



MANIPAL

ACADEMY of HIGHER EDUCATION

(Deemed to be University under Section 3 of the UGC Act, 1956)

MAHE Research Bulletin

Oct- Dec 2019



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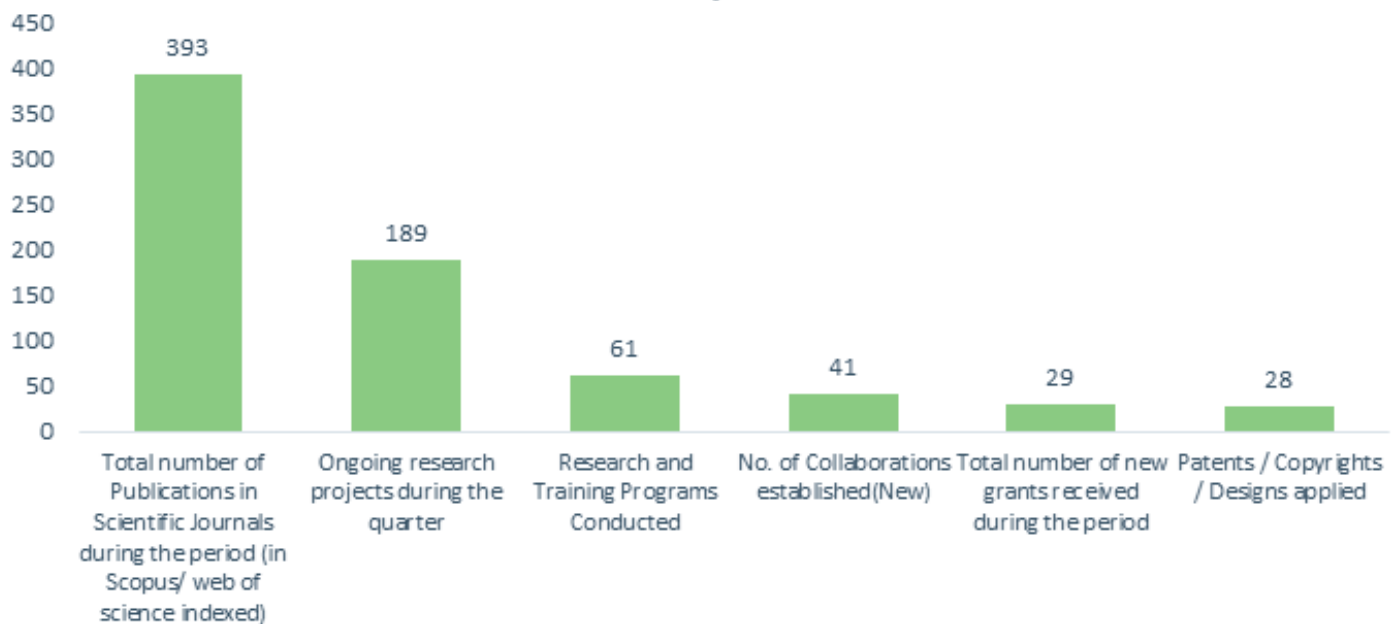
Activities of MAHE Students' Research Forum (MAHE-SRF)

Part I

Manipal Academy of Higher Education (MAHE), an institute of eminence, is one of the premier universities in India. MAHE considers both academics and research equally important for the betterment of an institution. Faculty members, research scholars and students at MAHE have embraced the research culture. They publicize their research work in scientific journals, conference presentations, obtaining patents, research grants etc. In this report, we present to you **an overview of the research activities** of MAHE during the period **October - December 2019**.

A. Details of research activities of MAHE for the period Oct- Dec 2019

Research Output of MAHE



B. Faculty and institution achievements

1. Dr Manjunath K N, Associate Professor, CSE, MIT, presented his research work and participated in the Global Clinical Engineers' day at the University of Cattolica Sacro Due Cuore, Rome, Italy, in a Clinical Engineering congress conducted by International Federation of Medical and Biological Engineering Society (IFMBE and IUPESM, France), during October 20-23, 2019.
2. Dr Neeta Inamdar, Head, Manipal Centre for European Studies, MAHE, was awarded the Erasmus+ scholarship for a teaching assignment at the University of Tallinn, Estonia.
3. Dr Venkataraja Aithal U, Professor, Department of Speech and Hearing, MCHP received faculty fellowship DUO-INDIA to develop stimuli sets for bilingual speakers to test specific questions on language production, and adapt and develop experimental paradigms to test Indian populations.



4. Dr Shivani Tiwari and Dr Sunila John, Associate Professors, Department of Speech and Hearing, MCHP, Lead Co-Investigators, received a GCRF-Supporting Oral Language Development research grant for the period January 2020-December 2022.



5. Dr G Arunkumar, Director, Manipal Institute of Virology was invited by Erasmus MC, University Medical Center Rotterdam to deliver a guest talk on Nipah and KFD in the symposium "Global Health in Perspective" during Nov 7-8, 2019 as part of the Global Health Education program in Rotterdam, The Netherlands.
6. Dr Sudha Warriar, Additional Professor, Manipal Institute of Regenerative Medicine (MIRM), Bangalore received a travel award for attending and presenting a paper titled "Cancer Stem Cells: Advances in Biology and Clinical Translation" at The University of Hong Kong - Pok Fu Lam, Hong Kong during Oct 13-17, 2019. Dr Sudha was also invited as guest speaker for 2nd International Conference on Cancer Biology and Cell Science, Kuala Lumpur, Malaysia, during Nov 23-24, 2019.
7. Dr Uttara Chakraborty, Assistant Professor, MIRM, Bangalore received a travel award for attending the 12th Annual Meeting of The Cytometry Society, India (TCS) and was an invited guest speaker for a conference talk titled "Excerpts from CYTO 2019- Annual Congress of the International Society for Advancement of Cytometry (ISAC)" organized by the Department of Hematology, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, Oct 9-12, 2019.
8. Dr Manasa Nune, Assistant Professor, MIRM, Bangalore received a DST-SERB Start-up grant during Nov 2019. She also secured the University of New South Wales (UNSW) – MAHE Collaborative Research Seed Funding along with Dr Vipul Agarwal, UNSW Engineering during December 2019.
9. A research grant has been granted for a period of one year, by the Public Health Foundation of India (PHFI) to an inter-disciplinary team of five public health researchers from MAHE. The grant is awarded to study the effectiveness of a mobile devices based intervention for chronic disease management among pre and peri-menopausal women in India. The team is headed by the principal investigator, Dr Sonia R B D'Souza from the Manipal College of Nursing. Dr Rohini R Rao and her student team from the Department of Computer Applications is designing and implementing a technology based intervention for the project.

10. Dr Raghuvir Pai B, Professor, Department of Mechanical and Manufacturing Engineering, Manipal Institute of Technology (MIT) along with Dr Abdul Khader and Dr Ganesh Kamath, were awarded the DST-JSPS International Bilateral Cooperation Grant (2019-2021) for research collaboration between Department of Mechanical and Manufacturing Engineering, MIT and Dr Masaaki Tamagawa, School of Life Sciences and Systems Engineering, Kyushu Institute of Technology, Japan. Under this project, there will be reciprocal exchange visits by faculty and students of both universities to pursue research in biomechanics of carotid artery.
11. Dr Amit Kumar Haldar, Assistant Professor, Department of Mechanical and Manufacturing Engineering, MIT has been selected for one-year post-doctoral fellowship from Jan 2019 to Jan 2020 at the National University of Ireland, Galway.
12. Dr Nagaraja K K, Assistant Professor, Department of Physics, MIT was conferred a visiting fellowship for the year 2018-2020 from the Ministry of Science and Education of Russian Federation to carry out a joint research work at the Department of Theoretical Physics and Quantum Technologies, National University of Science and Technology (QS world ranking-451), Moscow. He visited Moscow during May-June 2019 and Oct-Nov 2019 for a period of 60 days as a part of this collaboration.
13. The Manipal Institute of Technology's MSc Geology students (a team of 11) got a unique opportunity to get trained on sediment and organic matter sampling techniques on-board the Fishery Oceanography Research Vessel (FORV) Sagar Sampada during Dec 9-11, 2019, under the supervision of Dr K Balakrishna, Professor of Geology, Department of Civil Engineering, MIT, Manipal. Dr Balakrishna was officiated as the Deputy Chief Scientist of the cruise no 393. Dr Are Shivaji, Senior Scientist, Centre for Marine Living Resources and Ecology (CMLRE) led the cruise as the Chief Scientist. The CMLRE, Kochi, a research laboratory owned by the Ministry of Earth Sciences (CMLRE), Government of India organized the cruise. This is only the second instance CMLRE has organized a dedicated cruise for the University students. This is an initiative of the Government of India to motivate young post-graduates to take up oceanographic research.
14. Dr Ganesh Mohan, Assistant Professor, Immunohematology and Blood Transfusion, Kasturba Medical College, Manipal has been appointed as the Coordinator for the "Comprehensive Centre for Benign Hematological Disorders" with effect from Dec 1, 2019 for a period of two years.
15. The ADRRIA (Adverse drug reaction-reporting identification and assessment) app was launched on Oct 23, 2019. The app was created by Dr Navin Patil and Dr Veena Nayak, Associate Professors, Department of Pharmacology, KMC, Manipal, Mr Akshay M J and Mr Arif Raza from Department Of Information and Communication Technology, MIT, Manipal.



16. Dr Annamma Kurien, Professor and Head, Department of Pathology, MMMC has been honoured with National award for 25 years of dedicated service for Haemophilia and for being the founder member of Haemophilia Society, Manipal chapter. Plaque and cash award instituted by Kannan Memorial Charitable Trust and Haemophilia Society Kunnankulam, Kerala was awarded on Nov 10, 2019.



17. Dr Shashikiran U, Professor and Head, Department of Medicine, Melaka Manipal Medical College received Fellowship of the Royal College of Physicians (FRCP) Edinburgh, UK on Nov 8, 2019.





18. SPINAK is a 3D Diagnostic and treatment planning tool for spinal disorders, jointly developed by Kumudha Health Tech Pvt Ltd, a unit under the Manipal Universal Technology Business Incubator (MUTBI) and Department of Orthopaedics, KMC, Manipal, MAHE. This is an innovative product designed and developed by Dr Sampath Kumar, Department of Electronics and Communications, Dr Hareesha K S, Department of Computer Applications, Manipal Institute of Technology, in association with Dr Shyamsunder Bhat, Department of Orthopaedics, Kasturba Medical College, Manipal on Nov 29, 2019.
19. Dr Nayanabhirama Udupa, Director, Research (Health Sciences), MAHE, Manipal received the prestigious “APTI - Shri Bhojraj Panjamool Life Time Achievement Award” from the Association of Pharmaceutical Teachers of India (APTI). The award was conferred to Dr Udupa for his outstanding contribution towards the -enrichment of pharmacy profession through academic, research and industry activities. The award ceremony was held during APTICON 2019 (24th Annual National Convention of APTI) which was organized by DIT University at Dehradun, Uttarakhand during Oct 11 - 13, 2019.

C. Achievements by research scholars and students

1. Ms Vidya Rao, Research Scholar, CSE, MIT received the “Best Paper award” for oral presentation in the “4th IEEE International Conference on Computational Systems and Information Technology for Sustainable Solutions (CSITSS 2019)”, which was held during Dec 20 – 21, 2019 at Bengaluru.
2. Ms Asha Wagware, student, MA European Studies, 2018-20, presented a paper titled, “Re-assessing the Western Balkan Enlargement and the Russian Revisionism” at EURINT conference 2019 at University of Iasi, Romania.



3. Dr Monika Jawanjal, second year, DM Registrar (Cardiology), KMC, Manipal received the first prize for e-poster titled, "Fibromuscular dysplasia with Bilateral Renal Artery stenosis; A rare case" at the 10th Manipal Cardiology Update 2019 held on Nov 1, 2019 at TMA Pai Auditorium KMC, Manipal.
4. Dr Prethika, Medical post graduate, second year, Immunohematology and Blood Transfusion, Kasturba Medical College, Manipal received second prize in poster competition held at 44th Annual Conference of Indian Society of Blood Transfusion and Immunohematology, at Punjab Institute of Medical Sciences, Jalandhar, Punjab, on Nov 1, 2019.
5. Dr Dattatreya Sitaram, post graduate student, Orthopaedics participated in Unleash 2019 (A global innovation lab for the United Nations Sustainable Development Goals) held at Shezhen, China in Nov 2019. His team CRYPTIC (5 students from 5 different countries) bagged two awards among the 222 teams.
6. Dr Ranjani, MCH, 2nd year, Paediatric Surgery won the second prize for the paper titled, "Long term outcomes in Esophageal atresia and Trachesophageal fistula" IAPS-KSC conference at Narayana Hrudayalaya , Bangalore held during Nov 30 to Dec 1, 2019.
7. Dr V Madhumitha, Postgraduate student, Department of Dermatology, KMC, Manipal, received the first prize for the paper titled "Cutaneous small vessel vasculitis" during CUTICON GOA 2019 state conference organized by IADVL Goa state branch at Margao, Goa during Nov 2-3, 2019.
8. Dr Sandhiya Ramesh, postgraduate student, Department of Dermatology, KMC, Manipal, secured the second prize for the paper titled "90% Trichloroacetic acid as a chemical cauterant for partial matricectomy in onychocryptosis-A Pilot study" during Onychocon 2019 National conference organized by Nail Society of India in association with IADVL Maharashtra at Mumbai during Nov 3-4, 2019.
9. Dr Sandhiya Ramesh, postgraduate student, Department of Dermatology, KMC, Manipal, received the second prize for the e-poster titled "Winograds procedure for recurrent ingrown toe nail-A detailed case report" during Onychocon 2019 National conference organized by Nail Society of India in association with IADVL Maharashtra at Mumbai on Nov 3-4, 2019.
10. Dr Punya Suvarna, postgraduate student, Department of Dermatology, KMC, Manipal received the third prize during CUTICON Karnataka 2019 organized by IADVL Karnataka at Gadag during Nov 8-10, 2019.
11. Dr Shivam Goyal, postgraduate student, Department of Dermatology, KMC, Manipal received the second prize for the paper titled "Forensic dermatology of electrocution injuries" during Dermazone South 2019 and CUTICON Kerala organized by IADVL Kerala at Kovalam, Thiruvanthapuram, Kerala during Nov 22-24, 2019.

12. Ms Krithishree S, PhD student, Department of Neurology, Kasturba Medical College, Manipal, received the third prize for the e-poster titled "Effect of blood pressure on collateral circulation in CT Angiography (CTA) studies in Anterior Circulation Acute Ischemic Stroke (AIS) cases", which was held during Oct 31- Nov 3, 2019 at New Delhi.
13. Dr Manasa S, Junior Resident, third year post-graduate, Department of Anaesthesiology won the second prize for the e-poster titled, "Chronic Pain Management in Raynaud's Syndrome – Thoracic Sympathetic Ablation" under the guidance of Dr Manjunath Prabhu and Dr Priyanka Kini in ISACON 2019 held during Oct 19-20, 2019 at Thrissur, Kerala.
14. Dr Hashim Rahman A, Junior Resident, Department of Anaesthesiology, won the third prize for paper titled, "Predicting the success of ultrasound guided supraclavicular brachial plexus block using perfusion index(PI)" under the guidance of Dr Lokvendra Singh Budania and Dr Eeshwar M V in ISACON 2019 held during Oct 19-20, 2019 at Thrissur, Kerala.
15. Dr Karen Philip Daniel, Junior Resident, Department of Radio-diagnosis and Imaging, Kasturba Hospital, Manipal, received the first place for oral presentation in TN and PY Chapter of IRIA, held in JIPMER Pondicherry, Tamil Nadu during Dec 13-15, 2019.
16. Mr Vivek Kumar Radhakrishnan, PhD Student, Manipal Centre for Humanities, Manipal received the Indian Council of Philosophical Research Junior Research Fellowship 2019-20.
17. Dr Manasi Yawale and Dr Sugandha Prakash, Postgraduate students of Periodontology received Best Paper awards for their presentations at Karnataka State Dental Conference held at Mandya, during Dec 13-15, 2019. Dr Manasi's paper is titled, "Revitalizing pulpo-perio complex" under the guidance of Dr Subraya Bhat. Dr Sugandha's paper is titled, "Hard Tissue ontogenesis". Her supervisors are Dr Aditi Chopra and Dr Pratibha.
18. Dr Saloni Gupta, first year post-graduate, Department of Public Health Dentistry, Manipal College of Dental Sciences, Manipal received the best poster presentation in 24th National Conference, Indian Association of Public Health Dentistry which was held at Ramoji film city, Hyderabad during Nov 15-17, 2019. 
19. Mr Vivek Suganthan, Master of Optometry, second year, Department of Optometry Manipal College of Health Professions (MCHP) received the best paper award for an oral presentation titled, "FEA of Human Eye for A Range of Intraocular Pressure", which was held during Dec 8-9, 2019 at MIT, Manipal.
20. Dr Harshita Sharma, first year postgraduate, Department of Paediatric and Preventive Dentistry, MCOODS, Mangalore won the Best Poster Presentation Award for the poster titled "Changing Times of Cariology" at the 41st National Conference of the Indian Society of Pedodontics and Preventive Dentistry held at ITS Dental College, Hospital and Research Centre, Greater Noida during Nov 7-9, 2019. 

21. Dr Alisha Ono Idris, Dr Tanay Chawda and Dr Amrita Bellap, first year post-graduate students, Department of Prosthodontics and Crown and Bridge, were awarded the "Dr F D Mirza Award" for the Best Poster of the Session and the second Best Overall Scientific Presentation Titled "Use of an Acrylic Stent for Functional Rehabilitation of Ulnar Bone Following Surgical Resection of Tumour" at the 47th Indian Prosthodontic Society Conference, Raipur held during Nov 28 - Dec 1, 2019.



22. Dr Akshar Bajaj, 2nd Year Post Graduate Student, Department of Prosthodontics and Crown and Bridge, presented a paper titled "Prosthetic Rehabilitation of Edentulous Mandibular Ridge Using 'All-ON-FOUR CONCEPT'" that was judged The Best Paper Presentation of the Session, at the 47th Indian Prosthodontic Society Conference, Raipur held during Nov 28 - Dec 1, 2019.



23. Ms Vidushi Gupta, Intern, MCOADS, Mangalore presented an idea and prototype of Infusionary - a portable IV analgesic delivery system for cancer patients at the onco-hackathon that took place in Manipal during Oct 22-24, 2019. Her team was one of the top six which received a seed fund to develop the prototype.




24. Mr Raviprasad K V, PhD Scholar, Manipal School of Life Sciences, Manipal has been awarded with ICMR- Senior Research Fellowship (Supervisor: Dr. Sanjiban Chakrabarty) in Oct 2019 for the project titled "Functional Characterization of Novel Mitochondrial Genome encoded MicroRNAs in Breast Cancer".

25. Mr Nadeem Khan, PhD Scholar, Manipal School of Life Sciences was awarded the Minority Fellowship in Oct 2019 for the project, "Investigating the Potential Role of Bisphenol A (BPA) in Pathophysiology of Carcinoma of Human Uterine Cervix". He is pursuing his PhD under Dr Shama Prasada K.

26. V J Abiulin Lazhya, third year BBA, Department of Commerce, MAHE received Governor Acharya's award in the name of inspiring personalities of North East (NAMASTE states) – Nagaland Governor Acharya's Endowment Fund on 4 Dec 2019.



27. Dr Vibha, M D; Dr Anusuya, DPM; Dr Srividya; Dr Salma, DPM; Ms Megha Saraogi, MPhil PSW trainee and Ms Abhishikta S Naik, MPhil PSW trainee, Department of Psychiatry, Kasturba Medical College Manipal, MAHE were conferred with Sri Ram Sammeta travel grant for study tour of Mental Health care institutions in South India during Dec 4-17, 2019.
28. Dr Anil Kumar, third year DM Registrar, Department of Nephrology, won the second prize in poster competition in National Pediatric Nephrology Conclave 2019, ISN-SRC 2nd update and IPNA teaching course on Nov 3, 2019 at Thiruvananthapuram.
29. Dr Ranjani, MCH second year, Department of Paediatric Surgery, won the second place for the paper titled, "Long term outcomes in Esophageal atresia and Trachesophageal fistula" IAPS-KSC conference at Narayana Hrudayalaya , Bangalore held during Nov 30 to Dec 1, 2019.
30. Mr Arbaaz, third year, BSc Biotechnology, Manipal School of Life Sciences, Manipal was awarded the best oral paper presentation under the "Basic Science Category" for the study titled "Rapid detection of antibiotic resistance genes using gold nanoparticles" at International Interdisciplinary Conference on Healthcare and Technical Research held at Manipal.
31. Ms Reema Narayan, Research Scholar, Department of Pharmaceutics, Manipal College of Pharmaceutical Sciences, MAHE, Manipal received International Travel Grants from Science and Engineering Research Board (SERB), New Delhi, Council of Scientific and Industrial Research (CSIR), New Delhi and Centre for Cooperation in S and T among Developing Societies (CCSTDS), Chennai, India to participate and present her research work in American Association of Pharmaceutical Scientists Conference-AAPS PharmaSci360, held in San Antonio, Texas, during Nov 3-6, 2019. Reema is pursuing her PhD under the guidance of Dr Usha Nayak, Associate Professor, Department of Pharmaceutics, MCOPS and Professor Sanjay Garg, School of Pharmacy and Medical Sciences, University of South Australia, Adelaide.
32. Mr Sivakumar Kannan, Research Scholar, Department of Pharmaceutics, MCOPS won the Best Poster Award in 24th National Conference of Association of Pharmacy Teachers of India (APTI 2019) held during Oct 11-13, 2019 at Dehradun. His paper on "Sports Pharmacy – A new horizon in Indian Sports" is co-authored by Dr Anup Naha, Dr Punit Bansal, Dr Vinod Nayak, Dr Sandeep Goud and Mr Robindra Singh.
33. Ms Amala Maxwell, bagged the Best Poster Award at AICTE sponsored PESCP 6th International Conference on Strategies to Tackle Antimicrobial resistance held at PES University, Bangalore on Dec 18-19, 2019. Amala is a AICTE- NDF Research Scholar in the Department of Pharmaceutics, at MCOPS.
34. Ms Sadhana Mutalik, DST-INSPIRE Junior Research Fellow, Department of Pharmaceutics, MCOPS secured "Young Scientist Award" for the Oral Presentation at 12th National Women's Science Congress organized by Women Scientist Forum, Swadeshi Vijnana Andolana, Vijnanabharati, New Delhi, held at SBRR Mahajana First Grade College, Mysuru during Nov 7-9, 2019. She

presented a paper titled, "A Quality by Design Approach for the Development of Surface Engineered Nanoliposomal formulation", co-authored by Dr Abhijeet Pandey and Dr. Srinivas Mutalik, MCOPS Manipal. Ms Sadhana is pursuing her PhD under the guidance of Dr Mutalik, Professor and Head, Department of Pharmaceutics, MCOPS.

35. Suman Manandhar, AICTE-NDF Research Scholar, received "Young Researcher Award" for the oral paper titled "In-Silico Evaluation of the Role of Phytochemicals in Alzheimer's Disease through WNT signaling modulation" in the conference on Drug Design and Discovery Technologies during Nov 21-22, 2019 at Ramaiah University of Applied Sciences, Bangalore.
36. Mr Bharath Singh Padya, Research Scholar, Department of Pharmaceutics won the Best Poster Award at the International Conference on Nanoscience and Photonics for Medical Applications, organized by the Department of Atomic and Molecular Physics, MAHE, Manipal during Dec 28-30, 2019.
37. Mr Shivaprasad Gadag was at the University of Pittsburgh, USA, for a two month Research Internship program during Nov-Dec 2019 as a visiting student. He was supervised by Dr Shilpa Sant, Faculty, Department of Pharmaceutical Sciences/Bioengineering, UPMC-Hillman Cancer Center, McGowan Institute for Regenerative Medicine, University of Pittsburgh. Dr Shilpa was instrumental in providing necessary facilities to perform in-vitro efficacy testing as a part of his doctoral studies in breast cancer. Shivaprasad is pursuing his PhD under Dr Usha Y Nayak, Associate Professor and Dr M Sreenivasa Reddy, Professor, Department of Pharmaceutics, MCOPS.

D. Awards and accolades

1. Ms Prathima Tholeti, Lecturer, Department of Clinical Embryology, Kasturba Medical College, MAHE, Manipal received MACE-SAR Healthline travel grant to attend 13th Annual conference on oncofertility held during Nov 11-13, 2019 at Chicago, USA. She was also awarded with Oncofertility Consortium Conference Scholarship.
2. Ms Shweta Hegde, Lecturer, Department of Clinical Embryology, Kasturba Medical College, MAHE, Manipal received MACE-SAR Healthline travel grant to attend ESHRE campus course, "Embryo innovation- The legacy of the past and visions of the future" held during Nov 7-9, 2019 at Bratislava, Slovakia.
3. Ms Keerthana K Poojary, Lecturer, Department of Clinical Embryology, Kasturba Medical College, MAHE, Manipal received MACE-SAR Healthline travel grant to present poster titled, "Epigallocatechin-3-gallate protects the oocytes from methyl parathion-induced cytoplasmic deformities by suppressing oxidative and endoplasmic reticulum stress", at Ovarian Club XIV Meeting conference held during Nov 7-9, 2019 at Paris, France.



4. Dr Shiran Shetty, Professor and Head, Gastroenterology and Hepatology, received the European Society of Gastrointestinal Endoscopy fellowship grant module-2 in Krankenhaus der Elisabethinen in Linz, Austria. Dr Shiran worked under the supervision of Professor Schofl during Oct 6-Dec 5, 2019. Dr Shiran is also appointed as adjunct Professor to Department of Interne 4 Gastroenterology and Hepatology Ordensklinikum Linz to participate in medical education and clinical research.
5. Dr Shamee Shastry, Professor and Head, Department of Immunohematology and Blood Transfusion, Kasturba Medical College, Manipal was conferred the ISBTI Institutional Award at the 44th Annual Conference of Indian Society of Blood Transfusion and Immunohematology at Punjab Institute of Medical Sciences, Jalandhar, Punjab, on Nov 1, 2019. She also received the grant-in-aid for the project titled "National registry for rare and other inherited disorders" from Indian Council of Medical Research.
6. Dr Chenna Deepika, Assistant Professor, Department of Immunohematology and Blood Transfusion, Kasturba Medical College, Manipal was awarded with the Best Poster Award at ICHTR Conference during October 29-31, 2019 at Mangalore.
7. Dr Anil K Bhat, Professor and Associate Dean, Orthopaedics, KMC, Manipal was honoured with Vellammal Health Care Innovation award at Madurai on Nov 16, 2019.
8. Dr Vathsala, Assistant Professor, Department of Oral Medicine and Radiology, MCOADS, Manipal, bagged the first prize for paper titled "Artificial neural network for gender determination using mandibular morphometric parameters" at 31st National IAOMR Conference, Hyatt Regency, Amritsar on Nov 15-17, 2019.
9. Dr Vineetha R, Professor and Head, Department of Oral Medicine and Radiology, MCOADS, Manipal received the second prize for paper titled "Effects intraoral Dental Materials on MRI - challenges in decision making" at 31st National IAOMR Conference, Hyatt Regency, Amritsar on Nov 15-17, 2019.
10. Dr Vidya Saraswathi, Professor and Associate Dean, Department of Conservative Dentistry and Endodontics, MCOADS, MAHE was Awarded II Prize at the 34th IACDE Conference held at Vashi, Mumbai.
11. Dr Spoorti Kulkarni, Assistant Professor, Department of Oral Pathology and Microbiology, MCOADS, Manipal was honoured with Shri T V Ramachandra Rao Award for her poster in Best Original Research work titled "Evaluating the expression of SAL4 in oral epithelial dysplasia and oral

squamous cell carcinoma” at the XVIII IAOMP National Conference at Thiruvananthapuram, Kerala on Nov 1-3, 2019.



12. Mrs Sridevi Prabhu Assistant Professor-Senior scale, Department of Cardiovascular Technology, Manipal College of Health Professions (MCHP) won first prize in poster presentation on the topic “Effect of Yoga Therapy–Pranayama, Meditation and Relaxation on Quality of Life and Functional Outcome in Heart Failure Patients on Optimal Medical Management” in the 10th Manipal Cardiology Update held on Nov 1, 2019.



13. Mrs Jyothi, Assistant Professor Senior-scale, Department of Cardiovascular Technology, MCHP won first prize in oral presentation on the topic “Fetal echocardiography at term in diabetic pregnancies helps predict the adverse neonatal outcome-results of a prospective observational study from South India” in 10th Manipal Cardiology Update held on Nov1, 2019



14. Mrs Vidya Nayak, Assistant Professor Senior scale dept. of Cardiovascular Technology, MCHP, MAHE, Manipal won second prize in Case presentation on the topic” Adenocarcinoma: A rare variant of Cardiac metastases with endocardial involvement presenting with pulmonary embolism” in 10th Manipal Cardiology Update 2019 held on Nov 1, 2019.



15. Dr John Solomon M, Associate Professor, Department of Physiotherapy, Coordinator- Centre for Comprehensive Stroke Rehabilitation and Research, MCHP was invited to be a part of International Stroke Recovery and Rehabilitation Alliance (ISRRA) to develop a five year plan for the alliance

at Geelong, Australia during Oct 28-29, 2019. He also delivered a guest lecture on “Stroke rehabilitation in India” at The Florey institute of Neuroscience and Mental Health, Melbourne on Oct 30, 2019



16. Dr Senthil Kumaran D, Associate Professor, Department of Physiotherapy, MCHP, bagged the #iPitch seed investment award for project innovation titled “Arm Able-Game based arm training rehabilitation device” at #Unconvention 2019 organized by Villgro, Bengaluru on Dec 6-7, 2019.



17. Dr G Arun Maiya, Professor, Department of Physiotherapy, Dean, MCHP received the prestigious Asian Academy of Laser Therapy award. Dr Maiya is also nominated as advisor and mentor to AALT at a program organized by IDA Kochi on Dec 15, 2019



18. Faculty team of Mr Mukesh Kumar Sinha, Dr Vaishali K and Dr G Arun Maiya won the second prize for the e-poster titled “Gender differences in heart rate variability of overweight individuals - a preliminary report” at 14th Annual Conference of All India Association for Advancing Research in Obesity (AIAARO) during Oct 11-13, 2019 at May Fair Convention, Bhubaneswar. Mr Mukesh was the presenting author.

19. Dr Suprabha B S, Professor and Head, Department of Paediatric and Preventive Dentistry, MCOADS, Mangalore won the Best Paper award for the paper titled “Association of candid species. with oral health practices and activity status of carious lesions among children with early childhood caries” at the 41st National Conference of Indian Society of Pedodontics and Preventive Dentistry held at ITS Dental College, Hospital and Research Centre, Greater Noida during Nov 7 – 9, 2019.



20. Dr Mithun Pai B H, Associate Professor, Department of Public Health Dentistry, MCOADS, Mangalore received the Best Scientific Paper award for the paper titled “Comparison between initiation and

sustenance of brushing behaviour among college students pursuing health sciences using MTM model with personality traits- A cross sectional analysis”, held at Sri Sai College of Dental Surgery, Vikarabad, Telangana at Ramoji Film City, Hyderabad during Nov 15-17, 2019



21. Dr Siddharth Shetty, Professor and Head, Department of Orthodontics and Dentofacial Orthopedics, MCOADS, Mangalore bagged the first place in poster presentation (clinical category) at the 54th Indian Orthodontic Conference held at Bhubaneswar during Nov 22- 24, 2019. He was also elected as a Member of the Executive Committee of the Indian Orthodontic Society for the year 2019-20.
 
22. Dr Ashith M V, Associate Professor, Orthodontics and Dentofacial Orthopedics, MCOADS, Mangalore won the Best Paper in Clinical Innovation-Category for the work, titled, “Innovation in Appliance Design to Optimise the Treatment Outcome in Naso Alveolar Molding” in the 54th Indian Orthodontic Conference held at Bhubaneswar during Nov 22- 24, 2019.
 
23. Dr Karthik Shetty, Professor and Head, Department of Conservative Dentistry, MCOADS, Mangalore won the second prize in scientific paper presentation at the 34th Indian Association of Endodontics National Conference held in Mumbai on Nov 29 - Dec 1, 2019.
 
24. Dr Sharmila Torke, Professor of Physiology, MMMC won the third prize in poster presentation titled “Pictorial depiction of physiological actions and effects of altered secretions of hormones – an active learning technique in a classroom setting” in 2nd National Conference on Clinical Laboratory Education and Research, NACCLER 2019 organized by Department of Medical Laboratory Technology, MCHP held on Nov 6, 2019.
 
25. Ms Amitha Puranik, Assistant Professor, Department of Data Science, Prasanna School of Public Health, received the Best Research Paper award for the paper titled “Spatial disparity in access to drinking water and sanitation facility: A district-level assessment in India” presented in the “Down To Earth - 2019, 1st International Conference on Water Security and Sustainability” during Dec 13-14, 2019 at Sikkim Manipal Institute of Technology, Majitar, Sikkim, India.
26. Ms Sonali Walimbe, Professor, Manipal School of Architecture and Planning, received the best poster award under the Technical Sciences at International Interdisciplinary conference on Healthcare and Technical research (ICHTR 2019) held at MAHE, Marena, Mangalore during October 29-31, 2019.
27. Vasudev Pai, Assistant Professor, Department of Pharmacognosy, MCOPS, won the Best Oral Presentation Award for the presentation titled “In-silico and In-vitro acetylcholinesterase inhibitory

activity of some natural compounds" in International Conference (SPER-Bangkok) during Oct 3-4, 2019. The theme of the conference was "fostering pharmaceutical innovations to bridge the gap in pharmaceutical research and industry" organized by the Society of Pharmaceutical Education and Research (SPER). The work was co-authored by Dr M Manjunath Setty and Dr Chandrashekar K S, Department of Pharmacognosy.

28. Dr Lalit Kumar, Assistant Professor-Selection Grade, Department of Pharmaceutics, MCOPS, Manipal received the Best E-Poster Presentation Award for his research work during the 24th Annual National Convention of Association of Pharmaceutical Teachers of India (APTICON), Oct 11-13, 2019 held at DIT, Dehradun, Uttarakhand.
29. Dr Pradeep M Muragundi, Faculty, Department of Pharmacy Management, won the first prize for the poster titled "How good is the Quality of YouTube Video communication for Antibiotic Resistance" presented during National Conference on Antibiotic Resistance- A Global update, conducted by the MPH program of Prasanna School of Public Health, MAHE on Nov 14, 2019.
30. Dr Jyothisna Manikkath, Assistant Professor, Department of Pharmaceutics won the Best Oral Presentation Award, at the "International Conference on Nanoscience and Photonics for Medical Applications", organized by Department of Atomic and Molecular Physics, Manipal Academy of Higher Education, Manipal during Dec 28-30, 2019.

Part II

A. Featured researcher of MAHE

Dr Manjunath B Joshi is an Associate Professor in the Department of Ageing Research at School of Life Sciences, Manipal. His areas of expertise are vascular and neutrophil biology. This is what Dr Joshi had to respond to about his research journey so far.



1) How has this journey been to you, in terms of teaching, patents, publications?

MBJ: It has been an exciting journey associated with hard work and many failures. But there is no “simile” in life of a researcher to the happiness when we have a new finding in lab or an appreciation from senior scientists for our work in meetings/conferences or our manuscript being accepted. The moment of finding an oligoastenozoospermic male as a fertile male in CCMB, Hyderabad **or** constitutive activation of Akt kinase in T-cadherin overexpressing endothelial cells during my PhD in the Basel University **or** Glucose inducing weaker NETs **or** IL-6 degrading DNA methyltransferase **or** IL-6 facilitating disorganized vessels in breast tumours in the School of Life Sciences, MAHE are unforgettable moments in my life. Teaching and research go hand in hand, inseparable, and balancing them is a challenge. I believe that teaching concepts based on experimental evidences is more influential than just referring to text books and to be able to do this in a meticulous manner, one needs to be researcher.

2) What is your message to budding researchers?

MBJ: I had an opportunity to listen to Nobel Laureates in a joint program conducted by the University of Basel and Novartis in Basel, during my PhD studies where these institutions invite a Nobel awardee every year. I remember Dr Kary Mullis’ speech. He said “A researcher should be able to think of his experiments for the next day while getting asleep. This should happen at least five times a week and inherently, if this does not come naturally, then quit doing science”. In other words, research is a continuous process and does not end when you leave lab for the day. I think research is not for a livelihood but it’s a life style, 24x7!! The basis of research is curiosity and this is never ending. We start a project to address few key queries and towards the end, we realize that we have unanswered questions. It needs continuous and honest efforts. Grant proposals and manuscripts gets rejected, experiments fail, instruments break down, chemicals/reagents takes months to arrive, things do not work at your pace and all these are part of research life. But, show must go on.

3) What is your future plan with respect to teaching and research activities in your field?

MBJ: Over the years, we have been involved in basic research in understanding the underlying mechanisms in diseases. Now, we would like to explore the mechanistic basis in translating bench to bedside. We would like to initiate interdisciplinary research to formulate organoid models for screening anti-angiogenesis drugs, microfluidics to understand neutrophil function in diabetic patients and machine learning to reveal alterations in stroke metabolism.

B. Top publications for the period October-December 2019

| Title of the publication | Name of the authors | Institution | Department | Name of Journal | Month and Year of Publication | Impact factor | Quartile |
|---|--|----------------|------------------------------------|---|-------------------------------|---------------|----------------|
| Global, Regional, and National Cancer Incidence, Mortality, Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life-Years for 29 Cancer Groups, 1990 to 2017 - A Systematic Analysis for the Global Burden of Disease Study | Dr Jagadish Rao P P | KMC, Mangalore | Forensic Medicine | JAMA oncology | December 2019 | 20.87 | Q1 (Top 2-9) |
| Global, regional, and national incidence, prevalence, and mortality of HIV, 1980–2017, and forecasts to 2030, for 195 countries and territories: a systematic analysis for the Global Burden of Diseases, Injuries, and Risk Factors Study 2017 | Dr Jagadish Rao P P | KMC, Mangalore | Forensic Medicine | The Lancet HIV | December 2019 | 11.35 | Q1 (Top 2-9) |
| Monosodium luminol reinstates redox homeostasis, improves cognition, mood and neurogenesis, and alleviates neuro- and systemic inflammation in a model of Gulf War Illness | Dr Dinesh Upadhya | KMC, Manipal | Anatomy | Redox Biology | November 2019 | 7.12 | Q1 (Top 2-9) |
| Fortification of rice with vitamins and minerals for addressing micronutrient malnutrition | Dr Prasanna Mithra P, Dr Unnikrishnan B, Dr Nithin Kumar | KMC, Mangalore | Community Medicine, Administration | Cochrane Database of Systematic Reviews | October 2019 | 6.75 | Q1 (Top 10-24) |
| Electrical stimulation for people with spinal cord injury | Dr John Solomon M | MCHP | Physiotherapy | Cochrane Database of Systematic Reviews | December 2019 | 6.75 | Q1 (Top 10-24) |

| Title of the publication | Name of the authors | Institution | Department | Name of Journal | Month and Year of Publication | Impact factor | Quartile |
|--|---|--|----------------------|--|--------------------------------------|----------------------|-----------------|
| AKM-IoV: Authenticated Key Management Protocol in Fog Computing-Based Internet of Vehicles Deployment | Dr Mohammad Wazid | MIT Manipal | Computer Engineering | IEEE Internet of Things Journal | October 2019 | 5.86 | Q1 (Top 1) |
| The nuclear and mitochondrial sirtuins, Sirt6 and Sirt3, regulate each other's activity and protect the heart from developing obesity-mediated diabetic cardiomyopathy. | Abhinav Kanwal | Manipal College of Pharma Science | Pharmacology | FASEB Journal | October 2019 | 5.59 | Q1 (Top 10-24) |
| In vitro activity of a novel antibacterial agent, levonadifloxacin, against clinical isolates collected in a prospective, multicentre surveillance study in India during 2016–18 | Dr Shrikala Baliga, Dr Suchitra Shenoy Mala | KMC, Mangalore | microbiology | Journal of Antimicrobial Chemotherapy | December 2019 | 5.21 | Q1 (Top 2-9) |
| Poly(N,N-diethyl acrylamide)/functionalized graphene quantum dots hydrogels loaded with doxorubicin as a nano-drug carrier for metastatic lung cancer in mice | Sri Pragnya Cheruku, Karthik Gourishetti, Dr Nitesh Kumar | Manipal College of Pharmaceutical Sciences | Pharmacology | Materials Science and Engineering C | December 2019 | 5.08 | Q1 (Top 2-9) |
| A zinc-quinone battery for paired hydrogen peroxide electrosynthesis | Dr Fasiulla, Sarvajith M S | MIT Manipal | Chemistry | Journal of Colloid and Interface Science | October 2019 | 5.09 | Q1 (Top 2-9) |
| A Model of Chronic Temporal Lobe Epilepsy Presenting Constantly Rhythmic and Robust Spontaneous Seizures, Co-morbidities and Hippocampal Neuropathology | Dr Dinesh Upadhya | KMC, Manipal | Anatomy | Aging and Disease | October 2019 | 5.05 | Q1 (Top 2-9) |

| Title of the publication | Name of the authors | Institution | Department | Name of Journal | Month and Year of Publication | Impact factor | Quartile |
|--|--|------------------------|------------------------|------------------------------|--------------------------------------|----------------------|-----------------|
| Effect of injection pressure on the combustion, performance and emission characteristics of a biodiesel engine with cerium oxide nanoparticle additive | Shiva Kumar, Dr Dinesha P | MIT Manipal | Mechanical Engineering | Energy | October 2019 | 4.96 | Q1 (Top 1) |
| Aggregation-induced emission of azines: An up-to-date review | Sneha Kagatkar, Dr Dhanya Sunil | Department of Sciences | Chemistry | Journal of Molecular Liquids | October 2019 | 4.51 | Q1 (Top 2-9) |
| Enhanced conductivity in nano particle doped hydrogen bonded binary mixture | Pavitra Pai, Dr Suresh D Kulkarni, Dr Poornima Bhagavath, Dr Srinivasulu M | MIT Manipal | Chemistry, DAMP | Journal of Molecular Liquids | December 2019 | 4.51 | Q1 (Top 2-9) |

Part III

A. Activities of MAHE Students' Research Forum (MAHE-SRF)

The 6th International Interdisciplinary Conference on Healthcare and Technical Research (ICHTR-19) was held at Marena Sports complex, Mangalore jointly organized by the MAHE Student Research Forum (MAHESRF) under the aegis of Directorate of Research and in association with KMC and MCOADS, Mangalore.

The conference was divided into the following categories viz., Health science, Basic and applied science, Management science and Technical sciences. Out of 200 abstracts that were submitted, only 99 were selected for presentation during the conference. The theme of the conference was "Investigacion for the progress of science". A reduced paper usage and zero plastic policy were the norms followed in this conference.

Day 1 commenced with Dr Vinod Pavarala's talk. Dr Vinod holds the UNESCO chair on community radio. Later, inaugural function was held which was attended by the Heads of Institutions and presided by Dr V Surendra Shetty, Pro Vice Chancellor, MAHE. Dr Dilip Naik, Dean, MCOADS, Mangalore, Dr Venkatraya Prabhu, Dean, KMC, Mangalore, Dr N Udupa, Director Research - Health sciences were the guests for the inauguration.

Dr Amitha Ranatua, Senior Clinical Lecturer Barts and the London School of Medicine and Dentistry Chair of the UK Council of Dental Teachers of Professionalism, United Kingdom delivered a talk via Skype. In a parallel session, Mr Vinod Madhavan, Associate Professor and Dean-Administration, T A Pai Management Institute (TAPMI), Manipal spoke on "Marketing your research ideas and contributions". In the afternoon, a mentoring session was headed by Dr V S Venkatesan, Professor, Biomedical Engineering, Manipal Institute of Technology. He spoke on "Evolution from an undergrad to a full-grown researcher".

Day 2 started with a cross connect session conducted by Mr Elton Dylan Nazareth, Convenor-ICHTR 19, Vice President MAHESRF. Dr Arun Mohan Isloor, Professor and Head, Chemistry, NITK, Surathkal, spoke on "Chemistry for solving healthcare issues". Dr K V Gangadharan, Professor, Mechanical Engineering, NITK, Surathkal delivered a talk on "Making use of Engineers".



In the afternoon, Dr Manesh Thomas, CEO – Manipal-Government of Karnataka Bio incubator, Manipal spoke on the topic “Making use of Engineers” towards the entrepreneurship side.

Day 3 began with two parallel sessions. Dr Girish Bharadwaj “Bridgeman of India”, the 2017 Padma Shri Awardee, spoke on “Challenging construction of suspension bridges, training and development in rural connectivity”. Dr Dinesh Upadhyay, Assistant Professor, Department of Anatomy, Kasturba Medical College, Manipal spoke on “The path to discover innovation in health science”. The final plenary talk of the day was delivered by Dr Ullas Karanth, Senior Conservation Scientist, Wildlife Conservation Society, New York, Director-Center for Wildlife Studies and 2012 Padma Shri Awardee.

During the valedictory function, Dr Ullas Karanth and Dr Girish Bharadwaj presided along with the guests- Dr Venkatraya Prabhu, Dean, KMC, Mangalore, Dr N Udupa, Director Research–Health Sciences, MAHE, Manipal and Dr Nutan Kamath, Associate Dean, KMC, Mangalore.





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