National Institute of Biomedical Genomics organises 7th Obaid Siddiqi Memorial Lecture

By Sunderarajan Padmanabhan

NIBMG organizes the Obaid Siddiqi Memorial Lecture on 7th January every year to remember Professor Obaid Siddiqi on his birth anniversary. Professor Siddiqi, born in 1932 in Uttar Pradesh, received PhD from the University of Glasgow for his work on microbial genetics with Guido Pontecorvo. He carried out postdoctoral research with Alan Garen at the Cold Spring Harbor Laboratory and University of Pennsylvania. This work led to the discovery of stop codons in the genetic code and the mechanism of chain termination during protein synthesis. He set up the Molecular Biology Unit at the Tata Institute of Fundamental Research (TIFR), Mumbai and the National Centre for Biological Sciences (NCBS) in Bengaluru. In the past, many distinguished scientists have delivered this lecture, including Professor C. N. R. Rao, Professor K. VijayRaghavan, Professor Shubha Tole, Professor P. Balaram, Dr. V. Nanjundiah and Dr. Vidita Vaidya.

This year, the 7th Memorial Lecture, entitled "The Human Genome Project Was Just the Beginning: Research Opportunities at the Forefront of Genomics" was delivered by Dr. Eric Green, Director of National Human Genome Research Institute National Institutes of Health, USA. He has held this position since late 2009. Previously, he served as the NHGRI Scientific Director (2002-2009), Chief of the NHGRI Genome Technology Branch (1996-2009), and Director of the NIH Intramural Sequencing Center (1997-2009). While directing an independent research program for almost two decades, Dr. Green was at the forefront of efforts to map, sequence and understand eukaryotic genomes. His work included significant, start-to-finish involvement in the Human Genome Project. These efforts eventually blossomed into a highly productive programme in comparative genomics.
that provided important insights about genome structure, function and evolution. His laboratory also identified and characterized several human disease genes, including those implicated in certain forms of hereditary deafness, vascular disease and inherited peripheral neuropathy.

Dr. Green talked about the human genome project and the subsequent road map of human genetics and genomics. He stressed on the importance of studying human genome variation, especially with respect to diseases. He spoke about the large international genomic initiatives that have been undertaken since the Human Genome Project and the wealth of information and impact they have made in diagnosis and treatment of patients. In particular, he mentioned the International Cancer Genome Consortium (ICGC) and the role and contributions of the India Initiative on gingivobuccal oral cancer spearheaded by National Institute of Biomedical Genomics and its clinical partner in the project, Advanced Centre for Treatment, Research and Education in Cancer. India is a founding member of ICGC and the India Initiative to catalogue all genomic alterations in gingivobuccal oral cancer is funded by the Department of Biotechnology, Ministry of Science and Technology, Govt. of India. This cancer type is the most prevalent form of cancer in men in India. He also emphasized on the need to undertake genomic diagnosis of inherited and rare diseases. Incidentally, DBT has recently launched UMMID (Unique Methods of Management and treatment of Inherited Disorders) which is in line with this. Dr. Green also spoke on the need to expand the infrastructure for genomics research and its benefit to society. Finally, Dr. Green encouraged the students to take up challenging topics of research in the area of genomics of human health and disease. He interacted with the Faculty, postdoctoral researchers and students of NIBMG and visited the Human Genome Hall and the Genomics Facility.