Third International Conference on Nanotechnology for Biological and Biomedical Applications (Nano-Bio-Med 2015)

Dec. 1-4, 2015,

Hall 32, VMCC, IIT Bombay Powai, Mumbai, India

Programme Schedule

Tuesday (Dec. 1st , 2015)		
8:30 – 9:30	**Registration**	
9:30 – 10.15	Welcome Address Opening remarks **Conference Inauguration**	Dr. Ramgopal Rao, IITB, India Dr. Sangeeta Kale DIAT, India Dr. Samir Iqbal, Texas Univ, USA **Dr. Surendra Pal,** **Vice Chancellor, DIAT**
10:15 –11:00	**Invited Talk (Chair Dr. Sufi Zafar)**	
	Controlled molecular assembling for biorecognition studies: implications to biophysics and biomedicine	Dr. Loredana Casalis, Elettra Italy
11:00– 11:30	**Tea Break**	
11:30 –13:00	**Invited Talks (Chair Dr. Ramgopal Rao)**	
11:30 – 12:15	Nanocomposites for total joint replacements	Dr. S. Kanagaraj, IIT- Guwahati
12:15 – 13:00	Blood-Plasma Separation for Point of Care Diagnostic Application	Dr. Amit Agarwal, IITB, Mumbai
13:00 – 14:00	**Lunch Break**	
14:00 –15:30	**Invited Talks (Chair Dr. Amit Agarwal)**	
14.00 – 14:45	CMOS Compatible Biosensors for Healthcare	Dr. Sufi Zafar, IBM,USA
14:45 – 15:30	Low cost Nano-Electro-Mechanical Sensing Platforms for Disposable Applications	Dr. Ramgopal Rao, IITB, Mumbai
15:30 – 16:00	**Tea Break**	
16.00 – 17.40	**5 Contributory talks ~ 15 min each followed by 5 min Q & A (Chair Dr. S. Kanagaraj)**	
16:00 – 16:20	CT-1	
16:20 – 16:40	CT-2	
16:40 – 17:00	CT-3	
17:00 – 17:20	CT-4	
17:20 – 17:40	CT-5	

Wednesday (Dec. 2nd , 2015)		
9:00 – 11.15	**Invited Talks (Chair Dr. Amit Asthana)**	
9:00 –9:45	Locally probing cell mechanics by optical tweezers technology.	Dr. Dan Cojoc CNR-IOM, Trieste, Italy
9:45- 10:30	Envisaging organic and inorganic biocompatible nanomaterials as drug delivery vehicles	Dr. Sangeeta Kale, DIAT, Pune
10:30–11:15	Nanoscale metal Particles in Polymer for Theranostics	Dr. Arun Chattopadhyay, IIT Guwahati
11:15–11:30	**Tea Break**	
11:30–13:00	**Invited Talks (Chair Dr. Loredana Casalis)**	
11:30–12:15	Non-conventional methods of fabricating microfluidic &paper-microfluidic devices and their applications	Dr. Amit Asthana, CRF-MB, Hyderabad
12:15–13:00	Exploiting Evanescent Waves for Developing Simple Optical Bio(Chemical) Sensors	Dr. Soumya Mukherji, IITB
13:00–14:00	**Lunch Break**	
14:00–14:45	**Invited Talk (Chair Dr. Sangeeta Kale)**	
14:00–14:45	In vivo dual mode therapeutics using magnetic nanohybrids	Dr. D. Bahadur, IITB
14:45–15:30	**Poster Session with evaluation**	
15:30 – 16:00	**Tea Break**	
16:00–18:00	**Poster Session continued and Visit to CEN/ IITB Nanofabrication Facility, IITB**	

Thursday (Dec. 3rd , 2015)		
9:00–10.30	**Invited Talks (Chair Dr. Asmita Prabhune)**	
9:00–9:45	Recent achievement in plant mediated green synthesis of metal nanoparticles and its potential biomedical applications	Dr. Faiz Mohammad, AMU, Aligarh
9:45–10.30	Nanoparticle Induced Stress on Live Cells : A Raman Tweezers Spectroscopy Study	Dr. C. Santhosh, Manipal University, Manipal
10:30–11:00	**Tea Break**	
11:00-12:30	**Invited Talks (Chair Dr. C. Santhosh)**	
11:00–11:45	Affordable Point of Care Diagnostic devices	Dr Rohit Srivastava IIT Bombay
11:45–12:30	From macro to nano : role of sophorolipids in biomedical applications	Dr. Asmita Prabhune, NCL, Pune
12:30-13:30	**Lunch Break**	
13:30–16:00	**Panel Discussion:** **Discussion on Challenges in Medical domain and the Impact of Nanotechnology on Medicine** **Introduction:** **Dr. Sangeeta Kale** **Chair: Dr. Mahadeo Bhide**	• Dr. Mahadeo Bhide, Gynecologist, Mumbai, India and London, UK • Dr. Shail Jaggi, Orthodontist, Pune, India • Dr. Anvay Mule, Heart Transplant Surgeon, Mumbai, India • Dr. Anup Ramani : Uro-Onco Surgeon, Mumbai, India • Dr. Vasudeo Ginde, Radiologist, Mumbai, India • Dr. Narendra Wagh, Orthopedic surgeon, Pune, India
16:00 – 16:30	**High Tea Break**	
16:30–18:10	**5 Contributory talks ~ 15 min each followed by 5 min Q & A (Chair: Dr. C. Santhosh)**	
16:30– 16:50	CT-6	
16:50– 17:10	CT-7	
17:10 – 17:30	CT-8	
17:30 – 17:50	CT-9	
17:50 – 18:10	CT-10	

Friday (Dec. 4th, 2015)		
9:00–11.00	**Invited Talks (Chair Dr. Ramgopal Rao)**	
9:00–9:45	Nanoscale Chip Texturing to Selectively Capture Cells	Dr. Samir Iqbal, USA
9:45–10.30	Sensors and Systems for Resource-Challenged Farming	Dr. M. Shojaei, IITB, Mumbai
10:30-11:15	Soil and Plant moisture sensors for efficient irrigation scheduling - Indian perspective	Dr. V. Ramulu, Principal Scientist, Agronomy, PJTSAU, Hyderabad
11:15 – 11:45	**Tea Break**	
11:45 – 13:15	**Invited Talks (Chair Dr. M. Shojaei)**	
11:45 –12:30	Core shell nanostructures: Applications in detection of Biological activity	Dr. S.W. Gosavi, Pune University
12:30 –13:15	Development of a dual drug loaded nano-liposomal formulation for	Dr. Uma Maheshwari SASTRA University, Thanjavur
13:15 – 14:15	**Lunch Break**	
14:15- 15:30	**Prize distribution and logoff**	

Contributory Presentations:

CT 01	: Gopal Krishna B and Jagannadha Rao M	Anti-oxidant effect of sugar nanocomposite restrains hyperglycemic conditions in diabetic
CT 02	: Gopi Suresh Oggu, Sahana Sadhasivam, Sai Santhosh Sasank Peri, Nihal Satyadev, Umapathy Govindaswamy, Amit Asthana Ch. Mohan Rao	A truly single step method for fabrication of paper based microfluidic devices and its bio-functionalization for various applications
CT 03	: Sougata Ghosh	Diosgenin functionalized magnetic nanoparticles novel apoptotic inducers against breast cancer
CT 04	: Ekata Ghate, Gauri Kulkarni	Unique nano structures of Swallowtail
CT 05	: Sudipta Basu	Dual Drug Conjugated Nanoparticle for Targeting of Mitochondria and Nucleus in Cancer Cells
CT 06	: Debasis Nayak, Aliva Prity Minz, Sarbani Pradipta Ranjan Rauta and Bismita Nayak	Fabrication, characterization and bioevaluation antioxidant conjugated chitosan nanoparticles for
CT 07	: Harshit Agrawal, Anand Shrivastav and Gupta	Localized surface plasmon resonance based fiber sensor for atrazine detection using imprinted polymer (MIP) as sensing layer
CT 08	: Vivek Semwal, Anand Shrivastav and Gupta	LSPR based fiber optic sensor for the detection trichloroacetic acid using silver nanoparticles chitosan hydrogel film as sensing medium
CT 09	: Rohini Kitture, Dnyandeo Pawar, Ravi Kant Choubey and Sangeeta Kale	Polymer nanocomposite modified Optical Fiber Sensor for H_2S detection
CT 10	: Angshuman Ray Chowdhuri and Sumanta Kumar Sahu	Florescent chitosan nanoparticles for cell and hydrophobic drug delivery

List of Poster presentations: 4x3 Ft

P 01	:	Meenakshi Sundaram Nachiappan, Sneha Murugesan, Vignesh Raj S and Vigneshwaran V	Development of nanostrcutured apatite-magnetites for biomedical and industrial applications
P 02	:	Kunal Biswas, Swati Sinha, Jaya Bandyopadhyay, Debashis De, Tamoghna Purkayastha and Siddharth Shaw	Enhanced conductivity of the adenine nucleobase coupled two dimensional Graphene nanosheets
P 03	:	Nitin Kumar	Brain neurotransmitters in Parkinson's induced rats
P 04	:	Madhuri Patel, Cijy Mathai, Niraj Joshi, Ruchira Jadhav and Richard Pinto	Room Temperature Ethanol Sensing Properties of $BiFeO_3$ Thin films Grown by PLD
P 05	:	Priya Dharshini A., Jitendra Wankar, Amit Asthana and Ch. Mohan Rao	A novel rapid, physical method for the synthesis of gold nanoparticles in aqueous solution
P 06	:	Jeya Bharathi S and Dr. Hosimin Thilagar S	Design and Modeling of Electrochemical sensor for Precision agriculture farming
P 07	:	T Tirupal, B Chandra Mohan and S Srinivas Kumar	Multimodal Medical Image Fusion based on à trous Wavelet Decomposition and Contrast Visibility
P 08	:	Sushma Venkata Mudigunda, Manju Thomas, Gopi Suresh Oggu, Kiran Kumar Bokara, Amit Asthana and Ch Mohan Rao	Effect of Nano-Patterns on the Neural Precursor Cell Characteristics
P 09	:	Sourav Kundu and Sachindranath Karmakar	Single stranded DNA sequencing using Graphene nanopore device
P 10	:	Tahsin Bennur and A Dewle	Biosynthesized AuNPs as a potential material for enhancing the efficacy of MSCs
P 11	:	Shazia Shaikh, Sunita Kedia, Kuldeep Sharma and Sucharita Sinha	Laser Surface Modification of Bioglass to Enhance Hydroxyapatite Growth
P 12	:	Indresh Yadav and Vinod Kumar Aswal	Differences in Interactions of Charged Silica Nanoparticles with Lysozyme and BSA Proteins as Studied by Scattering Techniques
P 13	:	Sougata Ghosh	Novel $Au_{core}Ag_{shell}$ nanoparticles synthesized by Dioscorea bulbifera as potent biofilm inhibitor and leishmanicidal nanomaterial

P 14	:	Dachepalli Ravinder, Guntha Aravind and Boda Nehru	Synthesis and development of lithium- nano ferrites for biomedical applications
P 15	:	Haimanti Chatterjee and Hirak Mazumdar	A proposition- magnetic property in human cell in diseased and in health
P 16	:	Sugam Kumar, Debes Ray and Vinod Aswal	Evolution of Structure and Interaction in Nanoparticle-Protein Systems
P 17	:	Mayoorika Shukla, Tejendra Dixit, Pramila Jakhar, I. A. Palani and Vipul Singh	ZnO Nanostructures based Electrochemical Glucose biosensor: An aspect ratio dependent analysis
P 18	:	Yugal Kishore Mohanta, Kunal Biswas, Abiral Tamang, Jaya Bandyopadhyay, Dambarudhar Mohanta, Akshaya Kumar Bastia and Debashis De	Green synthesis of bioactive silver nano-particles (AgNPs) by leaf extracts of Garugapinnata Roxb. and its antimicrobial activity
P 19	:	Nidhi Gupta, Deenan Santhiya and Shashank Gupta	Role of Cellulose in 45S5 bioglass synthesis for bone regeneration
P 20	:	Poulomi Sengupta and Bhagavatula L V Prasad	Small molecule alteration controls cell adhesion property in polymeric scaffolds
P 21	:	Anand Shrivastav and Banshi Gupta	Fiber optic ascorbic acid sensor having Ag-nanoparticle embedded molecular imprinted polyaniline nanocomposite as a recognition layer
P 22	:	Sarbani Ashe, Debasis Nayak, Pradipta Ranjan Rauta, Manisha Kumari and Bismita Nayak	Silk-sericin-coated liposomes for long-term and targeted drug delivery
P 23	:	Piyush More, Sougata Ghosh, Rohini Kitture, Adersh Asok, Sangeeta Kale, Jayesh Bellare and Balu Chopade	Biogenic copper nanoparticles as potent α-amylase and α-glucosidase inhibitor with free radical scavenging potential
P 24	:	Shankar Gaware, Chetan Chavan, Dr. Sangeeta Kale, Preetam Bala, Rohini Kitture and Dr. Kavita Pal	Studies on natural and pH-dependent sustained drug-release from transdermal patch of Chitosan nanoparticles for wound healing applications
P 25	:	B.V.Bhaskara Rao, Shankar Gaware, Ruchira Mukherji, Asmita A Prabhune and Sangeeta N Kale	pH-sensitive release of antimicrobial Cephalexin from submicron particles of Silica
P 26	:	Sumit Mehan and Vinod Kumar Aswal	Structure and interaction in nanoparticle-protein-surfactant complexes

P 27	:	Rohini Kitture, Priti Darne, Mihir Mehta, Asmita Prabhune and Sangeeta Kale	Fe_3O_4 conjugated with Sophorolipid-Curcumin for smart cancer theranostics
P 28	:	Chetan Chavan, Rohini Kitture, Ruchika Kaul-Ghanekar, Shrinivas Prabhu, Kavita Pal and Sangeeta Kale	Drug release studies using Chitosan-based hydrogel nanoparticles for ophthalmic infections
P 29	:	Shivaji Bhosale, Sudha Bhoraskar and Vikas Mathe	Influence of morphology and crystallinity on antibacterial activity of $NiFe_2O_4$ nanoparticles
P 30	:	Preetam Bala, Kavita Pal and Sangeeta N Kale	Pullulan nanoparticles: A potential carrier for drug delivery
P 31	:	Madhuri Vinchurkar, Mamta Ashwin, Rajul Patkar and V. Ramgopal Rao	Universally Applicable and Novel Strategy for Efficient Immobilization of Antibodies
P 32	:	Chetan Kamble	Simulation of Acetone Vapour Sensing using Microcantilever
P 33	:	Rohini Kitture, Sangeeta Kale, Sougata Ghosh, Ashish Avasthi and Balu Chopade	Rutin functionalized Fe_3O_4 for cancer therapeutics
P 34	:	Dilip Kumar Agarwal, Soumyo Mukherji and V. Ramgopal Rao	Enhancing the sensitivity of piezoresistive microcantilever based biosensors
P 35	:	Prachi Ghoderao, Sanjay Sahare, Himanshu Aggarwal, Anjali Abhay Kulkarni and Tejashree Bhave	Fabrication of Surface Modified Porous Silicon for Mammalian Cell Growth/Culture
P 36	:	Shreeram Joglekar, Prashant S. Pimpliskar, Anup A. Kale	FITC Embedded ZnO/Silica Nanocomposites as probes for Point-of-Care diagnosis
P 37	:	Divyambari Gupte, Rakesh Shinde, and Suresh Gosavi	Self-Assembled Cds NPs on Nafion Membrane: Florescent Strips for DNA Detection
P 38	:	Ankita Leekha, A. Tyagi, B. S. Gurjar, and Anita K. Verma	To exploit the potential of Vitamin C to synergistically enhance the sensitivity of Cisplatin in SiHa cervical cancer cells