

# High-throughput scale. Desktop simplicity.

The NextSeq® Series. Flexible power. Speed and simplicity for whole-genome, exome, and transcriptome sequencing.





## Harness the power of next-generation sequencing.

In your lab. On your schedule.

Introducing the newly expanded NextSeq Series—the first and only desktop system to offer exome, transcriptome, and whole-genome sequencing.

It's the perfect combination of high-throughput sequencing, flexibility, and accuracy, all at a cost that makes it just right for your lab. With the NextSeq 550 system—the newest addition to the series, you can perform both sequencing and array scanning on a single system.

Now it's easier than ever to take advantage of the highest data quality by leveraging the world's most widely used sequencing technology.

Imagine the possibilities.

Maximum flexibility. Maximum applications.

#### Cancer discovery, profiling, and monitoring

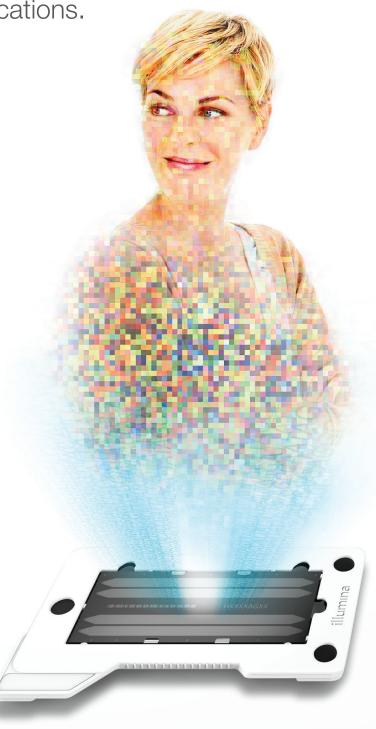
- Uncover critical insights
- Examine all stages of tumor progression
- Envision the bigger picture quickly and efficiently
- Look deeper and wider with whole-genome studies, targeted gene profiling, and gene expression

#### Genetic disease variant discovery

- Explore the underpinnings of genetic disease
- Find answers faster and more efficiently
- Enable cytogenomic and copy number analysis through sequencing and/or array scanning

#### Application flexibility

- Perform *de novo* sequencing to generate reference genomes
- Characterize rare microbes in complex microbial communities
- Adjust scale for large and small studies
- Leverage protocols from the largest community of next-generation sequencing (NGS) users
- Access BeadChip array scanning for cytogenomic and karyomapping applications







## Scalable sequencing power.

## Better answers. Limitless discovery.

The power of high-throughput sequencing. The simplicity of a desktop sequencer.

With the NextSeq Series, there are no compromises.

#### Exome sequencing

- Fastest sample-to-data exome solution
- Most accurate variant detection
- Comprehensive exome coverage

#### **RNA** sequencing

- Hypothesis-free transcriptome analysis
- Isoform characterization
- Non-coding RNA analysis

#### Whole-genome sequencing

- High-quality, high-coverage genome
- Unrestricted view of the genome now and in the future
- Scalable, affordable human whole-genome sequencing

Prep	> Sequence	> Analyze	> Share
Broadest range of supported applications	Tunable output	On premise or in the cloud	Secure, unlimited storage

## The power of on-demand sequencing.

Total flexibility. Less waiting.

Your needs can change from day to day. So can the NextSeq Series.

For each run, you can choose between two flow cell sizes and accompanying reagents to shift between applications that require more or less sequencing output or smaller batch sizes.



The NextSeq Series is scalable and flexible, supporting multiple applications with both low- and high-throughput capabilities.





## Industry-leading data quality.

Proven technology. Highest confidence.

Your studies deserve the best data quality. That's what the NextSeq Series delivers. It's no wonder that more than 90% of the world's sequencing data is generated using sequencing by synthesis (SBS) technology from Illumina.

Your study will benefit from:

- The greatest accuracy, with greater than 80% of sequenced bases over Q30
- The highest percentage and yield of error-free reads
- Fewer false positives, false negatives, and miscalls



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### 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.

#### 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.

### 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.

Find out what the NextSeq Series can do for you. Contact your Illumina representative or visit www.illumina.com/nextseq.

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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