



# Newspill

Monthly once

## Patent Granted to Researchers of MCOPS, MAHE, Manipal

An **Indian Patent** has been granted to researchers of Manipal College of Pharmaceutical Sciences, Manipal Academy of Higher Education, Manipal by the Indian Patent Office for the invention titled, **“CISPLATIN POLYMERIC NANOPARTICLE COMPOSITION AND A FORMULATION THEREOF”** (Year of filing: 2014, Date of Grant: 25/03/2022, Patent number: 393067). **Dr Maliyakkal Naseer** (Research Scholar) **Dr Appadath Beeran Asmy** (Research Scholar) **Dr Pai Karkala Sreedhara Ranganath** (Professor, Dept. of Pharmacology, MCOPS) and **Dr Udupa Nayanabhirama** (Former Director Research - Health Sciences, MAHE) are the inventors.



## Yashas M Wins First Prize in Manipal Biotech Hackathon

With an aim to encourage and foster a culture of innovation, startups, and entrepreneurship, the Manipal Academy of Higher Education had declared 2022 as the year of Innovation and Entrepreneurship. Manipal - Government of Karnataka Bio-incubator in association with Manipal School of Life Sciences (MSLS), conducted a virtual Manipal Biotech Hackathon 2022. Participants included enrolled students/researchers pursuing UG/PG/ Doctoral Studies in any Academic/ Research institution.

We are thrilled to announce that Yashas M, a 3rd-year BPharm student at MCOPS, won the 1st prize in the Manipal Biotech Hackathon 2022, along with his teammate Adrij (MIT). Their project also received support from the Executive Director of MS Swaminathan Research Institute, Chennai. They were awarded the first prize for **‘Green Methods of Pharmaceutical Excipient Production Through Biotechnological Routes’**. The proposed method also aimed to address the environmental challenges posed by the current method of production.



## MCOPS DJC 3<sup>rd</sup> Distinguished Lecture Delivered by Dr V P Sharma

9 May 2023 : Dr V P Sharma, Chief Scientist & Prof AcSIR, Regulatory Toxicology Group at CSIR-INDIAN INSTITUTE OF TOXICOLOGY RESEARCH, Lucknow, delivered a guest lecture titled "Quality Management System: A Path Forward with Special Relevance to OECD and ISO/IEC 17025:2017" on 9 May 2023 at 2:30 pm in Manipal College of Pharmaceutical Sciences, Manipal. This talk was a part of MCOPS Diamond Jubilee Celebrations Lecture Series hosted by department of Pharmacology, MCOPS.

Dr Sharma spoke on OECD test guidelines and food safety risk assessment. He cited examples of light sensitivity issues and packaging materials for pharmaceutical formulations. At length, he deliberated on phthalates which are endocrine disrupting chemicals. Dr Sharma described the applications of computational toxicology in addition to the usage of artificial intelligence and big data. Last, but not the least, he mentioned about sustainable development goals to be kept in mind while pursuing research.

Over eighty participants attended the guest lecture comprising faculty members and research scholars. All in all, the lecture was well received by the audience.



## Memoirs...

The transformation of a rocky strip of land covered with 'Ajjanamullu', and thus totally unwelcome to pedestrians, into a beautiful top ranked pharmacy professional campus, sought after by students from India and abroad was not a tough task for the great visionary Dr TMA Pai and his worthy successor Dr Ramdas Pai. But, it could provide a golden opportunity for students from villages in and around Udupi and Mangalore with average financial background, to get high class professional education near their own place. The howling of foxes reverberated in this place after 6 p.m., broadcasting that "we live here, no trespassing". Now, that it is a hive of professional activity and is celebrating the diamond jubilee with feathers of top ranks on its cap, is the result of concerted efforts of a





group of dedicated individuals. It includes not only the top management and the faculty, but also the non-teaching staff who used to reach the college by 7.45 a.m., skipping their breakfast at home, to keep ready the labs and class rooms to function at 8 a.m. sharp. Students from far off places used to reach by 7.45 a.m. to attend classes at 8 a.m., thanks to the affectionate responsibility of their parents and efficient bus services available in Udupi district. I had a very reasonable question to the late comers from the nearby hostel." If Mr Lobo from Shirva and Ms Mahalakshmi from Kalyanpur can come at 7.45 a.m., can't you hostelites reach by 8 a.m.?" Mr Varadaraj Bhat from Kota, Gautham Shenoy from Udupi, Usha from Kodibettu (20 km) and Yogendra from Bundel (2 km) all made it a point to attend the classes in time. They are all professors now, in MCOPS, thanks to their devotion and hard work. The unperturbed calmness in the surroundings of the present MCOPS structure provides a compelling ambience for the students to learn and to proceed with their research work even up to midnight. During the construction of the present MCOPS building, Dr TMA Pai used to visit the site in the evenings and give instructions to the care-taker. Dr K Shrinivasa Aithal and myself, occupants of the nearby quarters used to go for a stroll in the evenings in this area and return when the howling of foxes reached its peak.

The Department of Pharmacy, KMC had a proud beginning in 1964 in a modest shed like structure, under the directorship of none other than the father of pharmacy education in India, Prof Mahadev L Schroff. Soon, the directorship of Dr Gundu Rao, Principalship of Prof Krishnamurthy, and Dr Sankarasubramnian bestowed an envious position and fame to the institution. Uncompromising standards and values of education were the dicta here, which the parents in remote villages of India, wholeheartedly welcomed and sent their wards to this far off hill-town so that they would be trained as future pharmacists of the country. With average vocabulary and no proficiency in English language, budding pharmacists listened to the lectures of stalwarts in Pharmacy. Initially the lectures flew fast above their head, but mingling with 'High-Fi' medical students in the campus and in their own

hostels, enabled them to catch something from the classes. The 'bholi bhali' students were also hesitant to accompany the parents to the shed- like college building, during their parents' visits. Their feeling was "it is within these four walls, they are pumped in all 'pharmaceuticals in high doses' right from 8 a.m. to 5 p.m. Much to my amusement now, I recall the pasting of a label "High Pressure Syllabus" on Prof Gundu Rao's car in those days, by the students (I have not seen). I would like to imagine that label to be one pasted on the womb of future meaning "high-performing pharmacists" from MCOPS.

As soon as the need for a new spacious building was convinced, approval was granted and the present MCOPS building came into existence. Dr.Pai took special interest in the speedy construction of this building. He used to watch the progress in construction through binoculars, from the 'valley view' hotel. With the leadership of Dr MNA Rao, Dr N Udupa and Dr Mallikarjuna Rao, the focus was more on carrying out funded research work, publishing in reputed journals and guiding PhD scholars. Our post graduates gave marvellous performances in placement interviews enthralling the experts with their grasp in the subjects and communication skills.

An important goal of a university, besides improving the skills required for a job and communication, is the overall development of that region where it is situated. Catering to the needs of the public regarding pharmaceutical products and services can be considered as one of the aims. The public of Manipal and Udupi have confusion regarding the quality of generic medicines available at very low cost in 'Jan Oushadhi' shops, compared to the costly branded items of the same medicament in the regular medical shops. The price difference is almost 10-fold for the same medicines for life style diseases. A true picture of the ingredients and quality of the formulation of generic medicines can be given to the public through the community pharmacy/quality assurance/clinical pharmacy platforms. The people of this locality should feel the presence of experts and analytical services in this locality. Another point I would like to make is regarding the slow developments in biotechnology

which takes decades to make any impactful discovery. Around 5000 years ago itself, Ayurvedic system has described remedies to control the sugar levels in diabetic patients. When all the research work centres around the same control measures, cure of diabetes seems to be an unattainable objective. Vigorous gene level biotechnological investigations need to be carried out to achieve a cure. This is only my humble opinion, as we come across several repetitive publications aiming at only control of sugar levels.

I had wonderful opportunity to be a member of the MCOPS faculty continuously for 38 years from 1974 to 2012. I could acquire PhD from Mysore University as an external candidate in 1986, under the able guidance of Prof Dr Sankarasubramanian, former Director, MCOPS. It was hard for me to get a PhD guide in those days. My guide was thorough in practical aspects of natural product chemistry. All the techniques and methods of extraction of natural products which he taught me was transferred to my students also when I became a PG and PhD guide. Thus, I could guide 56 MPharm students and many doctoral candidates. When University authorities describe MCOPS as a 'research hub' I am extremely happy, because it is the concerted efforts of many individuals which are being recognised. Pro-Chancellor Dr HS Ballal is always happy to describe MCOPS as a research hub. All the directors, principals and vice principals who shaped the destiny of the institution, kept up high standards in quality of education and ethics, the fruits of which are enjoyed now, by our students. I wish all the best to MCOPS in this year of diamond jubilee celebration.

### **Dr KK Srinivasan,**

Former Professor and HoD of Pharmaceutical Chemistry, MCOPS, Manipal

### **Elite Alumni Column**

Thinking back to my time at Manipal College of Pharmaceutical Sciences fills me with an overwhelming sense of nostalgia and pleasure. I had the privilege of studying there as an



undergraduate and then as a master's student in Pharmaceutical Quality Assurance, from 2005 to 2009 and 2009 to 2011 respectively. And let me tell you, it was an experience unlike any other.

The faculty members at Manipal were undoubtedly the biggest assets of the institute. I owe all my success and achievements to them, and especially to the staff of the QA department. They provided invaluable support and guidance on a wide range of topics related to pharmaceutical quality assurance, including regulatory compliance, validation, and quality control. Their contributions were critical in ensuring that our studies were of the highest quality and met rigorous industry standards. They prepared us extremely well to face real-world challenges in the pharmaceutical industry.

But let me tell you, the QA program is not for the faint-hearted. It will test your limits to the fullest and provide you with an opportunity to know your extremes. It will teach you resilience, build your confidence, and upgrade you to your best version. It's the gold standard of pharmaceutical education and something that I take extreme pride and honour to have been a part of.

To all those who are walking this same path as I once did, I offer my support and best wishes. Trust me, it's going to be tough, but the experience, knowledge, and skills you will gain are priceless. And who knows, you might even look back on your time at Manipal College of Pharmaceutical Sciences with the same sense of nostalgia and pleasure that I do.

### **Ruchir Bhomia, PhD, PMP®**

Senior Manager and Head, Program Management  
Sekisui Diagnostics, UK, Ltd.

### **What is Re-Agent? "Knew nothing about it and invented it"**

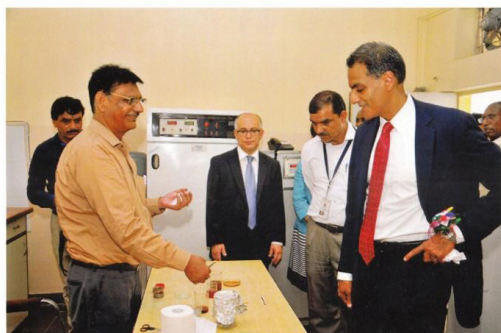
**Mr Chitharanjan K Sinha**, BPharm alumnus of 1984 batch narrates his journey in the discovery of "Re-Agent", for the detection of adulteration in petroleum products.

*"While I was engaging in the business of petroleum products, I observed that plenty of adulterants are present in them. Unfortunately, there was*

no tool with the users to detect any adulteration at the time of procurement. I wished to solve this type of perennial problems. I started to think over and began research on petroleum and petroleum additives. I could not find any textbooks and tried to gain knowledge through "Google" & learnt that petroleum additives are used in engine oils and fuels. I came across many studies and news, which reported massive adulteration in fuels. Since, both the fuels and adulterants are neutral in nature, it is simply impossible to detect them. I understood from my "Google knowledge" that detergent additives are also present in fuels. There are two types of fuels in the market such as normal fuel and branded fuel. Detergent additives are found only in branded fuel. So, I started to work on branded fuel. I remembered about detergent additives which I learnt during my studies in MCOPS and recollected about the alkalinity of the detergent. I started to research about how to check the alkalinity of engine oils. After so many trial and error, I tried to prepare a "strip" which could detect the alkalinity of engine oil and also react with detergent additives. I prepared a "Re-Agent" to make this "strip". But the strip did not give response and I was totally depressed and discontinued the experiments. After few months, I started again to work with "Re-Agent" directly. At last, I was successful and could achieve the same what I wanted to do. I proceeded to have patent of my "Re-Agent". **Indian Oil Corporation Limited Research & Development Centre** accepted and gave remark on my research work and mentioned as **"Dr. Sinha has done excellent work in this area"**.

## Chitharanjan K Sinha

B Pharm alumnus of 1984



Hon'ble Mr. Richard Rahul Verma, USA Ambassador in India having discussions with Mr. C.K. Sinha, the scientist on Technology of "Re-agent" during Sulabh international social service org., New Delhi Visit on 13th August, 2015



Hon'ble Dr. Anandi Subramaniam IES, ( Indian environmental Service) Senior Advisor Ministry of environment, Forests & Climate change. Government of India having discussions with Mr. C.K. Sinha, the scientist on Technology of "Re-agent" during Sulabh international social service org., New Delhi Visit on 21th December 2015.

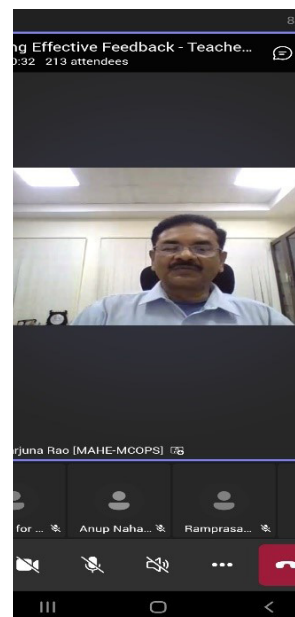


Hon'ble Mr. TIRATH SINGH THAKUR, CHIEF JUSTICE OF INDIA having discussions with Mr. C.K. Sinha, the chief scientist on Technology of "Re-agent" during Sulabh international social service org., New Delhi Visit on 31st December, 2016

## Other Activities...

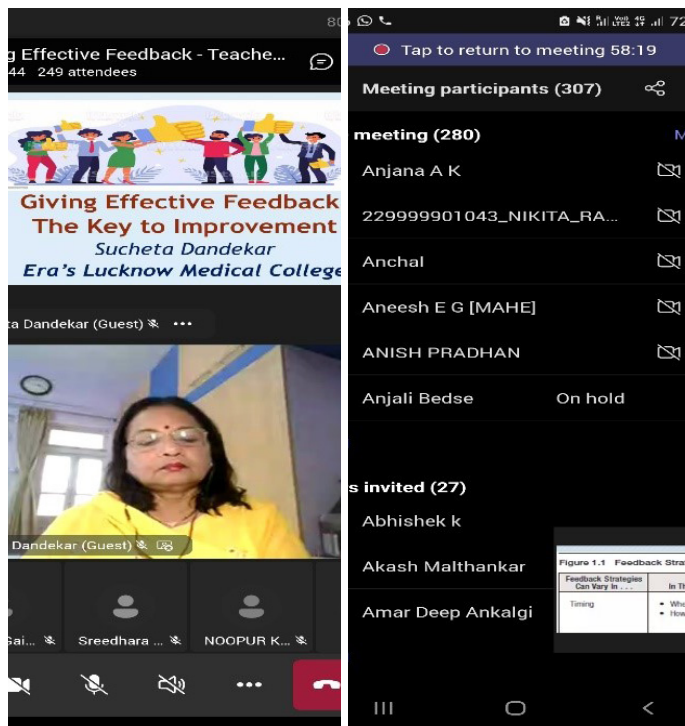
### "Giving Effective Feedback"

11 May 2023: The Centre for Pharmaceutical Skill Development (CPSD), Manipal College of Pharmaceutical Sciences, MAHE, organized a Teacher's Empowerment series (TEM) on the topic "Giving Effective Feedback". The session started with a warm keynote from Dr C Mallikarjuna Rao, Principal, Manipal College of Pharmaceutical Sciences, MAHE. The resource person for the session was Dr Sucheta P Dandekar, Professor of Biochemistry at Era's Lucknow Medical College, Lucknow. The speaker covered the utmost topics related to feedback, its importance, various types of feedback and the means by which feedback to be given. The session





was hosted through Google Teams and around 310 participants attended it. The session was so interactive and various activities were provided by the speaker throughout the session ensuring meticulous participation of the attendees. It was concluded by a note of appreciation from Dr Anup Naha, Coordinator, CPSD.



institute's efforts in organizing a platform for students to showcase their talents and achievements. In her speech, Dr Magazine spoke about the programs available at MAHE that aim to educate and support students in their research projects. She encouraged students to address current societal problems and find solutions with the help of their guides and mentor. Following her speech, Dr Magazine felicitated the former I2C committee members. This special recognition acknowledged the dedicated efforts and exemplary leadership demonstrated by these individuals during their tenure.

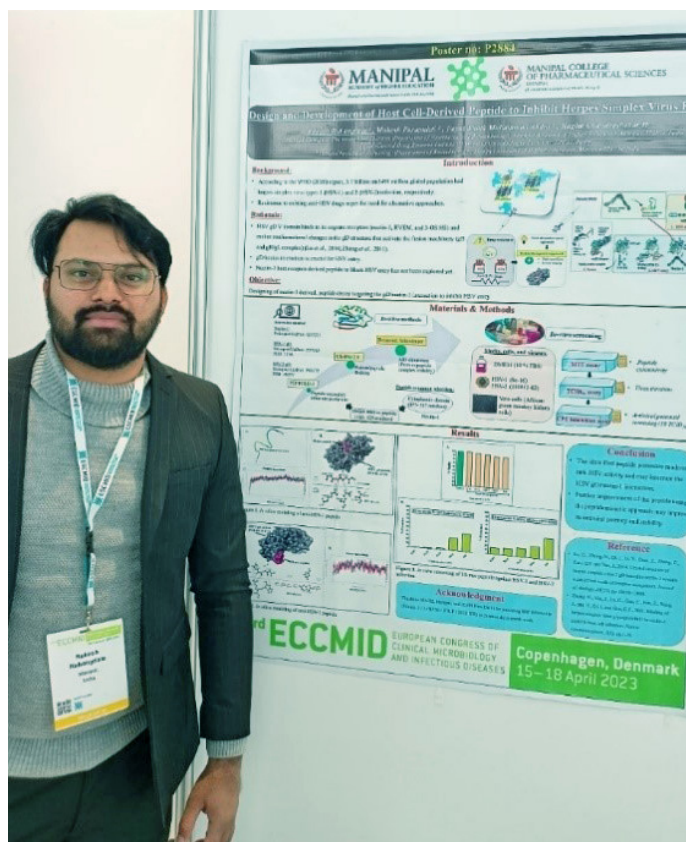
After the inaugural program, sessions were conducted on various topics. Dr Anoop Kishore, Associate Professor, Department of Pharmacology spoke on "Literature search, dissertation, and manuscript writing". He discussed the topics such as finding relevant research, hypotheses, and knowledge gaps with examples, formulating research questions, analyzing data, and presenting conclusions with an emphasis on following systematic approach in research. Dr Yogendra Nayak, Associate Professor, Dept. of Pharmacology delivered a talk on "Research Misconduct, Plagiarism, Turnitin". He spoke on ethical violations in research practices such as fabrication, falsification, and plagiarism. Plagiarism detection software and AI-assisted Text detection (a new feature) tools were demonstrated to the students. Dr Ramya Ravi, Assistant Professor-Senior Scale, Dept. of Pharmaceutical Regulatory Affairs and Management enlightened the students on "Patentable Research" including the topics, protection for innovative ideas and inventions, prototypes, benefits of patents, non-patentable categories and examples. The last talk for the session was by Dr Virendra Ligade, Associate Professor, Dept. of Pharmaceutical Regulatory Affairs and Management on "Presentation Skills". He highlighted the need for presenting ideas, engaging an audience, and presenting information, succinctly and captivatingly. He also focused on flow in the presentation, engaging visual aids, significance of verbal and nonverbal communication skills, Dos and Don'ts while making a presentation. About 83 PG students attended this program.

## PG Research Orientation by I2C

22 May 2023: PG Research Orientation program to provide post-graduate students with essential skills, strategies, and guidance to enhance their research capabilities and productivity was organized by Innovative Communication Club (I2C) on 22 May 2023 at Prof P Gundu Rao Conference Hall, MCOPS, Manipal. The event commenced with an invocation by Ms Supraja, Research Scholar followed by a welcome speech by Dr C Mallikarjuna Rao, Principal, MCOPS. Dr Rao through his inspiring words motivated the students to engage in research. He emphasized that analysis is not limited to the domain of scientists and scholars but is an essential aspect in every field. Dr Rao encouraged students to develop a curiosity-driven mindset and explore their interests through research.

Chief Guest, Dr Bharati C Magazine, Deputy-Director Research-Health Sciences, MAHE, Manipal delivered keynote address and commended on the

**Mr Rakesh Rahangdale, Research scholar awarded with financial support for presenting research paper at European Society of Clinical Microbiology and Infectious Diseases (ECCMID), Copenhagen, Denmark.**



15-18 April 2023: **Mr Rakesh Rahangdale**, Research Scholar, Department of Pharmaceutical Biotechnology at MCOPS received ESCMID Förderverein Grant for attending 33<sup>rd</sup> ECCMID held at Copenhagen, Denmark. The grant included free registration, accommodation, and travel tickets including visa acquisition costs. Mr Rakesh presented his research paper entitled 'Design and development of host cell derived peptide to inhibit Herpes simplex virus entry' at the conference which was co-authored by Dr Mukesh Pasupuleti (Scientist at CDRI, Lucknow), Dr Fayaz SM (Assistant Professor, Department of Biotechnology, MIT) and Dr Raghu Chandrashekar H. He is pursuing his research work under the guidance of **Dr Raghu Chandrashekar H**, Professor and Head, Department of Pharmaceutical Biotechnology, MCOPS, MAHE, Manipal.



## Upcoming Events

**10 June 2023** : MCOPS Diamond Jubilee Distinguished Lecture-4; organized by Department of Pharmacognosy, MCOPS.

## Editorial Team

### Newspill-June 2023 Editorial Team

Chairman: Dr C Mallikarjuna Rao  
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