

Report on 161st Birth Anniversary Celebration of Acharya Prafulla Chandra Ray and the release of Volume 2, Issue 1 of e-Paper '*Scientifica Communica*'

2nd August 2022 was the 161st Birthday of Acharya Prafulla Chandra Ray. To commemorate the birthday of this great professor, chemist, industrialist, philanthropist, Indian Science News Association (ISNA) organised a programme on 3rd August 2022 in N.R Sen Auditorium, Rashbehari Siksha Prangan (Rajabazar Campus), University of Calcutta under the banner of XXXV Training Programme on Science Communication and Media Practice. All members, guests, dignitaries paid homage to the founder President of their organization. On this special occasion, ISNA released the Volume 2, Issue 1 of e-paper '*Scientifica Communica*'. jointly with Vigyan Prasas, DST, Govt. of India, New Delhi.

The programme started with the introduction of the dignitaries by Dr. Amit Krishna De, Honorary Secretary, ISNA. Then the Chairperson of the Training Programme, Shri Prasanta K Bose delivered welcome address in Bengali to show respect to Acharya who dedicated his life to improve Science teaching-learning process in Bengali. In a short speech he described about Acharya P.C. Ray and announced about the publication of e-papers. He clarified that ISNA is eager to follow Acharya Ray's path. Acharya Ray always wanted to spread Science learning in Bengali, always motivated people to do indigenous business. He

was pioneer to start industrial revolution with indigenous materials. Then Dr. De also pointed that ISNA publishes Bengali e-paper 'Bigyan Kahon' to follow Acharya's principle. He told that even the programme was being conducted in Bengali. Then Dr. De requested Dr. Arnab Kumar Banerjee, Joint Editor of e-paper '*Scientifica Communica*' to brief about journals. Dr. Banerjee narrated the history behind the creation of two e-papers from ISNA. He read out the names of editors and other persons involved with these e-papers. The writings of current volume were also discussed by him. He remembered the role of Acharya P.C. Ray and Professor Meghnad Saha in the publication of *Science and Culture* journal.

After his speech the release of '*Scientifica Communica*' was conducted by Professor Basudeb Barman, Former Vice-Chancellor, Kalyani University. Professor Barman also released the July – August issue of *Science and Culture*. After the release, PPT presentation of the e-paper was shown to audience. Professor Barman gave the examples of Professor Satyendranath Bose and Neil Bohr's speech in Calcutta. He narrated 'Science, Culture and Development' and Acharya P.C. Ray and his history of Academics. He mentioned Sir Ashutosh Mukherjee's vision to develop higher education in Science and Arts in Calcutta University. He remembered Prof. Taraknath Palit's immense contribution in this field. It was really a great speech about the gradual development of education system of Bengal and Calcutta University. All stalwartly people related to education system of those times were remembered by him with gratitude.



(L to R) Shri Prasanta K Bose, Dr. Amit Krishna De, Prof. Manas Chakrabarty, Prof. Basudeb Barman, Prof. (Mrs.) Julie Banerji, Dr. Arnab Kumar Banerjee

Next speaker was Professor Manas Chakrabarty, Former Professor of Bose Institute and Honorary Secretary, ISNA. He gave emphasis and threw light on Acharya's humanitarian side. In story telling mood, he narrated Acharya's family background, about his grandparents and parents, his education and social work. From his speech, audience understood the greatness of Acharya and came to know about

his monetary contributions in education field and to distressed persons. He fondly explained the mutual respectful relationship between Tagore and Acharya.

Prof. (Mrs.) Julie Banerji, Vice-President of ISNA in her presidential address gratefully highlighted the teacher-ship and leader-ship quality of Acharya. She narrated the incidents whatever she had heard from her professor, an eminent scientist Professor Asima Chatterjee. It was really a great experience for audience to know about the sincerity and honesty and caring attitude of Acharya Ray. People came to know about the greatness of Professor Asima Chatterjee also. She provided much information about Bengal Chemical also. Then Professor Prabir Kumar Saha, Honorary Treasurer, delivered vote of thanks. All dignitaries were honoured by gifting small saplings by ISNA. The programme ended with a rabindra sangeet sung by Shri Kaustub Bhowmick, a teacher by profession and a past student of ISNA. □

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Report of The Eleventh Prof. J. J. Ghosh Foundation Lecture

Eleventh Prof. J. J. Ghosh Foundation lecture was organised by Prof. J. J. Ghosh Foundation on 19th July, 2022 at Prof. B. C. Guha Memorial Hall at Ballygunge Science College from 3.30 pm. The program started with the speech of Dr. Aditi Nag Chaudhuri, Secretary, Prof. J. J. Ghosh Foundation. She gave introduction about Prof. J. J. Ghosh, his teaching style, and his research work.

After that Dr. Souvik Roy, Assistant Professor, St. Xavier's College, briefly described the aims and objectives of Critical Essay writing competition and also announced the names of the winners of last year competition. The 3rd prize was awarded to Rounak Saha, Biochemistry and Molecular Biology, University of Pondicherry. The 2nd prize was given to Debanjan Kar, Microbiology, Bidhannagar College. They received a prize money of Rs 1000 and Rs 2000 respectively. The 1st prize winner was Sayoni Mondal, Department of Botany, Visva Bharati. Her prize money was Rs 3000. They all received a merit certificate also. The prize winners were asked to express their views regarding taking part in Critical Essay Writing Competition.

The speakers for Eleventh Prof. J. J. Ghosh Foundation lecture was Dr. Kunal Ray, Former Scientist, Indian Institute of Chemical Biology. The speaker was

introduced by Dr. Anirban Siddhanta, Head, Department of Biochemistry, University of Calcutta. Then Dr. Kunal Ray gave an informative lecture on 'A journey through the Genetic Landscape of India: Perspectives on Diseases'. He discussed from different Genetic diseases Hemophilia, Wilson's Disease, Occulocutaneous albinism (OCA), Primary open Angle Glaucoma. He very nicely took the audience through the journey of these genetic diseases and their future aspects. His wife Prof. Dr. Jharna Ray, who was another alumnus of the Dept. was present there and she was one of the collaborators of Dr. Kunal Ray.

Dr. Kunal Ray was felicitated by Dr. Sumantra Das. Dr. Nag Chaudhuri handed over the memento to Dr. Kunal Ray bearing the picture of Prof. J.J. Ghosh and emblem of the Foundation. A book and a merit certificate were then presented to the three toppers in Neurobiochemistry of M.Sc. Biochemistry by Dr. Kunal Ray. The three students Ankita Basak, Anuska Singha Roy and Subhajit Paul, who scored highest marks in Neurobiochemistry passed M.Sc. Biochemistry in 2021.

Vote of Thanks was delivered by Dr. Amit Krishna De, Honorary Secretary of Indian Science News Association (ISNA) and Executive Committee Member of Prof. J. J. Foundation.

In the end participation certificate was distributed to the faculty members and students. There were about 70 participants in total. The program was a great success. □

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Report on Two Days National Webinar on 'Botany through Modern Perspectives: Algae to Angiosperm'

The Department of Botany of Durgapur Government College in collaboration with Internal Quality Assurance Cell has organized Two Days National Webinar on 'Botany Through Modern Perspectives: Algae to Angiosperm' on 24th and 25th June, 2022 for the students and faculty of Botany throughout India to create a platform for refreshing their knowledge on recent holistic development of Botany as a whole and its vibrant dimensions in concern with the present prospectives. A large number of participants registered from different colleges, institutes and universities across India and a total

of 26 poster presenters actively participated in poster presentation competition.

Eminent Speakers:

Keynote Address delivered by : Professor Dr. Sudhendu Mandal, Former UGC Professor and Head, Department of Botany, Visva-Bharati and Former Director, National Library, Govt. of India and Editor-in-Chief, *Science and Culture*, Indian Science News Association.

Plenary Speakers were : i) Dr. Yogesh Mishra, Department of Botany (Center of Advanced Study in Botany), Institute of Science, Banaras Hindu University, ii) Professor Krishnendu Acharya, Department of Botany, University of Calcutta, iii) Dr. Sandip Kumar Behera, Senior Scientist, CSIR-National Botanical Research Institute, Lucknow, iv) Dr. Ashalata D'Rozario, Department of Botany, Narasinha Dutt College, v) Professor Sobhan Kumar Mukherjee, Department of Botany, University of Kalyani

Objectives of the Webinar : The webinar encompassed the broad discipline of Botany, from algae to angiosperms. Focussing on some key aspects relevant to the study of Botany in the present day, the objectives of the webinar can be broadly classified under:

- A holistic overview of the study of Botany and its prospects: The great diversity of flora can be studied only after proper identification, characterization and documentation of the specimens. Thus, proper description of plant forms through such webinar proves beneficial for students and young researchers.
- Modern horizons of Botany in the areas of research: Focus on plant-based products and their appropriate utilization for betterment of mankind, is the need of the hour. Hence, discussions on modern research developments on diverse disciplines under Botany, broadens the horizon of budding researchers and gives directionality to future research benefitting mankind.
- Applications of the study of Botany and entrepreneurship: Discussions on the applications of knowledge on the subject from a commercial angle and encouraging involvement of researchers for entrepreneurship would benefit the farmers on one hand and would be job-generating on the other hand.
- Providing a platform to young researchers to present and discuss their research: An interactive-session of poster presentation by budding researchers to discuss their findings, would allow

them to gain knowledge about the present developments across various disciplines in the subject and provide direction for future research.

The program started at 10:00 am on 24.06.2022 with the welcome address by Dr. Debnath Palit, Principal, Durgapur Government College. This was followed by the inaugural speech and the note of greetings by Dr. Avijit Mandal, Co-ordinator IQAC, and Dr. Swapan Kumar Ghosh, Secretary, Teachers' Council, Durgapur Government College, respectively.

Subsequently, the keynote address was delivered by Professor Dr. Sudhendu Mandal, Former UGC Professor of Botany, Visva-Bharati. In an enlightening lecture, Professor Mandal shed light on Indian scientific heritage, emphasizing on the utility of medicinal plants. He highlighted how the ancient scripts on Ayurveda like Charaka and Sushruta Samhitas were the foundations on which modern day herbal medicine is developed. Professor Mandal also mentioned that alongside a thorough knowledge on the morpho-physiology, anatomy and pharmacology of the medicinal plants, application of plant tissue culture and similar modern biotechnological techniques would prove to be useful for propagation of the medicinal plants and obtaining their active principle without endangering the natural resources.

Following the keynote address, the plenary session commenced. On this day, the plenary session had two eminent speakers, Dr Yogesh Mishra, from Department of Botany, Banaras Hindu University and Professor Krishnendu Acharya from Department of Botany, University of Calcutta. Dr. Yogesh Mishra highlighted how the ancient cyanobacteria *Anabaena* sp. combats cadmium stress. Through a series of morpho-physiological, biochemical and molecular biological studies, it was inferred that *Anabaena* responded to ACdS and recovered by increasing cellular CO₂ access, activating cyclic electron flow around PSI; and stimulating chelators/transporters. Professor Acharya emphasized upon the ill-effects of using chemical fertilizers and advocated organic farming as a high revenue generating alternative for indigenous farmers. Besides, he emphasized on the utility of novel techniques by the farmers, by the effect of which, they are self-sufficiently producing enriched compost, phosphate solubilizers, plant growth-promoting rhizobacteria and microbial biopesticides. Next, there was a lunch break of 30 mins, after which the Poster session started from 02:30 pm. Posters were presented by the researchers from several parts of India. On this day 19 participants presented their work in the form of posters, which encompassed various

topics from classical to applied biology. The session continued till 5:30 pm.

Summarization of first day of the conference was done by Dr. Ashoke Bhattacharya, Associate Professor & Head, Department of Botany, Durgapur Government College.

The second day of the conference on 25.06.2022, commenced with the poster session from 10:00 am. On this day seven participants presented their work. The two days' poster session witnessed discussions on various disciplines of Botany. The sessions were judged by faculties of Botany from different colleges and Universities – i) Dr. Mousumi Mukhopadhyay, Associate Professor, Bidhannagar College, ii) Dr. Subhadipa Sengupta, Assistant Professor, Bidhannagar College, iii) Dr. Souvik Mitra, Assistant Professor, Taki Government College, iv) Dr. Mahasin Ali Khan, Assistant Professor, Sidho-Kanho-Birsha University, v) Dr. Gunjan Biswas, Assistant Professor, Vidyasagar University.

Subsequently, the plenary session of 2nd day of the conference began from 11:30 am. This day, the first speaker was Dr. Ashalata D'Rozario, from the Department of Botany, Narasinha Dutt College. Dr. Rozario delivered her lecture on Gymnosperms and Palaeobotany. In a fascinating lecture, she emphasized upon the several groups of gymnosperms and their economic utility. She continued her lecture mentioning the importance of palaeobotanical studies.

The next plenary speaker for the day was Professor Sobhan Kumar Mukherjee, Retd. Professor, Department of Botany, University of Kalyani. Professor Mukherjee lectured on the diversity of angiosperms in India. He mentioned that the floristic diversity in India is concentrated in four biodiversity hotspots - Eastern Himalayas, Western Ghats, Northeast India and Andaman Islands and Nicobar Island.

The plenary session of the conference resumed on 26.06.2022 from 10:00am with the lecture of Dr. Sandip

Kumar Behera, Senior Scientist, CSIR-NBRI, Lucknow. Dr. Behera gave lecture on the significance of pteridophytes in modern day. He mentioned that Pteridophytes are significant because they have ornamental value, medicinal value, edibility, and some are hyperaccumulator of heavy metals, and some are bio-fertilizers. He pointed out the antimicrobial properties of pteridophytes and mentioned about bioprospecting.

Summarization of second day of the conference was done by Dr. Ashoke Bhattacharya, Associate Professor & Head, Department of Botany, Durgapur Government College.

Following Dr. Behera's lecture, the valedictory session began with the prize distribution for the poster presentations. Based upon the evaluation by the judges, the poster competition had joint winners Dr. Somanjana Khatua and Ms. Sampa Kundu, who presented their work in the field of mycology and palaeobotany, respectively. The first runner up was Ms. Sudeshna Nandi for her presentation on mycology discipline. There were joint second runners up, Ms. Tanushree Agarwal for her presentation on moss stress tolerance and Ms. Akanksha Srivastava for her work on cyanobacteria. A special award was presented to Ms. Presina Rai for her work on vascular epiphytes of temperate forests. Certificates were issued to all registered participants after taking feedback online and awards as well as certificates were issued to all winners for poster competition.

At the conclusion, the vote of thanks was delivered by Dr. Prosanta Saha, Assistant Professor, Department of Botany, Durgapur Government College. □

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Students Award on Basic Science Research

Indian Science News Association (ISNA) with generous donation received from Professor Mrinal Kanti Dewanjee, USA, is inviting nomination from XI and XII standard students for two awards-one in Physical Science and the other in Life Sciences. Each award contains a cash prize of Rs. 10,000.00 (Rupees ten thousand) and a certificate.

Procedures

- i. A write-up on a proposal (no more than 2000 words) on the importance of Basic Science Research including Translational Research and their impact on Society is to be submitted to the Honorary Secretaries, Indian Science News Association, 92, A.P.C. Road, Kolkata 700009.
- ii. Applicants must be residents of West Bengal.
- iii. Applicants must have scored at least 85 % average marks in Science subjects in Class X of the Board examinations.
- iv. Application should be forwarded through the Head of the Institution.
- v. Last date of receiving applications is 30th November, 2022.
- vi. The write-up will be screened by an expert committee appointed by the competent authority.
- vii. Selected candidates would have to present the proposal stated in the write-up before an Expert Committee, as decided by the competent authority.
- viii. Awardees are required to give a Seminar during the Award-giving ceremony.

Brief Profile of Professor Mrinal K. Dewanjee

Prof. Dewanjee completed his M.Sc. in Chemistry from Dakha University (Bangladesh) and Ph.D. in nuclear chemistry/physics from McGill University, Canada. In early 1970s, Dr. Dewanjee was the humble beneficiary of "Lab Bench-to-Bedside" Translational Research from NIH on developing the radioactive tracers for noninvasive imaging and measuring tools in cardiovascular diseases (Myocardial infarct [MI]-Heart attack) at Harvard Medical School, Boston, coronary thrombosis (Mayo Clinic, Rochester, MN) and platelet emboli in neurovascular disease (Stroke; Brain attack, University of Miami, FL) in animal models with clinically relevant endpoints. He made the algebraic equation for measuring the platelet density on injured walls of artery and artificial surface of cardiovascular prostheses. After getting Federal Drug Administration's (FDA), USA, approval with preclinical evaluations, they used the noninvasive nuclear imaging methods for imaging site of MI and arterial platelet-thrombi and evaluated the effect of several platelet-inhibitors in animal models and patients (Aspirin, Plavix, Prostacycline and recombinant Hirudin). He also measured the platelet emboli in brain from carotid injury and showed the linear relation of shear and platelet fragmentation. At present Dr. Dewanjee is an Honorary Guest Scientist at Neurobiology, Neurodegeneration & Repair Laboratory, National Eye Institute, National Institutes of Health, USA. His present interest is on Neuronal Synapse, Longevity and STEM Cell Research, one of the latest and advanced biomedical research arena to treat some of the deadly diseases, e.g., stroke, retinal blindness, Alzheimer's and Parkinson's diseases.

Honorary Secretaries, ISNA