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China-based startup MGI launches new nanopore sequencing products with advanced CycloneSEQ technology

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Advanced features facilitate high-throughput, long-read sequencing





China-based startup MGI Tech Co. has announced the global rights to commercialise and distribute the new sequencing products CycloneSEQ-WT02 and CycloneSEQ-WY01. With potential across different areas of genomics, CycloneSEQ technology integrates numerous technological improvements, including advanced protein engineering, a novel flow cell design, and a cutting-edge basecalling algorithm, to enable high accuracy and throughput in sequencing.

Leveraging its robust design improvements, CycloneSEQ has demonstrated competitive advantages in sequencing performance, bringing further flexibility and diversity to MGI's comprehensive range of life science research tools.

Based on the state-of-the-art technology, the new launched CycloneSEQ-WT02 and CycloneSEQ-WY01 sequencers have achieved significant breakthrough in throughput, accuracy, applications and flow cell design by building an optimal combination of patterns, demonstrating great potential in a variety of applications, including public health, genetic screening, reproductive health, environmental research, cancer research, genomics education, agri-genomics research and epigenomics research, etc.

CycloneSEQ-WT02 nanopore gene sequencer features a dual flow cell architecture, allowing for simultaneous independent operation. With the capacity to support fast coverage, swift sequencing, flexible testing and real-time analysis, CycloneSEQ-WT02 significantly shorten sequencing turnaround time, effectively overcoming the challenges of complex sequences. It has been successfully applied in a variety of scenarios, including the detection of complex genetic diseases such as thalassemia, generating telomere-to-telomere (T2T) genome maps for small animals, deep-sea in situ exploration, rapid identification of clinical respiratory pathogens, and de novo genome assembly.

On the other hand, CycloneSEQ-WY01 is a high-throughput nanopore gene sequencer. It features a high-density flow cell and ultra-high throughput capabilities, enabling ultra-long read lengths, real-time sequencing, and continuous testing.