



清华大学

海外名师讲堂

Chemical Approaches for Decoding Genome Function

Shankar Balasubramanian

Department of Chemistry, University of Cambridge

Abstract: One copy of the human genome comprises a primary code made up of an arrangement of just over three billion units of the DNA bases (or "letters") G, C, A and T. While the Human Genome Project took years, thousands of instruments and several hundred million dollars to decode the first human genome, this can now be done on a single instrument in one day for a thousand dollars. In this lecture I will discuss DNA sequencing and in particular a method for rapidly decoding the genomes that originated in Cambridge in the 1990s. There are other dimensions of chemical features that constitute additional coding mechanisms in DNA and I will also discuss chemistries for decoding additional chemical and structural features of the genome. I will consider the impact of rapid genome sequencing on the life sciences, medicine and society.



Professor Sir Shankar Balasubramanian FMedSci FRS, Knight Bachelor, is an Indian-born British chemist and Herchel Smith Professor of Medicinal Chemistry in the Department of Chemistry the University of Cambridge, Senior Group Leader at the Cancer Research UK Cambridge Institute and Fellow of Trinity College, Cambridge. He is recognized for his contributions in the field of nucleic acids. He is scientific founder of Solexa and Cambridge Epigenetix.

He received a Knighthood from Queen Elizabeth II for his contribution to the field of science and medicine on December 30, 2016. He was awarded the Royal Medal in 2018 in recognition of development of DNA sequencing techniques transforming biology and genomic medicine.

时 间: 2019年9月6日 (星期五) 下午2:30 (2:15前入场)

地 点: 清华大学 主楼接待厅