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Father of modern genomics passes away

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His death was confirmed yesterday by the MRC Laboratory of Molecular Biology, which Dr Sanger found in 1962.

Speaking to *BioSpectrum India* on Dr Sanger's sad demise, Dr Lalji Singh, vice-chancellor, Banaras Hindu University, Varanasi, said, "The news of Fred Sanger's passing away comes with a sense of shock and grief. Though in mid-nineties, Prof Sanger was still active and in the vanguard of contemporary molecular biology."

Dr Sanger is considered as the "father of genomics" after his pioneering work on exact sequencing of the building blocks of DNA. He also developed techniques to determine the structure of proteins.

Condoling Dr Sanger's demise, Dr Ch Mohan Rao, director, Centre for Cellular & Molecular Biology (CCMB), Hyderabad, expressed to *BioSpectrum India* that Dr Sanger was a brilliant scientist and that his contributions were critical for the initiation and growth of two major current research activities - Genomics and Proteomics.

He added, "Dr Sanger developed methods to sequence both proteins and nucleic acids which made major differences for the progress of research in biological sciences. Most of our research activity begins with or culminates with sequencing of biopolymers which he developed. CCMB condoles the death of a great scientist."

Dr Frederick Sanger was born in 1918 in Gloucestershire (UK) and had initially planned to pursue medicine following in his father's foot steps.

However, he majored in biochemistry at the University of Cambridge, only to become the 'Father of Modern Genomics'.

Dr Singh also said that Dr Sanger's efforts were directed towards developing techniques in sequencing DNA. "Sequencing of genomes has given rise to diverse new areas of genomic biology whose credit, quite substantially, would rightfully go to

Sanger. Unlike most other scientists whose time at the bench reduces with age, Sanger remained an active worker right up to his last years. We deeply mourn his sad demise," he said.

Currently, Dr Sanger is the only Briton to win two Nobel Prizes, and both of the prizes were awarded for his groundbreaking work in Chemistry.

Dr Sanger won his first Nobel Prize in chemistry, in 1958, for showing how amino acids link together to form insulin.

In 1980, he received his second Nobel Prize, which was also in chemistry, for inventing a technique to read the molecular letters that make up the genetic code.

Immersed in pursuit of exploration, with single-minded determination, intellectual prowess, precision and imagination, and uncommon sense of humility, Dr Frederick Sanger is said to be a quintessential scientist, who left an indelible imprint on the sand of time.