

POST-CONFERENCE REPORT

BCRCPiCON-2019

4-5th February, 2019

Organised by

**Dr. B.C. Roy College of Pharmacy & Allied Health Sciences
Durgapur-713206, WB, India**

On

**Key Concerns and Considerations in Pharmaceutical Sciences
and Technology: South-East Asian Perspective**

Introduction: A two-day International Conference “BCRCPiCON-2019” was organised by Dr. B. C. Roy College of Pharmacy and Allied Health Sciences, Durgapur, a leading Pharmacy College of Eastern India on 4th and 5th February, 2019. The inaugural session was held on 4th February at DulalMitra Memorial Auditorium (built in commemoration of the solemn memories of late Mr. DulalMitra, the First President of Dr. B. C. Roy Engineering college Society) of Dr. B. C. Roy Engineering College campus and the proceedings of the second day was accommodated at Dr. B. C. Roy College of Pharmacy and Allied Health Sciences premises.

The objective of the conference was to extend the awareness of contemporary burning issues of Pharmaceutical world and to brainstorm on the various challenges regarding health care issues in South-East Asian region. BCRCPiCON-2019 was a summit of the leading academicians, scientists, pharmaceutical technologists and industry personnel of National and International repute where they exchanged their ideas and expertise regarding the challenges of pharmaceutical world. The conference was mentored and supported by various luminaries of variegated fields. Even Hon’ble Governor, Government of West Bengal; Hon’ble Minister-in-Charge, Department of Higher Education, School Education, Parliamentary Affairs, Government of West Bengal Dr. ParthaChatterjee; Chairman, AICTE, Prof. Anil D. Sahasrabudhe; Hon’ble Vice Chancellor, Maulana Abul Kalam Azad University of Technology, West Bengal, Dr. SaikatMaitra; Director, Directorate of Technical Education, Government of West Bengal, Dr. AmalenduBasu sent their blessings and best wishes for the successful completion of the conference. It was a huge gathering as twenty three colleges from different nook and corner of the country like BIT Mesra, Jharkhand, Himalayan Pharmacy Institute, Rangpo, East Sikkim, SardarBhagwan Singh P.G. Institute of biomedical Sciences and Research, Dehradun, Uttar Pradesh, Delhi Pharmaceutical Sciences and research University, Delhi participated in this gala event. The revered Directors and Principals of various colleges were also present to make the occasion memorable and prolific. Even the distinguished faculty members from both Calcutta University and Jadavpur University were the guests of the occasion. This was the maiden endeavour of Dr. B.C. Roy College of Pharmacy and Allied Health Sciences to undertake such a gigantic task under its tutelage.

Topic: The topic of the conference was the “Key Concerns and Considerations in Pharmaceutical Sciences and technology: South-East Asian Perspective”. The conference aspired to delineate some of the major pharmaceutical dimensions of the South-East Asian

countries. The topic is very relevant one as both the communicable and non-communicable diseases have created nightmares among the common people and indirectly the situation has thrown challenges to the pharmacists and the medical practitioners. According to WHO (World Health Organisation) the epidemic disease like HIV/ AIDS still remains a major public health concern in the South-East Asian region. Drug delivery also has much relevance now-a-days to the pharmaceutical technologists. Moreover, the conflict between the drug resistance and counterfeit drugs makes the situation worse. Immediately, increasing importance needs to be put on some special efforts towards reducing antibiotic resistance. The Conference pointed out some extremely sensitive issues and sought answers to those already alarming health related issues.

Proceedings: The conference started at 10:30 a.m. at Mr. Dulal Mitra Auditorium with a mellifluous Sanskrit Vedic chanting. Esteemed dignitaries and various stalwarts of Pharmaceutical world delivered their thought-provoking presentations to enlighten almost six hundred budding pharmaceutical technologists present in the auditorium. Honourable Vice



Chancellor of Maulana Abul Kalam Azad University of Technology Prof. (Dr.) Saikat Maitra was present to grace the occasion. He inaugurated the programme and made everyone mesmerised by his thought-provoking presentation. He argued about the scope and challenges the pharmaceutical technologists face now-a-days. He emphasised on the research and application of new drugs to the common

people. As India is a developing country, most of the people live below poverty level. So, it is a challenge to the pharmaceutical technologists to discover low-cost new drugs for these people.

Mr. Deepnath Roychowdhury, National President, Indian Drug Manufacturers' Association



emphasised on clinical pharmacy services to bridge the pharmaceutical care gap. He argued that prescribing medicine to a particular patient is very important. It is not only limited to scribble down some names of drugs, but, it is much more than this.

Dr. Satyajit Bose, Chairman, The Mission Hospital, Durgapur narrated on the immediate



collaboration of prolific research and successful marketing of the drugs. He motivated the students of Pharmaceutical Sciences as well as doctors to go hand in hand because production of medicine and application of those medicines go parallel.



Mr. L.K. Pradhan, Head, Technical Training, Macleods Pharmaceuticals Ltd., Mumbai harped on the same tune.

Internationally acclaimed academician Professor (Dr.) Tin Wui Wong, Professor, Faculty of



Pharmacy, UiTMPuncakAlam Campus, Malayasiawas the Key Note speaker. He brought forth some very interesting aspects of the skin drug delivery by microwave and nanotechnology. According to research malignant melanoma is observed in 132,000 cases across the globe every year due to exposure to ultraviolet radiations in sunlight. Malignant melanoma has a high mortality rate. Medical practitioners generally suggest removal of the malignant tumour along with some tropical treatment with some chemotherapeutics like 5-fluorouracil, ingenolmebutate, interferon and imiquimod. In combination with imiquimod, 5-fluorouracil exhibits a synergistic therapeutic against the melanoma clinically. 5-fluorouracil has been used for a long time to treat various skin cancers, but, its polar nature restricts its effectiveness due to poor penetration in skin layers. The skin penetration and retention capacity of drug from topical formulations such as 5-fluorouracil lotions, creams and solutions are challenged by the presence of stratum corneum, the primary penetration barrier. Local malignant melanoma requires enhanced intracellular drug delivery, maximal skin drug deposition and reduced drug permeation into the systematic circulation. This presentation highlights the use of nanotechnology and microwave as penetration enhancers for skin delivery of 5-fluorouracil. Following his speech, there was a wonderful interactive session where the audience interacted with the speaker clarifying their doubts and asking interesting questions.

Dr. Sampad Bhattacharya, Former Senior Vice-President, Sun Global Operation & Head of



Global Manufacturing Science & Technology, Gujrat also enlightened the audience about the emerging dimensions in manufacturing science and technology. According to him, over the years, the decade-old paradigms of pharmaceutical and bio-pharmaceutical have changed dramatically as regulators, industry, and pharmaceutical scientists already have started to realise that the pharmaceutical products cannot be produced by the old and outdated technology as the new products are more complicated. In Pharmaceutical Science and Technology, Manufacturing Science and Technology is a new area of interest. With the emergence of increasing proportion of high potents (ultra-low-dose), poorly soluble APIs, having poor bio-availability requiring complex unit operations are essential for commercialisation of drug.

Dr. V. S. V. VadlamudiRao, President, Commonwealth Pharmaceutical Association, brought



forth the significance of industry and institute partnership. He highlighted the fact that the drugs, produced by the researchers need proper commercialisation. India is a large market and it can be the exporter of huge medicines to the South-East Asia and Arabic countries. But, problem lies with our mindset that some of the experts console themselves by making their inventions restricted to the pen and paper. This scenario should be changed.



Prof. (Dr.) Santanu Tripathy, Professor, Calcutta School of Tropical Medicine, Kolkata India, orated on the facet of joint venture between pharmaceutical scientists and clinical practitioners. He addressed that only physicians are authorised to prescribe medicine which is not sufficient as the medicines are produced by the Pharmaceutical technologists. Pharmacists in India, till date, are mostly oriented to pursue a career in different sphere of the pharmaceutical industry, in academics, in research ad in drug dilatory departments in both Private and public sectors. Besides, they also dispense medicines to the private retail pharmacies of Govt Pharmacies. On the other hand, pharmacists in abroad, extend important professional services in optimising patient care. We hardly come across such cases in India. Therefore, Clinical Pharmacy can be a scope for the graduates of Pharmacy world which can open up a new dimension to their career.



The second day's proceedings took place at Dr. B.C. Roy College of Pharmacy and Allied Health Sciences premises. With the presentation of Prof. (Dr.) Arup Mukherjee, UGC Professor, Department of Biotechnology, Maulana Abul Kalam Azad University of Technology, West Bengal, the session was started. His topic was Guar Gum and the various uses of it. Guar Gum is a very widely used non-food bio-polymer available from the seeds of *cyampopsistetragonolobous*. It is used in extracting petroleum oil as fracking fluid, in explosives as binders, in cosmetics as hair *conditioners*, in food as mouth filling agents, and in pharmaceuticals as tablet binders and as colon specific drug delivery. The structural vagary of Guar Gum in water environment is decipherable. Therefore, In Italy, Guar Gum is a must in Ice-creams.



Prof. (Dr.) Shantanu Dhara, Professor, Medical Science and Technology, Indian Institute of Technology, Kharagpur delineated the tissue engineering aspect of Pharmaceutics. His presentation was on recent advances in health-care materials towards tissue regeneration and drug delivery. He emphasised on product development research based on fundamental understanding of cell material interactions and in vivo response. Among various biometrical aspects, strategies for development of customised implant through various top-down and bottom-up fabrications were highlighted. He discussed about development of permanent implant for rehabilitation and biodegradable implants for tissue regeneration. Metal and ceramic based permanent implants like mandible, dental crown, and cortical bone are manufactured by near net shape fabrication. He suggested different dimension of researches to the budding researchers. According to him, bio- activation/ surface modification of implants for biological fixation may be an important area of research. Anyone can also research under regenerative medicine approach on biodegradable, /bioactive materials with nano-micro architecture for skin, bone and cartilage tissue engineering. In this approach biodegradation, swelling properties, and pore interconnectivity of the scaffolds are tailored to mimic the native tissue for development of synthetic extracellular matrix.

Total one hundred and fifty three posters on different issues were presented in the session. Besides, twenty one oral presentations were delivered by delegates from different colleges.

Every outstanding performance was felicitated with medals and merit certificates. Besides, every delegate was provided with a certificate of participation.

The first International Conference as a whole was a grand success which untied various tangles which kept tickling in people's minds. Simultaneously, this conference provided the vigour and motivation to go for another of its kind in near future for the sake of sustainable development in the field of research and successful marketing.





Prof. Dr. Tin Wui Wong, UiTM, Malaysia



Prof. Dr. Santanu Tripathy, School of Tropical Medicine, Kolkata



Dr. Amalendu Basu, DTE, Govt. of WB



Prof. Dr. Arup Mukherjee, MAKAUT



Prof. Dr. Santanu Dhara, IIT KGP