
IBS 2007
National Symposium on Biophysics: Trends in Biomedical Research

Under the aegis of Indian Biophysical Society (IBS)

**Venue: INSA Auditorium, New Delhi
February 13 – 15, 2007**

Organized by:
Department of NMR
All India Institute of Medical Sciences
New Delhi – 110029.

P R O G R A M
February 13, 2007

8.30 – 9.30	REGISTRATION
9.30 – 10.00	INAUGURATION
9.30 – 9.35	Welcome: Prof. N. R. Jagannathan
9.35 – 9.45	Address by Dr. V. Rao Aiyagari Head, SERC, Department of Science and Technology, Government of India
9.35 – 9.45	Address by the President of the Indian Biophysical Society, Dr. K. P. Mishra , Radiation Biology and Health Science Division, BARC, Mumbai.
9.55 – 10.00	Vote of Thanks: Dr. S. Senthil Kumaran
10.05 – 10.10	G. N. Ramachandran Lecture (Chair: Prof. G. Govil, TIFR, Mumbai)
	Introduction of Prof. S. Ogawa by Prof. G. Govil
10.10 – 10.55	Prof. S. Ogawa, “ <i>Recent developments in fMRI methodology</i> ”.
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10.55 – 11.30	TEA BREAK
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11.30 – 13.00	Session – I (Chair: Prof. C. L. Khetrpal and Prof. A. Saran)
11.30 – 12.00	IL1 – A. Malhotra “ <i>Clinical applications of Positron Emission Tomography</i> ”

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12.00 – 12.30	IL2 – K. Nagayama “ <i>Electron multi-color imaging based on phase contrast microscopy and energy loss spectroscopy co-localizes DNA in growing cells</i> ”
12.30 – 13.00	IL3 – J. C. Gore “ <i>Applications of BOLD imaging at high field</i> ”
13.00 – 13.45	LUNCH
13.45 – 14.45	Session – II (Chair: Prof. P. Raghunathan and Dr Ch. Mohan Rao)
13.45 – 14.15	IL4 – M. van Cauteren, “ <i>Clinical MR spectroscopy</i> ”
14.15 – 14.45	IL5 – A. Thakur, “ <i>Biophysical studies of microbial nanocrystal fabrication and recovery</i> ”
14.45 – 16.00	Session III – Poster (All odd number posters) Chair: Prof. P. K. Sengupta (Tea will be available)
16.00 – 17.00	Session – IV (Chair: Dr. R. P. Tripathi and Prof. H. M. Sonawat)
16.00 – 16.30	IL6 – K. P. Mishra, “ <i>Potential and prospects of nanosize liposomes for targeted drug delivery in improving cancer therapy</i> ”
16.30 – 17.00	IL7 – I. Martin “ <i>Animal MRI (aMRI)</i> ”
17.05 – 18.00	Annual General Body Meeting (Venue: INSA Auditorium)
18.00 – 18.30	TEA
18.30 – 19.30	Session – V (Chair: Dr. B. B. Singh).
18.30 – 19.00	Popular Lecture - 1: Prof. D. Balasubramanian, “ <i>Overview of stem cell research in India, with some examples</i> ”.
19.00 – 19.30	Popular Lecture - 2: Prof. M. Vijayan, “ <i>Evolution of crystallographic research in biophysics in India</i> ”
19.35 – 20.15	Felicitation to past Presidents of IBS Chief Guest: Dr. T. Ramasami, Secretary, DST
20.15	DINNER

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9.15 – 11.15	Session – VI (Chair: Prof. Rabi Majumdar and Prof. B. J. Rao)
9.15 – 9.45	IL8 – S. Dzuba, “ <i>Pulsed EPR of spin-labeled biological membranes and embedded peptides</i> ”
9.45 – 10.15	IL9 – G. Krishnamoorthy, “ <i>Fluorescence dynamics offers insights into the mechanisms of protein folding and misfolding</i> ”
10.15 – 10.30	OP1 – P.P Wangikar, “ <i>Prediction of protein structure using backbone fragment library and a multilayered learning algorithm</i> ”
10.30 – 10.45	OP2 – G.D Ghimire, “ <i>Sequence analysis of G-protein families for understanding of GPCR and G-protein coupling</i> ”
10.45 – 11.00	OP3 – A. Kumar, “ <i>Molecular dynamics of blocked octa-L-alanine</i> ”
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11.00 – 11.15	TEA BREAK
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11.15 – 13.15	Session – VII (Chair: Prof. G. Govil and Prof. P. Kaliannan)
11.15 – 11.45	IL10 – D. M. Salunke, “ <i>Degeneracy and specificity of antigen recognition in the immune response</i> ”
11.45 – 12.15	IL12 – K.V.R. Chary, “ <i>NMR structural characterization of M-crystallin, an ancient member of $\beta\gamma$-crystallin: a step towards unzipping evolutionary origin of eye lens crystallins</i> ”
12.15 – 12.30	OP4 – R. Tewari, “ <i>Implications of deficient wobble nucleoside modifications in tRNA for decoding and mitochondrial dysfunction</i> ”.
12.30 – 12.45	OP5 – A.S. Ethayathulla, “ <i>Structural and functional studies of secretory glycoproteins involved in apoptosis</i> ”
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12.45 – 14.00	LUNCH
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14.00 – 15.30	Session – VIII (Chair: Prof. N. Yathindra and Prof. S. Basak)
14.00 – 14.30	IL13 – A. Patel, “ <i>In vivo NMR Studies on regulation and energetics of GABA Neurotransmission in Rat Brain</i> ”
14.30 – 15.00	IL14 – E. Bagryanskaya, “ <i>EPR and NMR Spin trapping of thiols and thiyl radicals</i> ”
15.00 – 15.15	OP6 – K. Chandra, “ <i>Energetics from NMR data of Ca²⁺ displacement by Lanthanides in a calcium binding protein</i> ”
15.15 – 15.30	OP7 - Shilpy Sharma, “ <i>Single point mutations in the GED of dynamin cause dynamic perturbations leading to changes in its association characteristics</i> ”

15.30– 16.45	Session – IX – Poster (All even number posters) Chair: Prof. P. K. Sengupta (Tea will be available)
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16.45 – 18.30	Session – X (Chair: Prof. R. V. Hosur and Prof. M. J. Swamy)
16.45 – 17.15	IL15 – S.P. Gupta, “ <i>QSAR Studies on calcium channel blockers</i> ”
17.15 – 17.45	IL16 – A. Arora, “ <i>Biophysical studies on ESAT-6 and CFP-10 of mycobacterium tuberculosis H37Rv for the development of TB vaccine</i> ”
17.45 – 18.15	IL17 – D. Bhattacharyya, “ <i>Non-canonical base pairs in RNA: An algorithmic approach for database analysis</i> ”.
18.15 – 18.30	OP8 – P. Singh, “ <i>Development of nanoscale biosensor surfaces for electronic nose: explosive detection</i> ”

18.30 – 19.00	TEA
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19.00 – 20.00	Session XI Popular Lectures (Chair : Prof. Anil Saran)
19.00 – 19.30	Popular Lecture -3: Prof. G. Govil, “ <i>NMR: A voyage from molecules to man</i> ”
19.30 – 20.00	Popular Lecture – 4: Dr. V. Rao Aiyagari, “ <i>Info-Nano-Bio-Manuf</i> ”

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9.15 – 11.15	Session – XII (Chair: Prof. A. Surolia and Prof. N. Gautham)
9.15 – 9.45	IL18 – K. R. K. Eswaran, “Recent advances in the development of anti-fungal drugs”
9.45 – 10.15	IL19 – D. Chatterji “DNA-Protein interaction at monolayer”
10.15 – 10.45	IL20 – V. Bhakuni, “Insight into modulation of functional activity of catalytic domain by non-catalytic domain”
10.45 – 11.00	OP9 – D. Singh “The cataract-causing mutation G98R in human αA - crystallin leads to folding defects, loss of thermostability and chaperone activity”
11.00 – 11.15	OP10 – M. H. Kombrabail, “Barstar catayses proton transport across membranes”
11.15 – 11.30	TEA BREAK
11.30 – 13.15	Session – XIII (Chair: Prof. T. P. Singh and Prof. G. K. Jarori)
11.30 – 12.00	IL21 – R. Varadarajan, “Stereochemical criteria for prediction of the effects of proline mutations on protein stability”
12.00 – 12.30	IL22 – D. Velmurugan, “Single-wavelength anomalous diffraction (SAD) with laboratory X-ray source data (CuK α and CrK α radiation)”
12.30 – 12.45	OP11 – S. Kumar, “Leucine heptad repeats: A hard test for potassium channel models”
12.45 – 13.00	OP12 – P. Aravind, “Molecular characterization of neuronal calcium sensor-1”
13.00 – 13.15	OP13 – T. K Chaudhuri, “Substrate recognition and mode of action of GroEL in the assisted folding of non native polypeptides”
13.15 – 14.00	LUNCH
14.00 – 15.00	Session – XIV (Chair: Dr. M. Maiti and Prof. B. P. Chatterjee)
14.00 – 14.30	IL23 – S. Krishnaswamy, “Structural and functional studies on the Outer membrane protein OmpC”
14.30 – 14.45	O14 – M. J. Swamy, “Biophysical studies on structure and phase behaviour of lipid membranes”

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14.45 – 15.00	O15 – S. L. Patil, “ <i>Optical coherence tomography - for early detection of oral cancer</i> ”
15.00 – 16.30	Session – XV (Chair: Dr. K. P. Mishra)
15.00 – 15.15	O16 - Ratna Phadke Award Lecture by S. K. Simanshu. “ <i>Structural studies on enzymes from Salmonella typhimurium involved in propionate metabolism: Biodegradative threonine deaminase, Propionate kinase and 2-methylisocitrate lyase</i> ”
15.15 – 16.05	Poster Award Lectures (10 MINUTES EACH)
16.05 – 16.15	Award Presentations
16.15 – 16.20	Presentation by Panjab University on IBS-2008
16.20 – 16.30	Valedictory Function
16.30 – 17.00	HIGH TEA
