

# [Bio 3](https://assignbuster.com/bio-3/)

[Science](https://assignbuster.com/essay-subjects/science/), [Biology](https://assignbuster.com/essay-subjects/science/biology/)

Frederick Sanger It is obvious, that if you intended to indicate the contribution of a person in science and in the proposed list will be Frederick Sanger you will definitely choose him. Frederick Sanger was a British biochemist who won the Nobel Prize for Chemistry twice. This is already a considerable achievement. Dr. Sanger firstly became famous for his work that was dedicated to deciphering the structure of insulin. He was the first scientist who understood from which amino acids and in which order is composed the insulin hormone, which then became a salvation for millions of diabetics worldwide. Two fundamental studies carried out in 1951 and 1952 guaranteed him the first Nobel Prize in 1958.
Nevertheless, the real glory and recognition as one of the greatest chemists of the era was brought to him through findings in the field of the DNA molecule sequencing. Frederick`s Group started to work with the genome of the single-stranded DNA bacteriophage φX174 and was the first one who decipher the 5000 combinations of φX174 proteins and the first who also established the structure of 5S ribosomal RNA molecule. However, the greatest contribution to modern science Frederick Sanger made by discovering the method of decoding the primary structure of DNA - the so-called " Sanger sequencing". This method brought to Frederick even greater glory and a second Nobel Prize in 1980. This technique is still widely used and only in the last decade methods that use laser scanning and digital technology have arisen, but they are based on the Sanger idea anyway (Cheong and Caramins).
Works Cited
Cheong, Pak Leng, and Melody Caramins. “ Approaches for Classifying DNA Variants Found by Sanger Sequencing in a Medical Genetics Laboratory.” Methods in molecular biology (Clifton, N. J.) 1168 (2014): 227–50. Web. 15 Feb. 2015.