

Scientific Programme for NMRS-2011

Tuesday March 1, 2011		
13.30 – 14.30	Registration	
14.00 – 17.00	Bruker Users' meeting	
17.00 – 17.30	Tea	
17.30 – 18.00	Inauguration	
18.00 – 18.50	Prof. Alexander Pines	Chair: Prof. Anil Kumar Inaugural lecture Toward miniaturization of NMR and MRI
18.50 – 19.00	Vote of thanks	
19.00 – 20.20	Prof. R. R. Ernst	Chair: Prof. C. L. Khetarpal Lecture to Students/Faculty Passion and Responsibility. My Life Story and my Goals
20.20 – 22.00	Dinner	

Wednesday March 2, 2011

08.00-09.00	Breakfast	
09.00 -11.00	Session-1:	Chair: Prof. P. S. Ahuja, Prof. M.S. Hundal
09.00 - 09.50	Prof. H. Vliegthort	NMR spectroscopy as a tool in structural studies of Carbohydrates
09.50 – 10.15	Dr. K. R. K. Easwaran	Structure, aggregation and membrane interaction of polyene antifungal drugs – studies using NMR
10.15- 10.40	Dr. Vasudeman Ramesh	1GHz NMR investigation of the binding of <i>peptidyl transferase</i> inhibitor antibiotics to conserved secondary structural motifs of 23S ribosomal RNAs
10.40- 11.00	Nilamoni Nath (Gold Medal Lecture)	One Dimensional Transition Selective COSY and C-HetSERF Experimental Techniques for Chiral Analysis
11.00– 11.30	Tea	
11.30-13.10	Session-2	Chair: B.D.N. Rao, Prof. Daniel Huster
11.30- 11.55	Dr. Om Prakash	NMR in search of antimicrobial and antiviral drugs
11.55- 12.20	Prof. P. K. Roy	Pharmacological MRI (ph-MRI) as a Clinical Strategy in Regenerative Medicine: Optimizing the Neurogenesis in Cerebral Stroke and Vascular Dementia
12.20- 12.45	Dr. Detlef Moskau (Bruker)	Recent Applications of NMR in Pharmaceutical Industry
12.45- 13.10	Dr. Kishore Jadhav, Sun Pharma Scientist	A SIMPLE QUANTITATIVE NMR METHOD AND VALIDATION OF DMA HCl AND DMF IN METFORMIN HYDROCHLORIDE
13.10- 14.00	Lunch	
14.00– 15.35	Session-3	Chair: Prof. R. V. Hosur, Dr. Neeraj
14.00-14.25	Dr. N. Suryaprakash	New Aligning Media and NMR Techniques for Visualization of Enantiomers
14.25-14.50	Dr. Sanjeev Sharma	
14.50-15.10	Dr. Ashish Arora (Prof. S. Subramaniam award lecture)	NMR Studies of Drug Target Proteins at CDRI
15.10- 15.35	Mr. Sakurai, JEOL	
15.35- 15.45	Tea	
15.35- 17.00	Poster session I (1- 50)	
17.00-18.00 (Dashmesh Aud)	Prof. Alex Pines	Chair: Prof. A. S. Brar Special lecture: Seeing beyond the light

18.00-19.00	Felicitaton to Prof. Anil Kumar	
19.00-20.00	Cultural Programme	
20.00-22.00	Dinner	

Thursday March 3, 2011		
08.00-09.00	Breakfast	
09.00 -11.05	Session-4	Chair: Prof. P. T. Manoharan, Prof. Anil Saran
09.00 - 09.25	Dr. Phillipe Lesot	2D-NMR in Chiral Lyotropic Mesophases: A Flexible Analytical Method for Investigating the Site-specific (D/H) Isotope Ratios in Metabolites. From the Palmitic Acid to the First Example of cerides
09.25 – 09.50	Prof. KVR Chary	Structure, Dynamics and Ca ²⁺ -Binding Properties of Intrinsically Unfolded And Folded β,γ-Crystallins
09.50 – 10.15	Dr. Ashutosh Kumar	Understanding the link between structure and toxicity of oligomeric states of α-Synuclein
10.15- 10.40	Prof. Daniel Huster	Solid-State NMR Techniques to Study Natural and Tissue Engineered Cartilage and Bone Tissue
10.40 – 11.05	Agilent Tech.	
11.05– 11.30	Tea	
11.30-13.35	Session-5	Chair: Prof. H. Vliegthort, Prof. A. C. Kunwar
11.30- 11.55	Prof. Jean-Paul Amoureux	New methods for the determination of distances between spin-1/2 and quadrupolar nuclei in Materials, and for the structural analysis of bio-molecules
11.55- 12.20	Prof. Kay Saalwaechter	NMR observations of polymer chain dynamics in bulk melts and in nanoscopic confinement
12.20- 12.45	Dr. T.G. Ajithkumar	Evidence for the co-existence of distorted tetrahedral and trigonal bipyramidal aluminium sites in SrAl ₁₂ O ₁₉ from ²⁷ Al NMR studies
12.45- 13.10	Dr. Rangeet Bhattacharyya	Methodological developments in NMR and their applications in lithium-ion batteries
13.10- 13.35	Dr. G.S. Kapur	Off/On-line NMR Spectroscopy- a tool to support Polyolefin R&D and Manufacturing Operations
13.35- 14.30	Lunch/EC meeting	
14.30– 16. 00	Poster Session-II (51-94)	
16.00-16.30	Tea	
16.30-19.00	Visit to Bagha Border	
19.00- 20.00	Dashmesh Aud	Chair: Prof. A. S. Brar
	Prof. Alex Pines:	Public lecture: Is ignorance bliss?
20.00-22.00	Dinner	

Friday March 4, 2011

08.00- 09.00	Breakfast	
09.00 – 11.05	Session-6	Chair: Dr. R. K. Malhotra, Prof. Jean-Paul Amoureux
09.00 – 09.25	Prof. Thomas Braeuniger	Aspects of intensity enhancement of the central-transition signal of quadrupolar nuclei by spin population transfer (SPT) from the satellite transitions
09.25 – 09.50	Prof. Zhehong Gan	Solid-state NMR methods for large quadrupolar coupling and anisotropic paramagnetic interaction
09.50 – 10.15	Prof. Neel Sarover Bhavesh	Synergy of NMR and X-ray for Protein-RNA interaction studies
Students Award Oral Presentations		
10.15-10.25	Anushika Thakur	Solution Structure and Function Analysis of Human J-protein by NMR Spectroscopy
10.25-10.35	Ashu Bhasin	Autologous Mononuclear and Mesenchymal stem cells in stroke: BOLD and DTI study
10.35-10.45	C. Sai Chaitanya	Structural details of RNAi initiation complex in <i>C. elegans</i>
10.45-10.55	Deepika Khandelwal	2D NMR STUDIES OF ISOBORNYL ACRYLATE COPOLYMERS
10.55-11.05	Dinesh Kumar	An efficient high throughput protocol for protein structure determination in less than a day
11.05 – 11.30	Tea	
11.30- 13.45	Session 7	Chair: Prof. Kay Saalwaechter, Prof. KV Ramanathan
11.30 – 11.55	Prof. Ago Samoson	POST-TROSY NMR
11.55 – 12.20	Dr. David Gadian	Generation of hyperpolarised materials for magnetic resonance using high-field cryogenics
12.20 – 12.45	Dr. Rainer Kuemmerle, Bruker	X-nucleus detected Biomolecular NMR
Students Award Oral Presentations		
12.45 – 12.55	Eldho K. Mathai	Investigation of Segmental Motions in Polylactic Acid using Solid-state NMR
12.55 – 13.05	Garima Jaipuria	¹³ C Detected, Methyl Edited GFT NMR Spectroscopy in Solution and Solid State
13.05 – 13.15	M. Sexena	Bold Mapping of Memory Recall in Parkinson's Patients

13.15- 13.25	Nitin Lobo	ADIABATIC CROSS-POLARIZATION FOR SENSITIVITY ENHANCEMENT IN SEPARATED LOCAL FIELD EXPERIMENTS
13.25 – 13.35	Rajesh Sonti	NMR studies of designed three stranded β -sheets
13.35-13.45	E. Viswanathan	Knight Shifts and Site Dependent Conduction Electron Contributions to Spin-Lattice Relaxation in N-doped and SHI Irradiated Silicon Carbide Studied by Solid State NMR
13.45 – 14.30	Lunch	
14.30 - 16.20	Session 8	Chair: Prof. Philippe Lesot, Prof. KVR Chary
14.30- 14.55	Dr. Hanudatta S. Atreya	Insights into structure and dynamics of proteins by NMR and molecular dynamics simulations
14.55- 15.20	Dr. Veena Bansal	Multinuclear MAS NMR Spectroscopic Studies of Modified Zeolite
Students Award Oral Presentations		
15.20- 15.30	Ratan Kumar Rai	Water Dependent Interaction Study of Collagen Protein and Mineral Interface in Bone by Solid – State NMR Spectroscopy
15.30- 15.40	Shatakshi Srivastava	Proton HR-MAS MR Spectroscopy of Oral Squamous Cell Carcinoma tissues: A Multivariate Approach to identify malignancy induced fingerprints
15.40- 15.50	Soumya Singha Roy	Nuclear Singlets as Quantum Testbeds
15.50- 16.00	Suresh Kumar M	Caffeine as a Neuroprotectant in MPTP Model of Parkinson’s Disease
16.00- 16.10	V. S. Manu	Non-Destructive Discrimination of Arbitrary set of Orthogonal Quantum States by NMR using Quantum Phase Estimation
16.10-16.20	V.S. Mithu	Investigation of Zinc-Binding Sites of Alzheimer’s Amyloid β -Fibrils using Solid-State Nuclear Magnetic Resonance
16.20- 17.30	Tea, NMRS General body meeting and award announcement	
17.30- 19.30	Visit to Golden Temple and Dinner	