

Following is the full text of the speech –

“I am extremely delighted to visit the Centre for DNA Fingerprinting and Diagnostics (CDFD), one of India’s premier scientific institutions of the Department of Biotechnology (DBT), and to interact with all of you.

I am aware that the CDFD is a unique institute, created with the goal of “Innovating to benefit society” by providing services in the area of DNA fingerprinting and diagnosis of genetic disorders, and to conduct high quality basic research. The uniqueness stems from the ‘hybrid model’--the two arms of ‘services’ and ‘research’ benefiting from each other.

I am aware that CDFD’s DNA fingerprinting technique has helped the investigating agencies and judiciary in solving several major cases. Similarly, CDFD has been the referral centre for genetic diagnostics.

I am very happy to note that the CDFD has just entered into 25 years of its service to the nation. I am delighted to visit the Institute when it is celebrating its Silver Jubilee.

I would like to appreciate and congratulate all of you for serving the nation for the last 25 years and encourage you to continue working towards developing newer technologies for better, simpler and cost-effective methods for diagnosis of various genetic diseases. This would help in better patient management.

As you all are aware, India has made substantial progress in the field of science and technology during the past few decades. It has been our continuous endeavor to provide succor to the millions suffering from various genetic disorders.

Dear Sisters and Brothers,

An abnormal increase in the crime rate is a major problem the world is facing today. I am glad to know that CDFD is providing state of the art DNA fingerprinting service to courts, National Investigating Agency (NIA) and CBI for ensuring correct judgement in criminal cases, and in providing relief to the families of disaster victims. I am happy to note that significant contributions have been made by CDFD in these niche areas during the 25 years of its existence.

I am also happy to note that the DNA Fingerprinting laboratory at CDFD has successfully trained personnel of forensic science laboratories from several states and continues to train police and armed forces personnel in the proper method of sample collection for DNA-based identification.

I am pleased to note that CDFD has been offering services for genetic testing and counseling of patients with genetic diseases, and has provided such services to more than 60,000 families since its inception.

It is heartening to note know that CDFD has established nationwide collaborations with several clinical centres for evaluation of patients with unexplained genetic disorders.

I would also like to compliment the CDFD for its pioneering efforts in establishing the APEDA (Agricultural and Processed Food Products Export Development Authority) center for testing the purity of Basmati Rice. This facility ensures that Indian rice farmers and exporters do not have to suffer from any loss of revenue, by maintaining the ‘premium price’ accorded to Indian basmati compared to other basmatis worldwide.

I am told that the APEDA center was established more than 15 years ago, and has had a huge positive impact on Indian farmers and exporters, which is commendable. Being a farmer myself, I can understand the important contribution made by CDFD.

The recent pandemic has brought unprecedented challenges to humankind throughout the world, and I laud the excellent efforts of CDFD's Corona Warriors who have been providing accurate diagnosis of COVID-19 infection. I am told that CDFD has undertaken the testing of more than 40,000 samples in the past 10 months. I appreciate CDFD's contribution towards understanding the mutation spectrum of the virus in the Indian population. Such efforts go a long way in ensuring our readiness to tackle any variants of the virus.

I have visited the research facilities of CDFD today and noted the research being conducted here in various areas of modern biology. I congratulate the scientists and scholars at CDFD for the noteworthy contributions made by you in the fields of cell and molecular biology, molecular pathogenesis, genomics and genetics.

I was also happy to learn about the research on how bacteria communicate with each other to cause disease in plants, which was recognized very recently by the Shanti Swarup Bhatnagar prize to one of CDFD faculties.

I am pleased to know that the scientists at CDFD have identified novel genetic mutations for more than 10 disorders in India, including the identification of 4 new genes, which is very helpful in genetic counselling and management of diseases.

Having successfully implemented national programs in infectious diseases and nutritional deficiencies, India is now witnessing an accelerating shift towards increased incidence of non-communicable diseases. Rare genetic disorders form a major group of non-communicable diseases. It has been estimated that about 350 million people are suffering from "Rare diseases" worldwide and India is home to approximately 70 million (1 in 20) patients. The burden of these disorders has a cascading effect on the economic and social structure of society, since most of these disorders are untreatable.

I am happy to note that the Department of Biotechnology (DBT) is promoting genome-based public health research and asked CDFD to take-up a major research program on "Pediatric Rare Genetic Disorders", and I am honoured to have inaugurated the "Pediatric Rare Disease Laboratory" today.

I learnt that the objectives of this program will be achieved through a multi-faceted approach, including telemedicine, genome sequencing, identifying causal genetic variations, generation of animal models, and the creation of a database on the disease-associated variants in the Indian population.

I am told that the results from this programme will lead to more efficient diagnosis and genetic counselling of families suffering from inherited disorders. This programme will contribute positively towards the Government of India's Sustainable Development Goals regarding human health, and the objectives of the National Health Mission to mitigate the societal burden of genetic diseases.

With the implementation of this programme, CDFD's scientists shall be able to increase their contributions towards identification of causal genetic events in unexplained pediatric rare genetic diseases.

While once again lauding the efforts made by all of you, I would urge you to ensure that the outcomes of the research conducted in your laboratories benefit the common man and improve the quality of their lives.

I am aware that CDFD is involved in a number of outreach activities to ensure that the fruits of its research reach the common people. The aspirational district centre established at Yadgir, Karnataka under the Department of Biotechnology UMMID initiative is an excellent example of one such endeavor.

My compliments to the Director and all scientists, researchers and staff for their hard work, which has resulted in CDFD reaching the pinnacle of scientific excellence! I wish continued success in your research efforts to improve the quality of life of the common Indian citizen.

Jai Hind!”
