



MANIPAL

ACADEMY of HIGHER EDUCATION

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

MAHE Research Bulletin

Jan-Mar 2020



Content

Part I

- A. Details of research activities **during the period Jan-Mar 2020**
 - a. Total number of publications in Scientific Journals (in Scopus/Web of Science indexed and/or impact factor journals)
 - b. Ongoing research projects
 - c. Research and training programs conducted
 - d. Number of collaborations established
 - e. Total number of grants received
 - f. Patents applied
- B. Faculty and Institution Achievements
- C. Achievements by research scholars and students
- D. Awards and accolades

Part II

- a. Featured Researcher of MAHE
- b. Top publications for the period Jan-Mar 2020

Part III

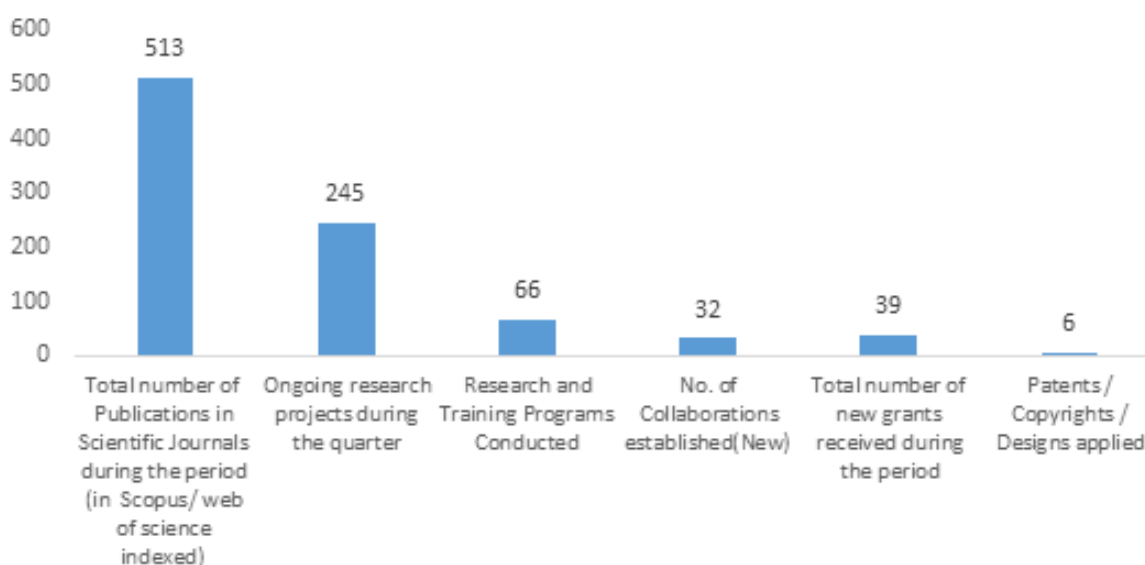
Activities of MAHE Students' Research Forum (MAHE-SRF)

Part I

Manipal Academy of Higher Education (MAHE) is one of the premier deemed to be universities in India. MAHE considers both academics and research equally important for the betterment of an institution. The faculty members and the research scholars at MAHE have embraced the research culture. They publicise their research work in scientific publications, through presentations in various conferences and obtaining patents, research grants, etc. In this report, we present to you **an overview of the research activities** of MAHE during the period **Jan-Mar 2020**.

A. Details of research activities of MAHE for the period Jan-Mar 2020

Research output of MAHE for the period Jan to Mar 2020



B. Faculty and institution achievements

1. Dr Sheetal Raj, Associate Professor, Department of Medicine coordinated the collaboration with Pallium India and MAHE (MoU signed) in January 2020. Pallium India is a charitable trust and WHO centre for training and policy in access to pain relief. Gauri Thukral, Mancy Mothsera, and Mithalee Garg (batch 2016) completed a week's observership at Pallium India in January.



2. Dr Kamalakshi G Bhat, Professor, and Head, Paediatrics, Kasturba Medical College, Mangalore, MAHE, Manipal was conferred with a travel grant for attending the residential training seminar on paediatric infectious diseases at St Jude children's research hospital Memphis, Tennessee, USA during March 1 to 11, 2020.



3. The Department of Surgery conducted the Acute Critical Care Course on 8 and 9, February 2020 in association with Manchester University. Dr Sriram Bhat M, Professor and Head, Dr Rahul Bhat

R, Associate Professor, and Dr Shabin Fahad, Assistant Professor from the Department of Surgery were faculty coordinators for the program. Participants were from five medical departments of four colleges in and around Mangalore.

4. Dr Gagan Bajaj, Assistant Professor (PI) along with Dr Jayashree Bhat (CoPI) Professor, Department of Audiology and Speech Language Pathology have obtained a CSRI grant from the Department of Science and Technology (DST). This is a collaborative project between KMC, Mangalore, and the National Institute of Speech and Hearing (NISH), Trivandrum.
5. Dr H S Shubha, Head and Mr Shreeraj Gudi, Assistant Professor-Senior Scale, Department of Media Studies, Manipal Institute of Communication, MAHE, Manipal were conferred with Erasmus plus travel grant to attend the International Day at Volda University College, Norway, during 9-16 February 2020.



6. Dr Gayathri Prabhu, Associate Professor, MCH, MAHE, Manipal was conferred with The Charles Wallace fellowship at Stirling University, Scotland funded by the Charles Wallace Trust from 24 February to 24 May 2020.
7. Dr Arun G Maiya, Professor-Department of Physiotherapy, Dean-Manipal College of Health Professions, Chief-Centre for Diabetic Foot Care and Research, Manipal College of Health Professions was selected in the expert advisory group on Biomedical Device and Technology Development Program, Department of Science and Technology, Government of India.
8. Dr Shonraj Ballae Ganeshrao, Assistant Professor–Selection Grade, Department of Optometry, Manipal College of Health Professions, MAHE, conferred with DST grant for his project on “Mobile eye-tracking technology for early detection of glaucoma” for three years.



9. Dr Aditi Chopra, Reader, Department of Periodontology, MCOODS, Manipal, MAHE, received a Design patent for the innovative design of Mask. (Design Patent-D204/D205 || Title: Mask || Application Number: 317896-001 ||)

10. Dr Sameep Shetty, Reader, Dept of Oral and Maxillofacial Surgery, MCOODS, Mangalore was recently awarded a certificate for excellence in research (17 publications in 2019 and letter of appreciation by Elsevier oral oncology journal).



11. Dr Nikita Rungta, Research Assistant, Department of Public Health Dentistry, MCOODS, Mangalore has won the award for the best scientific paper for PHFI funded study titled "Effectiveness of a School-Based 'Tobacco-Free Intervention on Adolescents' Knowledge and Exposure to Second Hand Tobacco Smoke - A Multiphase Study" at the 73rd Indian Dental Conference held at Kovalam, Kerala from January 23-26, 2020.



12. Dr Baby S Nayak, Professor and Head, Department of Child Health Nursing; Dr Sonia R. B D'Souza, Professor and Head, Department of OBG Nursing; Dr Binil V, Associate Professor, Department of Mental Health Nursing, Manipal College of Nursing, MAHE received travel and training grant under the UKIERI SPARC support program for visiting and training on advanced Evidence synthesis by the UK partners of the SPARC project from the Social Science Research Unit, University College London (UCL), London, the UK from 17 February 2020 to 4 March 2020.



13. Professor Krishnamurthy Bhat, Department of Pharmaceutical Quality Assurance, MCOPS, MAHE successfully completed an expedition to East Antarctica for the project, "Pharmaceutical and Personal care products in the adjacent sea waters near Bharati station". He commenced his journey from Manipal on 11th November 2019 to National Centre for Ocean and Polar Research (NCPOR)



Vasco da Gama, Goa, and returned on February 9, 2020. Samples were collected for the analysis of PPCPs. The concentration of PPCPs will be measured as a second part of the study and the final report will be submitted to NCPOR.

14. PharmD Interns, Ms Tanvi Bhalla, Ms Christi Sajee Varkey, and Ms Rinkal Kotadia received copyright "Manipal Cancer registry-Hospital Based" for their thesis project under the guidance of Dr Kanav Khera, Assistant Professor-Senior Scale and Dr Mahadev Rao, Head, Department of Pharmacy Practice, Manipal College of Pharmaceutical Sciences on January 6, 2020. The project is aimed to make a hospital-based cancer registry for Shirdi Sai Baba Cancer Research Institute (now Manipal Comprehensive Cancer Care Centre). It is an active collaboration with technical experts, Dr Karthik Udupa, Head, Oncology, KMC and Mr Balaji Badhrinarayanan, Assistant Professor and Dr Sudhakara Upadhyya, Manipal School of Information Science.



15. Dr Mamatha D Daivajna, Assistant Professor–Selection Grade, Department of Physics, Manipal Institute of Technology, MAHE, Manipal, has received a research grant from UGC-DAE CSR, Indore in March 2020.



16. Dr Deepika Shetty, Director, MSAP received 'Overall Best Paper Award' for presenting a paper titled "Identifying local morphology by comparing space syntax of four heritage towns in Udupi district of coastal Karnataka, India" in the 1st International Symposium on Sustainable Rural Built Environment (SRBE 2020) held at Kulliyah of Architecture and Environmental Design, International Islamic University, Malaysia on 4-6 February 2020.



17. Dr Nandineni Rama Devi, Professor, MSAP, received the “Best Paper Award” for presenting the paper titled “Influence of Intercultural Dialogue through Design (Idide) On Student Learning: Illustration through Design of Anganwadi Centers during Idide in Manipal, India” in the 1st International Symposium on Sustainable Rural Built Environment (SRBE 2020) held at Kulliyah of Architecture and Environmental Design, International Islamic University, Malaysia between 4-6 February 2020.
18. Ms Kala Choyimanikandyil, Associate Professor, MSAP received the “Best Paper Award” for presenting the paper titled “From Caves to the Dwelling: Beautiful Experience in Nilgiris, South India” in the 1st international Symposium on Sustainable Rural Built Environment (SRBE 2020) held at Kulliyah of Architecture and Environmental Design, International Islamic University, Malaysia between 4-6 February 2020.
19. Mrs Sanghamitra Roy, Professor, MSAP, MAHE received the MAHE - UNSW Collaborative research seed funding for a duration of 12 months commencing from January 01, 2020, for the project titled “Improving women’s safety in public spaces”.
20. Dr Veena Rao, Professor, MSAP, MAHE was awarded MAHE UNSW Collaborative research seed funding scheme 2019 for a duration of 12 months commencing from January 01, 2020 for the project titled ‘Circular economy and collaborative consumption exploring new business models to achieve sustainability within the apparel industry’.
21. Dr Dhivya Kandaswamy, Assistant Professor, Department of Immunohematology and Transfusion Medicine, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal was awarded the prestigious “I TRY IT - A young investigator training in Transfusion Research” by International Society of Blood Transfusion.
22. Dr Chythra Rao, Associate Professor and Dr Suma Nair, Professor and Head, Department of Community Medicine, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal collaborated to develop a Healthcare Passport platform for record-keeping of vaccination in children.



23. Dr Navin Sulakshan Salins, Professor and Head, Department of Palliative Medicine and Supportive Care, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal qualified for a Fellowship in Royal College of Physicians and Surgeons, Glasgow.

24. Dr Satish Kumar Adiga, Professor and Head, Department of Clinical Embryology, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, was conferred the Young Achiever award by the parent body- Indian Society of Assisted Reproduction: at ISAR 2020, Hyderabad.

25. Dr Vasudha Devi, Professor and Head, Department of Pharmacology was conferred with Professor Suresh C Tyagi Award during International Conference of Cardiovascular Sciences -2020 for the paper titled "Cardioprotective potential of ligands from Amalaki Rasayana in myocardial remodeling: A molecular modeling study" held in Delhi between 21st to 23rd February 2020.



C. Achievements by Research Scholars and students

1. Dr Anna Jacob, 2nd Year PG, Department of Orthodontics, MCOADS, Mangalore participated in Competitive Paper Presentation and presented a clinical innovation paper titled "A novel Approach to Cleft Therapy". She won second prize at the 24th IOS PG Convention at Hyderabad held on 20th February 2020.

2. Dr Shubham Agarwal, Dr Saagarika Sharma, Dr Radhika Gupta (Interns) of MCOADS, Mangalore won the best paper presentation award on topic "Perception of intern students regarding the effectiveness of Dental practice management education" held at 73rd Indian Dental Conference held at Kovalam, Kerala from January 23-26, 2020.



3. Mr Aayush Anand Poddar Intern, MCOADS, Mangalore delivered an Oral Paper Presentation on the research work titled- "Age estimation by measuring open apices in mandibular teeth in 5-20 years age". He received "The Judge's Choice Award" for Best Presenter at the 10th UiTM Dental Students Scientific Symposium, Malaysia, 10-12 February 2020



4. Ms Mahima Seetaram, Intern, delivered an Oral Paper Presentation on the research work titled-"Comparative evaluation of pH, oral health status, and the count of S.mutans and lactobacillus species in the oral cavity in patients presenting with gastro-ental diseases using saliva: A clinico-microbiological pilot study". She received the Judge's Choice Best Oral Presenter and second Runners up for Oral Paper



Presentation at the 10th UiTM Dental Students Scientific Symposium, Malaysia, 10-12 February 2020

5. Mr Abhinav Kathuria, Intern MCOADS, Mangalore presented a paper titled, " Willem's I, Willem's II, Demirjian; Age estimation using Radiographic Techniques in young adults" for which he won the first prize for Best Oral Presentation at the 10th UiTM Dental Students Scientific Symposium, Malaysia, 10-12 February 2020.



6. Ms Pooja P Netalkar, Intern, MCOADS, Mangalore presented a Poster on topic "Veneers to Thineers, Onlays to Vonlays – A Conservative Approach" for which she won the Best Poster Presenter Award at the 10th UiTM Dental Students Scientific Symposium, Malaysia, 10-12 February 2020.



7. Preeti N Prabhu, Intern, was awarded the Root Canal Foundation at the 8th Annual Young Achievers Scholarship for the academic year 2019-20. It included a fully sponsored three-day master class program in modern endodontics conducted by Dr Gopi Krishna from 25th-27th February at Chennai.



8. Dr Aakash Jain (Intern), Dr Joanna Baptist (Associate professor, Oral and Maxillofacial Surgery) and Dr Rushita Pati (Intern), MCOADS, Mangalore won the third place in the annual Innovation Festival (Best of MAHE Innovations) held at the MAHE Innovation center in MIT, Manipal on 29 February 2020 for their project titled "Portable Dental Auxiliary".



9. Ms Shubhangi Gupta, Ms Stuti Mishra, Ms Shubhangi Behl, Interns, MCOADS, Mangalore presented a review poster titled "Nanotechnology-A Recent Advancement in the treatment of Dentinal Hypersensitivity" in poster presentation competition organised by the Department of Conservative Dentistry and Endodontics, AB Shetty Memorial Institute of Dental Sciences on the account of Cons-Endo Day on 5th March 2020. They bagged the second position in the poster presentation competition.



10. Ms Sreejisha, Research Scholar in Microbiology under the guidance of Dr Gopalakrishna Bhat received a DST-Inspire fellowship from the Department of Science and Technology, Ministry of Science and Technology, Government of India.



11. Ms Priyanka Naik, final year MSc (SLP) student, at MCHP/ Kasturba Medical College, Mangalore won the Best Oral Paper Award (Shaila Vora Award) for best paper in Language Pathology under the guidance of Dr Sudhin Karuppali at 52nd Indian Speech and Hearing Association (ISHACON) conference held at Chandigarh between 14-16 February 2020. Her paper was titled "Assessing the comprehension of figurative expression: Using a proverb and Idiom based explanation task".



12. Ms Aditi Paul, MA, first year, MCH, MAHE, Manipal, received travel grant, for Chikitsa 2020 which was held during (12th-13th March 2020), Pune for an oral presentation of her paper "Representation of Masculinity in Ismat Chughtai's short stories".

13. Mr Dhritman Roy, Ms Ekta Agarwal and Mr Debabhrata Bhunia, 3rd and 4th Year, BSc HIM, Health Information Management, MCHP, MAHE, Manipal, received the Best Poster at the MEDRECON 2020 held at Kochi, Kerala on 7th and 8th February 2020.

14. Mrs Anupama DS and Ms Tenzin Phagdol, PhD scholars of MCON, MAHE, Manipal have undergone training on Advanced evidence synthesis from 17th March 2020 to 9th May 2020 at Social Science Research Unit, UCL, London.

15. Ms Reema Narayan, Research Scholar, Department of Pharmaceutics, MCOPS received a "Woman Scientist Award" at International Conference on Advances in Pharmaceutical and Health Sciences (ICAPHS 2020) held at NITTE University during 20-22 February 2020. She presented her paper titled "Development of risperidone liposomes for brain targeting through intranasal route".



16. Mr Saurabh Mandal, PhD Scholar, MIRM, Bangalore was awarded first place for the presentation of Best Poster on "Impact of miR-499a-5p in direct cardiac reprogramming of mesenchymal stem cells" at the International Conference on Bio-engineering and Regenerative Medicine (ICBR 2020), School of Bio-chemical Engineering, IIT, BHU, Varanasi, February 26-29, 2020.

17. Ms Anita D Souza, 3rd year, PhD, Department of Physics, Manipal Institute of Technology, MAHE, Manipal has received the Best Oral Presentation award in National Conference on Novel Materials and Device for Future Application (NMDFA-2020), which was held on 18th February 2020 at St Aloysius College, Mangalore.



18. Mr Prashanth Barla, Research Scholar, Department of ECE, MIT, MAHE, Manipal received the "Best Paper" award in the oral presentation of the 2020 Fifth International Conference on Devices, Circuits and Systems (ICDCS) held at Coimbatore, India on 5th and 6th March 2020.

19. Dr Sajja Lakshmi Manasa, Junior Resident for Neurology, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, was awarded the second prize for platform presentation at the 10th Annual conference of Karnataka Neurosciences Academy (KNAACON 2020) held between 11 and 12 January 2020 at Belagavi. The award includes a cash prize.

20. Dr Chandermani, Junior Resident of Hospital Administration, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal bagged the best-case presentation prize at the National Conference on Safe and Sustainable Hospitals, held during 21-22 February 2020 at AIIMS, New Delhi. The prize includes a certificate and cash prize.

21. Dr Raman Jindal, Junior Resident of Orthopaedics, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal has bagged the best prize for his paper titled "Racial and ethnic differences in upper limb anthropometry and hand strength" at the 44th Annual Conference of KOACON 2020 held at VIMS, Bellari between 31 January to 2 February 2020.

22. Dr Saraswathi Ram Mohan, Junior Resident of Pathology, Kasturba Medical College, and Hospital, Manipal Academy of Higher Education, Manipal has bagged the best paper prize for her paper at the Cytology CME held at Srinivas Institute of Medical Sciences, Mukka, Mangaluru, on 11 February 2020. The award includes a cash prize.

23. Dr Isha Polavarappu, Junior Resident of Immunohematology and Blood Transfusion, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, was awarded the postgraduate student award conferred by ISTM for her work on Molecular Characterization of Rh D Variant phenotypes Among Blood Donors From Coastal Karnataka' at the TRANSMEDCON 2020 held between 9-11 January 2020 at Mumbai. The fellowship includes conference registration fee, travel and accommodation expenses

D. Awards and accolades

1. Dr Ashok Shenoy K, Professor, Department of Pharmacology, Kasturba Medical College, Mangalore, MAHE, Manipal won third prize for the poster presentation at the 13th Annual Conference of the Indian Society for Clinical Research held at Mumbai from 24-25 January 2020. His Poster was on "Pharmacovigilance Knowledge among Physicians and the Impact of an Educational Intervention". The co-authors were Dr Ashwin Kamath, Dr Mukta N Chowta, and Dr Archit Bolor.



2. Dr Prateek Rastogi, Professor and HOD, Forensic Medicine Department, Kasturba Medical College, Mangalore, MAHE, was honoured with a certificate of appreciation for outstanding contribution as a reviewer for the year 2019 for Journal of Indian Academy of Forensic Medicine.



3. Dr Bhamini Krishna Rao, Professor, Department of Physiotherapy, MCHP, MAHE Manipal, and Mr Harikishan Shetty, Biomedical engineer, MIT Manipal received a research grant from BIG-BIRAC on "Second generation Urinary incontinence Trainer" on 8 February 2020. It is a collaborative project mentored by Dr V S Venkatesan, Professor, Department of Biomedical Engineering, MIT Manipal, Dr Sivakumar G, Associate Professor, Department of Physiology, Dr Rajeshwari G Bhat, Additional Professor, Department of Obstetrics and Gynecology MMMC, Dr Arun Chavla, Professor, Department of Urology, KMC, Manipal.



4. Dr Vinita A Acharya, Associate Professor and Head, Department of Occupational Therapy, MCHP, MAHE Manipal, received the Best Paper award for Mental Health category at OTICON-2020, National OT conference held in Mumbai during 16-18 January 2020, organized by All India Occupational Therapy Associations.



5. Dr Sumith, Assistant Professor-Senior Scale, Department of Information and Communication Technology, Manipal Institute of Technology, Manipal was honoured with BITES for the Best thesis award for 2018 and a cash prize on 27 January 2020 at Bangalore.



6. Dr Ravilla Dilli, Assistant Professor (Selection Grade), Department of ECE, Manipal Institute of Technology, MAHE, Manipal received Best Paper Award in the second IEEE International Conference on Innovative Mechanisms for Industry Applications (ICIMIA 2020) at Dayananda Sagar College of Engineering, Bangalore during 5–7 March. Paper Title: “Analysis of 5G Wireless Systems in FR1 and FR2 Frequency Bands”.



7. Dr Divya V Pai, Associate Professor, Community Medicine, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal received the Best poster prize for her presentation titled “Assessment of factors influencing sex ratio at birth in Udupi district, Karnataka, India: a Cross sectional analysis” at the 47th Annual National Conference of Indian Association of Preventive and Social Medicine held during 28-30, January 2020 at Mahabalipuram.

8. Dr M Sudhakar Rao, Associate Professor of Cardiology, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal won the best presentation for the poster titled “What the eye cannot see, mind does not know. All well that ends well” at the Conference 2nd CHIP – CTO India in New Delhi (Marriott), held during 10-12 January 2020.

9. Dr Pratap Kumar, Professor of Obstetrics and Gynecology, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal, received 2020 New Year Award

for outstanding contribution in the field of Fertility and Reproductive Medicine from Academy of General Education in Collaboration with MAHE, Syndicate Bank, Manipal, on 11 January 2020.

10. Dr Hitesh H Shah, Professor of Orthopaedics, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal received the Best paper award in Paediatric Orthopaedics at the 4th Annual Conference of KOACON 2020 held at VIMS, Bellari during 31 January to 2 February 2020.
11. Dr Prajwal P Mane, Assistant Professor of Orthopaedics, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal received the third prize in Arthroplasty session at the 44th Annual Conference of KOACON 2020 held at VIMS, Bellari during 31 January to 2 February 2020.
12. Dr Suneel C Mundkur, Professor of Paediatrics, received the prestigious Dr TMA Pai Gold Medal for his Outstanding Research Publication (Co-author) at the MCON Annual day, Manipal on 2 February 2020.
13. Dr Navin Sulakshan Salins, Professor and Head, Department of Palliative Medicine and Supportive Care, Kasturba Medical College and Hospital, Manipal Academy of Higher Education, Manipal received the award for "Excellence and leadership in palliative care (doctors) 2019-20" at the 27th International Conference Of Indian Association Of Palliative Care at Guwahati from February 14-16, 2020.

Part II

A. Featured Researcher of MAHE

Dr C Mallikarjuna Rao is the Principal of Manipal College of Pharmaceutical Sciences and Professor, Department of Pharmacology, MCOPS, MAHE. He received his PhD from Mangalore University in 1990. His areas of research are inflammation, cell proliferation-comprising tissue repair, diabetes, and cancer respectively. In his initial years of research, Dr Rao worked in the area of inflammation and gradually moved into wound healing, discovering drugs for wound repair. Later, he explored molecules for the treatment of diabetes. Of late, Dr Rao and his team have been working to develop molecules for the treatment of cancer focusing on nanoparticles and drug-embedded polymers. His recent paper being "Biologicals to direct nanotherapeutics towards HER2-positive breast cancers" published in *Nanomedicine: Nanotechnology, Biology and Medicine*, 2020 April with authors Kumar G, Nandakumar K and Mutalik S. Dr Mallikarjuna has presented over 50 research papers in National and international conferences. Currently, his team is working on the "Development of Multi-functional, bio-engineered nano-carrier system for targeted drug therapy against breast cancer", a DST-FIST funded project. To his credit, Dr Rao has over 140 publications and a patent. He has guided over 10 PhD students and has completed 24 funded projects successfully.



In his message to budding researchers, Dr Rao says, *"Present-day researchers are exuberant. To them, information and resources are freely available. All that they have to do is choose their area of interest and adhere to the following:*

1. *Think different*
2. *Ask unique research questions*
3. *Develop research protocols and plan accordingly*
4. *Reach your goal and attain success"*

He plans to initiate the following courses-Master's program in Nano-Pharmaceutical Sciences, Master's program in Targeted Drug Delivery Systems:

a. Top ten publications for the period Jan - Mar 2020

Title of Publication	Name of the author and Institution	Journal	Month and Year of Publication	Quartile
Efficacy of the Metropolis Algorithm for the Minimum Weight Codeword Problem using Codeword and Generator Search Spaces	Dr Ajitha Shenoy K B MIT Manipal	IEEE Transactions on Evolutionary Computation	March 2020	Q1 (Top 1)
NO _x reduction behaviour in copper zeolite catalysts for ammonia SCR systems: A review	Sooraj Mohan, Dr Dinesha P, Dr Shiva Kumar Manipal Institute of Technology	Chemical Engineering Journal	March 2020	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	Redox Biology	January 2020	Q1 (Top 2-9)
Hypoxia-responsive nanoparticle-based drug delivery systems in cancer therapy: An up-to-date review	Rashmi Kumari, Dr Dhanya Sunil Department of Sciences/Manipal Institute of Technology	Journal of Controlled Release	March 2020	Q1 (Top 2-9)
Receptor specific, stimuli-responsive and subcellular targeted approaches for effective therapy of Alzheimer: Role of surface engineered nanocarriers	Divya Gopalan, Dr Srinivas Mutalik, Dr Abhijeet Pandey, Dr Nayanabhirama Udupa Manipal College of Pharmaceutical Sciences (MCOPS)	Journal of Controlled Release	March 2020	Q1 (Top 2-9)
Heterogeneous surface-modified nanoplatforams for the targeted therapy of haematological malignancies	Sanjay K, Dr Srinivas Mutalik, Dr Abhijeet Pandey, MCOPS	Drug Discovery Today	January 2020	Q1 (Top 2-9)
Visitors' Place Attachment and Destination Loyalty: Examining the Roles of Emotional Solidarity and Perceived Safety	Dr Vidya Patwardhan, Mr Valsaraj P, Ms Jyothi Mallya, WGSHA	Journal of Travel Research	February 2020	Q1 (Top 1)
LAM-CIoT Lightweight authentication mechanism in a cloud-based IoT environment	Mohammad Wazid*, Dr Vivekananda K Bhat, Manipal Institute of Technology	Journal of Network and Computer Applications	January 2020	Q1 (Top 2-9)
Development of a numerical model for performance prediction of an integrated micro combustor-thermoelectric power generator	Karan Prakash Hiranandani, Manipal Institute of Technology	Energy	February 2020	Q1 (Top 1)
A zinc-quinone battery for paired hydrogen peroxide electrosynthesis	Sarvajith M S, Dr Fasiulla Department of sciences/MIT Manipal	Journal of Colloid and Interface Science	February 2020	Q1 (Top 2-9)

Part III

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

MAHE Students' Research Forum (MAHE-SRF) is an active body, dedicated to develop and inculcate the research interest among students of MAHE. MAHE-SRF 2020 was constituted in January, comprising undergraduate, postgraduate and doctoral students of the constituent institutions of MAHE. This body has a core team of 38 students from Manipal, Mangalore and Bangalore campuses. The president for the forum is Dr Modem Roopa from Manipal Institute of Management and the Vice-presidents are Ms Sangeetha D N, Mr Ravi Prasad, Ms Radhika Aditya Jadhav from Manipal Institute of Technology, Manipal School of Life Sciences and Manipal College of Health Professionals respectively. One faculty from each institution is selected as a mentor to guide the members of the forum.



Research day was conducted by MAHE-SRF, KMC Mangalore, on 22nd February at Marena where students presented their work in the form of ideas, research presentations, and publications.

Ideathon was introduced by Dr Arun Shanbhag, Chief Innovation Officer, MAHE, Manipal and Dr Manesh Thomas, CEO, Manipal-Government of Karnataka Bio-incubator. Dr Vaman Kulkarni, Dr Sauda, and Dr Suchetha S Rao were mentors. Over 90 students took part in Ideathon.

The outgoing council of MAHE-SRF, KMC Mangalore was felicitated by Dr Kamala Selvaraj for their wonderful work for the year 2019-2020, which included:

1. Mr Abhishek Gannu, President
2. Ms Krithika Kamath, Vice President
3. Ms Kritika Chopra, General Secretary
4. Ms Aarushi Lall, Treasurer
5. Mr Matthew Antony Manoj, Editor

The investiture ceremony of the new council of MAHE-SRF, KMC Mangalore for 2020-2021 was also conducted, which includes:

1. Mr Kostubh Singh, President
2. Ms Oishee Bhattacharya, General Secretary
3. Mr Deepanshu Narang, Editor



The Compendium of Students' publication was released by the dignitaries on this occasion. A display of all the student publications in 2019, a total of 49 publications, was the major highlight of the day.

Students who received the ICMR STS 2018 and MAHE UG Research Grant 2019 were awarded certificates by the chief guest. Dr Kamala Selvaraj delivered an enlightening keynote address on the topic "Assisted Reproductive technologies". Over 200 final year MBBS students and several other students and faculty attended and benefitted from the talk.



Editorial Team

1. Dr N Udupa, Director Research (Health Sciences) MAHE, Manipal
2. Dr Bharti Chogtu Magazine, Deputy Director Research (Health Sciences) MAHE, Manipal
3. Dr Santhosh K V, Deputy Director Research (Technical Sciences) MAHE, Manipal
4. Dr Rekha R Shenoy, Associate Professor, Department of Pharmacology, Manipal College of Pharmaceutical Sciences, MAHE, Manipal
5. Dr Manthan D Janodia, Professor and Head, Department of Pharmacy Management, Manipal College of Pharmaceutical Sciences, MAHE, Manipal