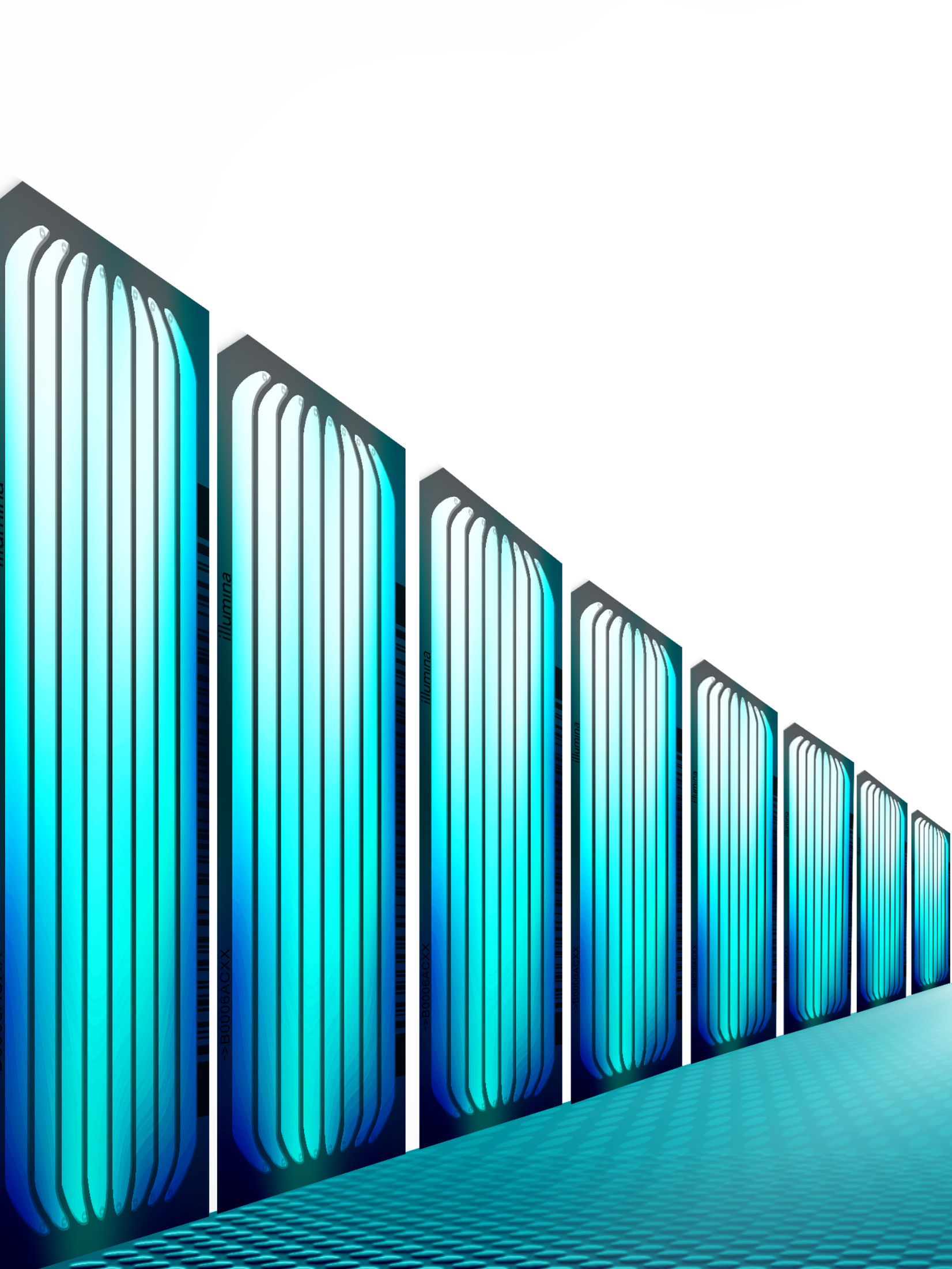
illumina®

Ultra-high throughput. Ultimate efficiency.

HiSeq® Series. Production power.
Speed and efficiency for large-scale sequencing.


illumina
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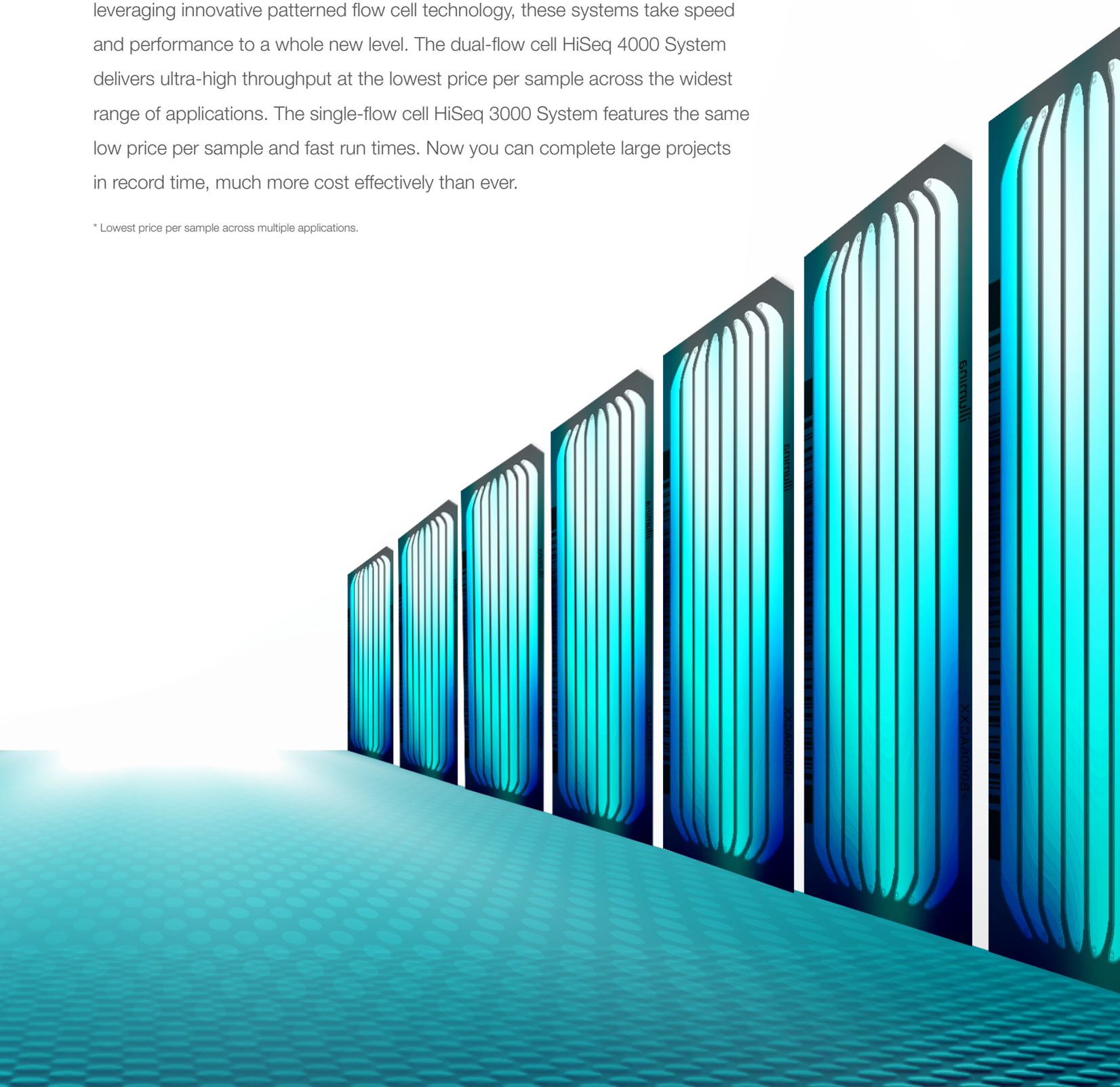
Power up your production-scale studies.

Highest throughput. Lowest price.*

Introducing the HiSeq 3000 and HiSeq 4000 Systems, a new standard in production-scale sequencing. Building on the proven HiSeq 2500 System and leveraging innovative patterned flow cell technology, these systems take speed and performance to a whole new level. The dual-flow cell HiSeq 4000 System delivers ultra-high throughput at the lowest price per sample across the widest range of applications. The single-flow cell HiSeq 3000 System features the same low price per sample and fast run times. Now you can complete large projects in record time, much more cost effectively than ever.

* Lowest price per sample across multiple applications.



Go where the science takes you.

Extensive applications. Expansive possibilities.

Cancer discovery, profiling, and monitoring

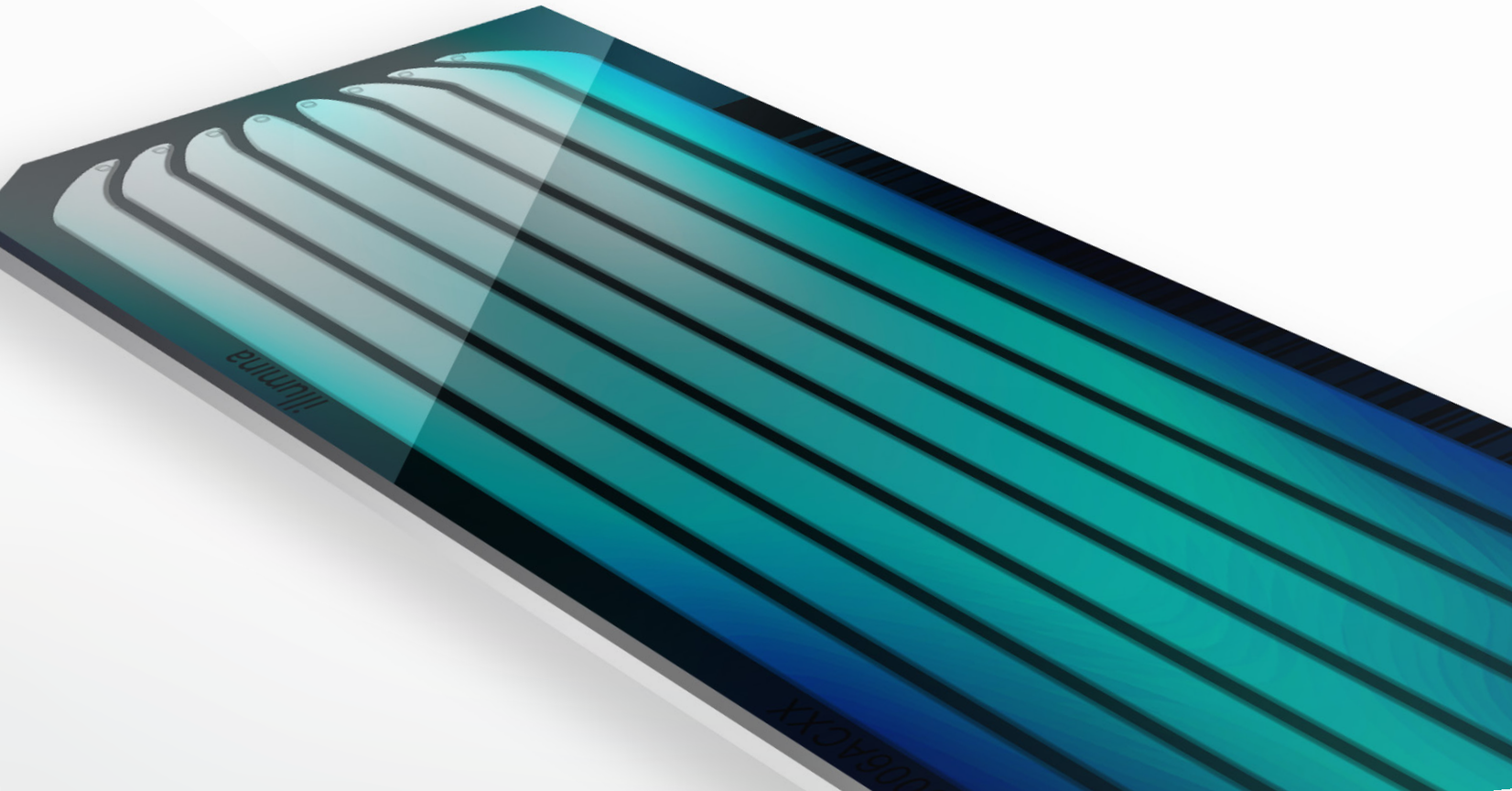
- Uncover critical insights
- Examine all stages of tumor progression
- Envision the bigger picture quickly and efficiently
- Look deeper and wider with exome, whole-genome, and whole-transcriptome studies

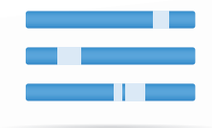
Genetic disease variant discovery

- Explore the underpinnings of genetic disease
- Find answers faster and more efficiently
- Perform cytogenomics and copy number analysis

Scientific flexibility

- Power your study with more samples and greater depth of coverage
- Leverage protocols from the largest community of next-generation sequencing (NGS) users



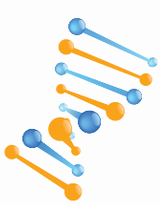


Exome sequencing

- Production-scale throughput with unrivaled sample capacity
- Accurate variant detection
- Comprehensive exome coverage

RNA sequencing

- Hypothesis-free transcriptome analysis on a massive scale
- Reliable isoform characterization
- Accurate identification and quantification of common and rare transcripts

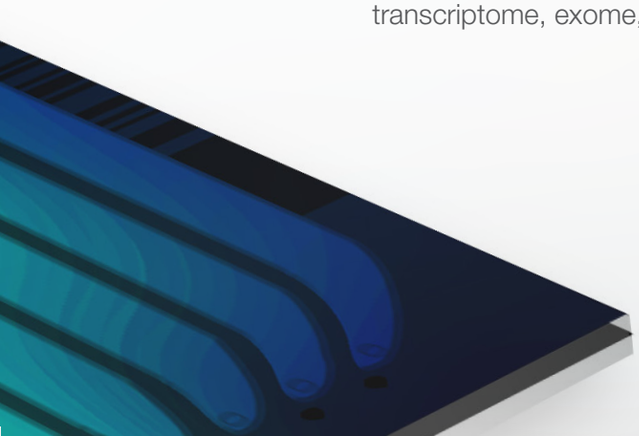


Whole-genome sequencing

- Scalable, affordable whole-genome sequencing
- Accurate and comprehensive variant detection
- Greatest coverage uniformity and sensitivity

A wealth of library prep solutions.

In addition to our proven sequencing technology, we also offer a wealth of best-in-class library prep solutions. Developed to seamlessly integrate with our NGS workflows, our high-quality solutions support a broad range of applications and sample types, including whole genome, transcriptome, exome, amplicon, and targeted panels.



Gain deeper insights.

Higher coverage. More samples.

Offering ultra-high throughput, the HiSeq 3000 and HiSeq 4000 Systems deliver up to 750 gigabases (Gb) per flow cell in 3.5 days. Now you can sequence more samples at greater depth, generating richer, more meaningful data in less time. And complete large studies faster, at the lowest price per sample.

>400
Gb per day

The HiSeq 4000 System

With the highest daily throughput and lowest price per sample across multiple applications, the dual-flow cell HiSeq 4000 System generates more than 400 Gb per day and up to 1.5 terabases (Tb) per run.

1.5
Tb per run

>200
Gb per day

750
Gb per run

The HiSeq 3000 System

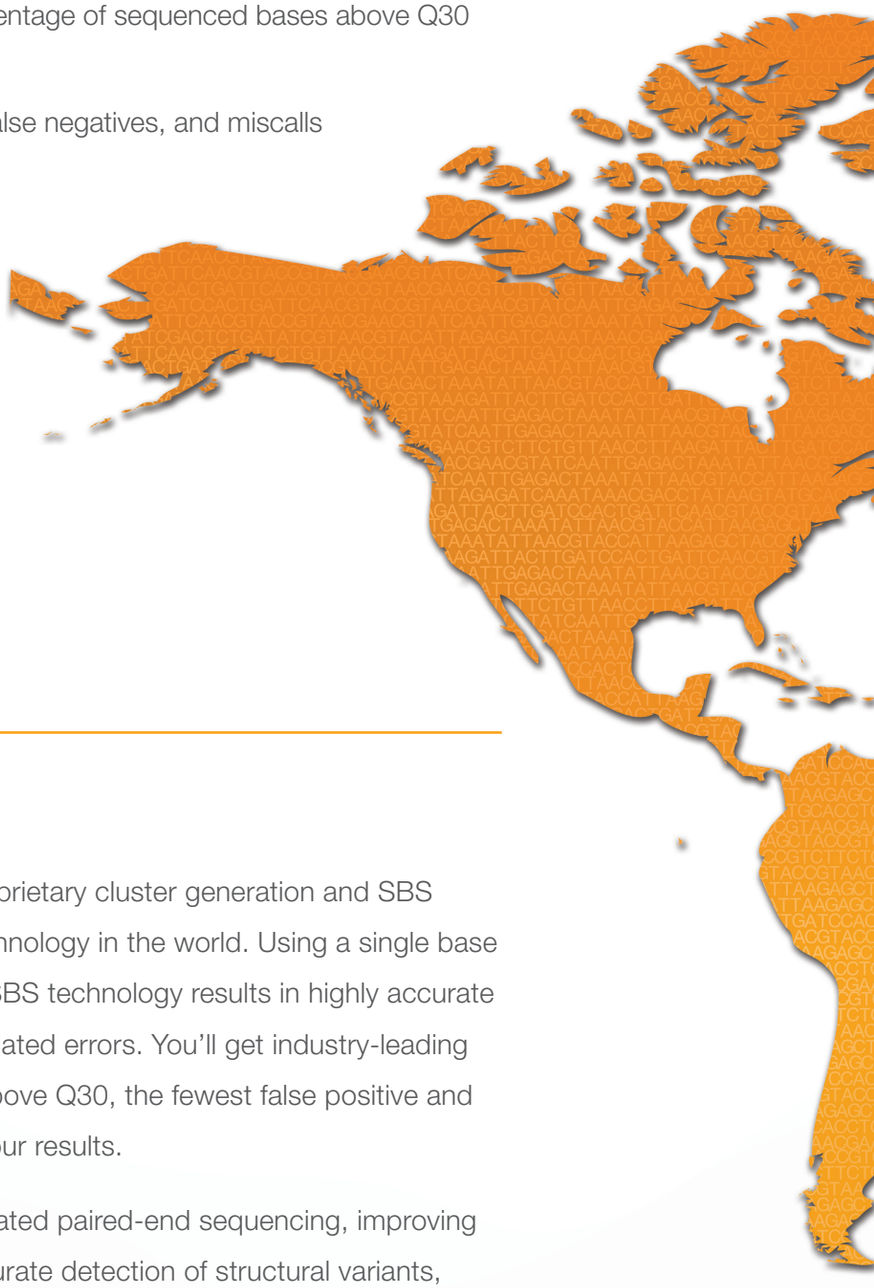
Featuring the same throughput per flow cell as the HiSeq 4000 System, the HiSeq 3000 System processes a single flow cell at a time to yield more than 200 Gb per day and up to 750 Gb per run. For increased capacity, the HiSeq 3000 System can be upgraded quickly and easily to a dual-flow cell HiSeq 4000 System.

Industry-leading data quality.

Proven technology. Highest confidence.

Your studies deserve the best data quality. That's what our systems are proven to deliver. It's no wonder that more than 90% of the world's sequencing data is generated using sequencing by synthesis (SBS) technology from Illumina.

- Obtain the greatest accuracy with the highest percentage of sequenced bases above Q30
- Achieve the highest yield of error-free reads
- Improve efficiency with the fewest false positives, false negatives, and miscalls



The performance you need.

Every Illumina sequencing system leverages our proprietary cluster generation and SBS chemistry, the most widely adopted sequencing technology in the world. Using a single base extension and competitive addition of nucleotides, SBS technology results in highly accurate sequencing that virtually eliminates homopolymer-related errors. You'll get industry-leading data quality with the highest percentage of bases above Q30, the fewest false positive and false negative calls, and the utmost confidence in your results.

All Illumina sequencing systems perform fully automated paired-end sequencing, improving alignment and genome assembly, and enabling accurate detection of structural variants, gene fusions, and transcript isoforms.


>90%
of the world's sequencing data
is generated using
Illumina SBS technology

Informatics

Intuitive informatics tools provide critical insights. Essential data can be transferred, stored, analyzed, and shared securely in BaseSpace® Onsite or in the BaseSpace Cloud.

Sequencing

With power for every scale, Illumina offers a complete portfolio of next-generation sequencing (NGS) solutions that are accessible for every study and every lab.

Library prep

In addition to manual options, Illumina offers the NeoPrep™ System for reproducible sequencing-ready libraries with just 30 minutes of hands-on time per run.

Optimize with simply smart NGS workflow solutions.

One seamless process. One complete resource.

From library prep to sequencing and informatics, Illumina offers seamless NGS workflow solutions that optimize your process from start to finish and accelerate your progress. As the innovators of next-generation technology, we're here to deliver the experience and expertise to help propel your success.

World-class solutions.

A community of support.

From sample prep, library prep, arrays, and sequencing to informatics, Illumina next-generation solutions empower researchers and clinical researchers across the globe to find the answers they seek.

When you join the Illumina community, you become part of a dynamic scientific movement that includes thousands of researchers and industry thought leaders. Throughout the year, we host user group meetings, symposia, consortia, online forums, and other initiatives—all designed to bring the best minds together to share ideas and advance science.

In addition to on-site training, ongoing support, and phone consults, we offer webinars and courses at various Illumina locations. We're here with all the resources you need to accelerate progress.

Discover how our next-generation sequencing and informatics solutions can help advance your research. Contact your Illumina representative or visit **www.illumina.com/hiseq**.

A global genomics leader, Illumina delivers complete next-generation sequencing workflow solutions to the basic and translational research communities. Illumina technology is responsible for generating more than 90% of the world's sequencing data. Through collaborative innovation, Illumina is fueling groundbreaking advancements in the fields of oncology, reproductive health, genetic disease, microbiology, agriculture, and forensic science.

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