

An Introduction to Next-Generation Sequencing Technology

Deciphering DNA sequences is essential for virtually all branches of biological research. With the advent of capillary electrophoresis (CE)-based Sanger sequencing, scientists gained the ability to elucidate genetic information from any given biological system. This technology has become widely adopted in laboratories around the world, yet has always been hampered by inherent limitations in throughput, scalability, speed, and resolution that often preclude scientists from obtaining the essential information they need for their course of study. To overcome these barriers, an entirely new technology was required—Next-Generation Sequencing (NGS), a fundamentally different approach to sequencing that triggered numerous ground-breaking discoveries and ignited a revolution in genomic science.



