One day Symposium on

“Trends in Therapeutics”

Program Schedule

January 29, 2016

NIPER - Ahmedabad

Venue
H. T. Parikh Hall
Ahmedabad Management Association, Oppo. IIM-A
Vastrapur, Ahmedabad

Organized by
National Institute of Pharmaceutical Education and Research - Ahmedabad (NIPER-Ahmedabad)
Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Govt. of India

January 29, 2016:

9.30-10.00AM  Registration
10.00-10.05AM Welcome and honor of guests
10.05-10.15AM Introductory welcome speech by Director, NIPER Ahmedabad, Prof. Kiran Kalia
10.15-11.15AM Dr. C.L. Kaul, Founder Director, NIPER, Mohali (Plenary lecture: Innovations in Drug Discovery)
11.15-11.30AM Tea
11.30-12.15PM Dr. Hemanta K. Majumder, JC National Bose Fellow, Indian Institute Chemical Biology, Kolkata (Therapeutic development in visceral leishmaniasis: A molecular biology approach targeting DNA topoisomerases)
12.15-1.00PM Prof. J. K. Pal, Ex-Head, Biotechnology, Pune University (Small molecule inhibitors of eIF2a kinases and their therapeutic potential for human disorders)
1.00-1.45PM Professor Y. U. Sasidhar, Professor, IIT, Bombay (Conformational dynamics of a short antigenic peptide in its free and antibody bound forms gives insight into the role of beta turns in peptide immunogenicity)
1.45-2.15PM Lunch and visit to exhibition area
2.15-3.00PM Dr. Sanjeev Kumar, Sr. Vice President, Zydus Cadila (Development of Monoclonal Antibodies and Similar Products)
3.00-3.30PM Mr. R. Raghu, Vice President, Schrodinger (Recent advances in Computational drug design to design molecules for Cancer Targets)
3.30-4.00PM Mr. Sachin R. Kate, Application Scientist, Bruker India (NMR spectroscopy and its application in Pharmaceutical research)
4.00-4.30PM LCMS applications in Pharmaceutical research
4.30-5.00PM Atomic Force Microscopy applications in Pharmaceutical research
5.00-5.15 PM Tea and exhibition
5.15-5.30PM Valedictory function
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Speakers’ Profile

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Dr. C.L. Kaul, Founder Director, NIPER-Mohali

Dr. C. L. Kaul is a retired Founder Director of NIPER, Mohali. In building this institute of National Importance, Dr. Kaul used his rich experience of working with research Institutions within the country and abroad through his associations with industry and educational bodies.

Dr. Kaul is a pharmacy graduate and had his post Graduate education from University of London and Glasgow, U.K. Apart from carrying out and directing research at the Boots Pharmaceuticals and Ciba Geigy, he has worked at several research centers across UK. and Switzerland. His research work spanning over 4 decades had centered around development and preclinical studies of new drugs, stability studies, bioavailability, pharmaceutical formulations and Quality Control. His research work has been published in both national and international peered review journals.

Dr. Kaul is very active professionally, was President of IPA 94-96, Editor OF IJPS till 1994, member of DTAB, Governing Body member of Punjab Health Corporation, Governing Body member NIPER (Mohali). Dr. Kaul is Fellow of the National Academy of Sciences, Punjab Academy of Sciences and Indian Pharmaceutical Association. He has also been awarded the Eminent Pharmacist Award 2002 by the Indian Pharmaceutical Association. A special Award of the Indian Pharmacological Society was conferred on him for outstanding contributions to the development of pharmacology in India in 1998.
Dr. Hemanta K. Majumder, FTWAS, FNA, FASc, FNASc, FAScT
(Sir J.C. Bose National Fellow, IICB, Kolkata)

Dr. Hemanta K. Majumder was the former Chairman of the Infectious Diseases and Immunology Division at Indian Institute of Chemical Biology (IICB), Jadavpur, Kolkata. He received his Ph.D. degree in Biochemistry from University of Calcutta in 1975. He did his Post doctoral research at Albert Einstein College of Medicine, New York, USA (1976-1979) and at the University of Zurich, Switzerland (1979-1981). He was a Visiting Associate at the University of California at Berkeley, USA (1988-1990). After returning to India he joined IICB in 1981. He was a Visiting Scientist at University of Texas Medical Branch at Galveston, USA (1993), at University of Cambridge, UK (1993), University of Rome (2009), and at the University of Aarhus, Denmark (2010). He has delivered lectures on invitation at Robert Koch Institute, Berlin and Ludwig Maximillian University (LMU), Munich, Germany (2013). He has made outstanding contribution towards development of diagnostics and therapeutics against the disease kala-azar.

For his outstanding contribution in science he was elected as Fellow of the Indian National Science Academy (FNA), Indian Academy of Sciences (FASc), National Academy of Sciences (FNASc), Fellow of the West Bengal Academy of Sciences and Technology (FAScT) and Fellow of The World Academy of Sciences (FTWAS). He has been guiding research in the area of Parasitology for almost three decades and has produced twenty two (22) Ph.Ds and supervised 30 (thirty) post graduate students.

For his outstanding contribution in science the Hon’ble Chief Minister and the MIC of Science & Technology and Hon’ble Governor of West Bengal offered him the position of Working Chairman of West Bengal State Council of Science and Technology in 2004. With his able guidance the State Council of Science and Technology identified the need based problems in different spheres of life, tried to find out the solutions and looked after the promotion of Science and Technology in the state. He rendered his service as the Chairman from December 2004 to May 2011.

Dr. Majumder is presently holding the position of Raja Ramanna Fellow of The Department of Atomic Energy, Govt. of India at CSIR- Indian Institute of Chemical Biology, Kolkata.
Professor J.K. Pal, Ex-Head, Biotechnology Department, Pune University

Professor J.K. Pal is a UGC-BSR Faculty Fellow & Former Professor & Head, Dept. of Biotechnology, Savitribai Phule Pune University, Pune. He is the fellow of the National Academy of Sciences, India, fellow of the Maharashtra Academy of Sciences.

Prof. J.K. Pal started his research career with lens crystallins during development and evolution. In this area, he contributed by (a) devising innovative methods for quantifying and characterising eye lens crystallins during lens development [Pal and Modak, 1984, Exp. Eye Res. 39, 415-434; Pal and Goel, 1986, Dev. Growth & Differ. 28, 157-167], (b) demonstrating the usefulness of lens crystallins for molecular taxonomy in vertebrates [Patwardhan et al., 1995, Ind. J. Biochem. Biophys. 32, 21-31].

Prof. Pal contributed thereafter, in two important areas, namely, (1) Proteasomes (multicatalytic proteases) during development and differentiation, and (2) Molecular regulation of protein synthesis during anemia and various cytoplasmic stresses.

Currently his lab is pursuing research in these areas in relation to role of proteasomes in the regulation of melanin biosynthesis in mouse. Using mouse melanoma cells, B16, they have demonstrated the existence of a post ERAD system in the degradation of tyrosinase, the precursor enzyme of melanin biosynthesis, in addition to proteasome-mediated pathway of degradation [Pal, 2001, Pranikee- J. Zool. Soc. Orissa (Spl. Vol., 2001), 25-35; Godbole et al., 2006, Cell Biol. Intl. 30, 895-902]. 25 2) One of the most important regulators of global protein synthesis is the hemeregulated inhibitor (HRI), which is also called the heme-regulated eukaryotic initiation factor 2a (eIF-2a) kinase. Prof. Pal’s work involving the preparation of monoclonal antibodies to HRI and cloning of its cDNA has significantly enhanced our understanding in the molecular mechanism of regulation of protein synthesis by HRI [Pal et al., 1990, Biochemistry 30, 2555-2562; Chen et al., 1991, Proc. Natl. Acad. Sci. USA 88, 315-319; Chen et al., 1991, Proc. Natl. Acad. Sci. USA 88, 7729-7733]. More recently, a) Prof. Pal’s group has discovered that HRI could be used as a molecular marker for anemia, and they have prepared a HRI-based diagnostic procedure for anemia in humans [Anand and Pal, 1997, J. Biosci. 22, 287-298; Anand and Pal, 2002, Biotech. Appl. Biochem. 36, 57-62; Nekuian, 2009, Thesis in Biotechnology, University of Pune], (b) They have further demonstrated that hemin regulates not only the kinase activity of HRI but also its synthesis, both at the levels of transcription and translation [Sarkar et al., 2002, J. Biochem. Mol. Biol. Biophys. 6, 391- 396; Sarkar et al., 2005, Biochim. Biophys. Acta 1732, 15-22]. These observations open up a new area of research on the chemotherapeutic potential of hemin in hematological disorders and stress in general.
Dr. Y. U. Sasidhar did his MSc (Physics, 1980) and PhD (Physics, 1986) from IIT Madras. Subsequently he was at TIFR, Mumbai (1986-1989) as a Visiting Fellow and worked on bio-active peptides using 2D NMR and quantum chemical PCILO calculations. Since 1989 he is at IIT Bombay working in the area of protein folding and dynamics, using , mainly, molecular dynamics simulations.

Research Interest Broad Areas: Protein Folding, Protein Dynamics, Modelling Protein Structure Techniques: Molecular Dynamics Simulations and Molecular Modeling Overview: We use peptide and protein models to understand early events in protein folding. For example we studied the folding of a beta hairpin from staphylococcal nuclease and related the observations to folding of nuclease. We also aim to understand the relationship between protein dynamics and its function. The atomic level detailed structural and dynamical information that we determine cannot be obtained from experimental studies alone.
Dr. Sanjeev Kumar completed his Ph.D., from National Institute of Immunology in Immunology - Antigen processing and presentation and Postdoc in Immunology from Vanderbilt University.

Currently he heads the Biologics Division at Zydus Cadila as Sr. vice President.

He has been heading the Biotechnology group at Zydus Cadila for the last more than eight years. His responsibility has been to establish a global biologics program at Zydus. In order to achieve this goal his group initially started by setting up a biosimilars program first so that the group could learn the art of making biologics from clone development to manufacturing. The biosimilars program has a pipeline of more than a dozen molecules now including simple recombinant proteins, pegylated proteins and monoclonal antibodies. Seven molecules have completed clinical trials. A manufacturing plant has been set up and that has been producing commercial batches for the approved five products. Five drugs have been launched in India so far and two more are awaiting market authorization. Having established the learnings for making biologicals through biosimilars his team (150 scientists in R&D and Mfg.) has now parallely started developing novel biologicals. In this domain too they have filed two INDs and are about to enter clinical trials with PEGEPO and a cocktail of non-recombinant Mabs against Rabies.