



# 107<sup>th</sup> INDIAN SCIENCE CONGRESS

Science & Technology: Rural Development

University of Agricultural Sciences, Bangalore  
3-7 January, 2020

Daily Bulletin

5<sup>th</sup> January, 2020

No. 2

## RASHTRIYA KISHORE VAIGYANIK SAMMELAN (Children Science Congress-2020)



Prof.C.N.R. RAO National Research Professor & honorary President, JNCASR ; Prof. Ada Yonath Nobel Laureate, Israel Prof. K.S. RANGAPPA General President, ISCA Kolkata  
Dr.S. Rajendra Prasad Vice-Chancellor, UASB and Dignitaries are seen

The University of Agricultural Sciences, Bangalore and Indian Science Congress Association, Kolkata jointly organized the 107th Indian Science Congress at GVKV campus Bangalore from 3rd to 7th January 2020. Rashtriya Kishore Vaigyanik Sammelan (Children Science Congress-2020) was organized on 4th January 2020. Dr. Anoop Kumar Jain, General Secretary (Scientific activities), ISCA, Kolkata welcomed the dignitaries. Dr. S. Rajendra Prasad, Vice-chancellor and Chairman, 107th Indian Science Congress briefed about the Rashtriya Kishore Vaigyanik Sammelan. Prof. Ada Yonath, Nobel Laureate participated as chief guest and advised the children to build curiosity at the younger age and encouraged the students to understand the things if it is less important. Prof. C.N.R. Rao, National Research Professor and Honorary President, Jawaharlal Nehru Center for Advance Science Research, Bengaluru participated as chief guest and released abstracts book of Rashtriya Kishore Vaigyanik Sammelan 2020. He draw the attention of the students by saying the words " I Love Science, I enjoy Science and Science is life's Occupation - You must love science". Dr. Ashutosh Sharma, Secretary, Department of Science and Technology, GoI, New Delhi, Dr. Akhilesh Gupta, Head, NCSTC, Department of Science and Technology, GoI, New Delhi and Shri. V. Subramani, Hon'ble Member, BoM, UASB were the guests of honour. Mr. Amit Krishna De, Executive secretary, ISCA Kolkata presented the ISCA Infosys Awards to 10 Childrens of different states of the country Prof. K. S. Rangappa, General President, ISCA Kolkata presided over the programme. Prof. Shivanna, Former Vice-chancellor, UASB and Prof. S. Ramakrishna, General secretary (Membership Affairs), ISCA, Kolkata, were present on the occation. An exhibition was also aranged with 22 models develop by 117 students.



Dignitaries honouring the Dr. Ada Yonath

Dr. Ada Yonath, Nobel Laureate delivered the talk on Next Generation Novel Eco-friendly Antibiotics-Blue Dream and elucidated the structure of ribosomes in bacteria using x-ray crystallography and explained the role of ribosomes in protein synthesis. *In-vivo* ribosomes can work continuously and make 40 peptide bonds per second, hardly making any mistakes. Further, she narrated that tRNA acts like trucks, that bring in the amino acids in to the ribosomes. Owing to the vital role played by the ribosomes, the cells developed a specific

method for their preservation during stress by hibernating ribosomes in dimers and blocking each other during the stress period.

Dr. Yonath stated that natural antibiotics are the weapons that microorganisms of one species produced and use to inhibit the growth of other bacterial species. Since the ribosomal active sites are highly conserved, antibiotic selectivity of clinically useful is based on minute variations. Selectivity ensures that antibiotics acts specifically only on bacteria, and not animals. She identified unique target sites for developing new antibiotics. Thus they identified 25 new potential unique sites blocking 16 of them resulted in protein synthesis. She concluded by saying that their structure based species specific antibiotic design aims at minimizing wide spread resistance, microbiome destruction and environmental hazards.

Dr. C.N. Manjunath, Director, Sri Jayadeva Institute of Cardiovascular sciences and Research, Bengaluru delivered talk on Profile of hard diseases in India: Risk factor, recent advances and indicated that major health threats faced by society namely loneliness and job losses, water and weather crisis, vulnerable economy and life style diseases. Sri Jayadeva Institute of Cardiovascular Sciences and Research is ranked number one in India in treating cardiovascular diseases. Further, he explained about heart functioning and said that heart pumps



Dr. C.N. Manjunath and Dignitaries are seen

diseases being non communicable disease accounts for 25 per cent of deaths and the recent past young and middle age people are becoming most vulnerable. 4 people die of heart attack every minute in India. He mentioned the spectrum of heart diseases are Ischemic heart diseases (65%); Valvular Heart Diseases (20%); Congenital Heart Diseases (10%) and Cardiomyopathies & others (5%). He also mentioned that risk factor for developing cardiovascular disease as Modifiable factors (Smoking, Diabetes, Cholesterol, high blood pressure, Obesity, Alcohol, lack exercise, type-A personality) and Non Modifiable factors (Age - 45 years (Men), More than 55 (women) sex and family history). First attack survey was under taken by Jayadeva Institute and over the last 5 years there has been a 22 per cent increase in admission of premature heart attack patients.

Former Vice-chancellors meet-Seminar on Sustenance of Quality in Higher Education Institutions-Future Directions was organized and four lectures were delivered on the following topics: Quality Internalization Pathways in Indian Higher Education Institutions; Introduction to concepts in Higher Education; Role of Universities in all-round Development of Villages; Science Education - A Rural Initiative.





Press conference of Nobel Laureates Prof. Stefan Hell and Prof. Ada E. Yonath was organized in media centre and Dr. S. Rajendra Prasad, Vice-chancellor, UASB & Prof K. S. Rangappa, General President, Indian Science Congress Association (ISCA) were present.

#### TODAY'S ATTRACTIONS

Women's Science Congress; Yoga Science Meet; Science Communicators Meet; Concurrent Plenary Sessions (Topics)- Inter professional Clinical and Translational Research: Opportunities and Challenges; Targeting the HIV infected brain to improve ischemic stroke outcome; The coming impact for India of artificial intelligence and machine learning in human health systems; Global Perspective of New born Hypothyroid Screening; HIV and opiates: Blaming the messengers; Novel approach to prevent vein graft failure following coronary artery bypass graft; Current status and perceived risk factors of NCDs in rural population; Therapeutic approach for better care of Diabetes in Rural population; NCDs in Rural populations Framing a pragmatic policy prescription; Health systems challenges and opportunities in tackling NCDs in rural areas; Gut Microbiome in Pancreatic Diseases: Hype or Hope!; Preventing heart Disease in rural population: Nutrition for gut microbiome; The human microbiome in health and disease; Agricultural Innovation Pathway for Rural Transformation; Reklamel TM active: a new molecule for the control of plant parasitic nematodes; Heparanase: from basic cancer research to therapeutic applications; Molecular aspects of tobacco smoking, alcohol use and risk of pancreatic cancer; The two faces of G-quadruplex DNA: Role in chromosomal fragility and radioprotection; Functionalized Nanoporous Carbon Based Materials for Energy and Environmental Applications; Interface Engineering for NiO based Inverted Planar Perovskite Solar Cells; Green Transfer Method of CVD grown Graphene for Transparent and Flexible Electrodes; "Recent Progress in Nanostructure Electrode Materials for Energy Generation and Storage Applications"; Low cost IUI for infertile women in rural India; Infertility and Education for Rural India; Overcoming gender biases in rural India; Infertility in Asia- Failing the masses.; Nano Engineered Materials; Molecular Engineering of Direct Z-Scheme Multi-Functional Metal Oxides Hetero structures; Advanced Materials for Sustainable Development; Tailored Design of Nano porous Functional Materials; Hemin Induced Ferroptosis Mediates Platelet Activation and Formation of Neutrophil Extracellular Traps; Photo- and Ultrasound Triggered Multifunctional Nanoparticles For the Treatment of Glioblastoma.



Cultural Programme

