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Illumina launches next-gen benchtop sequencers with sustainable and comprehensive approach

October 23, 2024 | News

Small whole-genome sequencing for microbiology and targeted NGS panels for both infectious disease and oncology



Illumina, Inc., a global leader in DNA sequencing and array-based technologies, unveiled its MiSeq™ i100 Series of sequencing systems, delivering unparalleled benchtop speed and simplicity to advance next-generation sequencing (NGS) for labs.

The two new benchtop instruments, MiSeq i100 and MiSeq i100 Plus Systems, will unlock powerful insights through an affordable, comprehensive solution. Room-temperature storage and shipping enable labs to sequence on demand, with no delays for thaw time, and same-day sample-to-analysis.

With the technology upgrade and chemistry of the NovaSeqTM X Series, the MiSeq i100 builds on the legacy of the original benchtop MiSeq System. With the MiSeq i100 Series, Illumina's powerful XLEAP-SBSTM chemistry innovation is taken even further for the first time, harnessing the potential of room-temperature storage and shipping, enabling greater flexibility while planning and executing projects. With two configurations, MiSeq i100 Plus and MiSeq i100, can run a maximum of 100 and 25 million single-end reads per run respectively. The MiSeq i100 will be available to ship globally in 2025.

- **Room-temperature shipping and storage for reagents:** Eliminating the cold chain and allowing for greater flexibility to sequence on demand without the need to thaw reagents, which is critical for running urgent samples
- **Sustainability:** An 85% reduction in packaging waste compared to the MiSeq System supports a lower carbon footprint
- **Speed:** Dramatic reduction in run times: as fast as four hours, with same-day results (4× faster than MiSeq)
- **Cost efficiency:** Cost-effective consumables enable more affordable sequencing
- **Turnkey workflows:** 18 proven end-to-end workflows across 10 applications
- **Simplicity:**Simpler, streamlined operations for various levels of sequencing experience

Push-button workflows on MiSeq i100 are available for small whole-genome sequencing for microbiology and targeted NGS panels for both infectious disease and oncology. Workflows provide metrics either directly on the instrument or via cloud-based DRAGEN™ genomic data analysis, minimizing the need for bioinformatics expertise.