



Issue - 39
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Jawaharlal Nehru Centre for Advanced Scientific Research

Jakkur P.O., Bangalore-64

(A Deemed to be University)

JNC

NEWS

Focus

Dear Colleagues

It is heartening that the Centre continues to make significant progress in academic and extension programmes, thereby contributing to the progress of Science.

Awards like India 'Innovation Award' from Merck Millipore company to Prof. Tapas Kumar Kundu and his research team, 'India Citation Award 2012' from Thomson Reuters to Prof. Umesh Waghmare, 'CRSI Bronze Medal' to Dr. Tapas Maji are the recognition earned by our faculty recently for their outstanding work in their respective fields. Adding a new dimension, the Federation of Indian Publishers have been given the 'Awards for Excellence in Publishing' to the Kannada Book 'Nanoprancha' authored by Prof. C.N.R. Rao and translated by Mrs. Indumati Rao. Also, it is a matter of pride that prestigious research grants have been sanctioned from several national and international funding agencies.

Several significant inventions have been granted with National and International Patent and some have been licensed for commercial prospects. Encouraging response has been received from students and scientists across the country and abroad on our science outreach and visiting fellowship programmes. Several dignitaries across the globe from Universities and Research Labs have visited the Centre to explore avenues of research collaborations.

With the continuous support from Department of Science and Technology, the required infrastructural facilities have been improved to support our growing academic and research needs. As we step toward the silver jubilee year, the Centre plans to unveil various academic and research programmes.

M R S Rao
President



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From The Editor's Desk

The Kannada Book 'Nanoprancha' bagged the 'Awards for Excellence in Publishing' from the Federation of Indian Publishers. The book is authored by Prof. C. N. R. Rao, translated by Mrs. Indumati Rao, formatted and the cover page designed by Education Technology Unit for Navakarnataka Publications Pvt. Ltd. for printing & publishing of the book.

Prof. Tapas K Kundu, and three of his previous group members, Selvi Ruthrotha Bharatha Vikru (Ph.D. student), Hari Kishore Annavarapu (R&D assistant), Mantelingu Kempegowda (Research Associate) of Transcription and Disease Laboratory, MBGU, JNCASR, have received the first prize of India Innovation Award given by Merck Millipore company on 29th October 2012. The award has been given based on one of their US patents, entitled, "Site-Specific Inhibitors of Histone Methyltransferase (Hmtase) and Process of Preparation Thereof", US patent no 8003,698B2.

Academic Activities

The current student strength at JNCASR is 283. Forty two students had joined the Centre during the August admissions 2012.

Under Post Graduate Diploma in Science Education (PGDSE) programme, three students have joined under the full time programme and they have been placed under TSU, NCU and EOBU faculty of the Centre. Under Post Graduate Diploma in Materials Science (PGDMS) programme, the Centre on behalf of ICMS (International Centre for Materials Science) had admitted one student during the mid-year session of 2011-12 and one for the year 2012-13.

Fellowship and Extension

In Summer Research Fellowship Programme (SRFP), out of 48 were selected 36 were placed under the JNC faculty and 12 under faculty from other institutions. Under JNCASR-Centre for International Co-operation in Science Fellowship (CICS) programme, 4 Fellows have been given certificates for the year 2010-11. Seven who were selected for the year 2011-12 were from Thailand, Nigeria, Bangladesh, and South Africa. Of them, 1 Visiting Fellow from Nigeria had joined and completed the programme successfully. Under Project Oriented Chemical Education Programme (POCE), 11 students were selected for this year's programme. The classes for the fresh batch of POCE 2012 had commenced on May 14, 2012. Nine students of POCE 2010 batch were awarded Diploma in Chemistry on July 2, 2012. Out of nine students, one student of POCE 2010 batch has been selected for Integrated M.S./Ph. D. program of the Centre. Few have co-authored publications in reputed journals. In Project Oriented Biological Education (POBE) programme, 10 students were selected. The classes for the fresh batch of POBE 2012 had commenced on May 20, 2012. POBE batches of 2010 and 2011 returned for their training under EOBU and MBGU faculty of the Centre during May 2011 and earlier. 8 POBE students of 2010 batch received their Diploma certificates in Biology. One student from the POBE batch of 2010 has joined JNCASR under the M.S.-Ph.D. programme offered by the Evolutionary and Organismal Biology Unit. Under Visiting Fellowships Programme, the advertisement for the year 2012-13 was released. 7 applications were selected under the Physical Sciences, Materials Science, Chemistry and Engineering categories and 2 applications under the Biological Sciences category.

Science Outreach & Education Technology

The Summer 2012 Science Outreach Programme sponsored by the CNR Rao Hall of Science, JNCASR was conducted in association with Himalayan Gram Vikas Samiti, Gangolihat by Prof. K.S. Valdiya on May 6-9, 2012. 148 Participants from 24 Govt. intermediate colleges attended the program which had lectures on topics in Science & Engineering from Eminent Scientists.

In the POCE program for the year 2012, ETU presented the multimedia CD-ROM 'NANOWORLD' and a quiz was conducted from the CD-ROM 'Understanding Chemistry' for the students on May 25 & 30. A visit to the 'Chemistry of Materials Exposition' and Prof. C.N.R. Rao Archives was organised.

The C.N.R. Rao Hall of Science website (www.jncasr.ac.in/hos) was inaugurated by the President, Prof. M. R. S. Rao at the "Madan Mohan Malaviya Amphitheatre" on 29th June 2012. The inauguration was part of "CNR Education foundation Science Teacher's Award Function/ Lecture programme". The website has a special feature called 'Lecture Videos', where the videos of various lecture programs conducted at C.N.R. Rao Hall of Science for students and teachers are posted.



Short-term Appointments

Visiting Scientists

Dr. Subhasis Sinha
Prof. Nacir Tit
Prof. Garry Brown
Dr. Loredana Casalis
Dr. Kyle C Smith
Dr. Madhvendra Nath Tripathi
Dr. Prashant Dubay

Visiting Scholars

Mr. Nicolas A. Rivas
Mr. Ershaad Ahamed Basheer
Ms. Samada M
Mr. Felix Fabich

Research Associates

Dr. N Padmavathy

Mr. Manoj Kesaria
Dr. Suguna Perumal

Research Associates (Provisional)

Mr. Mahesh Bachu
Mr. Manoj Kumar
Mr. Somnath Mandal
Mr. Sudhanshu Yadav
Mr. Shuvrajyoti Bhattacharjee
Mr. Virendra Kumar

Fellow

Dr. Jay Ghatak (ICMS)

EOBU Chairman

Prof. Vijay Kumar Sharma

TSU Chairman

Prof. Umesh V. Waghmare

Complab Chairman

Dr. Santosh Ansumali

Associate Warden

Prof. Maneesha Inamdar

Promotions

Professors

Prof. Maneesha Inamdar
Prof. K. R. Sreenivas

Associate Professors

Dr. Kaustuv Sanyal
Dr. Tapas Kumar Maji

Intellectual Property

The Centre has obtained three US Patents for the following inventions:

- 1 A Novel Chemical Method for SWNT (Single-Walled Carbon Nanotube) Separation Using a Coronene Tetracarboxylic Acid-Based Small Molecule, Patent No. 8246928, developed by Prof. Chintamani Nagesa Ramachandra Rao, Subi Jacob George, K Venkata Rao, Rakesh Voggu.
- 2 A High Sensitivity Assay for Molecular Typing of Biological Sample, Probes and a Kit Thereof, Patent No. 8227590, developed by Prof. Ranga Udaykumar, Prof. Chandrabhas Narayana and Dr. N. Jayasuryan.
- 3 A Mirror Adapted in Microscope to Perform Surface Enhanced Raman Spectroscopy, A Microscope and Methods Thereof, Patent No. 8179525, developed by Prof. Chandrabhas Narayana and G. V. Pavan Kumar.

Five Indian Provisional Patent Applications have been filed for the inventions of Prof. CNR Rao et al., Prof. Tapas K. Kundu et al., Dr. Subi Jacob George et al, Dr. Jayanta Halder et al. and Dr. Ravi Ramchandra Manjithaya.

Four International Patent Applications under PCT have been filed for the inventions viz. (a) Manufacturing Strain Sensitive Sensors and/or Strain Resistant Conduits from a Metal and Carbon Matrix, and (b) A System and a Method to Detect Hydrogen Leakage using Nano-Crystallised Palladium Gratings developed by Prof. G. U. Kulkarni et al., (c) Bulk heterojunction/electrolyte polymers as novel biocompatible photoactive multi color-sensing technology developed by Prof. K. S. Narayan et al., and (d)

Polymer, Methods of Obtaining the Polymer and Applications Thereof developed by Dr. Subi Jacob George et al.

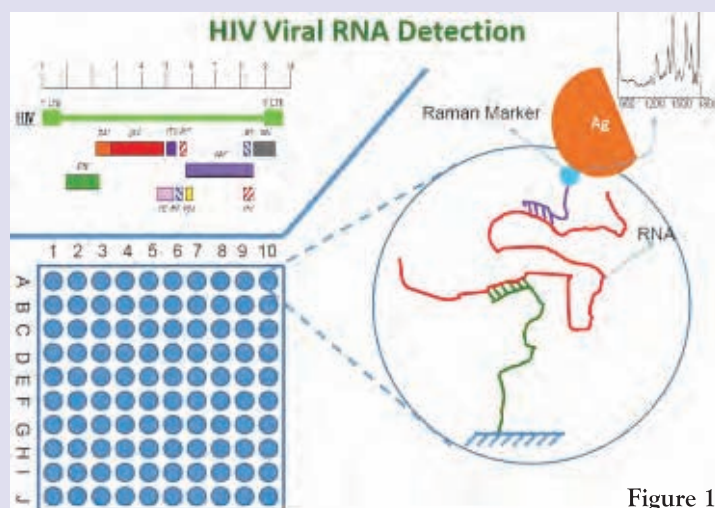


Figure 1

Three US Patent Applications have been filed for the inventions viz. (a) Graphene Ribbons and Methods for their Preparation and Use by Prof. G. U. Kulkarni et al., (b) Chromophores for Detection of Volatile Organic Compounds developed by Dr. Subi Jacob George et al; and (c) Julolidine Conjugates and Methods for Their Preparation and Use developed by Dr. T. Govindaraju et al.

(Figure 1 shows on the top left hand corner the selection of the 10 conserved regions of the HIV subtype, to design the capture and detection oligos. The capture oligos are silanized and placed in well specific (e.g. Subtype A window 1 conserved region) shown in the bottom left corner for all subtypes and windows. The SERS strategy is schematically represented on the right side of the figure. The present assays developed can go down to about 100 copies detection with further modification in this strategy.)

AWARDS & RECOGNITIONS

Prof. C. N. R. Rao

Honoris Causa D.Sc from IISER Mohali
Honoris Causa D.Sc from University of Kerala
Honoris Causa D.Sc. degree from the University of St. Andrews, Scotland

Prof. Maneesha Inamdar

National Women Bioscientists Award (Junior Category), 2011

Prof. G. U. Kulkarni

Sheikh Saqr Senior Fellow, 2012
Bangalore Nano National Award, 2012

Prof. Tapas K Kundu

Ranbaxy Research Award, 2011 (Medical Sciences - Basic Research)
First prize of India Innovation Award, Merck Millipore Company

Dr. Tapas Kumar Maji

TWAS Young Affiliateship, 2012-2017
CRSI Bronze Medal, 2013
Sheikh Saqr Fellow, 2012

Prof. Chandrabhas Narayana

Elected as Fellow of the NASI, Allahabad

Prof. Swapan K. Pati

TWAS Prize in Chemistry, 2012
DST J C Bose Fellowship

Prof. Vijay Kumar Sharma

Elected as Fellow of INSA, New Delhi

Prof. Umesh Waghmare

DST J C Bose Fellowship
India Citation Award 2012 from Thomson Reuters

Mr. Nadiger Nagaraj

The Most Valuable Staff Member prize, 2012

AWARDS RECEIVED BY STUDENTS

Bapu Narayanaswamy Prize for Best MS Thesis (Chemical & Physical Sciences)

Name: Ms. Anindita Chakraborty
Unit: CPMU

Thesis title: 'Molecule Based Magnetic Materials: Homo/Heterometallic Clusters to Extended Porous Frameworks'

Research Supervisor: Dr. Tapas K Maji

Babu Mathru Prasad Scholarship (for II Year Int. Ph.D. Students)

Name: Ms. Monali Moirangthem
Unit: NCU
Research Supervisor: C.N.R. Rao

Best Ph.D. Thesis

In Biological Science (2011-12)

Name: Dr. Jitendra Thakur
Unit: MBGU

Thesis title: 'Genetic and Epigenetic Factors Determining Centromere Structure and Function in Candida Species'

Research Supervisor: Dr. Kaustuv Sanyal

In Physical Sciences (2011-12)

Name: Dr. B. Radha
Unit: CPMU

Thesis title: 'Synthesis and Direct Patterning of Functional Nanostructures on Flat and Flexible Substrates towards Device Fabrication'

Research Supervisor: Prof. G.U. Kulkarni

Best Ph.D. Thesis in Engineering Mechanics (2011-12)

Name: Dr. Sumesh P.T
Unit: EMU

Thesis title: 'Statics and Dynamics of Drops on Solid Surfaces'

Research Supervisor: Prof. Rama Govindarajan

Ms Nisha Mammen (Ph.D. student, TSU; Research Supervisor: Prof. Shobhana Narasimhan) received the Best Poster prize at the 2nd Gordon Research Conference on Noble Metal Nanoparticles, held at Mt. Holyoke College, USA.

Mr. Jiaul Hoque (Ph.D. student; NCU; Research supervisor: Dr. Jayanta Halder) was awarded the best poster award in The first International Conference on Emerging Technologies for Clean Water-2012 at IITM, Chennai.

Dr. Jeelan Basha, Research Associate, Transcription and Disease Laboratory, Molecular Biology and

Genetic Unit has received best poster award in the "International symposium on chemistry and chemical biology of natural products" (CCBNP-2012) held at Indian Institute of Chemical Technology (IICT), Hyderabad during 2-4, August 2012.

Mr. Yarlagadda Venkateswarlu (Ph.D. student; Research supervisor: Dr. Jayanta Haldar) was awarded best poster award from the Chemical Research Society of India at the Mid year meeting 2012, at CDRI, Lucknow.

ENDOWMENT LECTURES

Prof. V. Ramalingaswami Memorial Lecture: *Act of Observation and Cancer Biology*, Dr. R A Badwe, Director, Tata Memorial Centre & Hospital, Mumbai, July 9, 2012.

Prof. C. N. R. Rao Oration Award Lecture: *HIV says again - "In failure, I see my success"*, Prof. Ranga Udaykumar, JNCASR, August 6, 2012.

DAE - Raja Ramanna Lecture in Physics: *Novel Electronic Phenomena at Oxide Interfaces*, Dr Ramesh Chandra Budhani, NPL; Prize Lecture - *Tweaking the magnetic domains and domain-walls in nanostructures: A prospective magnetic memory concept*, Prof. Anil Kumar, IISc, September 28, 2012.

Linus Pauling Lecture: *The Antimicrobial Defense of Drosophila: a Paradigm for Innate Immunity from Flies to Humans*, Prof. Jules Hoffmann, Nobel Laureate, Institute of Molecular and Cellular Biology, University of Strasbourg, France, October 12, 2012.

ISRO Satish Dhawan Lecture: *Science for Musical Excellence of the Mridangam*, Dr. T. Ramasami, Secretary, Department of Science and Technology and Dr. Umayalpuram S. Sivaraman, October 16, 2012.

COLLOQUIUM/DISCUSSION MEETINGS

- 1 International Conference on Networks in Biology, Social Science and Engineering, Prof. G. Rangarajan, IISc, July 12 - 14, 2012.
- 2 Recent Advances in Electrochemical Energy Materials and Devices, Prof. A. J. Bhattacharyya, July 24 - 27, 2012.
- 3 ACCMS - Theme Meeting on 2D Nanostructures: Graphene and Beyond, Prof. Umesh V. Waghmare, JNCASR, July 29 - 30, 2012.

4 International Conference on Raman Spectroscopy (ICORS 2012), Prof. Chandrabhas Narayana, JNCASR and Prof. Umapati, IISc, August 12-17, 2012.

5 CFM 2012 - Chemical Frontiers, Prof. R. Murugavel, IIT Bombay, August 14 - 16, 2012.

6 Meeting with Bill Moran, Global Director of International Collaboration and Custom Publishing, American Association for the Advancement of Science (AAAS) and Science Magazine, September 27, 2012.

7 8th JNC Research Conference on Chemistry of Materials, Dr. Subi Jacob George, JNCASR, September 30 - October 2, 2012.

8 Two days Symposium on "National Mathematical Year NYM 2012", Shri Sasti Brata, Kabiraj, October 20 - 21, 2012.

9 Indo-Japan Conference on New Functionalities in Electronic and Magnetic Materials, Prof. D. D. Sarma, October 18 - 20, 2012.

10 Thematic Meeting on Lipid Protein Interactions in Membranes: Implications for Health and Diseases, Prof. Amitabha Chattopadhyay, November 1 - 5, 2012.

11 FCBS Workshop for Postgraduate Students and Lectures in Chemistry, Prof. M. V. George, NIIST, Trivandrum, November 8 - 10, 2012.

12 Meeting of Young Affiliates and Fellows of TWAS in Central & South Asia Region, November 15 - 17, 2012.

13 Aurora kinases beyond centrosomes: role of transcription factors' phosphorylation in gene expression and cell cycle, D. Karthigeyan, MBGU Colloquium, November 16, 2012.

SCHOOLS / WORKSHOP / SYMPOSIUM

- 1 TSU In-House Symposium, August 4, 2012.
- 2 Indo-US workshop on Next Generation of Materials Using Neutrons, September 6-7, 2012, Convenor: Prof. G. U. Kulkarni
- 3 Publishing Workshop, Institute of Physics, September 18, 2012

SEMINARS & LECTURES

1. *Biomaterials for neural tissue engineering*, Prof. Surya Mallapragada; Pathogen mimicking nanoparticle for prevention and treatment of respiratory infectious disease, Prof. Balaji Narasimhan, Department of Chemical and Biological Engineering, Iowa State University, June 14, 2012.
2. *Interplay of 4f-3d interaction and dynamical electrical transport in Sm based manganese oxides*, Prof. R. Mahendiran, Department of Physics, National University of Singapore, June 22, 2012.
3. *Theoretical studies for understanding a few observations on protein conformational dynamics*, Dr. Meher K. Prakash, Co-founder and C.E.O., Metaplastics SAGL, Lugano, Switzerland, June 22, 2012.
4. *Ultracold atoms in the presence of a synthetic gauge field*, Dr. Subhasis Sinha, Physical Sciences Division, Indian Institute of Science Education and Research, Kolkata, July 10, 2012.
5. *ICMS International Materials Lecture*, Prof. Chad Mirkin, Department of Chemistry and International Institute for Nanotechnology, Northwestern University, July 16, 2012.
6. *Molecular adaptation to cold temperatures and high pressure of a psychrophilic cellulase*, Dr. Nushin Aghajari, Senior Scientist, Institute for the Biology and Chemistry of Proteins, July 18, 2012.
7. *Organic Nano-Electro-Mechanical-Sensor Systems for healthcare and Environmental Applications*, Prof. V. Ramgopal Rao, IIT Bombay, July 19, 2012.
8. *Epigenetics of Human Gene Regulation, Steroid Hormone Signaling and Tumorigenesis*, Dr. Subhrangsu S. Mandal, Associate Professor, University of Texas, Arlington, August 3, 2012.
9. *Elephant conservation and human- elephant conflict mitigation: playing blind man's buff?*, Dr. Prithiviraj Fernando, Centre for conservation and research, Srilanka, August 7, 2012.
10. *In search of some novel bimetallic homogeneous and heterogeneous catalysts: from molecular level to nanomaterials*, Prof. Suresh Bhargava, Deputy Pro Vice Chancellor (Int) College of Science, Engineering and Health Head of Advanced materials & Industrial Chemistry School of Applied Sciences, RMIT University, August 10, 2012.
11. *Circadian clock protein Cryptochrome regulates the expression of pro-inflammatory cytokines*, Dr. Rajesh Narasimamurthy, Salk Institute for Biological Studies, USA, August 17, 2012.
12. *Effective Hamiltonians for Excited States of Fluorescent Protein Chromophores*, Prof. Ross H. McKenzie, University of Queensland, Brisbane, Australia, August 17, 2012.
13. *Magnesium Alloy Design: A perspective on multi-scale modeling*, Dr. Amitava Moitra, Fenske Laboratory Department of Chemical Engineering The Pennsylvania State University University Park, USA, August 21, 2012.
14. *Investigation of Local Structure in nano and disordered systems - some recent XAFS results*, Dr. Debdutta Lahiri, High Pressure & Synchrotron Radiation Physics Division, BARC, Mumbai, August 24, 2012.
15. *Mesoscale methods for Extended hydrodynamics*, Dr. Santosh Ansumali, Faculty Fellow, Engineering Mechanics Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India, September 4, 2012.
16. *Next-Generation Genomics at CCAMP - Accelerating the Biological Research in India*, Dr. Malali Gowda, Director, Next-Generation Genomics Facility, CCAMP, NCBS, Bangalore, September 7, 2012.
17. *Non-local Stokesian hydrodynamics of active filaments*, Dr. Ronojoy Adhikari, The Institute of Mathematical Sciences, Chennai, September 10, 2012.
18. *Partial Decoherence in a Mesoscopic System*, Prof. Sushanta Dattagupta, Visva-Bharati University, Shantiniketan, September 14, 2012.
19. *Viral latency and drug resistance in HIV-AIDS*, Dr. Amilkar Tanuri, Molecular Virology Laboratory, Institute of Biology Department of Genetics, UJRF, Reo de Janerio, Brazil, September 14, 2012.
20. *Predicting and explaining phenomena in carbon and boron nitride nanostructures*, Prof. Helio Chacham, Departamento de Fisica, ICEX, UFMG, Brazil, September 17, 2012.

21. *Nanotechnology based assays for detection of blood borne and biodefense pathogens*, Indira Hewlett, Chief, Laboratory of Molecular Virology, Division of Emerging and Transfusion Diseases, Office of Blood Research and Review, Center for Biologics Evaluation and Research (CBER), FDA, MD, September 18, 2012.
22. *Voltage gated ion channels*, Prof. Michael Klein, Institute for Computational Molecular Science, Temple University, Philadelphia, September 27, 2012.
23. *Chromosome Stability* (JNCASR - IISER, TVM) Meeting, Prof. Kaustuv Sanyal, JNCASR, December 17 - 19, 2012.
24. *The use of Microfluidics in High-Throughput Single Cell Gene Expression*, Dr. Ramesh Ramakrishnan, Director of Molecular Biology at Fluidigm Corporation, San Francisco, US, October 3, 2012.
25. *Genetic, competitive and behavioural constraints on adaptation*, Deepa Agashe, NCBS, Bangalore, October 4, 2012.
26. *Modelling Transient Photovoltage Measurements*, Dr. Girish Lakhwani, University of Cambridge, October 5, 2012.
27. *Synthesis of Natural Products, Drugs, Agrochemicals and Materials by Multiple Pd-Catalyzed Transformations*, Prof. Lutz F. Tietze, Institute of Organic and Biomolecular Chemistry, Georg-August-University Göttingen, Tammannstr, Göttingen, Germany, October 5, 2012.
28. *Benefits of cooperation and communication in bacteria*, Prof. Sandeep Krishna, Theory and Modelling of Biological Systems, National Centre for Biological Sciences, Bangalore, India, October 9, 2012.
29. *Inorganic nanotubes and fullerene-like nanoparticles*, Prof. Reshef Tenne and Prof. Alla Zak, Weizmann Institute, Israel, October 16, 2012.
30. *Spin polarised transport via Dithienylethene molecule attached to magnetic nickel leads*, Kanchan Ulman & Nisha Mariam, Ph. D Student, TSU, JNCASR, Jakkur Bangalore, October 16, 2012.
31. *Carbon fluids in the deep Earth: insight from ab initio simulations*, Dr. Leonardo Spanu, Shell Corporation, Bangalore, India, October 23, 2012.
32. *Oriental Relaxation in an Ionic Liquid: An All-atom Simulation Study*, Prof. Ranjit Biswas, SNBNCBS, Kolkata, October 26, 2012.
33. *Rotational wave packet imaging of molecules*, Dr. Ramakrishna Sesha Sankar, NorthWestern University, October 30, 2012.
34. *Hybrid quantum dot circuit : carbon nanotubes and ferromagnets*, Dr. Subhadeep Datta, Mesoscopic Physics Group, Laboratoire Pierre Aigrain, Ecole Normale Supérieure, Paris, October 31, 2012.
35. *Computational-based Engineering and Vascular Devices and Disease*, Dr. Anamika Prasad, IIT-Patna, Assistant Professor (Adjunct), November 6, 2012.
36. *Objects, space, and memory: how the hippocampal cognitive map comes together*, Dr. Sachin Deshmukh, Assistant Research Scientist, Mind/Brain Institute, Johns Hopkins University, November 6, 2012.
37. *Mechanical Deformation of Amorphous Solids*, Professor Srikanth Sastry, TIFR Centre for Interdisciplinary Sciences, Hyderabad, November 6, 2012.
38. *Stable and accurate numerical methods for computational Cardiology*, Dr. Ishani Roy, King's College London, UK, November 6, 2012.

OTHER LECTURES

- 1 *Staff Orientation Lecture*, Dr. Anand Kumar, JNCASR, July 11, 2012.
- 2 *Handling Injuries - An Interactive Session*, Dr. V. Yogesh, JNCASR, August 17, 2012.
- 3 *Paperless Office - An experiment and experience*, Mr. M. N. Vidyashankar, Principal Secretary, Commerce & Industries Dept., Govt. of Karnataka on Monday, October 01, 2012.

OTHER PROGRAMMES

Hindi Week

Hindi Week was celebrated from 3-7 September 2012. Series of events were organized on this occasion such as hindi crossword competition, hindi poetry recitation competition, quiz competition, etc. A talk

has been organised titled Resurgent Himalaya (Uthata, Kampta Himalaya - Hindi title) delivered by Prof. K. S. Valdiya, JNCASR on September 07, 2012.

Vigilance Awareness Week

The Vigilance Awareness Week was observed in the Centre from 31st October to 5th November, 2012. A talk has been organized titled "Transparency in public procurement" by Mr. Srinivas Galgali, ITS, Chief Vigilance Officer, Kudremukh Iron Ore Co. Limited (KIOCL), Bangalore on November 05, 2012.

FORTHCOMING MEETINGS

- 1 Discussion Meeting on Electronic, Optical and Magnetic Materials: experiment and Modeling, Prof. S. Ramasesha, IISc, November 25 - 28, 2012.
- 2 Winter School 2012 on Frontiers in Materials Science, December 03-08, 2012, Convenors: Prof. S. M. Shivaprasad and Prof. Umesh Waghmare
- 3 International Conference on Biomolecular Forms and Functions: A Celebration of 50 Years of the

Ramachandran Map, Prof. Manju Bansal, January 8 - 11, 2013

- 4 International Conference on Quantum Information and Quantum Computing (ICQIQC), Prof. S. Raghuveer, IISc, January 9 - 11, 2013.
- 5 Annual Conference on Molecular Immunology Forum (MIF), Prof. Ranga Uday Kumar, JNCASR, January 17 - 19, 2013.
- 6 9th Kannada Vignana Sammelana, Prof. K. I. Vasu, September 15 - 17, 2013.

ANNUAL FACULTY MEETING

The Annual Faculty Meeting of the Centre will be held on November 19, 2012. Prof. Santanu Bhattacharya, Prof. K. S. Narayan, Dr. Sheeba Vasu, Dr. Santosh Ansumali and Dr. Rajesh Ganapathy will deliver the lectures. A cultural programme will be held in the evening. An in-house symposium is scheduled to be held on November 20, 2012 at Jakkur Campus.

