



**MANIPAL COLLEGE
OF PHARMACEUTICAL SCIENCES**
MANIPAL
(A constituent unit of MAHE, Manipal)

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Ad Meliora

a biannual newsletter

MCOPS:

The most sought-after destination for
pharmaceutical education and research



Pharmacy and Pharmacology
#

150-200



Programs: DPharm | BPharm | MPharm | PharmD | PharmD (PB) | Doctoral

Faculty Awards/Achievements

Dr Srinivas Mutalik gets recognition as one of the top 2% researchers in the World Ranking 2021.

19th Oct 2021: Dr Srinivas Mutalik, Professor and Head, Department of Pharmaceutics, MCOPS, is listed as one of the top 2% researchers in the World Ranking 2021. Elsevier in association with Stanford University has created a publicly available database of over 100,000 top scientists that provides standardized information on citations, h-index, co-authorship adjusted hm-index, citations to papers in different authorship positions, and a composite indicator. Scientists are classified into 22 scientific fields and 176 sub-fields.

More details are available at:

<https://elsevier.digitalcommonsdata.com/datasets/btchxktyw/3>

Dr Srinivas Mutalik is a renowned researcher in the area of Novel and Targeted Drug Delivery. He completed PhD in 2004 from MAHE, Manipal and three years of postdoctoral research at the University of Queensland, Australia. He was a visiting researcher at A-Star Institute, Singapore in 2016. Dr Mutalik has more than 165 publications in reputed journals and has ten patents to his credit. Dr Mutalik is the recipient of various research grants from funding agencies such as DBT, DST, ICMR, AICTE, SERB, BIRAC, VGST, BRNS, and several pharmaceutical companies. He has received several awards like Dr T M A Gold Medal Award, Best Poster/Oral Presentation Awards, Distinguished Alumni Award, APTI Young Pharmacy Teacher Award, VGST Award for Best Research Paper, etc. Dr Mutalik is a supervisor for several PhD and PG students.



Congratulations Dr Mutalik for this achievement!

Dr Girish Pai K, Faculty member, MCOPS and Coordinator, Centre for cGMP, MAHE, Manipal handed over a copy of 'Pharmaceutical Consumer Complaints' to Ms Shobha Karandlaje, Union Minister of State, Government of India.

5th Nov 2021: Dr Girish Pai K, Faculty at MCOPS and Coordinator, Centre for cGMP, MAHE, Manipal handed over a copy of 'Pharmaceutical Consumer Complaints' to Ms Shobha Karandlaje, Union Minister of State, Ministry of Agriculture and Farmers Welfare, Government of India. Ms Shobha Karandlaje is the Member of Parliament of the

Udupi Chikmagalur constituency. Dr Pai also appraised the Cabinet Minister on the establishment of the world's first-ever digital museum on pharmaceutical quality 'Manipal cGMP museum' dedicated to the founder of MAHE, Dr T M A Pai, Padmashree Awardee.

Ms Shobha Karandlaje, who carries high regard and respect for Dr T M A Pai stated that "Dr Pai started small but dreamt big. He incorporated scale in all his actions. The benefit of his efforts is reaped by millions today, be it in the education system, financial sector, or healthcare system. Constant growing employee count due to the expansion of the MAHE, Manipal is a boon to job seekers." She conveyed her best wishes and success for the Manipal cGMP museum project under the centre for cGMP, MAHE, Manipal.



Mr Venkatesh Kamath B received the best poster award at 'KrupaPharmaCon-2021'

3rd Jul 2021: Mr Venkatesh Kamath B, Assistant Professor (Senior scale), Department of Pharmaceutical Biotechnology received the best poster award for research work entitled 'Studying gene mutation in the acquisition of Fluoroquinolone resistance in uropathogenic E coli' co-authored with Mr Venkat



Earny and Dr Kanav Khera at the 3rd Global online conference and workshop on drug development 4.0: Emerging technologies 'KrupaPharmaCon-2021' organized by Krupanidhi College of Pharmacy, Bengaluru on 2nd and 3rd Jul 2021.

Mrs Ramya Ravi received third prize for poster presentation at SPER 10th annual conference

9th Oct 2021: Ramya Ravi, Faculty, Dept of Pharmaceutical QA received the third prize for a poster presentation titled- 'A comparative study on academia-industry technology commercialization among ASEAN countries' at the 10th Annual International Conference and Exhibition [SPER 2021] organized by the Society of pharmaceutical education and research [SPER] held on 8-9th Oct 2021 in collaboration with the Faculty of Pharmacy, Ganpat University, Mehsana (Gujarat) India sponsored by Gujarat Council on Science and Technology (GUJCOST), Government of Gujarat, and Department of Science and Technology (DST), Government of Gujarat on 'Theme: Innovations in healthcare: Integrating academia and industry'.



Dr Sonal Sekhar M bags second-best oral presentation award

22nd Oct 2021: Dr Sonal Sekhar M, Assistant Professor-Selection Grade, Dept of Pharmacy Practice, MCOPS received the second-best oral presentation award under the category 'Pharmacovigilance and patient safety case reports' for the topic entitled 'Cefepime-induced neurotoxicity: A retrospective cohort study in a South-Indian tertiary healthcare facility' during the second International virtual conference on Advances in Health Economics and Outcomes Research jointly organized by ISPOR NITTE (Deemed to be University) Student Chapter and Dept of Pharmacy Practice, NGSM Institute of



Pharmaceutical Sciences, Mangaluru, Karnataka, India held on 21 and 22nd Oct 2021.

Appreciation award for Dr Sonal Sekhar M, Faculty of Pharmacy Practice, MCOPS

18th Nov 2021: Dr Sonal Sekhar M (Staff co-ordinator, Pharmacy Literacy Club), Dept of Pharmacy Practice, Manipal College of Pharmaceutical Sciences, Manipal received an appreciation award for organizing the community outreach program on the occasion of World Antimicrobial Awareness Week (18-24th Nov 2021). Dr Sonal received this award on 18th Nov 2021 during the International Conference on Combating Antimicrobial Resistance organized by the Dept of Infectious Diseases, Kasturba Medical College and Hospital (KMC&KH), Manipal. Pharmacy Literacy Club members and volunteers of the Dept of Pharmacy Practice, MCOPS, visited schools, slum areas, and community pharmacies in and around Manipal for educating and creating awareness about the judicious use of antibiotics to reduce antimicrobial resistance. The team distributed pamphlets on COVID-19 awareness to school children and good dispensing practices to community pharmacists. They also distributed masks, sanitizers, sanitary napkins, etc., to the neediest population sector.



Dr Lalit Kumar and Mr Naga Thirumalesh bags second place in Grand Challenge 2021

3rd Dec 2021: Mr Naga Thirumalesh Chevala, Research Scholar and Dr Lalit Kumar, Assistant Professor (Selection Grade), Department of Pharmaceutics bagged second place in the Grand Challenge 2021.

The Grand Challenge 2021 was conducted on 03rd Dec 2021 to promote innovation and entrepreneurship among the students and faculty members of the MAHE fraternity and to solve some of the problems under the UN Sustainable Development Goals. Manipal-Government of Karnataka Bioincubator in association with Student Entrepreneurship Cell conducted this challenge. The Grand Challenge 2021 consisted of two rounds ideathon and hackatho



Mr Naga Thirumalesh Chevala



Dr Lalit Kumar

RESEARCH SCHOLARS' ACHIEVEMENTS

Mr Subham Das received the 'Best Paper Award' in the oral presentation category at ICHTR 2021.

13th Oct 2021: Mr Subham Das, PhD scholar of MCOPS pursuing doctoral research under the guidance of Dr Alex Joseph, Department of Pharmaceutical Chemistry, MCOPS received the 'Best Paper Award' in the oral presentation category for the topic entitled 'Design, synthesis, induced-fit docking, molecular dynamics, and biological evaluation of some thiazolidine-4-ones as PPAR- γ Partial agonists' at the Interdisciplinary Conference on Healthcare and Technical Research (ICHTR-2021), organized by MAHE student research forum under the aegis of Directorate of Research, MAHE, Manipal, India from 11-13th Oct 2021.



Mr Prashant Chandra received the first best oral presentation award

22nd Oct 2021: Mr Prashant Chandra, Research Scholar, Dept of Pharmacy Practice, MCOPS received the first best oral presentation award under the category 'Health economics and outcomes research/ Epidemiological studies' for the research work entitled 'Estimating the cost burden associated with antimicrobial resistance in a tertiary care hospital' during the second International Virtual Conference on Advances in Health Economics and Outcomes Research jointly organized by ISPOR NITE (Deemed to be University) Student Chapter and Dept of Pharmacy Practice, NGSM Institute of Pharmaceutical Sciences, Mangaluru, Karnataka, India held on 21 and 22nd Oct 2021.



Ms Navya Ajitkumar Bhaskaran bagged second prize in poster presentation in APA India 2021

13th Nov 2021: Ms Navya Ajitkumar Bhaskaran, Research Scholar (ICMR-SRF), pursuing her doctoral research under the guidance of Dr Lalit Kumar, Assistant Professor (Selection Grade), Dept of Pharmaceutics, bagged second prize in a poster presentation session (virtual mode) for the topic entitled 'An RP-HPLC method development and validation for rapid and simultaneous estimation of hydrophilic and lipophilic drug encapsulated in a nanoformulation' during the Applied Pharmaceutical Analysis (APA) India 2021 held on 13th Nov 2021 which was organized by Boston International Conferences and the Boston Society in association with Life Sciences Sector Skill Development Council. The research work presented was co-authored by Srinivas Reddy Jitta and Dr Lalit Kumar.



Mrs Santoshi Naik received a scholarship from 'Manohar Parrikar Goa Scholar Scheme', Goa State Government for the year 2019-20.

14th Nov 2021: Mrs Santoshi Naik, a PhD scholar at Manipal College of Pharmaceutical Sciences, has been selected as 'Goa Scholar' under the 'Manohar Parrikar Goa Scholar Scheme' of the Goa State Government for the academic year 2019-20. The Goa Scholar



Scheme conceptualized by the late Manohar G Parrikar, Ex-Chief Minister of Goa, is a flagship scheme of the Goa State Government. The objective of this scheme is to identify and encourage young meritorious and outstanding scholars from Goa who are pursuing their PG or Doctoral studies at reputed universities.

The criteria for the selection were based on curricular and extracurricular achievements, the reputation of the present institution, and performance in the interview.

Mrs Santoshi Naik is pursuing her PhD under the guidance of Dr Srinivas Mutalik at the Department of Pharmaceutics, Manipal College of Pharmaceutical Sciences, Manipal. She has been awarded the prestigious DST-INSPIRE Fellowship for her doctoral studies.

For more details please follow the link:

<https://www.heraldgoa.in/Goa/DHE-selects-30-budding-talents-as-%E2%80%9CGoa-Scholars%E2%80%9D/182437>

Ms Salwa bagged the first prize in an oral presentation at International Symposium on Medication Therapy Management-2021

14th Nov 2021: Ms Salwa, Research Scholar (AICTE-NDF), pursuing her doctoral research under the guidance of Dr Lalit Kumar, Assistant Professor (Selection Grade), Department of Pharmaceutics and co-guidance of Dr C Mallikarjuna Rao, Head



of the Institution and Professor, Department of Pharmacology, MCOPS, bagged the first prize in oral presentation category (virtual mode) for the topic entitled 'Quality by design approach to the stability indicating method development for the quantification of rivastigmine hydrogen tartrate in nano-formulations using HPLC' at the International Symposium on Medication Therapy Management-2021 held during 12-14th Nov 2021 jointly organized by Sultan-Ul-Uloom

College of Pharmacy and CliMed Research Solutions in collaboration with Indian Pharmaceutical Association, World Youth Heart Federation-India, Association of Community Pharmacists of India and International Federation for Medical Therapy Management. The research work presented was co-authored by Srinivas Reddy Jitta, Navya Ajithkumar Bhaskaran, Dr Lalit Kumar, and Dr C Mallikarjuna Rao.

Mr Sivakumar Kannan won the certificate of appreciation for his excellent performance in the National Level e-poster making competition.

25th Sep 2021: Mr Sivakumar Kannan, PhD scholar of MCOPS won the certificate of appreciation for his excellent performance in a National level e-poster making competition organized by Royal School of Pharmacy, The Assam Royal Global University, Guwahati on the occasion of World Pharmacists day, on 25th Sep 2021.



Student Achievements

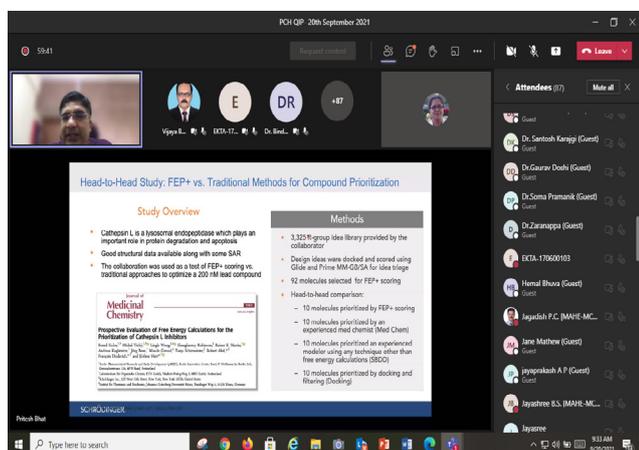
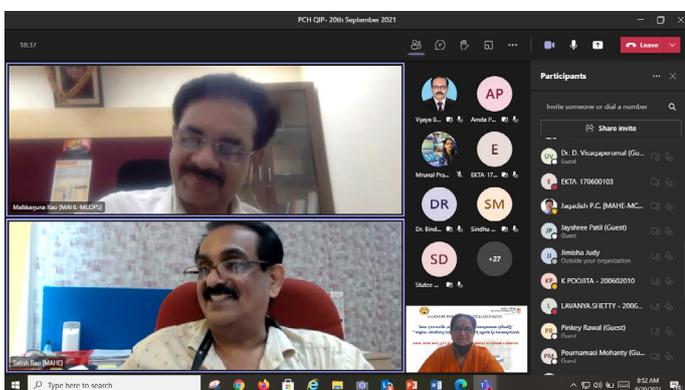
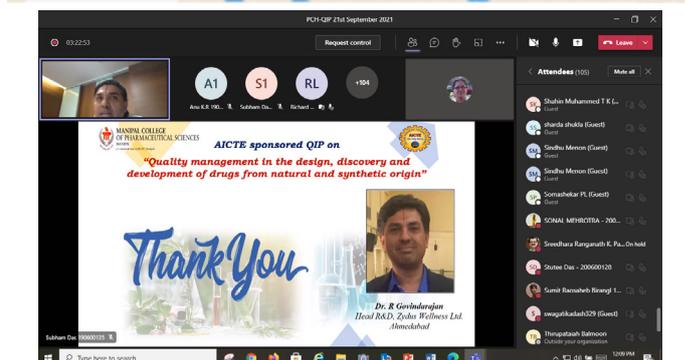
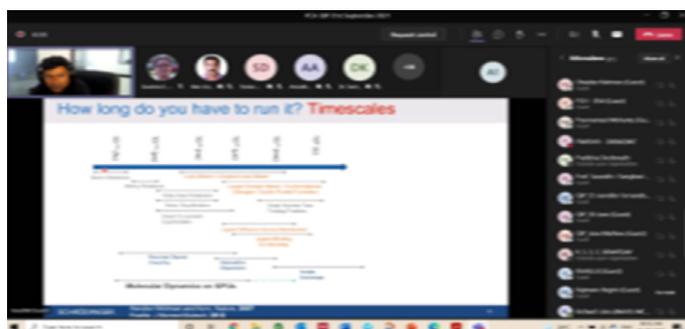
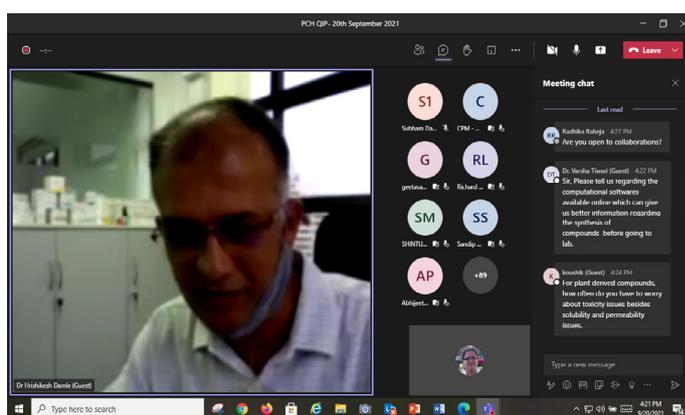
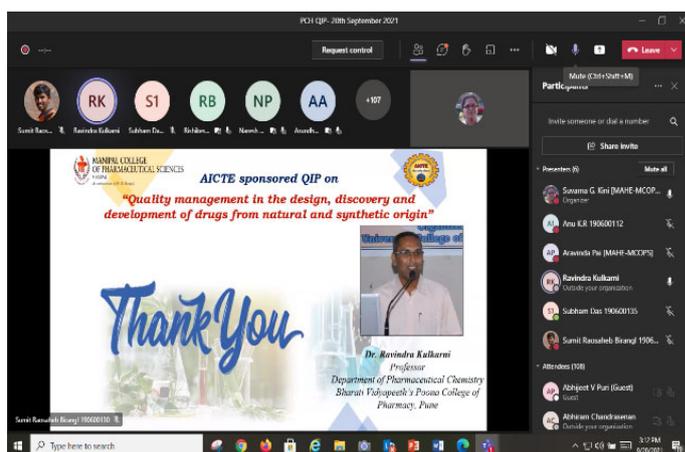
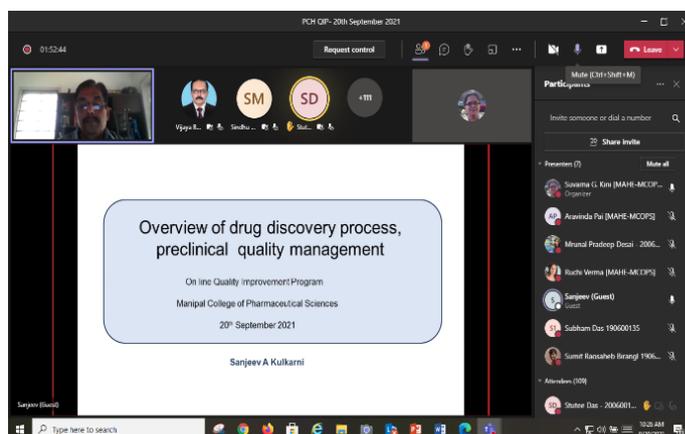
1st Dec 2021: Yashas M, Shreya G, Arjita N, and Anushka B of second-year BPharm secured third place in the Grand Challenge competition 2021. Under the mentorship of Dr Alex Joseph (Dept of Pharmaceutical Chemistry, MCOPS), the team explored innovative solutions for dealing with the waste generated from fish processing. This competition was conducted by the Manipal-Government of Karnataka bioincubator to address the various issues as outlined by the UN Sustainable Development Goals. The competition was held on 1st Dec 2021 and it comprised of two rounds- the ideathon and the hackathon.

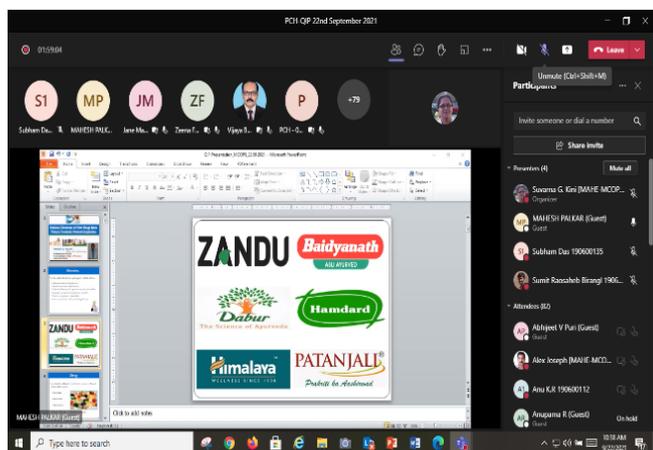


AICTE-SPONSORED QUALITY IMPROVEMENT PROGRAM –PHASE I

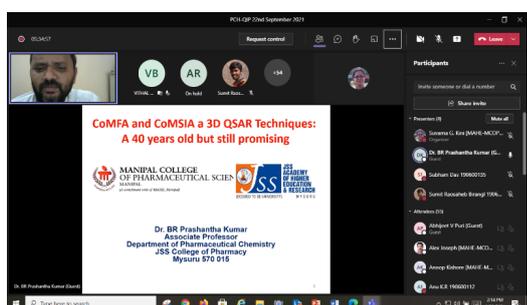
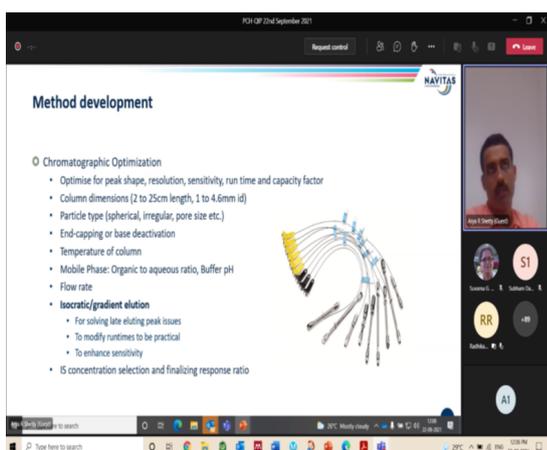
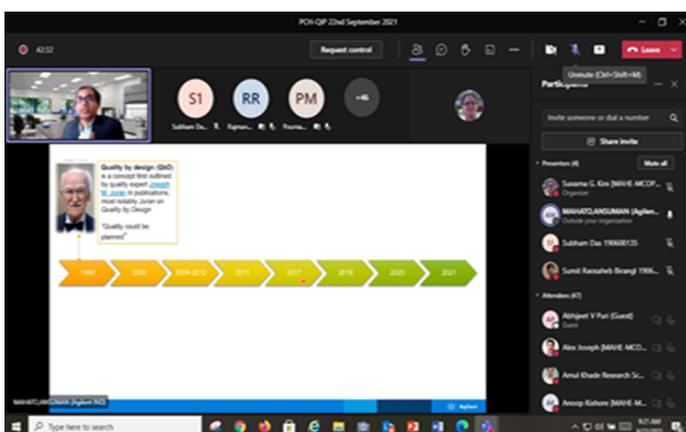
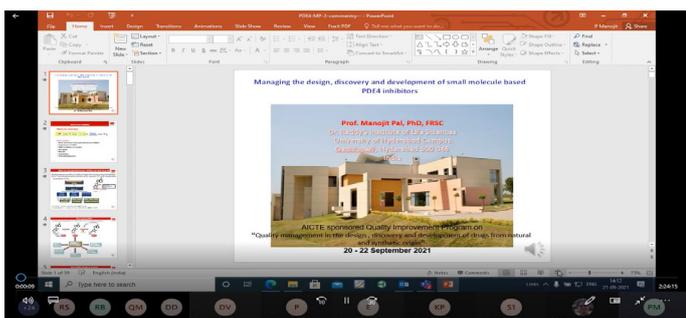
‘Quality Management in the design, discovery, and development of drugs from natural and synthetic origin’(20th – 25th Sep 2021)

20th – 22nd Sep 2021: AICTE sponsored quality improvement program (QIP) on ‘Quality management in the design, discovery, and development of drugs from the natural and synthetic origin’ was organized by the Department of Pharmaceutical Chemistry headed by Dr Suvarna G Kini from 20th to 22nd Sep 2021, followed by Department of Pharmaceutical Quality Assurance headed by Dr Sudheer Murkoothi during 23rd to 25th Sept 2021. The program began with an inauguration on the first day organized by the Dept of Pharm Chem. Ms Mrunal invoked the blessings of God by reciting an invocation followed by a welcome address by our Principal, Dr C Mallikarjuna Rao. After the formal introduction of the Chief guest by Dr Ruchi Verma (Asst Prof Senior scale), the program was inaugurated by the Chief Guest, Dr B S Satish Rao, Director of Research, MAHE, Manipal followed by the vote of thanks by Dr Arvind Pai, (Asst Prof Senior scale). Dr Jeyaprakash RS, Associate Prof was the master of the ceremony (MC).





23rd– 25th Sep 2021: The next three days' QIP programs were organized by the Department of Pharmaceutical Quality Assurance. The registration was free and was done through MS Forms. There were more than 300 teachers registered for the program from various pharmacy colleges across India. The program was conducted online through the MS Teams (MST) platform. The program was inaugurated by Dr Satish Rao, Director of Research, Manipal Academy of Higher Education (MAHE). Principal, Manipal College of Pharmaceutical Sciences welcomed the chief guest and the gathering. Lecture sessions from 20th to 22nd Sep were organized by the Department of Pharmaceutical Chemistry and sessions from 23rd to 25th Sep were organized by the Department of Pharmaceutical Quality assurance. Attendance of each session ranged from 70 to 90 participants. Department of Pharmaceutical Chemistry organized several informative sessions from day one to day three. On day four, Dr Srinivas Patnala from Rhodes University, South Africa interacted with the participants. He presented the need for the criticality of quality control methods for phytopharmaceuticals to align with current and forthcoming regulations. Followed by the session, Dr Raganandan, Founder of RC2 Pharma solutions, Mysore elaborated on the QbD in Pharmaceutical Development. He provided the participants an insight into the Quality Assurance activities in the Pharmaceutical industry with real-time examples and clarified the questions from participants. The afternoon session was a hands-on session on the "Statistical discovery for pharmaceutical sciences featuring data analysis and smarter experimentation/ Design of Experiments by Dr Muralidhara from JMP statistical discovery. He gave a demonstration of various statistical tools for smarter experimentation. On day fifth, Praveen Kumar from Slayback Pharma LLC, USA elaborated on the generic product development, approval procedures, and regulations in the USA. This session was followed by a talk on Future medicine: A perspective on advanced drug delivery technologies by Dr Sushil Y Raut, D Y Patil Institute of Pharmaceutical Sciences and Research, Pune. The afternoon session was on the "Online pharmacy in India" by Vijay



Kumar, Phoenix Financial Services, Bangalore. On day six, Dr Srinivas Savale from ATAL Incubation Centre, Ahmadabad elaborated on the 'Perspectives and advancements in Bioanalysis'. The validation requirements for bioanalysis were dealt with in details. Dr Sanjeev Nair from Lupin Research Park, Pune gave a lecture on the 'Process development for natural and semi-synthetic fermentation-based antibiotics'. Dr Prabhakar K Rajanna discussed with the participants on the advances and various case studies on bioanalysis in the drug industry. The valedictory function was focusing on the feedback from participants. Participants appreciated the quality and content of the program. Feedback from participants on each day's program was also collected through MS Forms.

These topics were of great interest to the participants who learned new concepts and dynamics of the pharmaceutical sector.

Dr Virendra Ligade anchored the valedictory function and thanked all the stakeholders. The participants expressed that the sessions were extremely beneficial to them.



AICTE-SPONSORED QUALITY IMPROVEMENT PROGRAM-PHASE II

AICTE-sponsored a quality improvement program on 'Managing Practice of Pharmacy and Management in post COVID era'

25th-30th Oct 2021: Phase II of AICTE sponsored quality improvement program on 'Managing Practice of Pharmacy and Management in post COVID era' during 25th-30th Oct 2021 was organized by the Department of Pharmacy Management, Manipal College of Pharmaceutical Sciences, MAHE, Manipal. The program was inaugurated on 25th Oct 2021, in the presence of Principal, Dr C Mallikarjuna Rao, Principal, MCOPS, who gave a brief overview of the objectives of AICTE QIP and welcome remarks. Dr Sandeep S Shenoy, Director- Compliance, MAHE, Manipal, was the Chief Guest of the function. Dr Shenoy in his opening remarks for the program highlighted the achievements of the Indian Pharma Industry in the last few decades, succinctly provided a snapshot of the current trends, and also discussed on way forward for the industry post-COVID and the opportunities for Indian Pharma Industry. Dr D Sreedhar, Associate Professor-Senior scale, proposed the vote of thanks.

During one week from 25th-30th Oct 2021, there were a total of 20 speakers from the department, constituent institutions of MAHE, academia, and industry who spoke on diverse topics connected with the theme of the program. The varied topics of discussion included the Pharmaceutical market, industry performance pre and post-COVID, marketing strategies, supply chain management, vaccine distribution, clinical trials, branding of pharmaceutical products during COVID, health economics, changing landscape of regulations and research, the importance of nutraceuticals, etc.

AICTE-SPONSORED QUALITY IMPROVEMENT PROGRAM-PHASE III

QIP held on the theme 'Development and Evaluation of Biopharmaceutical Products' from 6-11th Dec 2021

6-11th Dec 2021: Department of Pharmaceutical Biotechnology organized an AICTE-sponsored QIP for six days from 6-11th Dec 2021 on the theme 'Development and Evaluation of Biopharmaceutical Products'. The program was designed to address biopharmaceuticals in particular and various developments in broad fields of biotechnology, nanotechnology, microbiology, and

their academic and industrial applications. The program received overwhelming participation from sixteen states across India with the highest registrations from Kerala and Karnataka.

On 6th Dec 2021 at 9:00 AM, the master of the inauguration ceremony (MC) Dr Angel Treasa Alex (Associate Professor, Department of Pharmaceutical Biotechnology, MCOPS, MAHE) initiated the virtual inauguration program with highlights of the department's achievements and program aims, which was followed by a spiritual invocation by Megha Meghna (MPharm first-year student, Department of Pharmaceutical Biotechnology, MCOPS, MAHE). Dr Gautham Shenoy G (Professor and Vice-Principal, MCOPS), delivered the welcome address in which he heartily complimented the organizing committee for engaging the event with dynamic speakers from the national and international platforms. Chief Guest of the function Dr M Kalaivani (Senior Scientific Officer and Officer-in-Charge, Biologics Section at Indian Pharmacopoeia Commission, a scientific organization under the Ministry of Health and Family Welfare, Govt of India, Ghaziabad) virtually inaugurated the program, lighting the lamp and highlighted the roles of scientific contributions made by IPA for publishing national formularies and national coordination centre with Pharmacovigilance program of India for quality, safety, and rational use of medicines throughout India. The vote of thanks was proposed by Dr Raghu Chandrashekar, head of the host department.

The first day began with a talk by Dr Josyula Venkata Rao on 'Biotherapeutics, Yesterday, Today, Tomorrow' during which he shared his experiences and valuable insights on the topic and discussed the potential of the Indian Biotherapeutics industry. The second lecture was by Dr M Kalaivani on 'Regulatory and Quality Consideration of Biotherapeutics'. Her talk introduced the importance and services of the Indian Pharmacopoeia Commission's contributions to national research. The talk has introduced the latest scenario and screening prospects included by pharmacopoeia for biologics using critical qualitative parameters for product-related substance, product-related impurities, process-related impurities, potency, and appearance. The talk emphasized complying with IP standards, interpretation of monographs, the standard arrangement, and decoding the information in pharmacopoeia for robust research purposes. The afternoon sessions began at 2:30 PM with Mr Sudarshan Reddy (Manager at Immacule life sciences, Bangalore)

elaborating on 'Development and Evaluation of Biopharmaceutical Products'. The talk addressed topics about the process of recombinant peptide and synthetic peptide application. This was followed by a talk by Dr Subrahmanyam on 'Low-Cost Biosimilar Manufacture'. The presentation elaborated on real-life case studies on the importance of life-saving biosimilars.

The second day (7th Dec 2021) of the program began with a talk on 'Biopharmaceutical Drug Development Strategy for Targeting Brain Cancer' by Dr Rajesh Y, Research Associate, St Jude Children Research Hospital, Memphis, TN, USA. The second talk was delivered by Dr K B Harikumar, Scientist E1, Cancer Research Program, Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram on 'Biosimilars: A Current Perspective'. In the afternoon session, Dr Vasanth Raj, Assistant Professor, Dept of Pharmaceutical Biotechnology, JSS College of Pharmacy, Ooty, spoke about the 'Overview of Pichia pastoris Recombinant Expression System'. Following that talk, Dr Jyothsna M, Assistant Professor, Department of Pharmaceutics, MCOPS, MAHE, Manipal, and Mr Venkatesh Kamath, Assistant Professor (Senior scale) spoke about the topics 'Formulation Development for Protein and Peptide Therapeutics' and 'The Indian Bio-economy' respectively.

The third day (8th Dec 2021) of the program began with a talk on 'Recent advances in RNA therapeutics' by Dr Kiran Kumar, Assistant Professor, Department of Pharmaceutical Biotechnology, MCOPS, MAHE. The next talk of the morning session was delivered by Dr Anup Naha, Associate Professor, Department of Pharmaceutics, MCOPS, MAHE who gave rich insights on the topic 'National Education Policy 2020- An insight into major transformational reforms in higher education'. The afternoon session began with a talk by Dr Jesil Mathew A, Associate Professor, Dept of Pharmaceutical Biotechnology, MCOPS, MAHE on the topic 'Biofilms: The industrial workhorses'. This was followed by a talk by Mr Prajay Gandhi, Quality Assurance Manager, Biologics division, Viatrix, Bengaluru, who shared his industrial experience through the topic 'Scope of Biopharmaceuticals in Indian Pharma Industry'.

The fourth day (9th Dec 2021) of the program began with a talk by Dr Angel Alex, Associate Professor, Dept of Pharmaceutical Biotechnology, MCOPS, MAHE on the topic 'Exploring Myc in cancer Biology - A potential anti-cancer strategy'. The second talk of the day was on the topic 'Entrepreneurship from

Industry point of view' delivered by Mrs Sai Prashanthi who is currently working as Associate Manager, QSC-NTO at Novartis, Hyderabad. The afternoon session began with a talk from Dr S Krishnan, Professor and Head, Department of Pharmaceutical Biotechnology, SRIPMS, Coimbatore who shared his vast academic expertise on the topic 'Peptide therapeutics: Basics and their characterization'. The final talk of the fourth day was by Dr Nithin Chandran, Assistant Professor, Biological and Chemical Research Centre, University of Warsaw, Poland on the topic 'Structural Bioinformatics in Drug discovery'.

The fifth day (10th Dec 2021) of the program began with a talk by Dr Ashish Wadhvani, Professor and Head, JSS College of Higher Education and Research, Mauritius, on the topic 'Development and evaluation of Insulin loaded microneedle- A closed loop transdermal drug delivery system for management of diabetes'. Dr Sujith Varma K, Principal and Head, Dept of Pharmaceutics, National College of Pharmacy, Calicut was the second speaker of the morning session who gave a lucid explanation on the topic 'Opportunities and challenges in vaccine delivery'. Dr Meenashi Vanathi B, Professor, Dept of Pharmaceutics, Karpagam College of Pharmacy, Coimbatore, was the first speaker of the afternoon session who stressed drug delivery systems through the topic 'An update on multifunctional polymers as carriers of the gene and drug delivery'. Dr Karthik N, Post-doctoral research fellow, Dept of Chemistry, University of Cambridge, UK, then spoke extensively on the topic 'Designing better biopharmaceuticals using chemical biology strategies.'

The sixth day (11th Dec 2021) of the program began with a talk by Dr Kalpana Sriraman, Senior Research Officer, The Foundation for Medical Research, Mumbai on the topic 'Combating drug-resistant tuberculosis-the need of the hour.' Dr Suman Labala, working as lead-formulation and drug product development biologics at Dr Reddy's laboratories, Hyderabad, followed it up with a talk on the topic 'Formulation strategies for the development of stable monoclonal antibody formulations.' Dr Vamshi Krishna T, Associate Professor, Dept of Pharmaceutics, MCOPS, MAHE spoke about his research experience on the topic 'Evaluation of pharmaceutical products using light scattering techniques' in the afternoon session.

The valedictory ceremony began at 3.30 PM on 11th Dec 2021 with Dr J Venkata Rao, Professor and Former Head, Dept of Pharmaceutical Biotechnology, MCOPS, MAHE as the chief guest. Mr Venkatesh

Kamath B, Assistant Professor (Senior scale) welcomed the Chief Guest and the gathering who were present on the virtual platform. This was followed by the Chief Guest address who shared his experience of four decades and mentioned to the audience the positives that this six days' QIP program would have had on the participants. Following this was the vote of thanks by Dr Raghu Chandrashekhar H, HOD, Department of Pharmaceutical Biotechnology, MCOPS, MAHE. The MC of the valedictory ceremony was Dr Angel Alex, Associate Professor, Department of Pharmaceutical Biotechnology, MCOPS, MAHE. The QIP program that began on 6th Dec 2021 concluded on 11th Dec 2021.



Dr Gautham Shenoy, Vice-Principal, MCOPS, is seen delivering the welcome address during the inaugural function of QIP



Prof J Venkata Rao, Former Professor and Head of the Department of Pharmaceutical Biotechnology, MCOPS is seen delivering a talk on 'Biotherapeutics, Yesterday, Today, Tomorrow' as a resource person



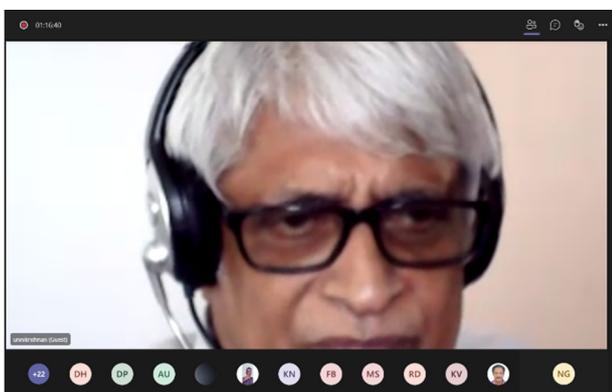
QIP organizing committee of Department of Pharmaceutical Biotechnology, MCOPS, MAHE, Manipal, involving faculties, research scholars, and MPharm students

GUEST LECTURES

Guest lecture organized by the department of pharmacology

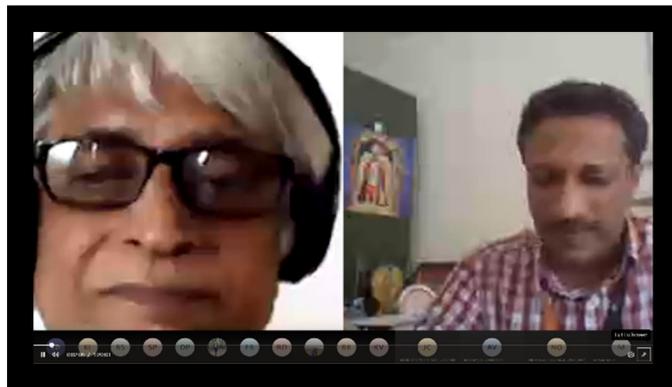
28th Aug 2021: Dr Someswara Rao, Senior General Manager, Axis Clinicals LLC, delivered a talk on 'An overview of bioequivalence' on 28th Aug 2021 at 2:30 PM IST via MST. Dr Rao spoke on the nuances of selecting PK models, crucial in BE studies. He emphasized the application of truncation for dosage forms having long half-lives. Extensive information delving into BE studies conducted adhering to various guidelines was the highlight of the lecture. The three-hour lecture was overwhelmingly appreciated and immensely benefitted 80+ participants. The online audience comprised faculty members from MCOPS and other organizations; in-house research scholars and post-graduate students.

Guest lecture on 'Early beginnings in pharmaceutical regulations' organized by Department of Pharmaceutical Quality Assurance, MCOPS



11th and 13th Aug 2021: Department of Pharmaceutical Quality Assurance, Manipal College of Pharmaceutical Sciences, MAHE, Manipal organized a guest lecture on 'Early beginnings in pharmaceutical regulations' for the benefit of post-graduate students through MST platform. Dr Sudheer Moorkoth, Professor and Head, Department of Pharmaceutical Quality Assurance heartily welcomed the resource person, Prof Dr M K Unnikrishnan, former professor and Head of the Department of Pharmacy Practice, MCOPs and former Director, National College of Pharmacy, Kozhikode. Dr Unnikrishnan explained the brief history of regulations, their origins, and the compulsions that

led to the revolutions in regulations. The participant crowd comprised post-graduate students and faculty members. The lecture helped students to know clearly about the early beginnings of pharma regulations and was accomplished in two sessions. The sessions were conducted between 3 to 4 PM on two days; 11th and 13th Aug 2021.



Welcome address by Prof Dr Sudheer Moorkoth

Invited lectures organized by the Department of Pharmacology on professional and skill development

02nd Oct 2021: Department of Pharmacology, Manipal College of Pharmaceutical Sciences, Manipal organized invited lectures on 'Professional and Skill Development'. The two lectures were divided into four sessions and conducted on 18th and 19th of Sep. The lectures were organized for the benefit of the final year undergraduate (BPharm) and graduate (MPharm and PharmD) students of MCOPS. All sessions were conducted via MST.

The resource person invited to deliver the sessions was an Alumni of MCOPS, Manipal, Mr Abhishek Ghosh, who did his MPharm in Pharmacology during 2002-2004. Mr Ghosh has more than 16 years of experience in the Pharma industry in the fields of Marketing, Production, Clinical trials, Data management, and Biometrics. He also completed his masters in Psychology and is currently pursuing doctoral research in the field of career guidance and counselling.

Mr Ghosh based his talks on the skill set that will be needed in the future world of work. On 18th Sep, during session 1, he talked about the cognitive skills like critical thinking, communication, mental flexibility, planning, and ways of working needed to succeed in any career.

In session 2, conducted on the 19th Sept, self-leadership skills including self-awareness and self-management, entrepreneurship, achievement orientation, etc. were covered. During sessions 3 and 4, on 04th Oct, Mr Ghosh gave an overview of interpersonal skills like

developing relationships, teamwork effectiveness, etc., and digital skills like digital literacy, digital ethics, computational and algorithmic thinking, etc.

The sessions were attended by the graduate and undergraduate students, and the faculty of MCOPS. The lectures were well received and interactive. The speaker engaged with the students and faculty and it helped the students to understand the needs of skill sets required to progress and achieve in their career paths.

Guest lecture on ‘Training in case-based learning’

18th Oct 2021: Dr Devinder Arora, Senior Lecturer, School of Pharmacy and Medical Sciences, Griffith University, Queensland, Australia, delivered a guest lecture on ‘Training in Case-Based Learning’, organized by the Department of Pharmacology, MCOPS, MAHE, Manipal on 18th Oct 2021.

In his lecture, Dr Arora discussed the role and importance of case-based learning and how it can be incorporated along with the regular curriculum of undergraduate and postgraduate programs. The interactive session was attended by the faculty members as well as research scholars from various constituent institutes of MAHE. It reflected upon the background as well as the process behind the development of the cases for case-based learning and how students can be engaged for a better learning experience through the same.

Dr Arora also shared his personal experiences, challenges, and how he overcame them while developing the library of cases. Various faculty members from the Department of Pharmacology also came forward and actively participated in the discussion, which added more value to the session. Dr Jayesh Mudgal, Associate Professor, Department of Pharmacology, MCOPS, Manipal, introduced the speaker and also proposed the vote of thanks.

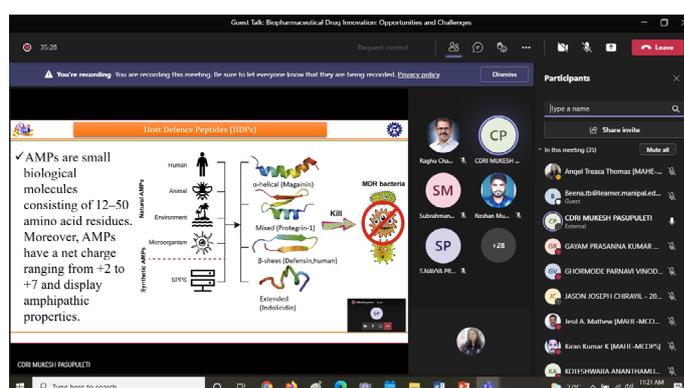
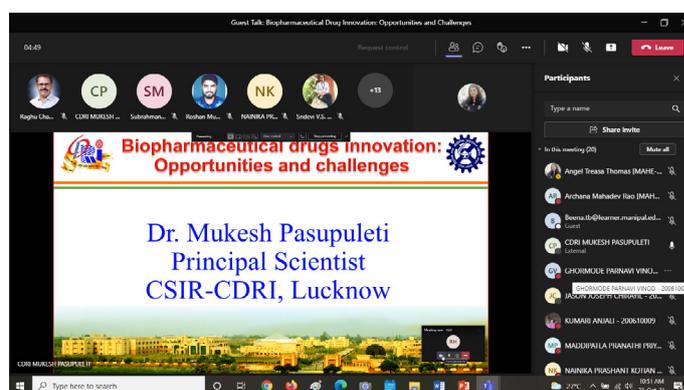
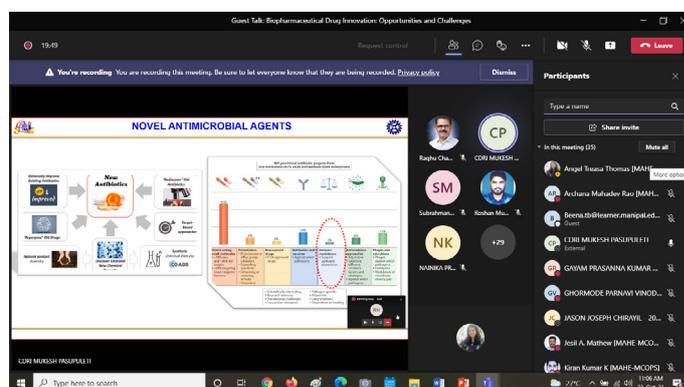
Guest talk organized by the Department of Pharmaceutical Biotechnology, MCOPS

23rd Oct 2021: Department of Pharmaceutical Biotechnology, MCOPS organized a webinar on ‘Biopharmaceutical drug innovation: Opportunities and challenges’ during the forenoon session of 23rd Oct 2021. Dr Mukesh Pasupuleti, Principal Scientist, CSIR-Central Drug Research Institute, Sitapur, Lucknow served as the resource person. The webinar was conducted via MST.

The speaker elaborated on the position of Biotherapeutics or biologics in the area of drug

discovery and disease management. His research team focuses on the discovery and development of Cationic host defense peptides (HDPs) as anti-infective agents. He narrated their 18 years of experience with Biotherapeutics which provided a thorough insight into drug discovery and innovation.

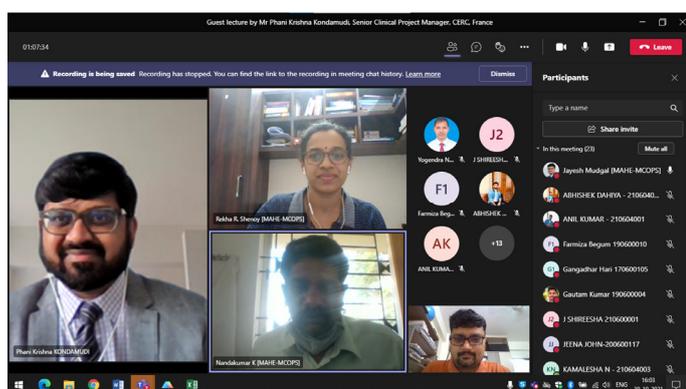
The webinar thoroughly benefitted the faculty members, research scholars, and PG students of the host department as well as others. Over 35 participants attended the session and interacted with the speaker. Dr Mukesh motivated the researchers to take up the research in the field of antimicrobial drug resistance and clarified the doubts raised by researchers and students. Dr Angel Alex, Associate Professor, coordinated the program, welcomed the gathering, and introduced the speaker. Dr Raghu Chandrashekar H, Head of the Department of Pharmaceutical Biotechnology, MCOPS proposed the vote of thanks.



A guest lecture hosted by the department of Pharmacology on 30th Oct 2021

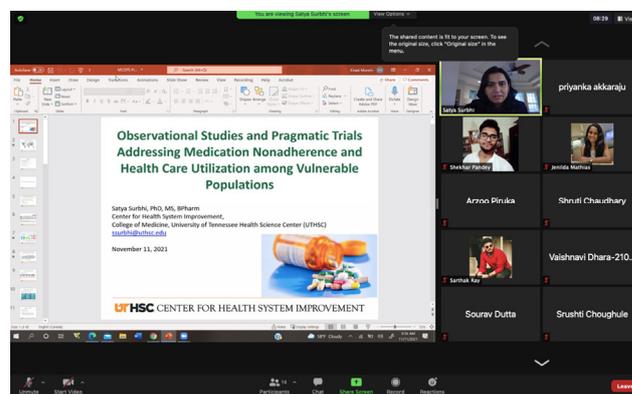
30th Oct 2021: Department of Pharmacology hosted the webinar themed, 'Management of Clinical trials during COVID-19' on 30th Oct 2021 via MST from 3 to 5.30 PM IST. The speaker Phani Krishna Kondamudi deliberated on the risk and mitigation strategies for clinical studies conducted during COVID-19. Despite the travel restrictions of COVID-19, how they were able to remotely coordinate activities of clinical research across Europe was the crux of his talk. The speaker was highly appreciative of the vaccination program and digitization schemes of India, which is still in its infancy in a few European nations. Mr Kondamudi, who is the Senior Clinical Project leader at Cardiovascular European Research Centre, Massy, France shared his expertise in handling various facets of trials, viz., protocol adherence, missing data, and data integrity. He highlighted the challenges faced during the conduct of the clinical trial and the measures taken to resolve issues involving patient follow-up and modification of eCRF during deviations.

Over forty participants attended the lecture which comprised faculty from MCOPS and KMC-Mangalore, research scholars, and post-graduate students of MCOPS.



Guest lecture

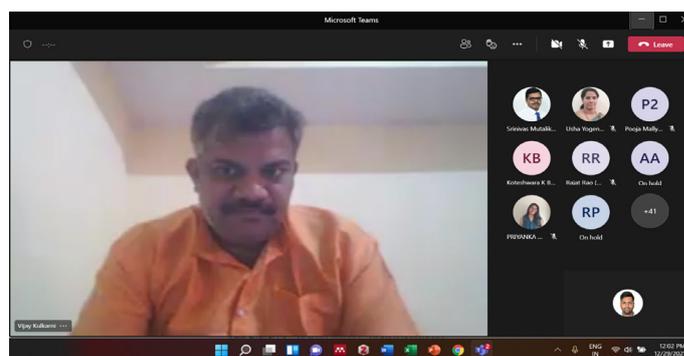
11th Nov 2021: A guest lecture was delivered by Dr Satya Surbhi, Assistant Professor, Centre for Health System Improvement College of Medicine, UTHSC, Memphis, TN on 11th Nov 2021, on the topic 'Observational studies and pragmatic trials addressing medication non-adherence and healthcare utilization among vulnerable population'. Dr Surbhi briefed the participants on medication non-adherence among high-need high-cost patients in the United States. A pilot pragmatic randomized controlled trial to address medication non-adherence was explained which is a part of her current research. Dr Surbhi also emphasized the inclusion and exclusion criteria for the recruitment of patients for various studies and the comparative effectiveness of second-line diabetes medications.



Guest lecture by Dr Vijay Kulkarni

29th Dec 2021: Dr Vijay Kulkarni, General Manager of Business Development and collaboration Steer Life India Private Limited, Bengaluru, India, delivered a guest lecture on the topic 'Recent advances in hot melt extrusion' on 29th Dec 2021 virtually. The event was organized by the Department of Pharmaceutics and the Centre for Drug Delivery Technologies, MCOPS, MAHE, Manipal. Dr Kulkarni gave an insight into the HME and its benefits, as well as its application as green technology in resolving oral bioavailability problems of poorly water-soluble drugs. Additionally, he also discussed the current products available in the market using HME and explained case studies regarding solubility enhancement. He gave an overview of twin-screw granulation with its advantages.

Dr Srinivas Mutalik, Professor and Head, Department of Pharmaceutics; Coordinator, Centre for Drug Delivery Technologies, MCOPS, coordinated the program.



Guest lecture organized by Department of Pharmaceutical Chemistry, MCOPS

31st Dec 2021: Department of Pharmaceutical Chemistry, MCOPS organized a guest lecture on 31st Dec 2021 on MST. Mrs Harita Vasireddi, Managing director of Vimta Labs Ltd., Hyderabad was the resource person for the guest lecture on the topic 'Regulations and Guidelines for the Analysis of Pharma, Biotech, Cosmetics and Food products'. Being in the position of Managing Director since 2015, Mrs Harita has vast experience in this area and was enthusiastic to share her experience with the PG students and research scholars

of the Department of Pharmaceutical Chemistry. She elaborated on various regulating agencies and guidelines that control the export and analysis of pharma, biotech, cosmetics, and food products. For each of these products, she discussed the respective regulations and guidelines involved in their analysis respectively. She displayed a virtual tour of Vimta Labs campus and the facilities for the analysis available there. Around 42 participants attended the talk which included the PG students, research scholars, and faculty of the host department, who were well benefited from her lecture. Dr Jeyaprakash was the MC of this event who also introduced the speaker to the audience and a vote of thanks was proposed by Dr Aravind Pai. The event was organized and coordinated by HOD, Dr Suvarna G Kini.



SPECIAL EVENTS

World antimicrobial awareness week report

Pharmacy Literacy Club (PLC), Department of Pharmacy Practice in association with the Department of Infectious diseases, Kasturba Medical College and Hospital (KMC&KH), Manipal and Manipal Centre for Infectious Diseases, PSHP, MAHE, conducted a week-long Antimicrobial Awareness program between the 18th and 24th of Nov 2021. This year's awareness theme was 'Spread awareness and stop resistance' as issued by the WHO. Blue was the chosen colour to represent the need for awareness, and the entire campus was lit in the same to spread the word.

Department of Pharmacy Practice, MCOPS was a co-organizer for the International Conference on Combating Antimicrobial Resistance organized by the Dept of Infectious Diseases, KMC&KH, Manipal. An inaugural function kick started on 18th Nov 2021, whereby all the faculty members from various departments partaking in the program were introduced, along with the role they were to play in the following days. Dr Kavita Saravu, Professor and Head, Dept of Infectious Diseases, KMC, spoke a few words of encouragement and briefly summarized the various events to look forward in the week.

On occasion, the PLC conducted a series of competitions such as debate, slogan writing, and patient counselling skit on 20th Nov at the Department of Pharmacy Practice, KMC Hospital, Manipal. Mr Swapnil Raj and Ms Fatimazahra Moledina (PharmD-Intern) won first place in the debate. Ms Lavanya Swaminathan (PharmD-Intern) and Ms Anagha Ramamurthy (5th PharmD) became runners-up. The winners of the patient counselling event were Ms Lavanya and Ms Meera (PharmD-Interns), while the runners-up were Mr Parth Gandhi and Ms Suhita R (PharmD-Interns). For slogan writing, the winners were Ms Suhita R and Mr Parth Gandhi (PharmD-Interns). Dr Surlivel Rajan, faculty of Pharmacy Practice, and Dr Asif, an alumnus of MCOPS, judged the debate. The patient counselling skit and slogan writing were judged by Dr Muhammad Raashid and Dr Shilia Jacob Kurian, Research Scholars, Dept of Pharmacy Practice.

PLC hosted a week-long community outreach program in various schools, community pharmacies, and slums in and around Manipal. Five schools (Madhav Kripa English Nursery and Higher Primary School; B M English Medium Higher Primary School, Parkala; Kadekar Anganwadi Kendra, Parkala; Indrali English Medium School, Indrali; and Akshara Academy Primary School, Manipal) in and around Manipal were visited during the occasion. The school visits aimed to spread awareness of the growing antimicrobial resistance looming in our near future and enlighten kids on the judicious use of antibiotics. Since they are society's future, how the world shapes will ultimately depend on their actions and habits. The PLC volunteers took the initiative to teach the kids these complicated subjects by not the usual classroom method, instead of distributing various pamphlets and posters with crosswords and puzzles related to antimicrobial use. The kids had a lot of fun and interestedly asked inquisitive questions that impressed the educators. As part of COVID-19 awareness, kids were taught handwashing and hygiene practices.

PLC members along with VSO volunteers visited a nearby slum named Bijapur and distributed masks, sanitizers, and sanitary napkins. The inhabitants were counselled on appropriate hygiene practices and the proper use of masks and sanitizers. Women were counselled on the importance of proper menstrual hygiene practices and proper usage and disposal of sanitary napkins.

PLC committee and its volunteers also visited various community pharmacies and educated pharmacies in

Manipal (Radha Medicals, Manipal Drug House, Apollo Pharmacy, Sudha Medicals, Vijaya medicals, New Medicals, Manipal Medical Centre, and Thakur Medical Store) about the right way to dispense antibiotics as well as the DO's and DON'Ts associated with antibiotic use. Pamphlets on good dispensing practices (designed by PLC members- Mr Thomas George and Ms Aieshel Serafin Johnson) were handed over to the chief pharmacist at every pharmacy store.

The seven-day event came to an end with the valedictory function hosted at the Department of Pharmacy Practice on 25th Nov 2021. The guest of honor was Dr Muralidhar Varma, Chairman, Hospital Infection Control Committee and Associate Professor, Dept of Infectious Diseases, KMC&KH, Manipal. During his keynote address, he emphasized the importance of preventive medicine and the role of pharmacists in it. He also mentioned how every small step counts towards solving the massive problem of the antibiotic crisis. All the prize winners of the various competitions were awarded the prize money and judges were felicitated during the valedictory. The function ended with Dr Sonal Sekhar M, staff coordinator, PLC, and Ms Raashida Farheen, Secretary, PLC proposing the vote of thanks and subsequently unveiling the upcoming newsletter named DigiDose – the quarterly dispense by the PLC for documenting the events, programs, and educating students and healthcare professionals. Radha Medicals, Manipal Centre for Infectious Diseases, MAHE, and Muscle Info Tech supported the event with sponsorship. In conclusion, it was a successful event that witnessed healthy participation by students and staff.

Pharmacy Literacy Club organized the World Diabetes Day-2021 event

The PLC, Department of Pharmacy Practice, MCOPS observed World Diabetes Day on 13th Nov 2021 at 4 PM at Seminar Hall, Dept of Pharmacy Practice, MCOPS, with the theme 'Access to Diabetes Care'. On this occasion, an open e-poster competition on 'Control diabetes before it controls you!' was conducted for all the colleges under MAHE and various pharmacy colleges across the country. Dr M K Unnikrishnan, Professor, NGSIM Institute of Pharmaceutical Sciences, NITTE University, Mangalore, delivered a guest talk, 'A century of insulin: The grim reality in availability, accessibility, and affordability'.

Ms Kezia Shaji from the Department of Commerce, MAHE bagged the first prize, Ms Srinidhi Ramnath

from Manipal College of Health Professions, MAHE won second prize, Ms Aieshel Serafin Johnson and Mr Sanjay Kurian Mathew from Manipal College of Pharmaceutical Sciences, MAHE took away the third prize for the e-poster competition.

The event finally came to an end with the valedictory function and prize distribution for the winners of the e-poster competition by Dr M K Unnikrishnan at 5 PM. On behalf of the PLC, a memento was awarded to Dr M K Unnikrishnan by Dr Mahadev Rao, as a token of gratitude. Dr Sonal Sekhar M, staff co-ordinator, PLC delivered the vote of thanks.



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MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES

EVENTS

DEBATE
REGISTER AS A TEAM OF TWO
PRELIMS/ FINALS

PATIENT COUNSELLING
REGISTER AS A TEAM OF TWO

SLOGAN WRITING
INDIVIDUAL EVENT

Registration on or before 15th November 2021
Registration link: <https://forms.gle/4HMLT5BSYw62IATH7>
VENUE: Seminar Room, Dept. of Pharmacy Practice, 4th Floor, MCOOS, via New OPD block, KMC, Manipal
TIME: 10 AM ONWARDS
DATE: 20TH NOVEMBER 2021
FOR FURTHER DETAILS CONTACT
RAASHIDA: 8073910412 ELAINE: 7022659146

WEBINARS ORGANIZED BY PROFESSIONAL BODIES

Conference/workshops/training

Third Anniversary of the Manipal Comprehensive Cancer Care Centre and Inauguration of Global Cancer Consortium

10th Nov 2021: Manipal Comprehensive Cancer Care Centre (MCCCC) of Kasturba Hospital, Manipal celebrated its 3rd anniversary on 10th Nov 2021 and on the occasion of this, Dr Mahadev Rao, Professor and Head of Department of Pharmacy Practice, Manipal College of Pharmaceutical Sciences, presented an overview of the Global Cancer Consortium and its collaborators, scope, activities, and impact. He presented the consortium website www.glocacon.org and described various seminars, community outreach series, and mini symposiums held during the previous year. He announced the forthcoming first virtual conference which is to be held from 2nd-4th Dec 2021. Dr Anil D Cruz, President of Union for International Cancer Control (UICC), Director of Oncology, Apollo Hospitals, Mumbai, Delhi and Chennai, and Former Director, Tata Memorial Hospital, Mumbai was the Chief Guest of the Program. Dr H S Ballal - Pro Chancellor, MAHE Manipal presided over the function. Mrs Vasanti R Pai, Trustee, MAHE Trust, Manipal, Lt Gen (Dr) M D Venkatesh - Vice-Chancellor, MAHE Manipal, Dr PLNG Rao Pro-Vice-Chancellor, Faculty of Health Sciences, MAHE, Manipal were the guests of honour of the program. Dr Anil D Cruz delivered the keynote speech. He emphasized preventive oncology, treatment equity in cancer therapy, cost-effective innovative cancer research, and quality-of-life initiatives. Mrs Vasanti R Pai launched Global Cancer Consortium and in her speech, she highlighted the importance of

community outreach programs and health education in cancer, especially for the benefit of rural women.

Lt Gen (Dr) M D Venkatesh discussed the upcoming projects of MAHE like Manipal Hospice and Respite Centre for patients with a terminal illness and home away from the home facility for children with cancer and their families. He reiterated that all patients with cancer are being provided with the best possible affordable quality care irrespective of their socioeconomic status. Dr PLNG Rao enlightened the gathering on the need for new drug discoveries to enhance cancer care and its availability and affordability to the population at large. In his presidential address Dr H S Ballal emphasized the need for early detection, access to quality treatment, and palliative care for far advanced diseases. He emphasized the humanitarian aspect of cancer care and explained how it should be intertwined with medical care.

During the welcome address, Dr Sharath Kumar Rao, Dean, Kasturba Medical College, Manipal, highlighted the journey and development of the cancer centre. Dr Avinash Shetty, Medical superintendent, KH, Manipal, proposed a vote of thanks.



Launch of Website



Dr Mahadev Rao