

SCIENTIFIC PROGRAMME

13th ISCB INTERNATIONAL CONFERENCE ON INTERPLAY OF CHEMICAL AND BIOLOGICAL SCIENCES: IMPACT ON HEALTH AND ENVIRONMENT

Jointly organized

By Indian Society of Chemists and Biologists

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Department of Chemistry, University of Delhi

26th February – 1st March 2009

Thursday, 26th February 2009

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| 02.00 pm – 06.00 pm | REGISTRATION |
| 06.00 pm – 07.30 pm | MIXER (TEA/ SNACKS) |

Friday, 27th February 2009

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| 09.00 am – 09.30 am | REGISTRATION | |
| 09.30 am – 10.45 am | INAUGURATION Key Note Address by Dr AV Rama Rao, <i>FNA</i> Title: Indian pharmaceutical industries: Decades of struggle | |
| 10.45 am – 11.15 am | HIGH TEA | |
| 11.15 am – 01.20 pm | TECHNICAL SESSION I AWARD LECTURES Chairpersons: Professor AV Rama Rao, <i>FNA</i> and Professor Jyoti Chattopadhyaya | |
| 11.15 am – 11.40 am | Professor AK Singh AL – 1 | Linear polymer-based molecular and biomolecular photoactivations |
| 11.40 am – 12.05 pm | Professor P Rama Rao AL – 2 | G-Protein coupled receptors and drug discovery |
| 12.05 pm – | Professor Dr Stefan Brase | High-throughput organic syntheses in |

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| 12.30 pm | AL – 3 | academic: challenges and solutions |
| 12.30 pm – 12.55 pm | Professor VK Tandon AL – 4 | Reverse transcriptase inhibitors and apoptosis in cancer cells |
| 12.55 pm - 01.20 pm | Professor VS Parmar AL – 5 | Novel drug delivery systems for pharmaceutically important compounds |
| 01.20 pm – 02.30 pm | LUNCH & POSTER SESSION – I | |
| 02.30 pm – 04.30 pm | TECHNICAL SESSIONS II, III, IV | |
| 02.30 pm – 04.30 pm | TECHNICAL SESSION II (HALL – A) Chairpersons: Professor HM Chawla and Professor SMS Chauhan | |
| 02.30 pm – 02.55 pm | Dr S Natesh IL – 1 | Title Awaited |
| 02.55 pm – 03.20 pm | Dr Pavan K Dhar IL – 2 | The RIKEN synthetic biology initiative: Make your own genes |
| 03.20 pm – 03.45 pm | Dr Ahmed Kamal IL – 3 | Gene targeting anticancer pyrrolobenzodiazepines |
| 03.45 pm – 04.10 pm | Dr Ian A Cliffe IL – 4 | Development of highly potent and selective 5-HT _{2c} receptor agonist based on a piperazine scaffold as potential treatments for obesity |
| 04.10 pm – 04.30 pm | Dr Udayanath Aich SIL – 1 | Development of SCFA-HexNAc hybrid molecules as novel anti-cancer agents |
| 02.30 pm – 04.30 pm | TECHNICAL SESSION III (HALL – B) Chairpersons: Dr Joseph E Tomaszewski and Dr Ashok L Cholli | |
| 02.30 pm – 02.55 pm | Professor Sanjay V Malhotra IL – 5 | Therapeutic application of ionic liquids |
| 02.55 pm – 03.20 pm | Professor Dr Kohki Ebitani IL – 6 | Synthesis and characterization of nano-structured heterogeneous catalysts for green and sustainable chemistry |
| 03.20 pm – 03.45 pm | Professor UC Banerjee IL – 7 | Application of nitrilases in the stereoselective biotransformations of nitriles |
| 03.45 pm – 04.10 pm | Dr Chandra Has Khanduri IL – 8 | Benign and sustainable chemistry in process development |
| 04.10 pm – 04.30 pm | Dr Anil Kumar SIL – 2 | Application of ionic liquid immobilized catalyst in organic reactions |
| 02.30 pm – 04.30 pm | TECHNICAL SESSION IV (HALL – C) Chairpersons: Professor Bal Ram Singh and Professor M Kidwai | |

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| 02.30 pm – 02.55 pm | Dr Yogesh S Sanghvi IL – 9 | Enzyme directed green chemistry for synthesis of nucleosides and oligonucleotides |
| 02.55 pm – 03.20 pm | Dr Pawan K Sharma IL – 10 | Functionalized locked nucleic acid analogues |
| 03.20 pm – 03.45 pm | Dr NG Ramesh IL – 11 | Synthesis of natural and novel unnatural aza sugars: Selective inhibitors of glycosidases |
| 03.45 pm – 04.10 pm | Dr Arun K Sinha IL – 12 | Green methodologies for synthesis and extraction some bioactive phenolic compounds |
| 04.10 pm – 04.30 pm | Dr Rakesh N Veedu SIL – 3 | Unlocking the application of locked nucleic acids |
| 04.30 pm – 05.00 pm | TEA/ SNACKS | |
| 05.00 pm – 05.45 pm | TECHNICAL SESSION V Chairperson: Professor JP Khurana, FNA | |
| 05.00 pm – 05.45 pm | Dr Joseph E Tomaszewski PL – 1 | The NCI chemical biology consortium and its impact on oncology drug discovery and development |
| 05.50 pm – 07.25 pm | TECHNICAL SESSIONS VI, VII, VIII | |
| 05.50 pm – 07.25 pm | TECHNICAL SESSION VI (HALL – A) Chairpersons: Professor Pawan Mathur and Dr PMS Chauhan | |
| 05.50 pm – 06.15 pm | Professor H Ila, FNA IL – 13 | From synthons to bioactive molecules: Efficient strategies for heterocyclic synthesis |
| 06.15 pm – 06.40 pm | Professor HM Chawla IL – 14 | Interplay of environment, health and advances in chemistry: A case study |
| 06.40 pm – 07.05 pm | Professor Dr Monique Gardes-Albert IL – 15 | Radical-induced oxidation of biomimetic lipid models |
| 07.05 pm – 07.25 pm | Dr A Roychowdhary SIL – 4 | Synthesis and therapeutic evaluation of Pyridyl based novel mTOR Inhibitors |
| 05.50 pm – 07.25 pm | TECHNICAL SESSION VII (HALL –B) Chairpersons: Professor Indrapal Singh Adien and Dr B Gopalan | |
| 05.50 pm – 06.15 pm | Professor Bal Ram Singh IL – 16 | Clostridial neurotoxins as a drug delivery vehicle targeting nervous system |
| 06.15 pm – 06.40 pm | Professor Dr C Forest IL – 17 | Adipocyte glyceroneogenesis as a new pharmaceutical target in type 2 diabetes |
| 06.40 pm – | Professor Dr Med Uwe Fuhr | Phenotyping for drug metabolizing |

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| 07.05 pm | IL – 18 | enzymes in humans |
| 07.05 pm – 07.25 pm | Dr Nilesh M Dagia SIL – 5 | The yin and yang of targeting transcription factor in autoimmune / inflammatory disorders |
| 05.50 pm – 07.25 pm | TECHNICAL SESSION VIII (HALL – C) Chairpersons: Professor Gurmeet Singh and Professor Dr Monique Gardes-Albert | |
| 05.50 pm – 06.15 pm | Professor Dr Yusuke Kawakami IL – 19 | Formation of POSS with controlled structure and its applications |
| 06.15 pm – 06.40 pm | Dr Ashok L Cholli IL – 20 | New macromolecular antioxidant technology for extending useful life of materials |
| 06.40 pm – 07.05 pm | Professor Dr H Dhimane IL – 21 | N-Acyliminiums and N-acylenamines: Reactivity and synthetic applications |
| 07.05 pm – 07.25 pm | Dr Mandar Bhonde SIL – 6 | Searching for the “ Achilles Heel ” of cancer |

Saturday, 28th February 2009

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| 09.30 am – 11.00 am | TECHNICAL SESSION IX Chairpersons: Professor Dr Yusuke Kawakami and Professor K Parang | |
| 09.30 am – 10.15 am | Professor Dr Jyoti Chattopadhyaya PL – 2 | Some recent studies on nucleic acid chemistry targeted to potential therapeutics |
| 10.15 am – 11.00 am | Professor Dr Daniel Jore PL – 3 | Oxidation of biomolecules by reactive oxygen species: A review of mechanistical aspects |
| 11.00 am – 11.30 am | TEA/ SNACKS | |
| 11.30 am – 01.05 pm | TECHNICAL SESSIONS X, XI, XII | |
| 11.30 am – 01.05 pm | TECHNICAL SESSION X (HALL – A) Chairpersons: Dr DS Bhakuni, FNA and Professor Stevens E Rokita | |

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| 11.30 am – 11.55 am | Professor Dr Taira Kazunari IL – 22 | Contribution of RNA technology in life sciences |
| 11.55 am - 12.20 pm | Professor Indrapal Singh Aidhen IL – 23 | Weinreb amide based building blocks for the synthesis of biologically important molecules |
| 12.20 pm – 12.45 pm | Professor Tanmaya Pathak IL – 24 | Synthesis of biologically relevant modified nucleosides |
| 12.45 pm – 01.05 pm | Dr Stefan Vogel SIL – 7 | DNA-controlled assembly of soft nanoparticles in molecular diagnostics |
| 11.30 am – 01.05 pm | TECHNICAL SESSION XI (HALL – B) Chairpersons: Professor RC Rastogi and Dr Sadhna Relia | |
| 11.30 am – 11.55 am | Professor RK Pandey IL – 25 | Multifunctional agents for tumor imaging and therapy |
| 11.55 am - 12.20 pm | Dr Mukund Chorghade IL – 26 | Value creation and new opportunities in medicinal chemistry: collaborations in drug discovery, process development and project management of technology transfer |
| 12.20 pm – 12.45 pm | Dr PMS Chauhan IL – 27 | Design and synthesis of novel heterocycles as antiparasitic agents |
| 12.45 pm – 01.05 pm | Professor T Asefa SIL – 8 | Multifunctional nanomaterial: from synthesis to applications in catalysis, environment remediation, biology and medicine |
| 11.30 am – 01.05 pm | TECHNICAL SESSION XII (HALL – C) Chairpersons: Professor RK Pandey and Professor JM Khurana | |
| 11.30 am – 11.55 am | Professor K Parang IL – 28 | Research experiences and opportunities at the interface of chemistry and biology |
| 11.55 am - 12.20 pm | Professor Om Prakash IL – 29 | Structural basis for the function of clip-domains in serine proteases |
| 12.20 pm – 12.45 pm | Professor KS Rangappa IL – 30 | Synthesis and implication of heterocyclic as therapeutic agents |
| 12.45 pm – 01.05 pm | Dr Constantin Czekelius SIL – 9 | Catalytic heterofunctionalization of unsaturated hydrocarbons |
| 01.05 pm – 02.30 pm | LUNCH & POSTER SESSION – II | |
| 02.30 pm – 04.00 pm | TECHNICAL SESSION XIII Chairpersons: Professor VS Parmar and Professor AK Bakhshi | |
| 02.30 pm – 03.15 pm | Professor Anil K Singh PL – 4 | Professor TR Seshadri Memorial Lecture: Bioorganic chemistry of retinal-binding natural photoreceptor pigments and |

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| | | other related chromophores of biological significance |
| 03.15 pm – 04.00 pm | Professor Kankan Bhattacharyya PL – 5 | Professor RP Mitra Memorial Lecture: Femtosecond dynamics in nano-confined systems- from ionic liquids to biological assemblies |
| 04.00 pm – 04.30 pm | TEA/ SNACKS | |
| 04.30 pm – 06.30 pm | TECHNICAL SESSIONS XIV, XV, XVI | |
| 04.30 pm – 06.30 pm | TECHNICAL SESSION XIV (HALL – A) Chairpersons: Dr JM Khanna and Professor Sanjay V Malhotra | |
| 04.30 pm – 04.55 pm | Professor Steven E Rokita IL – 31 | Reductive dehalogenation on mammals |
| 04.55 pm – 05.20 pm | Professor Shyamalava Mazumdar IL – 32 | Biological electron transfer by copper proteins |
| 05.20 pm – 05.45 pm | Professor Dr Nauria A Al-Awadi IL – 33 | Gas phase pyrolysis: From theoretical and structure/reactivity correlations to synthesis of novel organic compounds |
| 05.45 pm – 06.10 pm | Dr Rajesh Gaur IL – 34 | Engineered riboswitch for controlling gene expression |
| 06.10 pm – 06.30 pm | Dr AS Mustafa SIL – 10 | Identification of the immunodominant peptide of RD1 protein PPE68 as a new peptide-based vaccine candidate against tuberculosis |
| 04.30 pm – 06.30 pm | TECHNICAL SESSION XV (HALL –B) Chairpersons: Professor T Pathak and Dr GP Garg | |
| 04.30 pm – 04.55 pm | Dr Vinod Bhakuni IL – 35 | Modulation of functional activity of enzyme by alterations in structure and interactions of domains by activating ions |
| 04.55 pm – 05.20 pm | Professor Dr Henrik Skov IL – 36 | The dynamics of mercury in global troposphere |
| 05.20 pm – 05.45 pm | Professor Dr Ole Hertel IL – 37 | Urban air pollution climates through out the world |
| 05.45 pm – 06.10 pm | Professor Dr R Barouki IL – 38 | Mechanisms of action of dioxin : Lessons from toxicogenomics |
| 06.10 pm – 06.30 pm | Dr Sanjay Kumar SIL – 11 | Recent advances in anti-cancer drug discovery |
| 04.30 pm – 06.30 pm | TECHNICAL SESSION XVI (HALL – C) Chairpersons: Dr Sheo B Singh and Dr PL Soni | |

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| 04.30 pm – 04.55 pm | Professor Milton Brown IL – 39 | Discovery of myosin light chain phosphatase inhibitors for treating prostate cancer |
| 04.55 pm – 05.20 pm | Dr Keshav Deo IL – 40 | Global challenges in generic pharma industries |
| 05.20 pm – 05.45 pm | Dr W Haq IL – 41 | Peptides as immunomodulators |
| 05.45 pm – 06.10 pm | Professor Dr Athina Geronikaki IL – 42 | Novel benzothiazolimino-5-aryliden-4-thiazolidinones as lipoxygenase inhibitors: Estimation of structure-activity relationship |
| 06.10 pm – 06.30 pm | Dr Barbara Mroczkowski SIL – 12 | Targeted therapies for cancer: C-met case study |
| 08.00 pm | BANQUET DINNER | |

Sunday, 1st March 2009

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| 09.30 am – 11.00 am | TECHNICAL SESSION XVII Chairpersons: Professor Dr Daniel Jore and Professor Milton Brown | |
| 09.30 am – 10.15 am | Professor Dr Poul Nielsen PL – 6 | Synthetic nucleic acid analogues with additional rings or additional nucleobases |
| 10.15 am – 11.00 am | Professor Vinod K Singh, <i>FNA</i> PL – 7 | Sugar as a useful precursor for synthesis of bioactive natural products |
| 11.00 am – 11.30 am | TEA/ SNACKS | |
| 11.30 pm – 01.05 pm | TECHNICAL SESSIONS XVIII, XIX, XX | |
| 11.30 pm – 01.05 pm | TECHNICAL SESSION XVIII (HALL – A) Chairpersons: Professor VK Singh, <i>FNA</i> and Professor Dr H Dhimane | |
| 11.30 am – 11.55 am | Dr Sheo B Singh IL – 43 | Discovery and development of antibiotics with novel mode of action |
| 11.55 am – 12.20 pm | Dr Anu Puri IL – 44 | A novel class of radiation sensitive nanoparticles for targeted and triggered |

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| | | delivery of cancer therapeutics |
| 12.20 pm – 12.45 pm | Professor Anamik Shah IL – 45 | Design and synthesis of diversified small molecule libraries of chemotherapeutic agents |
| 12.45 pm – 01.05 pm | Dr Dalip Kumar SIL – 13 | Design, synthesis and biological evaluation of novel anticancer agents |
| 11.30 pm – 01.05 pm | TECHNICAL SESSION XIX (HALL – B) Chairpersons: Professor Rup Lal and Professor RK Saxena | |
| 11.30 am – 11.55 am | Dr Balaram Ghosh IL – 46 | Natural product based leads that block airway hyper responsiveness and airway inflammation |
| 11.55 am – 12.20 pm | Dr Fabrice Collin IL – 47 | Oxidation of milatonin and mass spectrometric characterization by on-line H/D exchange liquid chromatography |
| 12.20 pm – 12.45 pm | Dr Ritushree Kukreti IL – 48 | Genetic bases of human drug response: A path towards clinical practice |
| 12.45 pm – 01.05 pm | Dr Atul K Johri SIL – 14 | Use of proteomics for the development of vaccine against group B Streptococcus |
| 11.30 pm – 01.05 pm | TECHNICAL SESSION XX (HALL – C) Chairpersons: Professor SC Jain and Professor Dr Poul Nielsen | |
| 11.30 am – 11.55 am | Dr Carlo Fasting IL – 49 | Exploring protein-glycan interactions on synthetic surfaces via fluorescence resonance energy transfer (FRET): A tool for glycan-profiling of biosurfaces |
| 11.55 am – 12.20 pm | Dr Debendra K Mohapatra IL – 50 | Synthesis of natural and designed molecules: focusing towards new potent anti-cancer agents |
| 12.20 pm – 12.45 pm | Professor MSM Rawat IL – 51 | Development of lipid vesicular systems for improving bioavailability of synthetic and herbal drugs |
| 12.45 pm – 01.05 pm | Dr Rana P Singh SIL – 15 | Chemoprevention of prostate tumor growth and progression |
| 01.05 pm – 02.30 pm | LUNCH & POSTER SESSION – III | |
| 02.30 pm – 04.00 pm | TECHNICAL SESSION XXI Chairpersons: Dr Joseph E Tomaszewski and Professor KP Ravindranathan Kartha | |
| 02.30 pm – 03.15 pm | Professor Dr Rainer Haag PL – 8 | Functional dendritic architectures |
| 03.15 pm – 04.00 pm | Professor David Triggle PL – 9 | Drug discovery in the 21 st century: For what and for whom |
| 04.00 pm – | | |

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| 04.30 pm | TEA/ SNACKS | |
| 04.30 pm – 06.05 pm | TECHNICAL SESSIONS XXII, XXIII, XXIV | |
| 04.30 pm – 06.05 pm | TECHNICAL SESSION XXII (HALL – A) Chairpersons: Dr Stefan Brase and Dr RS Dobhal | |
| 04.30 pm – 04.55 pm | Dr Ram Vishwakarma IL – 52 | Posttranslational modifications and new drug discovery |
| 04.55 pm – 05.20 pm | Dr David Olsen IL – 53 | MK-7009: The Use of Traditional and Novel Technologies in the Discovery of a Potent Hepatitis C Virus NS3/4a Protease Inhibitor |
| 05.20 pm – 05.45 pm | Professor SC Jain IL – 54 | Natural products: Essential source for drug discovery |
| 05.45 pm – 06.05 pm | Dr Yosshiko Miura SIL – 16 | Inhibition of alzheimier disease by glycomaterials |
| 04.30 pm – 06.05 pm | TECHNICAL SESSION XXIII (HALL –B) Chairpersons: Professor Rainer Haag and Professor Monika Datta | |
| 04.30 pm – 04.55 pm | Professor Dr Michael E Goodsite IL – 55 | Assing human exposure to ambient air pollution and the associated health effects |
| 04.55 pm – 05.20 pm | Professor RK Saxena IL – 56 | IPR issues for microbes and microbial process development for industrially important products: The Indian scenario |
| 05.20 pm – 05.45 pm | Dr Mohan Prasad IL – 57 | Intellectual property and global pharma industries |
| 05.45 pm – 06.05 pm | Dr Jyoti Singh SIL – 17 | Online chemistry / bio-chemistry information for ideas to develop NCEs – with a case study |
| 04.30 pm – 06.05 pm | TECHNICAL SESSION XXIV (HALL – C) Chairpersons: Professor Rita Kakkar and Dr G Relhan | |
| 04.30 pm – 04.55 pm | Dr AJ Verma IL – 58 | Agricultural residue derived polysaccharides as organic raw material for production of chemicals and polymers |
| 04.55 pm – 05.20 pm | Dr Christoph Tzschucke IL – 59 | Oxygen containing heterocycles by gold or platinum catalysed cyclisation of alkynols |
| 05.20 pm – 05.45 pm | Dr Anil K Saxena IL – 60 | Design and synthesis of potential ptp 1b inhibitors as antidiabetic agents |
| 05.45 pm – 06.05 pm | Dr Anjali M Rahatgaonkar SIL – 18 | Synthesis of a novel series of differently substituted 2-[2-amino-6-(2-chloroquinolin-3-yl)-5, 6- |

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| | | dihydropyrimidin-4-yl]phenol |
| 06.05 pm – 06.45 pm | VALEDICTORY SESSION | |