



BOSE INSTITUTE NEWS

DIRECTOR'S DESK



94 years ago today, Acharya Jagadis Chandra Bose delivered the inaugural address of the Bose Institute, entitled "The Voice of Life", which ended with the promise that through our united efforts, we shall be able to bring about the greater India yet to be. That vision of our beloved founder

drives us at Bose Institute; we continue to strive for excellence in the service of our Nation and the entire humankind.

It has been a year since I presented the previous edition of the Bose Institute Newsletter, our face to the outside world. I have the privilege to do so again with the 2011 edition, where we are able to report steady and noticeable growth in all spheres of our activities. The members of our faculty and our student colleagues have continued to win coveted laurels, awards and other recognitions, which can only spur us on to raise our benchmarks. Among the developments over the past year which deserve special mention, the institution of the integrated M.Sc.-Ph.D. course in Life Sciences at Bose Institute, in partnership with the University of Calcutta, is one which has drawn great appreciation from our Scientific Advisory Committee. This has been hailed as the most suitable model for the collaboration between the national research institutions and laboratories on the one hand and the universities on the other hand. Following the footsteps of Bose Institute, the two other national institutes, located in Kolkata, under the Ministry of Science & Technology have started similar programmes with the University of Calcutta. Our attempts to modernize the administration process through the implementation of e-governance are, finally, coming to fruition.

The most important asset of any organization is its people; this is especially true for a research institution. We are fortunate that our efforts to induct highly competent and talented young scientists into the faculty as well as promising and motivated research scholars in the student body of Bose Institute has been quite successful, in the face of stiff competition from many other new and old institutions. We hope to make it conducive for them to take Bose Institute to greater heights.

We are committed to serve, as our beloved founder enjoined us to do. We seek the support of one and all to this end.

Wishing all the readers a happy reading,

Sibaji Raha

Editorial Board :

D. Home, G. Basu, P. Parraek, D. Basu

Assisted by: T. K. Maji

The 73rd Acharya J.C. Bose Memorial Lecture will be delivered by Swami Atmapriyananda, *Vice Chancellor*, Ramakrishna Mission Vivekananda University, Belur Math, Howrah on 'Ethics and Values in Learning and Teaching : Challenges for the Human and Social Development Role of Higher Education'

Abstract



Globalization and the staggering advances in science and technology have thrown up unprecedented challenges in recent times. One such is the stupendous challenge to the ancient question of ethics and values vis-à-vis human development. Dharma, the Sanskrit word for ethics and values, literally means 'holding together'. W.B. Yeats' poignant verse *The Second Coming* (1920) laments that

Things fall apart; the centre cannot hold;

Mere anarchy is loosed upon the world, the blood-dimmed tide is loosed, and everywhere

The ceremony of innocence is drowned;

The best lack all conviction, while the worst

Are full of passionate intensity.

If 'holding together' is Dharma, then non-holding by the 'centre' should be non-Dharma (*adharma* in Sanskrit), leading to what Yeats laments about anarchy being released and the ceremony of innocence being drowned. With the decline of Dharma, the dark clouds of disintegration ('things fall apart') and anarchy looming large on the horizon of modern development are agitating the collective human conscience. The very question of what really constitutes human development has resurfaced in this rudely shaken and profoundly agitated collective conscience, clamouring for an urgent revisit and revaluation. The developmental role of higher education is being subject to scrutiny.

In the present lecture we propose to discuss some of these issues and reassesses the goal and role of higher education in the light of the concept of human personality and the paradigm of true human development evolved over thousands of years by the Indian sages and seers, philosophers and thinkers. Fortunately, we have the unique privilege of revisiting and reverentially contemplating the thoughts of the four luminaries from Bengal on the historic occasion of their 150th birth anniversaries who were born within a space of a few years of each other: Acharya J. C. Bose, Acharya P. C. Ray, Gurudev Rabindranath Tagore and Swami Vivekananda. These modern seers reinforced and captured the ancient ideas, caught the cadence of the wisdom of the Rishis, our ancient seers, and poured their hearts out in the present day, each in his own unique field of thought and action and in his own unique fashion to give a new direction to struggling humankind by pointing out that the way to salvation is to develop an expanded consciousness, what Einstein called 'cosmic awareness', a sense of the Whole (*purna*), in which all littleness, narrowness and selfishness will be dissolved. We end with the plea that the challenges to higher education in its role for human and social development in a globalized and technologically highly 'developed' world which is crying nevertheless in deep anguish and agony for peace and harmony can be met only by the inculcation and development of 'cosmic awareness' as the 'most profound and most sublime feeling

CURRENT EVENTS

94th Foundation Day Celebrated



The 94th Foundation Day of Bose Institute was celebrated on 30th November 2010. **Prof. André Béteille**, Professor Emeritus of Sociology, University of Delhi, graced the occasion as Guest of Honour and delivered the **72nd Acharya Jagadis Chandra Memorial Lecture** on 'Caste and the Citizen'. The celebration started with floral offerings and garlanding of *Samadhi* and *Bust* of Acharya J. C. Bose at both the campuses of the Institute. Prof. Bikash Sinha, Homi Bhabha Professor, DAE, VECC, Kolkata, presided over the programme. Prof. Sibaji Raha, Director, Bose Institute, delivered the Welcome Address and presented the Institute Report.

Triennial Gold Medal Lecture 2011



The prestigious "Acharya Jagadis Chandra Bose Triennial Gold Medal Lecture – 2011" was delivered on 3rd January, 2011, by Prof. Sir Roger Penrose, Emeritus Rouse Ball Professor of Mathematics, University of Oxford, Oxford, United Kingdom. The title of his lecture was **"From Microwaves to Biology and Conscious Life"**. The lecture was attended by scientists and research scholars as well as by a large number of school and college students. A lively question-answer session was held at the end of the lecture. Prof. Penrose also met and interacted with the students present. The Director, Bose Institute, delivered the Welcome Address and presented the Triennial Gold Medal to Prof. Penrose.

Annual Sports Day



The Annual Sports Day was celebrated on January 21, 2011. A month long sports activity, with active participation by academic as well as non-academic members of Bose Institute, was followed by a day of Field & Track events, Cricket and Football matches.

National Science Day 2011

As in past years, Bose Institute celebrated **National Science Day** on February 28, 2011, through various activities. The theme of the National Science Day 2011 was **"Chemistry in Our Lives"**. The event was attended by scientists as well non-scientists including School Children from a number of schools in and around Kolkata. The day's activities included visit to the museum and Bose Institute laboratories. Two invited speakers, Prof. Kankan Bhattacharyya, Director, IACS, Kolkata, and Prof. Siddhartha Roy, Director, IICB, Kolkata, delivered lectures encouraging the participants.

Rural Biotechnology Programme



Under the **Rural Biotechnology Programme**, Bose Institute conducted three training programmes on "Mushroom cultivation, Vermicompost production, Apiculture and Sericulture" during 3-14 December, 2010, 10-21 March, 2011 and 8-20 September, 2011, at the Falta Experimental Farm. A total of forty-six trainees attended the above three training programmes.

Visit of Mr. M. K. Narayanan, Governor of West Bengal



Bose Institute had the honour to host a formal visit by **Mr. M K Narayanan**, Hon'ble Governor of West Bengal, on April 29, 2011. The Governor visited Bose Institute Museum and put his comments on the visitor register. He also visited a couple of laboratories located in the Main Campus, residence of Prof. D. M. Bose, the Lecture Hall and garlanded Acharya J. C. Bose's *Samadhi*.

Organization of Blood Donation Camp and Thalassemia Carrier Test Camp

A Blood Donation Camp was organized by Bose Institute Standing Medical Committee on 3rd June 2011. 90 members of the Institute donated blood. Thalassemia Carrier Test Camp, organized by S.S.K.M Hospital, was also held on 29th July 2011 at the Bose Institute



Centenary Campus, in which 124 members of Bose Institute participated.

Hindi Day Celebration

Hindi Day was celebrated on 14 September, 2011, in the Centenary Campus, Bose Institute. Prof. Sibaji Raha, Director, Bose Institute, inaugurated the programme and delivered the Welcome Address. Mr. Nirmal Kumar Dubey, Government of India, Ministry of Home Affairs, Department of Official Language, Kolkata, and Dr. A. P. Singh, Director, Literature, Jain Viswabharati University, Mr. T. K. Ghorui, Officer on Special Duty and Prof. T. P. Sinha, Chairman, Hindi Implementation Committee, Bose Institute, participated and delivered lectures. More than 170 members participated the function and a cultural programme followed.

Dipta Memorial Symposium

The 19th Dipta Memorial Symposium on **Fukushima : A wake up call**, was organized at the Main Campus of the Institute on 16th September, 2011 by the Bose Institute Research Scholars' Forum. A number of lectures as well as a Panel Discussion were held, in which Dr. Manas Pratim Das, Journalist, All India Radio, Prof. Bikash Sinha, Homi Bhabha Institute, VECC, Kolkata, Prof. Abhi Dutt Majumder, Department of High Energy Nuclear & Particle Physics, SINP, Kolkata, Prof. Pradyut Roy, Department of Physics, Presidency College, Kolkata and Ms. Arya Ghosh, Geologist, State Unit Orissa, Geological Survey of India, Bhubaneswar, participated. Prof. Pinakpani Chakrabarti, Chairman, Biochemistry Department, Bose Institute, served as the Convenor. A large number of participants including faculty, scholars and other professionals attended. Prof. Sibaji Raha, Director, Bose Institute chaired the session.

145th Birth Anniversary of Sister Nibedita Celebrated



The 145th Birth Anniversary of Sister Nivedita was celebrated on 28th October 2011, in the Lecture Hall of the Main Campus of Bose Institute, jointly organized by Bose Institute and Vivekananda Janmotsava Samity. Mr. Dhiraj Basu, Hon'y. General Secretary of the Samity delivered the Welcome Address. **Dr. Rabiranjan**

Chattopadhyay, Hon'ble Minister for Technical Education and Training, Govt. of West Bengal, was present as the Guest of Honour and Hon'ble Justice and ex-Governor of West Bengal, Shri Shyamal Kr. Sen presided over the occasion. A number of distinguished guests and members of Bose Institute attended the auspicious occasion. Prof. Kalyan Mukherjee of Bose Institute delivered a talk on **"Sister Nibedita and her contributions for India"**. Other speakers included Paribrajika Hitaprana, Sadanandaprana (Nibedita Balika Bidyalaya), Dr. Smritikana Chakraborti, Sri Supti Pandey, Smt. Shyamali Bhattacharya, Shri Shri Subhra Majumder.

75th Deth Anniversary of Acharya observed

To commemorate the 75th year of demise of Acharya J. C. Bose, Ram Mohan Library along with Bose Institute organized a meeting on 23.11.2011. Prof. Sibaji Raha, Director, Bose Institute, Prof. T. M. Das, former Dean of Agriculture, CU, Shri Partha Sengupta, President and Prof. Sunirmal Chanda, Vice-President of the Library paid their homage to the great soul. Prof. Raha presented a set of Bose Institute publication to the Secretary of the Library, which will be preserved there in a separate Section for further reference and research.

127th Birth Day Celebration of Prof. Debendra Mohan Bose



The 127th Birth Day Celebration of the Prof. Debendra Mohan Bose was celebrated on 26th November 2011 at Main Campus Lecture Hall, Bose Institute. **Prof. T. V. Ramakrishnan, FRS**, Emeritus Professor of Physics, Banaras Hindu University, Varanasi and Distinguished Associate, Centre for Condensed Matter Theory, Indian Institute of Science, Bangalore, graced the occasion and delivered the D. M. Bose Memorial Lecture on "Emergence of d-wave like superconducting order in a Ginzburg Landau theory for superconductivity in the cuprates".

SYMPOSIA AND CONFERENCES HELD

Prof. Joyoti Basu and Prof. Manikuntala Kundu (Chemistry) served as Joint Secretaries of AICBC 2010 and organized the XXXIV All India Cell Biology conference and symposium on "Quantitative Biology: From Molecules to Cells" during December 4-6, 2010.

North-east students' summer training on Basic Sciences (NESST-BASE) 2011

NESST-BASE 2011 was organized during May 16-29, 2011 at Base Institute, Darjeeling. 24 students along with their escort teachers participated in this school. Students were given hands-on training on different aspects of basic sciences such as physics, chemistry, biology and biodiversity. The training on different topics was conducted by Bose Institute faculties and other Resource Persons. Popular lectures were delivered by Prof. A. Kembhavi, Director, IUCAA, on "Observational astronomy in India", Prof. A. K. Patra, National Atmospheric Research Laboratory, Tirupati, on "Ionosphere-the near earth space environment" and Prof. A. R. Sinha, National Institute of Advanced Studies, Bangalore on "Of monkeys and men: Studying primates in India". Prof. Sanjay K. Ghosh (Physics Department and CAPSS) acted as the Coordinator of the programme.



Darjeeling students' summer training on Basic Sciences (DST-BASE) 2011

DST-BASE 2011 was organized during August 18-22, 2011 at Bose Institute, Darjeeling. 32 students along with their escort teachers from different schools around Darjeeling participated in this school. Students were given hands-on training on different aspects of Physics, Chemistry and Mathematics. Training on different topics was conducted by the Bose Institute faculties and other Resource Persons. Prof. Sanjay K. Ghosh (Physics Department and CAPSS) acted as the Coordinator of the programme.

Workshop and Hands-on-training on (Medicinal) Plant DNA Fingerprinting at Bose Institute (Main Campus), 16th-30th August, 2011



Plant scientists of Bose Institute organized a workshop and hands-on-training programme on Plant DNA Fingerprinting under the aegis of ICMR sponsored "Centre for Advanced Research on DNA Fingerprinting and Diagnostics of Medicinal Potential in Plants of Eastern and North Eastern India" which was held during 16th August - 30th August, 2011, at Bose Institute (Main Campus). Prof Swati Sen Mandi and Prof Samir R. Sikdar served as Joint Conveners. Young Scientists, Research Scholars and Lecturers from all over India, largely from North East India (NEHU, NEIST, IIT Guwahati, IBSD Imphal, IBSD Sikkim, Dept. of Biotechnology, Assam University), Tamil Nadu, Karnataka, Chhattisgarh, Orissa and West Bengal participated in the workshop. Activities at the workshop included Hands-on-Training and lectures by Subject Experts aiming at HRD towards Documentation and Utilization of medicinal plants. The practical classes consisted of (A) Different methods of DNA Fingerprinting for Documentation of Plant Genetic Resource through development of (i) Species Specific DNA Markers and (ii) Medicinal Trait related DNA Markers, (B) Assay of Biomedically important compounds (the first in the series being antioxidant) with an aim to Bioprospecting useful genes using Molecular techniques, Statistical Correlative studies and appropriate Bioinformatics Tools.

National Meeting on KOHA organized by Bose Institute Library

Bose Institute Library organised a National meeting of the project on "KOHA: open source software implementation" by MHRD, Govt. of India on 7th February, 2011, LIS faculty and scholars. Prof. Uma Kanjilal,

Institute, Bangalore and Dr. P.S. Mukhopadhyay, DLIS, University of Burdwan, presented the details of the project as joint coordinators of the Project. Faculty members of LIS departments and Librarians from different Universities and Institutes in and around Kolkata participated in the discussions. Bose Institute, stated that Bose Institute Library has already implemented and conducted a few training programmes on KOHA.

VISITS ABROAD

Prof. P. Chakrabarti (Biochemistry) delivered lectures at (i) Albany 2011: The 17th Conversation, State University of New York, June 14-18, 2011; (ii) Indo-Russian Workshop, Moscow Conference on Computational Molecular Biology (MCCMB'11), Moscow, July 21-24, 2011; (iii) XXII Congress and General Assembly of the International Union of Crystallography, Madrid, August 22-30, 2011; (iv) the final meeting of the ARCUS Inde Région Ile-de-France Program held at Université Paris-Sud, Orsay, November 7, 2011.

Prof. Subrata Sau (Biochemistry) worked as a Visiting Associate Professor in the Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, USA from February 2009 to January 2011.

Prof. S. Ghosh Dastidar (Bioinformatics Centre) presented a paper in "Albany 2011: 17th Conversation" at State University of New York.

Ms. Tina Begum (SRF working under **Prof. T C Ghosh**, Bioinformatics Centre,) made an oral presentation at the 15th Evolutionary Biology Meeting at Marseilles, France during September 27-30, 2011.

Prof. Joyoti Basu (Chemistry) (i) delivered an invited lecture in the Keystone symposium "Tuberculosis: Immunology, cell biology and novel vaccination strategies" held from January 15 to 20, 2011 in Vancouver, Canada, and (ii) visited the laboratory of Dr. Maria Lerm, Linköping University in connection with a joint Indo-Swedish collaborative project.

Prof. Manikuntala Kundu (Chemistry) delivered a lecture in the 4th Congress of European Microbiologists (FEMS 2011) in Geneva, Switzerland, June 26-30, 2011.

Prof. P.C. Sen (Division of Molecular Medicine) delivered a Plenary Lecture at the 4th International Conference on Molecular Medicine, held at Istanbul, Turkey, June 27-30, 2011.

Prof. Gaurisankar Sa (Division of Molecular Medicine) visited Cleveland Clinic Foundation, USA, for three months (August-November 2011) for a collaborative work.

Prof. Tanya Das (Division of Molecular Medicine) visited Cleveland Clinic Foundation, USA, for three months (August-November 2011) for a collaborative work.

Prof. Sampa Das (Division of Plant Biology) attended the Hemipteran-Plant Interactions Symposium during July 11-14, 2011, at Piracicaba, SP – Brazil and delivered a lecture on "Targeting the key protein responsible for insect mediated viral transmission: an approach towards resistance development in plants".

Prof. Tapan K. Dutta (Microbiology) visited National Institute for Agronomic Research (INRA), Jouy en Josas, France for six months (May-November 2011) as a part of DBT CREST AWARD (2010-11), Government of India.

RECENT AWARDS AND HONOURS

- **Prof. P. Chakrabarti** (Biochemistry) was elected a Fellow of West Bengal Academy of Science & Technology and the Vice President of the Asian Crystallographic Association.
- **Prof. Ajit B. Datta** (Biochemistry) has been selected as Ramanujan Fellow (DST) and awarded the Wellcome Trust DBT Alliance Intermediate Fellowship.
- **Dr. Subhrangshu Chatterjee** (Biophysics) has been selected as Ramanujan Fellow (DST).
- **Dr. Ranjit P. Bahadur and Dr. Mainak Guharoy** (two recent ex-students of the Biochemistry Department) were awarded the INSA Medals for Young Scientists (2010 and 2011, respectively).

- **Prof. Zhumur Ghosh** (Bioinformatics Centre) was elected as an Associate Fellow of the Indian Academy of Sciences (2011).
- **Prof. P. C. Sen** (Division of Molecular Medicine) was elected as a Fellow of the West Bengal Academy of Science and Technology and received Prof. P.B. Sen Oration Award by the Physiological Society of India in December, 2010.
- **Dr. Kuladip Jana** (Division of Molecular Medicine) received the Young Investigator Research Award, 2011 from Parsemus Foundation, San Francisco, California, U.S.A., for his contribution towards the development of Non-surgical Male Contraceptive.
- **Prof. A. N. Lahiri Majumder** (Division of Plant Biology) was awarded the Raja Ramanna Fellowship by Department of Atomic Energy.
- **Prof. Tapan K. Dutta** (Microbiology) was received DBT CREST award, 2010-11.

RECENT Ph. Ds. (From April 1, 2010 to March 31, 2011)

- **Bejoysekhar Datta** (Acharya J.C. Bose Biotechnology Innovation Centre) Phylogeny of a bacterium isolated from nodule-like organ on the root of *Cicer arietinum* L. and genetics of its siderophore biosynthesis. *Supervisor*: Prof. P.K. Chakrabarty
- **Mr. Shrihari Sonavane** (Biochemistry Department) Analysis of cavities and packing in macromolecules, and prediction of enzyme active sites. *Supervisor*: Prof. P. Chakrabarti
- **Mr. Kaustav Bandyopadhyay** (Biochemistry Department) Functional studies on *Escherichia coli* hflKC and their effects on the lambda lysis-lysogeny switch. *Supervisor*: Prof. P. Parrack
- **Ms. Pamela Mukhopadhyay** (Bioinformatics Centre) Studies on evolutionary forces in shaping genetic organization of plant and animal genomes having heterogeneous base composition. *Supervisor*: Prof. T. C. Ghosh
- **Ms. Sulakshana Karmakar** (Chemistry Department) Studies on reactions and synthesis of aromatic heterocycles. *Supervisor*: Prof. M. Chakrabarty
- **Ms. Ratna Mukherjee** (Chemistry Department) On the synthesis and reactions of useful small molecules. *Supervisor*: Prof. M. Chakrabarty
- **Ms. Ajanta Mukherji** (Chemistry Department) Synthetic approaches to heterocycles and studies on their reactions. *Supervisor*: Prof. M. Chakrabarty
- **Mr. Surajit Bhattacharya** (Division of Molecular Medicine) Anti-leishmanial immunotherapeutic approaches: Involvement of herbal and other compounds. *Supervisor*: Prof. Subrata Majumdar
- **Mr. Santanu Biswas** (Division of Molecular Medicine) Association studies of different biochemical and genetic markers in coronary heart disease (CHD) among Asian Indian populations in the Eastern part of India. *Supervisor*: Prof. N Mandal
- **Mr. Tushar K. Bera** (Division of Molecular Medicine) Functional Characterization of Arylsulphatase A in a Protein isolated from Goat Spermatozoa having Na⁺, K⁺ -ATPase Inhibitory Activity. *Supervisor*: Prof. P. C. Sen
- **Ms. Shubhodipa Sengupta** (Division of Plant Biology) Development of marker free insect resistant transgenic rice plant type: A clean gene approach. *Supervisor*: Prof. Sampa Das
- **Mr. Joydeep Chakraborty** (Microbiology Department) Studies on the bacterial metabolism of aromatic pollutants and evolution of aromatic ring-hydroxylating dioxygenases *Supervisor*: Prof. Tapan K. Dutta
- **Mr. Subhasis Banerjee** (Physics Department) Self-organization

GRANTS RECEIVED

Bose Institute secured the following external grants during the last year. The title of the project, funding agency involved, principal investigator, amount of grant and the duration of the projects are indicated.

- **Regulation of micro RNA transcription and biogenesis by fungal-stress in tomato**; DBT; Prof. Pallob Kundu (Division of Plant Biology); Rs. 62,26,000; 3 years.
- **Role of alternative sigma factors in gene regulation of Mycobacterium tuberculosis**; DBT; Prof. Jayanta Mukhopadhyay; Rs. 33,00,000; 3 years.
- **Generation of salt-tolerant rice plants : A translational approach**; DBT; Prof. A. N. Lahiri Majumder (Division of Plant Biology); Rs. 4,08,99,000; 5 years.
- **Immunomodulatory role of Arabinosylated Lipoarabinomannan against Visceral Leishmaniasis**; DBT; Prof. Subrata Majumdar (Division of Molecular Medicine); Rs. 56,22,000; 3 years.
- **Identification of amino acid residues involved in substrate specificity of bacterial ring hydroxylating dioxygenases using bioinformatics approach**; DBT; Prof. Tapan K. Dutta (Microbiology); Rs. 31,75,600; 3 years.
- **Stress-induced regulation of extracytoplasmic sigma factors in mycobacteria**; DST; Prof. Manikuntala Kundu (Chemistry); Rs. 40,64,400; 3 years.
- **Transport Properties of Double Perovskite Oxides**; DRDO; Prof. T. P. Sinha (Physics); Rs. 11,51,200; 2 years.
- **Solution-phase and Green Synthesis of Condensed Heterocycles and Preparation of a Review**; CSIR; Prof. Manas Chakraborty (CSIR-Emeritus Scientist, Chemistry); Rs. 11,82,200; 2 years.
- **Role of Thyroid hormone in neuroprotection : an experimental study in adult rat cerebral cortex**; CSIR; Prof. Arun Kr. Ray (CSIR-Emeritus Scientist, Division of Molecular Medicine); Rs. 17,77,800; 3 years.
- **Inositol metabolism in relation to abiotic stress in plants : Molecular & transgenic approach**; CSIR; Prof. A. N. Lahiri Majumder (CSIR-Emeritus Scientist, Division of Plant Biology); Rs. 17,77,800; 3 years.
- **Purification and characterization of bioactive natural antioxidant, immunomodulator and anticancer products from Dioscorea alata L; of North Eastern Region of India**; DBT; Prof. N. Mandal (Division of Molecular Medicine); Rs. 21,20,000; 3 years
- **Investigating the mechanism by which chaperons activate DNA binding activity of the mycobacterial heat shock response regulator HspR**; DST; Prof. S. K. Das Gupta (Microbiology); Rs. 36,41,400; 3 years.
- **Understanding cell division in mycobacteria**; ICMR; Prof. Joyoti Basu (Chemistry); Rs. 11,94,402 (for 1st year); 3 years.
- **Role of secretory antigen HP0175 in Helicobacter Pylori mediated induction of autophagy**; ICMR; Prof. Manikuntala Kundu (Chemistry); Rs. 11,83,627 (for 1st year); 3 years.
- **Award of Raja Ramanna Fellowship to Prof. A. N. Lahiri Majumder**; DAE; Prof. A. N. Lahiri Majumder (Raja Ramanna Fellow, Division of Plant Biology); Rs. 18,90,000; 3 years.
- **Studies on the protective effect of antioxidant protein molecule purified from the herb, phyllanthus niruri : Signal transduction mechanism in organ pathophysiology**; CSIR; Prof. P. C. Sil (Division of Molecular Medicine) Rs. 17,32,800; 3 years.
- **Development of pod borer resistant transgenic pigeonpea and chickpea**; ICAR (NFBFSARA); Prof. Sampa Das (Division of Plant Biology); Rs. 66,01,930; 3 years.
- **Understanding the molecular mechanism of the energy homeostasis in normal and malignant cells : the role and interrelationship of creatine kinase and AMP-activated protein kinase**; CSIR; Prof. Manju Ray (CSIR-Emeritus Scientist,

- **Isolation of the conditional lethal mutants of mycobacteriophage L1 repressor possessing high operator binding affinities and development of an expression vector for mycobacterial systems;** CSIR; Dr. Subrata Sau (Biochemistry); Rs. 18,57,800; 3 years.
- **Latency of Mycobacterium tuberculosis : evaluating drugs and drugs targets using innovative models;** Indo-Swedish; Prof. Joyoti Basu (Chemistry); Rs. 24,69,000; 3 years.
- **Mycobacterium tuberculosis infection : understanding the role of microRNAs in regulating the immune response of macrophages;** Indo-Korean; Prof. Joyoti Basu (Chemistry); Rs. 43,07,000; 3 years.
- **Molecular mechanisms of tumor progression : Role of tumor derived products in mediating tumor cell growth, motility and metastasis;** CSIR; Prof. Kaushik Biswas (Division of Molecular Medicine); Rs. 27,38,600; 3 years.
- **Intermediate Fellowship to Prof. Ajit Bikram Datta;** Welcome Trust-DBT India Alliance; Dr. Ajit Bikram Datta (Biochemistry); Rs. 3,55,16,624; 5 years.
- **Function of molecular chaperone Hsp70 in quality control of protein kinases;** CSIR; Prof. Atin Kr. Mandal (Division of Molecular Medicine); Rs. 27,38,600; 3 years.
- **Synthesis of oligosaccharide antigens of the Enterohemorrhagic Escherichia coli (EHEC) strains for the preparation of glycoconjugates;** DST; Prof. Anup Kr. Misra (Division of Molecular Medicine); Rs. 25,40,000; 3 years.
- **Identification of the host cell factors responsible for survival and death of leishmania;** DBT; Prof. Subrata Majumdar (Division of Molecular Medicine); Rs. 44,53,600; 5 years.
- **Targeted drug delivery of nanoparticulate formulations of methylglyoxal and assessment of their anti-tumor activities;** DST; Prof. Manju Ray (CSIR- Emeritus Scientist, Division of Molecular Medicine); Rs. 50,14,000; 3 years.
- **Synthesis of nanoparticulated methylglyoxal formulation and its applications as highly efficient and potential drug in cancer therapy;** Lifecare Innovation; Prof. Manju Ray (CSIR- Emeritus Scientist, Division of Molecular Medicine).
- **Biosyntheses of creatine and related metabolites in normal, tumour (sarcoma) tissues and in tissues of tumour-bearing animals;** CSIR; Prof. Manju Ray (CSIR- Emeritus Scientist, Division of Molecular Medicine).
- **Ramanujan Fellowship to Dr. Subhrangsu Chatterjee;** DST; Dr. Subhrangsu Chatterjee, Ramanujan Fellow (Biophysics); Rs. 73,00,000; 5 years.

STAFF NEWS

Appointments :

Academic

1. **Dr. Shubhra Ghosh Dastidar** joined the Bioinformatics Center as *Asstt. Professor* on January 10, 2011
2. **Dr. Ajit Bikram Datta** joined the Biochemistry Department as *Asstt. Professor* on January 31, 2011
3. **Dr. Anirban Bhunia** joined the Biophysics Department as *Asstt. Professor* on February 01, 2011
4. **Dr. Anupam Pal** joined the Chemistry Department as *Asstt. Professor* on June 4, 2011
5. **Dr. Srimonti Sarkar** joined the Biochemistry Department as *Associate Professor* on September 01, 2011

Non-academic

1. **Smt. Sheolee Chakraborty** joined the CIF (CB) as JLA on November 22, 2010
2. **Smt. Shanghamitra Das** joined the Division of Molecular Medicine as JLA on November 22, 2010
3. **Sri Kaushik Maiti** joined the Physics Department as JLA on November 23, 2010
4. **Sri Gaurab Kr. Roy** joined the Chemistry Department as JLA on November 25, 2010

5. **Sri Jayasish Ghosh** joined the Division of Plant Biology as JLA on November 24, 2010
6. **Sri Amarenranath Biswas** joined the CIF(CB) as JLA on November 24, 2010
7. **Sri Soumya Shankha Biswas** joined the Division of Plant Biology as JLA on November 24, 2010
8. **Sri Gaurab Kr. Roy** joined the Chemistry Department as JLA on November 25, 2010
9. **Sri Atanu Paramanik** joined in the Biochemistry Department as JLA on November 26, 2010
10. **Sri Mrityunjay Kundu** joined the Chemistry Department as JLA on December 02, 2010
11. **Sri Tanmoy Debnath** joined the Biophysics Department as JLA on December 03, 2010
12. **Sri Pallab Chakraborty** joined the CIF(CB) as JLA on December 21, 2010
13. **Smt. Nilanjana Bhattacharya** joined the Administration as Software Programmer on December 23, 2010
14. **Sri Supriya Das** joined the Administration as Overseer-cum-Caretaker on December 31, 2010
15. **Sri Tarun Kumar Maji** joined the Administration (MC) as Office Supdt. (Publication) on January 25, 2011
16. **Smt. Sumita Dey** joined the Library as Jr. Library Asstt. on January 28, 2011
17. **Sri Kamal Sing** joined the Administration as Accountant (Cash) on April 20, 2011
18. **Sri Sougato Banerjee** joined the Administration as Asstt. Registrar on June 14, 2011
19. **Sri Umesh** joined the Administration as Accounts Officer on July 07, 2011

Retirements :

1. **Sri Satyananda Pal**, Accounts Officer-I, Administration, retired upon superannuation on December 31, 2010
2. **Sri Dipen Sen**, Technician (Sr. Gr.), Workshop, retired upon superannuation on December 31, 2010
3. **Dr.(Mrs.) Rukmini Mitra**, Tech. Officer-I, Library, retired upon superannuation on December 31, 2010
4. **Sri Tapan Chakraborty**, Cashier, Administration, retired upon superannuation on December 31, 2010
5. **Sri Swapan Kr. Singha**, Overseer, Administration, retired voluntarily on December 31, 2010
6. **Prof. A.N. Lahiri Majumder**, Sr. Professor, Division of Plant Biology retired upon superannuation on February 28, 2011
7. **Sri Ankur Dutta**, Supdt., Admn., retired upon superannuation on March 31, 2011
8. **Sri Shyam Sundar Kundu**, Tech. Officer-C, SAIF, retired upon superannuation on April 30, 2011
9. **Sri Rakhal Ch. Jana**, Helper-G, Madhyamgram Farm, retired upon superannuation on April 30, 2011
10. **Sri T. K. Ghorui**, Registrar, retired upon superannuation on May 31, 2011
11. **Sri Sudhansu Sekar Maity**, Helper – E, Dept. of Biochemistry, retired voluntarily on October 31, 2011

FORTHCOMING EVENTS

Bioinformatics Centre is organizing "Conference on Informatics and Integrative Biology" during December 14-16, 2011, details of which are available <http://www.boseinst.ernet.in/bic/ciib2011>

The 2nd International Conference on Cell Signaling and Molecular Medicine will be held on January 8-11, 2012.

We condole the passing away of
Sri Dayakant Thakur,
Helper-E, Physics Department on July 05, 2011