Dr. Anup K. Misra (Division of Molecular Medicine) visited Abo Akademy University, Turku, Finland, as visiting scientist during August 01-October 31, 2013) under the exchange program between DBT India-Academy of Finland. During this visit he delivered lectures in the University of Turku and at the Abo Academy University.

Dr. Atin K. Mandal (Division of Molecular Medicine) visited USA during April 29-May 8, 2014, for his presentation at the Cold Spring Harbor Laboratory meeting on Molecular Chaperones & Stress Responses and to deliver an invited lecture at the Dept. of Chemistry & Biochemistry, Worcester Polytechnic Institute, Worcester, MA, USA.

**Prof. Sampa Das** (Division of Plant Biology) visited Cape Town during 9-13 November, 2014 to attend the 13th International Symposium on Biosafety of Genetically Modified Organisms (ISBGMO) and delivered a talk entitled "Biological safety assessment of a novel antifunga protein, mASAL, the mutant variant of Allium sativum leaf agglutinin

Mr. Dipan Roy (Division of Plant Biology) was selected to present his poster in Keystone Symposia on Chromatin Mechanisms and Cell **Physiology** held on March 23, 2014 at Obserstdorf, Germany.

Debarati Dey, SRF, (Division of Plant Biology) visited Telford, United Kingdom during 28 – 30 September, 2014 to attend Internationa Conference by British Society for Allergy and Clinical Immunology (BSACI) Annual Meeting and presented a poster entitled "Monitoring And Assessment of Aeromycota In A Megacity Of India With Special Reference To The Immunoproteomic Study Of The Fungus Curvularia pallescens". He also obtained Travel Grant from DBT, Govt. of India.

Nandini Ghosh, SRF, (Division of Plant Biology) visited Copenhagen, Denmark from during 7 – 11 June, 2014 to attend **EAACI Congress** – 2014 and presented a poster entitled "A Search for Aero-allergens from Sunflower (Helianthus annuus L.) Pollen: A Common Sensitizer to Rhinitis patients" and won the best poster award in "Molecular Allergy" and "Pollen" session. She also obtained Travel Grant from the "European Academy of Allergy and Clinical lmmunology".

Prof. Sujoy Kumar Das Gupta (Microbiology) visited Paris during August 30 to September 4, 2014, to attend the FEBS EMBO conference and present his poster on Evolutionary origin of the Mycobacterial Plasmid pAL5000 replication proteins RepA and RepB.

Prof. Swapan K Saha and Dr. Dhruba Gupta (Physics) visited Caen, France during April 11-18, 2014 during and participated in an experiment devoted to the study of neutron proton pairing in exotic nuclei with N=Z at the GANIL laboratory.

Prof. Swapan K. Saha (Physics) visited CERN, Geneva, Switzerland and delivered a talk at the ISOLDE Workshop and Users Meeting, November 25-27, 2013.

Dr. Supriya Das (Physics/CAPSS) visited CERN, Geneva, December 8-22, 2013, to attend Fabrication of triple GEM prototype detector for R&D as part of ALICETPC upgrade program and during May 25 to June 7,2014, for testing of GEM prototype at RD51 laboratory.

Dr. Achintya Singha (Physics ) visited Jena, Germany, August 9-16, 2014, to deliver a talk in the International Conference on Raman Spectroscopy (ICORS2014) on "Silver Nanoparticles Decorated DNA: a Substrate for Detection at Single Molecule Level". He also visited University College Cork (UCC) and Tyndall National Institute (TNI), Cork, Ireland, during August 17-24, 2014, for an ongoing collaborative research work.

Ms. Dipanwita Majumdar (Physics) visited Jena, Germany, August 9-16, 2014, to present a poster entitled "Raman Study of Predominant Wurtzite InAs Nanowires Under High Pressure" in the International Conference on Raman Spectroscopy (ICORS2014). She also visited University College Cork (UCC) and Tyndall National Institute (TNI), Cork, Ireland, during August 17-24, 2014, to perform some experiments under an ongoing collaborative research program.

#### RECENT AWARDS AND HONOURS

- Prof. Tapash C. Ghosh (Bioinformatics Centre) has been elected Fellow of West Bengal Academy of Science and Technology
- Dr. Abhrajyoti Ghosh (Biochemistry) has been awarded the Ramanujan Fellowship by Department of Science and Technology, New Delhi.
- Prof. Manikuntala Kundu (Chemistry) became the fellow of Indian Academy of Sciences, Bangalore, 2014.
- **Prof. Gauri Sankar Sa** (Division of Molecular Medicine) received **P. B. Sen Memorial Award** from Physiological Society of India, in

- Prof. Gaurisankar Sa (Division of Molecular Medicine) became the member of the Task Force in Cancer Biology, DBT, Govt. of India.
- Prof. Tanva Das (Division of Molecular Medicine) received Raj Krishna Dutta Memorial Award of Indian Science Congress Association, India, in 2014.
- Dr. Kuladip Jana (Division of Molecular Medicine) received. Young Scientist Award, 2014 (US\$ 6120) from Parsemus Foundation, Berkeley, California, USA, in recognition of his unique contribution to develop a non-surgical male animal's
- Sahana Mitra (Division of Molecular Medicine) won best poster award at 82nd Annual Meeting of The Society of Biological Chemists (India), Hyderabad, December 2-5, 2013 for her poster "Unraveling the guardian knot: Raf1 kinase and its chaperone
- **Prof. T. P. Sinha** (Physics Department) has been awarded the Materials Research Society of India (MRSI) Medal for 2014 for his significant contribution in Materials Science Research. He delivered the MRSI Medal Lecture on "Optical dielectric constant of perovskite oxides" at Indian Institute of Science, Banglore on 14th February 2014 during the Annual General Meeting of MRSI.

#### RECENT Ph. Ds. (From April 1, 2013 to March 31, 2014)

- Sucharita Dey (Biochemistry) Bioinformatic analysis of protein structures and interactions. Supervisor: Prof. P. Chakrabarti
- Soumyananda Chakraborti (Biochemistry) The effect of ZnO nanoparticles on proteins and cells, and the recognition of curcumin by tubulin. Supervisor: Prof. P. Chakrabarti
- Jaspreet Singh Grewal (Biochemistry) Novel proteins that regulate chromosome segregation and cell division in Entamoeba histolytica.Supervisor:Prof.A.Lohia
- Sumana Banerjee (Biochemistry) Molecular evolution of protein domains involved in protein turnover in eukarvotes: A comparative genomics and OR Feomics approach. Supervisor: Dr. Srimonti Sarkar
- Biswanath Jana (Biochemistry) Biochemical, biophysical and genetic characterization of a dimeric Mip-like peptidyl-prolyl cistrans isomerase from Escherichia coli. Supervisor: Prof. S. Sau and Prof.P.K.Parrack (Co-supervisor)
- Soumita Podder (Bioinformatics Centre) Studies of the origin of evolutionary rate heterogeneity in the human disease and nondisease proteome. Supervisor: Prof.T.C.Ghosh
- Pinki Nandi (Division of Molecular Medicine) Process of Fertilization of Caprine Spermatozoa : Involvement of a Low Molecular Mass Protein and a Synthetic Dihydropyrimidone. Supervisor:Prof.P.C.Sen
- Bibhabasu Hazra (Division of Molecular Medicine) Study of various medicinal plants to establish scientific evidences for Indian system of complementary and alternative medicine. Supervisor: Prof. N. Mandal
- Abhishek Santra (Division of Molecular Medicine) Synthesis of oligosaccharides corresponding to the bacterial cell wall polysaccharides. Supervisor: Dr. Anup Kumar Misra
- Abhijit Sau (Division of Molecular Medicine) Synthetic studies on microbial complex oligosaccharides. Supervisor: Dr. Anup
- Amit Roy (Division of Plant Biology) A Proteomic approach to elucidate the mechanism of action of different plant lectins on the agriculturally important sucking pests. Supervisor: Prof. Sampa
- Anirban Kundu (Division of Plant Biology) MYMIV-resistanceintrogression in Vigna mungo susceptible cv. T9: Agro morphological and molecular characterization of the recombinant inbred lines. Supervisor: Prof. Amita Pal
- Suparna Ghosh (Division of Plant Biology) Identification of proteins expressed during in vitro regeneration of Vigna radiata through proteomic approach. Supervisor: Prof. Amita Pal
- Subhabrata Ghosh (Division of Plant Biology) Molecular Documentation and Evaluation of different species of Ginger and Bamboo from Eastern and North Eastern India. Supervisor: Prof. Swati Sen-Mandi

- Jayita Sarkar (Microbiology) Metagenomic strategy for accessing the genetic and functional diversity of uncultured soil microorganisms.Supervisor:Prof. Tapan K.Dutta
- **Debajyoti Ghosal** (Microbiology) Studies on bacterial degradation of polycyclic aromatic hydrocarbons in the development of biosensor strain to monitor these priority pollutants in the environment. Supervisor: Prof. Tapan K. Dutta
- Amit Kumar Pal (Physics) Ground and thermal state properties of novel spin systems. Supervisor: Prof. Indrani Bose
- Sarbani Majumder (Physics) Study of phase transition in Astrophysics and Heavy-ion collisions. Supervisor: Prof. Sanjay K.
- **Nishant Kumar** (Physics) Dielectric relaxation in some complex perovskite oxides. Supervisor: Prof.T.P. Sinha

#### GRANTS RECEIVED

The following research proposals have been granted to the Bose Institute during the last one year by different funding agencies. The title of the project, funding agency involved, principal investigator. amount of grant and duration of the projects are indicated.

- Mapping the molecular mechanisms of resistance to apoptosis switch over of non small cell lung carcinoma by curcumin: an approach towards chemo sensitization SERB(DST); Prof. Tanya Das, (Division of Molecular Medicine); ₹41,65,000;3 years.
- Diagnosis of mould allergy among inhibitants of urban and rural peoples of the Gangetic plains of West Bengal through aerobiological and immunochemical studies; CSIR; Prof. Swati Gupta Bhattacharya, (Division of Plant Biology); ₹20,28,600; 3
- Studies on the mould spore diversity as environmental allergen in outdoor and indoor environments of urban and rural areas of Agartala, Tripura"; DBT; Prof. Swati Gupta Bhattacharya, (Division of Plant Biology); ₹15,20,000; 3 years.
- Studies on the efficacy of flavonoid and non-flavonoid polyphenols against chronic inflammation induced disease pathogenesis: DBT: Dr. Kaushik Biswas, (Division of Molecula) Medicine):₹28.81.000:3 Years.
- Carbon Monoxide Conversion using native Hydrogenogenia Microorganisms for Sulphate rich Wastewater Treatment; DBT; Prof.Tapan K.Dutta, (Microbiology); ₹6,95,000; 1 year.
- Functional Analysis of the DNA polymerase lambda gene and the protein from Indica Rice Cultivars; SERB(DST); Prof. D. N. Sengupta, (Division of Plant Biology);₹37,89,600;3 years.
- Binning stochastic phenotypic states of cancer cell population in different color box; DBT; Prof. Tanya Das, (Division of Molecular Medicine): ₹69,42,400:3 years.
- A large Ion collider experiment (ALICE) upgrade, operation and utilization; DST; Prof. Sibaji Raha, (Physics); ₹6,05,00,000; 5
- Invstigating the genome wide changes in Histone H3K27 acetylation and gene expression in rice during cold stress: SERB(DST); Dr. Shubho Chaudhuri, (Division of Plant Biology); ₹
- Understanding the role of tumor derived glycosphingolipids in cacinogenesis: An invivo approach; DBT; Dr. Kaushik Biswas, (Division of Molecular Medicine);₹43,06,000;3 years.
- Exploring membrane-associated NAC-transcription factors (NAC MTFs) in tomato to apprehend membrane-mediated signaling during pathogenesis; CSIR; Dr. Pallob Kundu (Division of Plant Biology);₹25,38,600;3 years.
- Phenotypic heterogeneity in cell population: A search for physical principles; CSIR; Prof. Indrani Bose, Emeritus Scientist (Physics):₹20,58,000;3 years.
- Raf1 quality control and development of pathophysiological conditions; DBT; Dr. Atin Kumar Mandal (Division of Molecular Medicine);₹48,79,000;3 years.

#### **Editorial Board:**

D. Home, G. Basu, P. Parrack, D. Basu Assisted by : T. K. Maii Visit us: http://www.jcbose.ac.in

#### **STAFF NEWS**

#### **Appointments:**

#### Academic

1. Dr. Abhrajyoti Ghosh joined as DST-Ramanujan Fellow in Department of Biochemistry on January 01, 2014

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- 2. Dr. Zhumur Ghosh joined as Assistant Professor in Bioinformatics Centre on January 15,2014.
- 3. Dr. Wriddhiman Ghosh joined as Assistant Professor in Microbiology Department on January 15,2014.
- 4. **Dr. Abhijit Chatterjee** joined as Assistant Professor in Environment Science Section on January 15, 2014.

#### Non-academic

- 1. **Shri Gouranga Pramanik** joined as Driver-cum-Mechanic on
- 2. Shri Achintya Mukherjee joined as Accounts Officer on January 16,2014
- 3. Shri Ashim Kr. Biswas joined as Accounts & Finance Officer on July 16,2014

#### **Retirements on Superannuation:**

- 1. Shri Samir Kr. Paul, Asstt. Registrar, Library on December 31,
- 2. Shri Biswanath De Sarkar, T.O.-I, Department of Microbiology on January 31, 2014
- 3. **Sk. Md. Ehia Hossain,** Technician Sl.GR., Workshop on January 31,2014
- Shri Parimal Ch. Das, A & FO-II, Administration on January 31,
- Shri Ranjit Kr. Ghosh, Helper G, SAIF on February 28, 2014
- Shri Tapan Kr. Banerjee, Helper-G, Administration on February 28,2014
- 4. Shri Basudeb Ghorui, Helper-G, Department of Biochemistry
- on March 31 2014 5. Dr. Amitabha Mitra, Associate Professor, Department of Physics on April 30, 2014
- 6. Shri Barindra Nath Mondal, T.O.-I, Division of Molecular Medicine on May 31,2014
- Sk.Md.Raffick, Technician Gr-I, Workshop on May 31, 2014
- 8. Shri Basanta Kr. Shit, A.R.-I, Workshop on June 30, 2014
- 9. Shri Chhotelal Rangwa, Helper-G, Administration on July 31,
- 10. **Shri Pradip Kr. Sarkar,** T.O., Library on July 31, 2014
- 11. **Prof.P.C. Sen,** Senior Professor, Division of Molecular Medicine on August 31,2014
- 12. Smt. Elizabeth Pal, Sr. Telephone Operator, Administration on September 30, 2014
- 13. Shri Bulaki Das, Helper-G, Administration on September 30,
- 14. **Shri Jaganmay Guin,** T.O.-**II**, CIF on November 30, 2014
- 15. **Shri Kisson Das,** Helper-E, Workshop on November 30, 2014

#### FORTHCOMING EVENTS

- Workshop and Hands on Training on Plant DNA Fingerprinting and Diagnostics of Medicinal Potential in Plants will be held during June 2015 at Main Campus. Contact Person: Prof Swati Sen Mandi (Division of Plant Biology) (senmandi.swati@gmail.com).
- An International Conference on Informatics and Integrative Biology (CIIB-2014) is being organized by Bioinformatics Centre (Conveners: Dr. Zhumur Ghosh and Dr. Sudipto Saha), December 17-19, 2014, to celebrate the 25th year of the inception of the Bioinformatics Centre at Bose Institute, Details about the conference are available in the conference website: http://bicresources.jcbose.ac.in/CIIB/ciib2014.
- Prof. Subrata Majumdar is organizing the 4th Asian Conference on Environmental Mutagens during December 10-12, 2014, at the Indian Institute of Chemical Biology.

We condole the passing away of Shri Samar Kr. Datta Technical Officer B, Workshop, on December 25, 2013

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## বসু বিজ্ঞান মন্দির



# OSEIISIUE NEWS

बस् विज्ञान मन्दिर

A NEWSLETTER OF BOSE INSTITUTE

No. 42-43

May & November 2014

#### **DIRECTOR'S DESK**



As we celebrate the 98<sup>th</sup> Foundation Day of Bose Institute, we cannot afford to lose sight of an approaching momentous occasion, the centenary of our dear institute. Our beloved founder harboured high hopes for the institution that he built as a service to the nation, nay, to the entire mankind. Our

responsibility has been to live up to his expectations and prove ourselves worthy of the great legacy that was his bequest. Most who served Bose Institute over the years have given unstintingly to carry the name and fame of the institute forward, yet can we be sure that we have been able to fulfil our founder's dream? Do we all feel the same sense of duty to the institute or appreciate what privilege it truly is to be able to enter its hallowed portals? I hope the answer ought to be a resounding yes. This is the proper time to renew our pledge to raise the flag of Bose Institute even higher, so that the entire world would look forward to a brighter future for Bose Institute.

Bose Institute, like most other autonomous research institutes in the country, survives on public money and thus, has an inescapable responsibility to give something back to the society. We fulfil that responsibility primarily through our attempts to generate new knowledge, train competent scientific and technical manpower which would contribute to the growth of the country through their expertise and disseminate the knowledge produced here to the entire mankind. In the process, we have to remain vigilant that the poorer sections of the society do not get left out. It is our duty to ensure that we try to benefit all sections of humanity in whatever ways we can. This is certainly not at a compromise to the high standards we set for ourselves in our main academic pursuits but as we must admit, giving a bit of time to such social activities infuses additional vigour in what we do for the most of our time. Our scientists (faculty members and scholars alike) have been quite energetic in participating in such activities like outreach programmes, rural biotechnology training and science popularisation, even before the government made it mandatory for all research institutes to undertake such work on a regular basis.

Our resolve to prove ourselves worthy of Acharya Jagadis Chandra's legacy is firm; we shall strive for it untiringly, with your support and help.

Best wishes,

Sibaji Raha



The 76th Acharya J.C. Bose Memorial Lecture will be delivered by 'Dr. Srikumar Banerjee, DAE-Homi Bhabha Chair Professor, Bhabha Atomic Research Centre, Mumbai' on 'Order and Chaos - In Assemblies of Atoms and in Human

### Order and Chaos – In Assemblies of **Atoms and in Human Societies** Abstract

Different states of matter can be described in terms of the extent of ordering in arrangements of atoms within them. For example, in condensed matter, a liquid, an amorphous and a crystalline state of a given material are distinguishable from the consideration of ordering in atomic arrangements with respect to topological, chemical and magnetic parameters. The first part of the presentation deals with the descriptions of different types of ordering processes resulting in formation of crystalline, quasicrystalline and ordered (chemical or magnetic) phases. Two distinct modes of ordering, namely, continuous and discrete, and the thermodynamic basis of their evolution are discussed and the concept of disciplined atom movements in displacive transformations is introduced. Some specific material properties which emanates from the respective ordering process are identified.

The concepts used in understanding the evolution of ordering in assemblies of atoms can as well be extended in the context of social phenomena. This is illustrated by citing examples taken from a small unit such as a family as well as that in a massive social transformation. Based on these observations it is argued that a competition between the ordering process which is driven by the tendency of minimization of energy and the opposite process of creation of chaos arising from the tendency of maximization of entropy determines the path and the destiny of transformation in both atomistic and societal phenomena.

CYAN MAGENTA YELLOW BLACK ------

#### **CURRENT EVENTS**

#### 97<sup>th</sup> Foundation Day Celebrated



The 97<sup>th</sup> Foundation Day of Bose Institute was celebrated on 30<sup>th</sup> November 2013. Prof. Mushirul Hasan, former Vice Chancellor, Jamia Millia Islamia, New Delhi, also former Director General, National Archives of India and currently Jawaharlal Nehru Fellow, graced the occasion as the Guest of Honour and delivered the 75<sup>th</sup> Acharva Jagadis Chandra Bose Memorial Lecture on **From** Prison to Power: Jawaharlal Nehru and the Making of Modern India. The celebrations started with floral offerings and garlanding of the SAMADHI and the BUST of Acharya J.C. Bose, at both the campuses of the Institute. Prof. Swapan Chakravorty of Jadavpur University (also Former Director General, National Library, Kolkata) presided over the programme. Prof. Sibaji Raha, Director, Bose Institute, delivered the Welcome Address and presented the Institute Report. Sir Nilratan Sirkar Prize 2013 was awarded to Shri Abir Kumar Panda, Senior Research Fellow, Division of Molecular Medicine and Prof. B. B. Biswas Outstanding Student Award 2013 was presented to Shri Saikat Majumder, Senior Research Fellow, Division of Molecular Medicine.

#### **Annual Sports Day**





For the last several years, Annual Sports has become a monthlong event at Bose Institute that brings together the members of the Institute, viz. faculty members, students and other staff from all departments and sections, who particiapte in the various events with great enthusiasm. This programme culminates with an Annual Sports Day when various track and field events, tug of war, and cricket and football matches among staff and students is held. This year, the Annual Sports Day was held on 17<sup>th</sup> January

#### **Science Day 2014 Celebrated**

Bose Institute celebrated National Science Day on February 28, 2014 through various activities. As a part of Science Day celebrations Dr. Saroj Ghosh, Former Director General, National Council of Science Museum, delivered a talk entitled "Scientific Temper: Top Down or Bottom Up?" where he described how Scientific Temper would help to understand facts and events, develop a logical thought process, build up a belief that everything can be explained by reasons, fight against superstitions, do away with obscurantism, solve problems with logic and not with emotions, adopt a bottom up approach instead of top down. Authoritative decisions move from top to bottom downwards - people are supposed to accept what is told. This is top down approach. Top down approach usually generates controversy. Bottom up approach on the other hand presents facts in the most objective manner. People will take their own decision based on facts. This helps in reaching a

#### **Blood Donation Camp Organized**



The 6<sup>th</sup> Blood Donation Camp and Thalassaemia Screening Camp was organized by Bose Institute Blood Donation Committee on 5<sup>th</sup> September 2014 in the Centenary Campus. The Director, Bose Institute inaugurated the programme. Prof. Swati Gupta Bhattacharya, Chairman, CMS and Blood Donation Committee of Bose Institute, convened the whole programme. Ninety-eight members from different sections of the Institute donated blood. 26 donor cards were handed over to the Thalassemia Guardians Association.

#### **Dipta Memorial Symposium**

The 22<sup>nd</sup> Dipta Memorial Symposium, on the theme **Social** Networking in the Wild, was organized at the Main Campus of the Institute on September 19, 2014 by the Dipta Memorial Symposium Committee in association with Bose Institute Research Scholars' Forum Prof Sibaii Raha Director Rose Institute, chaired the lecture session where Prof. Renee Borges, Department of Ecological Sciences, Indian Institute of Science, Bangalore presented a talk on Networks for Life. Professor Ratanlal Bramhachari, Former Professor, ISI Kolkata, and eminent tiger pheromonologist delivered a lecture on Tiger pheromones: 50 years, and Mr Pralay Lahiri, Wildlife Photographer, also spoke on his various experiences in the wild.

#### Inaugural function of the Tagore Centre of Natural **Science & Philosophy**



The inaugural function of the Tagore Centre of Natural Science & Philosophy was held at the Main Campus of Bose Institute on October 14, 2014. Prof. Sibaji Raha, Director, Bose Institute, delivered the Welcome Address. Shri Partha Chatterjee, Honorable Minister-in-Charge, Parliamentary Affairs, Education (Primary, School & Higher Education), Govt. of West Bengal, was the guest-of-honour. Prof. Dipak Ghosh, C. V. Raman Centre for Physics & Music, gave a presentation on Music : Rabindranath Tagore and Albert Einstein, entitled "My thoughts vibrating with thy tune". ed, presentation by Prof. Sushanta Dattagupta, Vice Chancellor, Visva Bharati University on Rabindranath and Jagadis Chandra, life across the cosmos. Eminent actor Shri Saumitra



Chatterjee, presented on "Everyday, thy music : My own Rabindranath". The programme was chaired by Prof. Bikash Sinha and he delivered a lecture on Reality. In this occasion singer Dr. Mohon Singh also performed and delivered lecture.

#### 148<sup>th</sup> Birth Anniversary of Sister Nivedita Celebrated

The 148<sup>th</sup> Birth Anniversary of Sister Nivedita was celebrated on 28<sup>th</sup> October 2014, in the Lecture Hall of the Main Campus of Bose Institute, jointly by Bose Institute and Vivekananda Janmostava Samity, Mr. Dhirai Basu, Hony, General Secretary of the Samiti delivered the welcome address. Hon'ble Justice and ex-Governor of West Bengal, Shri Shvamal Kr. Sen, presided over the occasion. Prof. Sibaji Raha, Director, Bose Institute, delivered a talk on Sister Nivedita and her contributions for India. A number of distinguished guests and members of Bose Institute attended the auspicious occasion.

#### 130th Birthday Celebration of Prof. Debendra Mohan Bose



The 130<sup>th</sup> Birthday of Prof. Debendra Mohan Bose was celebrated on 26<sup>th</sup> November 2014 at the Main Campus Lecture Hall of the Institute. Prof. A.K. Barua of Indian Institute of Engineering, Science & Technology, Shibpur, presided over the function. On this occasion, the D.M. Bose Memorial Lecture on the topic A brief history of the Standard time: the energy and nonenergy consequences of adjusting the Indian Standard Time was delivered by Prof. D.P. Sengupta, Visiting Professor, National Institute of Advanced Studies, Bangalore, where he proposed shifting IST by half an hour to GMT + 6 hours, and discussed the consequences of such an action.

#### **National Symposium on Evolving Plant Biology** From Chromosomes to Genomics



A National Symposium entitled Evolving Plant Biology: From Chromosomes to Genomics, has been organized at Bose Institute, jointly with West Bengal Academy of Science and Technology, Calcutta University, Ramakrishna Mission Institute of Culture and Bose Institute, Kolkata during 27th – 29th November, 2014. On this occasion, Prof. A. K. Sharma was honoured for his enormous contribution in plant chromosome research. A number of distinguished scientists from all across the country participated and delivered scientific talks.

## Scheduled Tribe Specific Rural Biotechnology

With a generous funding from DST, Government of India, in the core fund of the Institute, The 'Scheduled Tribe Specific Rural Biotechnology Programme' has been started in the Institute for five years from 2014. In the first year, various income generation programmes have been initiated under the direct supervision of Bose Institute in three tribal villages i.e., Bhutadih village in Purulia, Chhachanpur village in Bankura and Satyadaspur village in the Patharpratima Block in Sunderban, South 24-Parganas. In Amlasole area of West Medinipur and in the Santiniketan area of Birbhum, work has been initiated in 19 villages in collaboration with four different NGOs.

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Four training programmes were conducted at the Falta Experimental Farm during the current year, of which two were for scheduled tribe people under the DST funded Scheduled Tribe-Specific Rural Biotechnology Programme. A total of 34 beneficiaries were trained as part of this programme during 19-25 February, 2014; and 13 beneficiaries were trained on Mulberry Sericulture (11-28 September 2014). Two training programmes were conducted for scheduled caste people under DST-SEED project on Mushroom cultivation, Vermicompost production, Apiculture and Mulberry Sericulture (16-30 April & 3-14 November, 2014) and a total of 40 trainees were trained in these



Mr.Hirak Ghosh, Chairman Advisory Committee, Rural Biotechnology Programme, Prof. S.R. Sikdar, Coordinator Rural Biotechnology Programme, Resource Persons, Staff and Scheduled Tribe beneficiaries in the photo session during the Training Programme on "Mulberry Sericulture" held during 11-28 September 2014 at Falta Experimental Farm.



Prof. S.R. Sikdar (second from left), Coordinator, Scheduled Tribe Specific Rural Biotechnology Programme, along with resource persons and State Sericulture Department officials of Bankura District standing in front of the sericulture rearing house (under construction) at Chhachanpur village of Bankura.



Netting operation is going on in fishery programme in a Sabar village at Satyadaspur, Patharpratima, Sunderban, South 24-Parganas.

Seed bed preparation is going on in vegetables cultivation programme in a tribal village at Chhachanpur, Bankura.



#### SYMPOSIA AND CONFERENCES HELD



- Prof. Swati Sen-Mandi organized Workshop and Hands-on-**Training** programmes from 18<sup>th</sup> February to 4<sup>th</sup> March, 2014 for young researchers of India under the Bose Institute programme on DNA Fingerprinting and Diagnostics of Medicinal Potential in Plants. Participants of this workshops were Research Scholars, Assistant Professors and Associate Professors from Universities and Institutes of almost all states of India, viz. Jammu and Kashmir, Himachal Pradesh, Assam, Tripura, Meghalaya, Arunachal Pradesh, Maharashtra. Tamil Nadu, Wild Life Institute, Dehradun as well as from corporate sectors (viz. Himalaya Drugs, Bangalore) the interactive workshop included Technical lectures by subject experts and Hands-on-Training in the laboratory at the Main campus of this Institute.
- Prof. P. Chakrabarti and Dr. Shubhra Ghosh Dastidar organized a one day workshop on "Protein dynamics simulation data analysis with R" on December 16, 2013. Instructors: Drs. Arumay Pal and Sucharita Dey (A\*STAR, Singapore). 40 students and researchers from the nstitutes/universities around Kolkata participated.
- Prof. Subrata Majumdar organised the Moleular Immunology Forum 2014 meeting at Bose Institute during January 9-11, 2014.
- An International Conference on Matter at Extreme Conditions: Then & Now was held during January 15-17, 2014. The conference consisted of invited plenary talks, oral and poster presentations by the young researchers. More than 150 scientists and students from India and abroad participated in the conference. The conference was organized by Prof. Sanjay K. Ghosh (Department of Physics/CAPSS) and ended with grand success



- On the occasion of the International Conference on Matter at Extreme Conditions: Then & Now a Fest Colloquium was organized at Bose Institute to felicitate Prof. Sibaji Raha on the occasion of his birthday. Scientists from different institutions associated with Prof. Sibaji Raha at different period presented their collaborative works in this occasion. The Fest Colloquium was organized by the well-wishers of Prof. Raha.
- A workshop on FAIR Physics : Compressed Baryonic Matter at FAIR was organized during January 20-24, 2014 to discussed the different theoretical and experimental aspects of forthcoming compressed baryonic matter (CBM) experiment at the Facility Antiproton – Ion Research (FAIR) at GSI, Germany. The main theme of the workshop was to train the young research scholars on the various aspects of CBM physics. Around 30 research



scholars and 20 faculties from all over India participated in this workshop. The workshop was organized by Prof. Sanjay K. Ghosh, Department of Physics/CAPSS.



- Bose Institute Library organised a training programme / awareness programme on 11th February, 2014 on Endnote -Managing Research Pathways-Searching to Discovery, intended for the faculty and scholars of the Institute.
- Bioinformatics Centre organized a National Workshop on Computational Proteomics during March 3-4, 2014 (convener: **Dr. Sudipto Saha**).
- Bose Institute library also hosted the Internship Programme of "MLIS-5 year Integrated Course" of Department of Library and Information Science, University of Calcutta for four weeks under guidance of Dr. Arun Kumar Chkraborty.

#### VISITS ABROAD

Prof. P. Chakrabarti (Biochemistry) visited (i) Hong Kong during Dec 7-10, 2013 to attend The 12th Meeting of the Asian Crystallograhpic Association; (ii) Karachi, Pakistan during April 28-39, 2014 to attend IYCr South Asia Summit Meeting on Vistas in Structural Chemistry; (iii) Montreal during August 5-12, 2014 to attend the Congress and General Assembly of the International Union of Crystallography; (iv) St-Petersburg, Russia during September 10-14, 2014 to attend the meeting of the International Network of Protein Engineering Centres (INPEC).

Dr. Srimonti Sarkar (Biochemistry) visited Ohio State University, Columbus, USA, during June 12-15, 2014, where she was an invited speaker in the symposium 'Anitafest'.

Prof. Tapash C. Ghosh (Bioinformatics Centre) visited Naples, Italy during September 22-24, 2014 and delivered a talk in the workshop on The genome: expression and evolution.

Dr. Sudipto Saha (Bioinformatics Centre) visited Hyeres, France, during September 8-15, 2014 to present a paper at the EMBO workshop on "Advances in protein-protein interaction analysis and

Prof. Joyoti Basu (Chemistry) visited Stockholm from June 26-29, 2014 and delivered a lecture in the 9th International Conference on the Pathogenesis of Mycobacterial Infections.

Prof. Parimal C. Sen (Division of Molecular Medicine) visited Slovenia under a bilateral exchange programme between Indian National Science Academy and Slovenia Academy of Sciences & Arts during September 15-26, 2014, and delivered lectures at different Institutions in Liubliana. Slovenia.

**Prof. Nripendra Nath Mandal** (Division of Molecular Medicine) visited Crimea, in the Novy Svet, Ukraine, organized by Education-Science Center "Institute of Biology", Taras Shevchenko National University of Kyiv, Ukraine, and delivered a special invited lecture on 'Iron chelation by *Terminlia chebula*: New remedies from an age-old plant" in the International conference on "Biologically active substances and materials: fundamental and applied problems of production and application," May 27 - June 01, 2013.

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