

# Speech: The Automation and Intelligence Revolution of Molecular diagnostics

## Abstract

Molecular diagnostics is a technology using molecular biological methods to provide information and basis for disease prevention, diagnosis and treatment by detecting the change of structure or content of genetic material in organism. Molecular diagnostics has become one of the fastest growing fields of IVD, which can be detected from the gene level with high detection sensitivity and accuracy. Molecular diagnostics mainly includes gene sequencing, PCR/QPCR, molecular hybridization, nucleic acid mass spectrometry, among which the molecular diagnostics products based on PCR/QPCR platform have the advantages of high sensitivity, strong specificity, fast and convenient and are widely used in infectious disease pathogen detection, genetic disease gene detection, molecular assisted breeding and other fields. At present, the mainstream molecular diagnostics system in the market is generally composed of several independent products. Each step of experimental operation needs to be completed independently in a strictly divided standard molecular biology laboratory, with low automation, complex diagnosis process and low diagnosis efficiency, which brings great inconvenience to the inspectors. Automatic molecular diagnostics technology is the only way to improve the efficiency and accuracy of diagnosis and treatment, reduce the cost of diagnosis, and

will provide a good opportunity for the rapid development of molecular diagnostics industry in China.