



MANGALORE UNIVERSITY

NAAC Accredited 'A' Grade

DEPARTMENT OF BIOSCIENCES

UGC-SAP and DST-FIST Supported Department

in association with

ROYAL SOCIETY OF CHEMISTRY (LONDON)

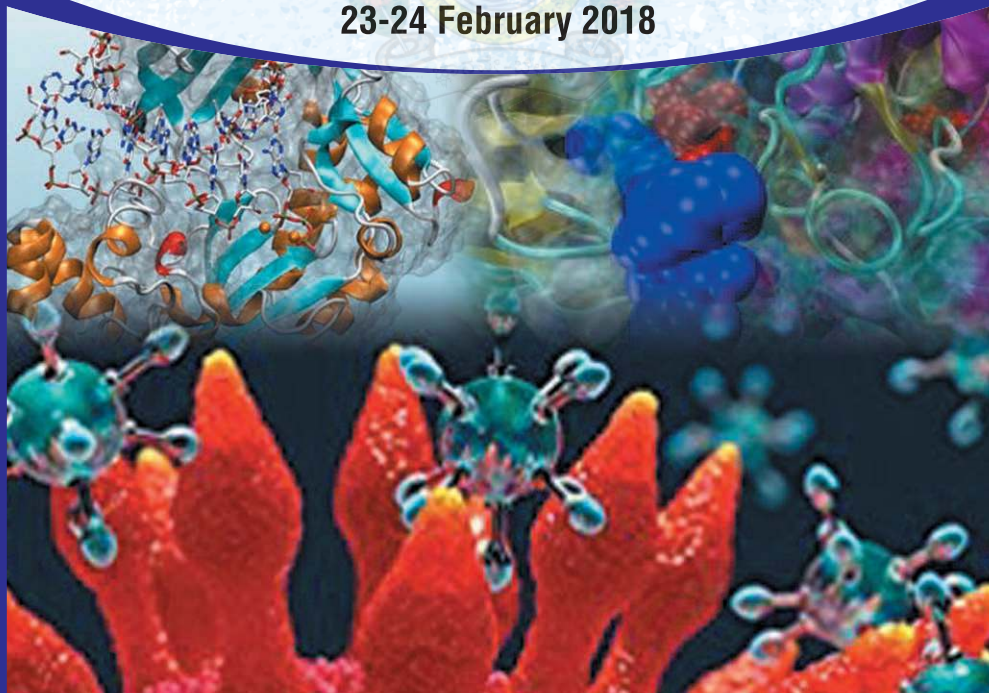
INDIA DECCAN LOCAL SECTION

Organizes

National Seminar

***Lab to Clinic : Approaches and Challenges
in Drug Discovery, Design and Delivery***

23-24 February 2018



About the Seminar

Drug discovery today is being spearheaded by many new and powerful technologies that enable identification of new targets and modelling of new molecules. While the genetic basis of many diseases is becoming clear from genomics studies, what remains to be elucidated are the epigenetic changes that are associated with various disorders, which involve cellular and extracellular events and cell signalling mechanisms, that are unravelling a whole new set of potential drug targets at the molecular level. On the other hand, we have a revival in the use of formulations or therapeutics that are synergistic in action, indicating that the whole of the complex pathways has to be taken into account and not just targeting a single molecule. Put both together and we have personalized medicine or pharmacogenomics. Thus Lab to clinic : Approaches and challenges in drug discovery, design and delivery envisages putting onto a nutshell the entire process in order to tap the latent research database on technical scientific skills and modern technologies to harness molecules that could be tested out.

National Advisory Committee

Prof. K. Byrappa, Hon'ble Vice-chancellor, Mangalore University

Dr. U.N. Das, CSO, UND Life Sciences, USA., Adjunct Professor, Mangalore University

Prof. V. Peesapati, Secretary, Royal Society of Chemistry (London)-India Deccan Local Section

Prof. Y. Anjaneyulu, Chairman, RSC-IDLS, Former Director, IST, JNTU-H

Dr. R.B.N. Prasad, Vice-Chairman, RSC-IDLS, Former Chief Scientist & Head, Centre for Lipid Research, CSIR- IICT-H

Prof. Nagendra Prakash B.S., Registrar, Mangalore University

Dr. Dayananda Naik, Finance Officer, Mangalore University

Prof. J. Ishwara Bhat, Dean, Faculty of Science and Technology, Mangalore University

Prof. A.R. Reddy, Professor Emeritus, Central University-Hyderabad & Former VC-Yogi Vemana University, & Adjunct Professor, Dept. of Biosciences, Mangalore University

Dr. M.S. Thakur, Chief Scientist & former Head, CFTRI-Mysuru & Adjunct Professor, Mangalore University

Prof. Susantha Kumar Ghosh, National Institute of Malaria Research, Bangalore & Adjunct Professor, Mangalore University

Prof. Channe D. Gowda, Pennsylvania State University College of Medicine, USA & Adjunct Professor, Mangalore University

Prof. K. Balamurugan, Dept. of Biotechnology Alagappa University & UGC Nominee, UGC-SAP Advisory Committee, Dept. of Biosciences, Mangalore University

Prof. Cletus D'Souza, Emeritus Professor, Dept. of Biochemistry, University of Mysore & UGC Nominee, UGC-SAP Advisory Committee, Dept. of Biosciences, Mangalore University

Prof. K.R. Sridhar, Adjunct Professor, Mangalore University

Invited Speakers

- **Dr. U. N. Das**, Founder-CEO, UND Life Sciences, USA
- **Dr. V. Peesapati**, Retd. Professor, OU, JNT University & NIPER, Hyderabad
- **Dr. R. Srinivas**, Chief Scientist & HOD National Center for Mass Spectrometry, CSIR-IICT, Hyderabad
- **Dr. P. V. Diwan**, Retd. Deputy Director & Head of Pharmacology, CSIR-IICT & Former Project Director, NIPER-Hyderabad
- **Dr. Sistla Ramakrishna**, Scientist In-charge, Dept. of Pharmacology & Toxicology, CSIR-IICT-Hyderabad
- **Dr. Jayant Khandare**, Professor, MIT, Kothrud, Pune
- **Dr. Uday Maitra**, Professor, Dept. of Organic Chemistry, IISc, Bangalore
- **Dr. S.P. Subramaniyan**, Deputy Controller of Patents & Designs, Patent Office, Chennai
- **Dr. Narasimha Rao K.**, Aurigene Discovery Technologies, Bangalore
- **Dr. V.G.M. Naidu**, Assoc. Prof, NIPER, Guwahati, Assam
- **Dr. Bhavani Shankar**, Scientific Officer 'G', Radiation Biology and Health Sciences Division, BARC-Mumbai
- **Dr. Balakrishna Kalluraya**, Professor, Dept. of Chemistry, Mangalore University
- **Dr. P. S. Suresh**, UGC Asst. Prof., Dept. of Biosciences, Mangalore University

Topics

- From molecules to drugs: The story of glioma
- Why chiral molecules are important for new drug therapy
- Metabolic profiling of vitamin D metabolites in diabetic complications
- Missing links in medicinal plant drug discovery
- Surface engineered lipidic nanoparticles for targeted drug delivery to brain tumors
- Therapeutic translation of biopolymers: Lab to clinic
- Drug design
- Intellectual property rights-what do they mean and what are their value - Money vs IPR
- Procedures of patenting in India and USA
- How to do business in India and USA - sweat and fund equity
- Drug discovery - Pre-clinical testing of new molecules - action, toxicology testing procedures

Poster Symposium

“Recent trends and technologies in medicinal chemistry : towards medicines of the future”

Call for Papers

- Papers are invited on the theme of the Seminar and closely related themes.
- Abstract of the paper (not exceeding 300 words) in Word format should be submitted to biosciences.mu@gmail.com.
- Abstract should include the title, author name and affiliation, mailing address and e-mail address. **Presenting author's name is to be underlined.**

Partnering Publication for selected full papers



BENTHAM SCIENCE Current Nutrition & Food Science

Editorial board decision will be final

Important Dates

Abstract submission : 31 Jan 2018
Last date for Registration Fee payment : 10 Feb 2018

Registration

Registration via email to biosciences.mu@gmail.com with details such as Name, Affiliation, Address, Contact Details, Accommodation Requirement, Travel Details & Abstract.

Registration fee

By wire transfer to A/c No. **10094965748** at State Bank of India, Mangalore University Campus, Konaje PO, Mangalagangothri (IFSC: SBIN0008034)

- Delegates (Academia & Industry) : 1500
- Students / Research Scholars : 1000

Accommodation

Delegates are requested to make their own arrangements for their stay at Mangalore during the seminar. However, paid accommodation can be arranged on prior request

Hotel Tariff Economy

- Single Occupancy : Rs. 800 - 1200
- Double Occupancy : Rs.1000 - 1500 per person
- Double Occupancy (A/C) : Rs. 2000 - 2500 per person

Local Organizing Committee

Prof. Chandrakala Shenoy K., Professor & Coordinator, UGC-SAP Program

Prof. Monika Sadananda, Professor & Deputy Coordinator, UGC-SAP Program

Dr. Tharavathy N.C., Assoc. Prof. & Chairperson

Dr. Prashantha Naik, Assoc. Prof.

Dr. Chandra M., Assoc. Prof.

Dr. P. S. Suresh, UGC Asst. Prof.

About Mangalore University

Mangalore University was established in 1980 to fulfill the aspirations of the people of undivided Dakshina Kannada and Kodagu districts of Karnataka. The picturesque 353-acre sprawling campus, treated to the grand sight of the river Nethravathi meeting the Arabian Sea on one side and cloud-capped Western Ghats on the other, sets the tone for educational endeavours. It was re-accredited by NAAC with 'A' Grade in May 2014. The University has 26 departments offering 37 PG, one UG and 26 PhD programmes. The University has established Jnana Kavery PG Centre at Chikka Aluvara in Kodagu district. Based on h-index, the DST has awarded the PURSE grant to procure specialized, high-end research equipment. The university has more than fifty adjunct faculty of international repute. The university has offered several MHRD-funded GIAN programs by collaborating foreign faculty. Five departments have received grants from UGC under SAP program and five under UGC Innovative Programs. Three departments have received support from DST under the FIST program. Two departments have received support from VGST, Govt. of Karnataka.

About Department of Biosciences

Since its establishment in 1969, the Department of Biosciences has forayed into diverse research fields such as biodiversity, fresh water, marine and estuarine ecology, biology of fungi, algae, cyanobacteria, pill-millipedes, mussels, fish, physiology, environmental biology, cancer biology, genotoxicology, neuroscience etc. This has been possible due to its strategic location between the biodiversity-rich Western Ghats to the East and the Netravathi and Gurpur rivers flowing into the Arabian Sea to the West. Further, being in a medical hub has also geared our focus towards application-based research in bio-medical science. The Department of Biosciences has attracted grants from UGC, DOD, DST, MoEF, NPCIL, BRNS, ICAR, AICTE, DBT, SERB and Salford University (UK). This research enterprise has also moulded the teaching and enabled need-based modifications in the curriculum that enable the student to learn current trends in the field of Life Sciences. Currently the department is offering five M.Sc. programs (Biosciences, Biotechnology, Microbiology, Environmental Science & Food Science and Nutrition) under choice-based credit system and Ph.D. programs in Biosciences, Biotechnology and Environmental Science.

About Royal Society Chemistry (RSC)-London, UK

The Royal Society of Chemistry (UK) is a professional association with the goal of "advancing the chemical sciences". It was formed in 1980 from the amalgamation of the Chemical Society, the Royal Institute of Chemistry, the Faraday Society, and the Society for Analytical Chemistry with a new Royal Charter and the dual role of learned society and professional body. The headquarters is at Burlington House, Piccadilly, London. It also has offices in Thomas Graham House in Cambridge. The Society has offices at the University City Science Center, Philadelphia (USA), in Beijing & Shanghai, China and in Bangalore, India. The organization carries out research, publishes journals, books and databases, as well as hosts conferences, seminars and workshops. The RSC has a global membership of over 60,000 who are actively involved in the spheres of education, scientific publications and professional conduct etc.

About Royal Society of Chemistry (London)-India Deccan Local Section (RSC-IDLS)

RSC-IDLS is very active section in India promoting chemistry from school to Ph.D. level by way of conducting quizzes, demos, science fairs, debates, arranging invited lectures, workshops and conferences and promoting chemistry to the wider public through popular lectures.

Prof. Monika Sadananda

Convener

Prof. V. Peesapati

Convener & Secretary, RSC-IDLS

Prof. Chandrakala Shenoy K.

Coordinator, UGC-SAP Program

Dr. Tharavathy N.C.

Chairperson, Dept. of Biosciences

Contact: **Dept. of Biosciences, Mangalore University, Mangalagangorthri - 574199, Karnataka**

Tel. : **0824 2287261**; Mobile: **9448869719**; E-mail : **biosciences.mu@gmail.com**

MANGALORE UNIVERSITY
DEPARTMENT OF BIOSCIENCES
in association with
ROYAL SOCIETY OF CHEMISTRY (LONDON)-
INDIA DECCAN LOCAL SECTION (RSC-IDLS)

National Seminar
Lab to Clinic: Approaches and Challenges in Drug Discovery, Design and Delivery
23-24 February 2018

Name : _____

Designation : _____

Institution : _____

Address : _____

Phone No (with STD code) : _____

Mobile No : _____

Email : _____

Participating as : _____
(Please tick one)

☐ Delegate

☐ Student*

☐ Research Scholar*

Registration Fees:

Delegate : Rs. 1500/-

Student : Rs. 1000/-

Research Scholar : Rs. 1000/-

Accommodation required : ☐ YES ☐ NO
(Please tick one)

Payment by NEFT : Name of Bank : _____

Branch : _____

Date : _____

Amount : _____

Transaction reference No. : _____

Paper presentation : ☐ ORAL ☐ POSTER
(Please tick one)

Note: While delegates may indicate their preference, the final decision rests with the Organizing Committee.

* Proof to be produced in the form of letter from Head of Department/ Institution

Mangalore University
NAAC Accredited 'A' Grade
Department of Biosciences
(DST-FIST & UGC-SAP supported Department)
&
Royal Society of Chemistry (London) India Deccan Local Section
National Seminar Lab to Clinic: Approaches and challenges in Drug
discovery, design and delivery
23-24 February 2018, Mangalore University

Report

A two-day National Seminar on the theme "Lab to clinic: Approaches and Challenges in drug discovery, design and delivery" was held from 23-24 February 2018 at Mangalore University. This Seminar was jointly organized by the Department of Biosciences, Mangalore University, which is currently under the Govt. of India UGC's Special Assistance Program (SAP) and under the DST-Fund for Improvement of Science and Technology Infrastructure (FIST) and the Royal Society of Chemistry (London)'s India Deccan Local Section (RSC-IDLS). Over **225 Delegates and speakers** from the States of Karnataka, Tamil Nadu, Telangana, Andhra Pradesh, Maharashtra participated with invited talks, poster and oral presentations.

Inauguration

The Seminar was inaugurated on 23 February 2018 at Mangalore University by the Chief Guest, Dr. U. N. Das, Founder, UND Life sciences, Washington, USA. He spoke on how drug discovery today has enabled identification of new lead molecules and that such seminars are of importance, particularly for the youngsters in life sciences. **Prof. Peesapati, Secretary, Royal Society of Chemistry India Deccan Local Section and Joint Convener of the Seminar spoke. Mr. Rajesh Parishwad, External Affairs Officer, Royal Society of Chemistry, Bengaluru brought the message from Royal Society of Chemistry (London).** Prof. K. Byrappa presided over the inaugural function. Prof. Monika Sadananda, the Convener was present. Prof. Chandrakala Shenoy K., Coordinator, UGC-SAP Program, Department of Biosciences, Mangalore University delivered the vote of thanks. Dr. N. C. Tharavathy, Chairperson of the Department was present.





Day 1

The Keynote Address was delivered **Dr. U. N. Das**, FAMS, FRSC, Founder, **UND Lifesciences**, USA & Adjunct Faculty, Mangalore University on the topic **From lab to clinic: γ -linolenic acid therapy of glioma**, who spoke about the potential of PUFAs particularly GLA in the treatment of neuroblastoma or glioma. **Prof. Uday Maitra**, FASc, FNA, Professor, Dept. of Organic Chemistry, Indian Institute of Science, Bengaluru delivered an invited talk on the topic **Drug Design – is it really that easy?** wherein he highlighted regarding pharmacodynamics (PD), pharmacokinetics (PK), ADME, particularly regarding efficacy and toxicity of drugs, Lipinski's rule of five with a large number of examples, such as enzyme activity, glyphosate, β lactamase, carbidopa etc. This was followed by a lecture by **Dr. Bhavani S. Shankar**, Head, Immunology Section, RB & HSD, BARC,

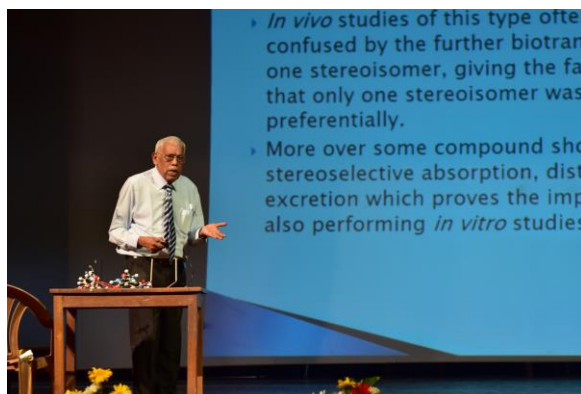
Mumbai who spoke on **Immunotherapeutic approaches in cancer: Prognosis and therapy**



During lunch we had the **Poster Symposium on "Recent trends and technologies in medicinal chemistry: towards medicines of the future"** where young investigators presented their posters.



During the Post lunch Session we had a talk by **Dr. V. Peesapati, FRSC, Rtd. Prof., Osmania Univ, JNTU and NIPER, Hyderabad and Secretary, RSC-IDLS** on **Why chiral drugs are important** wherein he spoke about enantiomers and demonstrated using beautiful examples how one is different from the other in function. This was followed by a talk by **Dr. V. Jayathirtha Rao, Emeritus Scientist, CPC Division, CSIR-Indian Institute of Chemical Technology, Hyderabad** who spoke on **Design, synthesis and biological evaluation of novel 2-pyridone derivatives as Phosphodiesterase3A Inhibitors**. Seven papers were also presented as Oral presentations.



Day 2

Dr. R. Srinivas, FRSC, Chief Scientist & Head, Mass & Analytical Division, CSIR-Indian Institute of Chemical Technology, Hyderabad spoke on the **Association of Vitamin D metabolites with diabetic complications** who spoke about various withdrawn drugs and showed results on how Vit D is found associated with coronary heart and diabetes. This was followed by a lecture by **Dr. Jayant Khandare, MAERR's Maharashtra Institute of Pharmacy, Pune** who spoke on **Cancer diagnostics as liquid biopsy: Lab to clinic** regarding start-ups in the field. This was followed by a talk by **Dr. Narasimha Rao K., Aurigene Discovery Technologies, Bengaluru** who spoke on **Small molecule drug discovery and development**



During lunch we had the **Poster Symposium on "Recent trends and technologies in medicinal chemistry: towards medicines of the future"** where young investigators continued the presentations of their posters.



In the post lunch session we had Oral presentations followed by a talk by **Dr. B. Kalluraya, Prof., Dept. of Chemistry, Mangalore University** on **Drug discovery and design**. The two-day national seminar came to a close with a Valedictory. Prof. Cletus D'Souza, Emeritus Professor, University of Mysore and Adjunct Faculty, Mangalore University was the Chief

Guest. The program was presided over by the Dean, Faculty of Science and Technology, Mangalore University, Prof. J. Ishwara Bhat.

