

REPORT

“Personalized Medicine and its Importance to Optimize Drug Therapy”

20th November 2019



Organized by

Department of Pharmaceutics
College of Pharmaceutical Sciences
Dayananda Sagar University
Kumaraswamy Layout
Bengaluru – 560 078

Sponsored by

Dayananda Sagar University
Shavige Malleshwara Hills
Kumaraswamy Layout
Bengaluru – 560 078

Convener

Dr. Dr. B. Wilson
Professor
Dept. of Pharmaceutics

Coordinators

Dr. Josephine Leno Jenita
Dr. Manjula D
Mr. Vijay Baskar
Ms. Seema S. Rathore
Mrs. Shravya Lakshmi

The session commenced with the lightening of lamp by the dignitaries and an invocation song rendered by Miss. Vidhathi, followed with a warm welcome address by Dr. V. Murugan, Dean, School of Health Sciences, DSU. Chief guest Dr. Rakesh Gollen, Director - Pharmacokinetics, Synteract, USA, instilled in the young minds to question on their necessity of cognizance and steer themselves to attain the same. Dr. K. Muthuchelian, Pro Vice Chancellor, DSU, pronounced target oriented dosing with molecular insight and species variation to maneuver medication regimen. Dr. A.N.N. Murthy, Vice Chancellor, DSU, called-in for the necessity to create Industry Interaction cell, in order to abreast on the current trends of evolving scientific domain as the inputs of research are multi-disciplinary. He ended up with prospective notes on IT domain in healthcare like Artificial Intelligence and Data Analytics and urged the students to work on. Dr. Barnabas Wilson, convenor of the seminar, delivered vote of thanks. A total of 146 delegates from various Pharmacy colleges attended the seminar. The Delegates attended were students of various academic degrees such as B.Pharm., M.Pharm., Pharm.D., Ph.D. scholar and faculty members of various Pharmacy colleges.



Dr. V. Murugan, Dr. K. Muthuchelian, Dr. Rakesh Gollen, Dr. A.N.N. Murthy, Dr. Krishna Kumar and Dr. K. Gowthamarajan on the dias



The conference was inaugurated by lighting the lamp



Chief Guest addressing the gathering

Speaker 1: Dr. Rakesh Gollen, Director – Pharmacokinetics, Synteract, USA.



Dr Rakesh Gollen disseminated on Modeling and Simulation (M&S) approaches for precision dosing with an appreciation on M&S approach, being non-invasive, favors reduction and/or replacement of human/animal studies, facilitates benefit/risk assessment that hastens successful regulatory submissions of NME's and BLA. He emphasized that stratified medicine corroborated with Pharmacometrics and Pharmacogenomics expedites the drug discovery and/or regulatory decisions in realizing the FDA goal of Right patient, Right dose, Right time. He illustrated with case studies; entails Population Pharmacokinetic/Pharmacodynamic model (Pop-PK/PD) as a tool to assess safer and effective dose bridging for special/rare/orphan population and Physiology based pharmacokinetic model (PBPK) in assessing metabolic drug-drug interactions, first-in-human dose, inclusion/exclusion criteria for studies with drugs metabolized by polymorphic enzymes.

Speaker 2: Dr. Krishna Kumar, Prof. & HOD, Department of Pharmacy Practice, C.L. Baid Metha College of Pharmacy, Chennai.



Dr. Krishna Kumar spoke on fundamentals of molecular biology and the impact of mutated genes of varied binding affinity in drug disposition and action. He commented that ONE SIZE FITS ALL in dosing drugs was pursued for many decades, and the contemporary Pharmacotherapy today witnesses personalized medicine such as Genetic chips.

Speaker 3: Dr. K, Gowthamarajan, Professor & HOD, Department of Pharmaceutics, J.S.S. College of Pharmacy, Ooty.



Dr. K. Gowthamarajan spoke on Personalized Medicine – The Future Pharmaceuticals being synonymous to customized drug delivery tools. He stated all humans' of ethnic accounts for 99.9% likeliness of genetic traits, with a subtle difference of 0.1% leading for ADR and to completely eradicate ADR, Personalized medicine entailing Smart Drug Delivery System proves successful. He streamed videos on Virtual pharmacy and Virtual labs performing EDEM simulation of Tablet coating and mixing.

Speaker 4: Dr. Ravi Shankar, Managing Director, Accreate Labs, Bengaluru.



Dr. Ravishankar highlighted on 3D-printing technology that uses bio-ink containing living cells and biomaterials to leverage personalized medicine in alleviating cancer, Alzheimer's and arthritis. He stated bio-printing, imminent tool in drug-discovery, cosmetic testing and tissue regeneration. He briefed on the applications of 3D bioprinted model for ADME studies at sub micro molar doses and as grafts for tissue regeneration.

Minds of reflections

Mr. Riza Ammul of Nargund college of Pharmacy, Mr. Rakesh of KR college of Pharmacy and Miss. Pooja of RR college of Pharmacy applauded on the session being informative on innovations and indispensable role of Pharmacist of future healthcare.

