultive meeting and discussion on collaborative action plan to tackle AMR engaged delegates and faculties of PRC along with research scholars from different universities. The meeting was presided by Prof. Anand Anbarasu and active involvement of Dr. Maneesh, Dr. Anindya, Dr. Paul and Dr. Perumal. The meeting displayed the research strengths and expertise of individual and planned for future joint collaborations, patents and big-grants proposal aids. The event concluded with a cultural flavour, with captivating dance performances showcasing Kerala's rich heritage by the talented students of Pushpagiri Institute of Medical Sciences and Research Centre, Pushpagiri College of Dental Sciences, and Pushpagiri College of Nursing. The conference ended with technical visits of delegates to the Research Centre Visit, visit to CCSEA and IAEC approved Animal House facilities by delegates and scholars. The valedictory session ended with prize distribution to the winners and runners-up students, research scholars and faculty/scientists for oral and poster presentations under medical and basic research category. Valedictory session concluded upon welcome speech by Mr. George Varghese, coordinator PRC, presidential address by Rev. Dr. Mathew Mazhavancheril, Director & Head, PRC, keynote address by Prof. Dr. Nebu George Thomas, additional secretary of BIORADIANCE, feedback address by Dr. Paul Livingstone and vote of thanks by Dr. Yogesh Bharat Dalvi, Scientist and Convenor – BIORADIANCE. The programme ended on a high note with National Anthem being sung by all attendees.



From left to right: Dr Aniket Naha (Secretary & Scientist), Dr Yogesh Bharat Dalvi (Convenor & Scientist), Prof. Anand Anbarasu (Chairperson), Rev. Dr. Mathew Mazhavancheril (Patron, Director & Head), Prof. Nandakumar Kalarikkal (Guest of Honour), Prof. Dr. Mohanan Kunnummal (Chief Guest), Rev. Dr. Biju Varghese (CEO), Rev. Fr. George Valiyaparambil (Director), Dr. Jacob Abraham (Vice Principal), Prof. A. Devadathan (Dean Dentistry, KUHS) and Prof. Nebu George Thomas (Additional Secretary)



Pushpagiri Research Centre Hosts One-Day Hands-On Clinical Skills Workshop













Pushpagiri, Tiruvalla, May 23, 2024 — The Pushpagiri Research Centre (PRC), PIMS&RC, organized a one-day hands-on training workshop titled **"Unlock your Potential: Clinical Skills Workshop"**. The event took place from 10 am to 4 pm and saw enthusiastic participation from 21 attendees, including 13 from Kerala and 8 from states such as Maharashtra, Uttar Pradesh, Bihar, and Manipur.

The workshop featured prominent resource persons: **Dr. Robinson George** (Professor of General Surgery, Skill Lab and Programme Director, PIMS & RC), **Dr. Yogesh Bharat Dalvi** (Scientist, PRC, PIMS & RC), and **Dr. Aniket Naha** (Scientist, PRC, PIMS & RC)

WORKSHOP HIGHLIGHT

Welcome Address

Dr. Aniket Naha welcomed the participants, emphasizing the significance of the workshop in the current research landscape.

Inaugural Address

Rev. Fr. Mathew Thundiyil, Hospital Administrator, highlighted the critical importance of clinical skills and the strong support from Pushpagiri's management. He also praised Dr. Robinson George for his expert guidance.

Felicitation

Prof. Dr. Vikram Gowda, Vice Principal, expressed appreciation for the overwhelming response to the workshop. He underscored the value of clinical skills, such as suturing, traditionally reserved for medical students, now accessible to MSc life science students through this initiative. He commended Dr. Robinson George for his comprehensive instruction.

Vote of Thanks

Dr. Yogesh Bharat Dalvi extended gratitude to all, including Rev. Fr. Mathew Mazhavancheril (Director and Head, PRC), the Pushpagiri management, technical IT team, Skill Lab secretariat, PRC team, and participants. He acknowledged Dr. Robinson George's innovative idea and Rev. Fr. Mathew's support.

Workshop Sessions

The workshop began with an introduction to clinical basic equipment, such as needles, types of sutures, tissue anatomy, and wound healing. Dr. Robinson George demonstrated the three steps of suturing skills: Load, Hold, and Bite, using a projector and SONY Handycam for clarity. Participants practiced these steps on artificial skin provided in their kits, with Dr. Robinson George, Dr. Yogesh Dalvi, and Dr. Aniket Naha offering guidance and feedback. After a lunch break, the afternoon session covered suture setting and eversion techniques. Participants practiced these skills until the workshop concluded at 4 pm with participants providing spontaneous positive feedback on the training provided during the workshop.

Outcome

Participants left the workshop equipped with essential skills for survival surgeries and implant n operations in preclinical research. The event was a significant step towards enhancing practical clinical skills among life science students, promising to benefit their future research endeavors. Pushpagiri Research Centre thanks all attendees and contributors for making this workshop a resounding success and looks forward to organizing more such workshops in the future to continue enhancing clinical skills and research capabilities.

Molecular Biology Workshop: Unraveling the Secrets of Life

Pushpagiri, Tiruvalla, May 28, 2024 — The Pushpagiri Research Centre (PRC), PIMS&RC, successfully organized a one-day hands-on training workshop titled "Molecular Biology Workshop: Unraveling the Secrets of Life." The event, held from 9am to 5pm, attracted enthusiastic participation from 22 attendees, including 14 from Kerala and 8 from states such as Maharashtra, Uttar Pradesh, Bihar, and Manipur.

Collaboration and Sponsorship

The workshop was conducted in collaboration with Origin Diagnostics & Research company, which sponsored the consumables and provided expert guidance from:

- Dr. Maneesh Mailankot (CEO, Origin Diagnostics and Research)
- Dr. Aditya Menon (Scientist and GM, Origin Diagnostics and Research)
- Mr. Atul Philip Varghese (Manager, OEM & Overseas Operations, Origin Diagnostics and Research)

Resource Persons

- Dr. Yogesh Bharat Dalvi (Scientist, PRC, PIMS&RC)
- Dr. Saumya RS (Scientist, PRC, PIMS&RC)

Workshop Focus

The workshop provided comprehensive training on fundamental molecular biology techniques, including nucleic acid (DNA/RNA) extraction, quantification using a spectrophotometer, gel electrophoresis, PCR amplification, and result interpretation.

Workshop Highlights

Welcome Address

Dr. Aniket Naha welcomed the participants, emphasizing the significance of the workshop inadvancing current molecular biology research.

Presidential Address

Rev. Dr. Mathew Mazhavancheril, Director and Head of Pushpagiri Research Centre, shared his extensive hands-on experience in molecular biology techniques from his PhD at Pune University. He highlighted the crucial role of molecular techniques in both basic and advanced research and showcased PRC's state-of-the-art facilities. Dr. Mathew reiterated the center's mission to ignite curiosity in budding researchers and provide them with an open platform for scientific endeavors.

Inaugural Address

Rev. Fr. George Valiyaparambil, Director of PIMS&RC, underscored the importance of hands-on training in molecular biology, noting its applications in genetic research, clinical diagnostics, biotechnology industries, and academic research.

Guest of Honour

Dr. Maneesh Mailankot, CEO of Origin Diagnostics & Research, motivated participants by sharing his journey from his early days at Pushpagiri Research Centre to his current role.

Felicitation

Dr. Reena Thomas, Principal of the Medical College, expressed appreciation for the workshop's overwhelming response. She emphasized current research trends and the importance of bridging the gap between clinical and molecular research through such workshops.

Vote of Thanks

Dr. Yogesh Bharat Dalvi extended gratitude to all, including Rev. Dr. Mathew Mazhavancheril, Rev. George Valiyaparambil, Dr. Reena Thomas, the technical teams (IT & Biomedical), the Origin Diagnostics and Research fraternity, the PRC team, and the enthusiastic participants.

Workshop Sessions

The workshop began with an introductory seminar by Dr. Aditya Menon and Mr. Atul Philip Varghese on the basics of DNA & RNA extraction, quantification, gel electrophoresis, and PCR. During the pre-lunch session, participants performed PCR and bacterial DNA & RNA isolation using chemicals and kits provided by Origin. The post-lunch session involved quantifying DNA and RNA in samples, followed by quality testing using gel electrophoresis. The successful extraction and quality confirmation of DNA and RNA were indicated by good intensity bands in gel electrophoresis.

Outcome

Participants from diverse fields gained hands-on training in fundamental molecular biology techniques. PRC thanks all attendees and contributors for making this workshop a resounding success and looks forward to organizing future workshops to continue enhancing molecular biology research.

Future Endeavours

In discussions with the Research Director and PRC scientists, Dr. Maneesh Mailankot proposed the establishment of a Product Development Cell under PRC as a Technology Business Incubator. This initiative aims to translate medical research into products by collaborating with various companies and developing indigenous products. The Research Director expressed interest and promise to initiated discussions within PRC and Pushpagiri Management.

