
ILLUMINA SEQUENCING SYSTEMS
illumina®

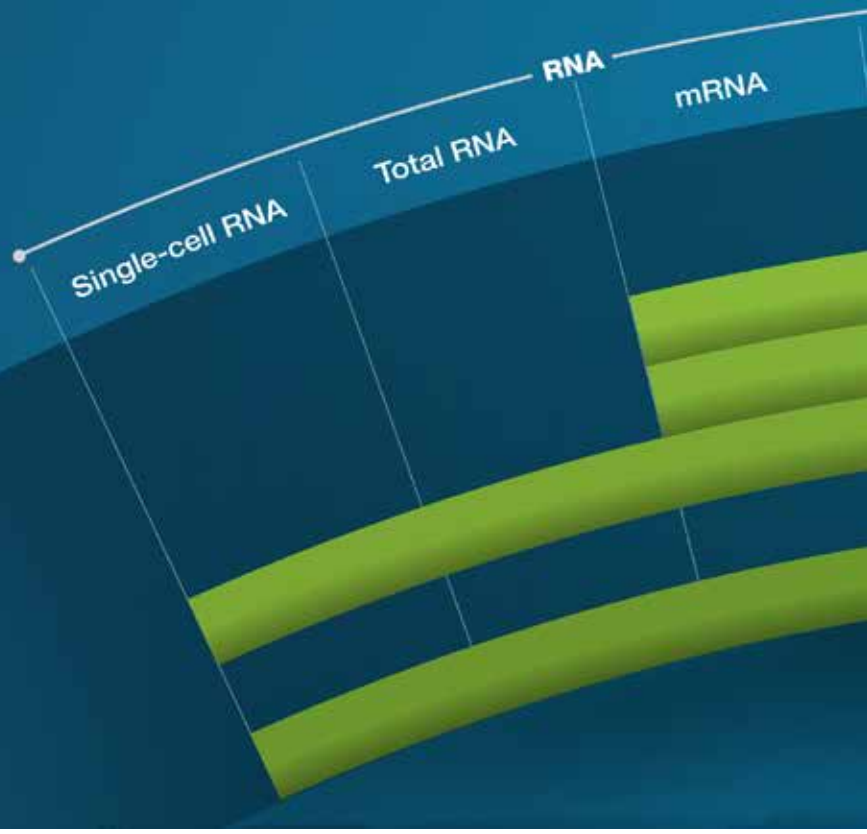
PROVEN QUALITY. TRUSTED SOLUTIONS.

Every day, researchers are using Illumina next-generation sequencing (NGS) systems to better understand human health and disease, as well as gain more insights into nonhuman organisms. We're enhancing research in emerging fields, from reproductive health to microbiology.

All Illumina sequencing systems utilize our proven technology. They perform fully automated and robust sequencing, enabling more accurate analysis. Our trusted solutions allow you to expand your research and achieve a high level of accuracy.

With a full range of solutions, we have the perfect system to meet your ever-evolving needs.

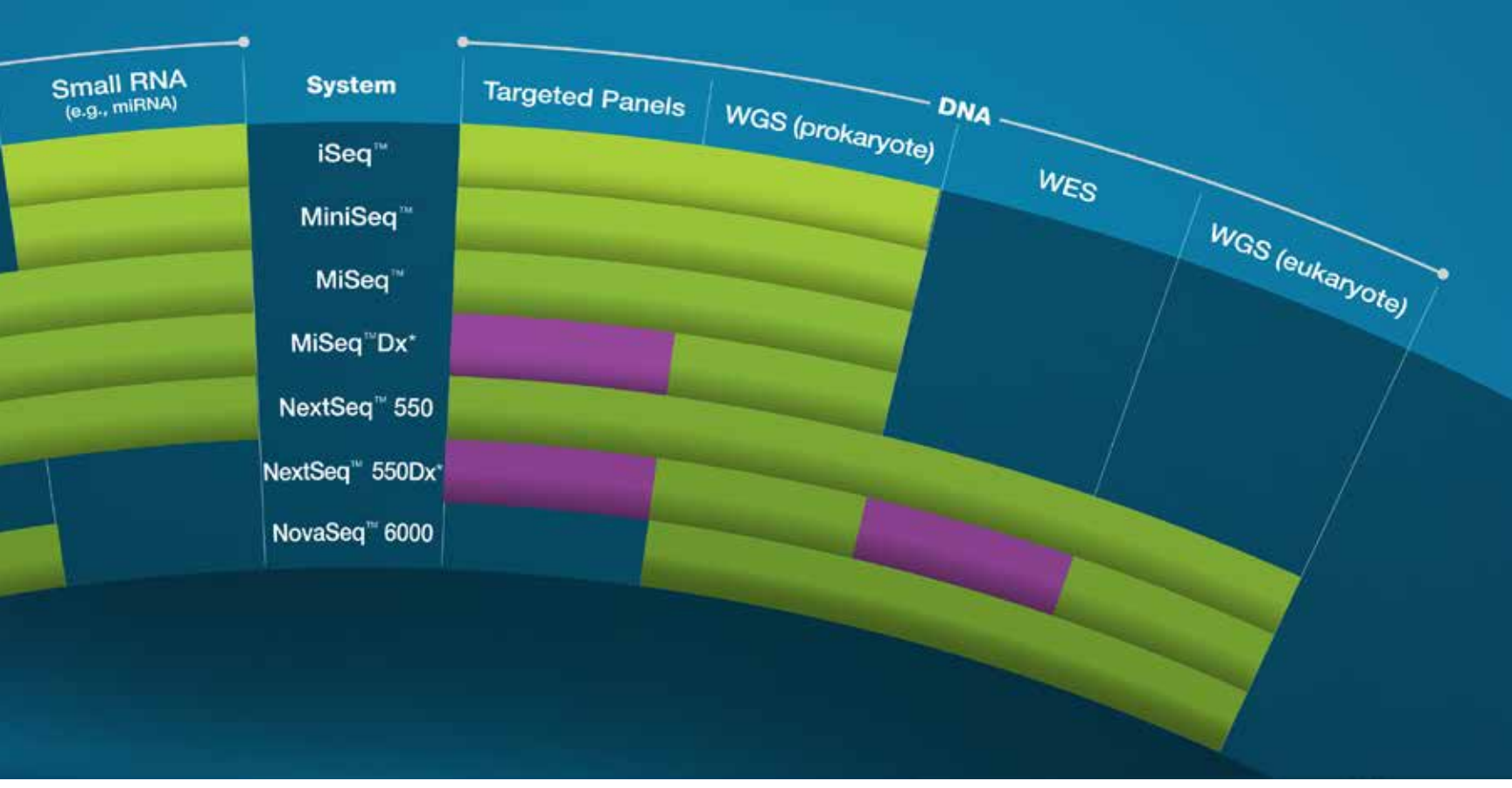
METHODS ACROSS THE GENOMIC SPECTRUM



We offer a wide range of options, from scalable systems to application-focused solutions.

DIAGNOSTIC

Built for clinical applications, the MiSeq™Dx platform and NextSeq™ 550Dx platform provide robust solutions able to provide deep insights into genetic testing.



RESEARCH

From the iSeq system to the NextSeq system, our lower throughput systems leverage the power of Illumina NGS technology in an accessible benchtop format, making it easy for virtually any lab to accelerate their research.

With the NovaSeq 6000, we're revolutionizing genomics with unparalleled power. Now you can power your high-throughput studies with production-scale sequencing for diverse applications.

***For *In Vitro* Diagnostic Use.**

For Research Use Only. Not for use in diagnostic procedures.

ACCESSIBLE SOLUTIONS. TAILORED POWER.

iSeq™ 100

MiniSeq™

MiSeq™*

Key methods	Targeted gene sequencing, direct amplicon sequencing, small-genome sequencing	Targeted gene sequencing, targeted gene expression profiling, small-genome sequencing		Targeted gene sequencing, metagenomic sequencing,small-genome sequencing			
Flow cell	—	Mid-output	High-output	Nano	Micro	v2	v3
Flow cells processed per run	1	1	1	1	1	1	1
Output range	1.2 Gb	2.1–2.4 Gb	1.9–7.5 Gb	300–500 Mb	600 Mb–1.2 Gb	750 Mb–8.5 Gb	3.8–15 Gb
Run time	8–19 hrs	4–17 hrs	4–24 hrs	17–28 hrs	10–19 hrs	5.5-39 hrs	21–56 hrs
Clusters passing filter per flow cell	4 million	8 million	25 million	1 million	4 million	15 million	25 million
Maximum read length	2 × 150 bp	2 × 150 bp	2 × 150 bp	2 × 250 bp	2 × 150 bp	2 x 250 bp	2 × 300 bp

*Additional kits available.
Please visit illumina.com for details.

NextSeq™ 550†

NovaSeq™ 6000

Gene expression profiling, coding and non-coding RNA, exome, targeted gene sequencing, small-to-medium genomes, Infinium™ microarray analysis		Whole-transcriptome sequencing, exome, liquid biopsy development, methylation, medium/large-genome sequencing			
Mid-output	High-output	SP	S1	S2	S4
1	1	1 or 2	1 or 2	1 or 2	1 or 2
16–39 Gb	25–120 Gb	80–800 Gb	167–1000 Gb	417–2500 Gb	2000–6000 Gb
15–26 hrs	11–29 hrs	13–38 hrs	13–25 hrs	16–36 hrs	<45 hrs
130 million	400 million	800 million	1.6 billion	4.1 billion	10 billion
2 × 150 bp	2 × 150 bp	2 × 250 bp	2 × 150 bp	2 × 150 bp	2 × 150 bp

† The NextSeq 550 System has identical sequencing specifications to the NextSeq 500 System and includes array scanning functionality for cytogenomic and karyomapping applications.

EXPANDED CLINICAL MENU

By expanding our IVD menu, we are working to provide clinical solutions that support the diagnosis and management of disease.

These regulated platforms are important milestones for the clinical community.

These platforms enable development of a large range of clinical applications, from targeted panels to whole genomes.

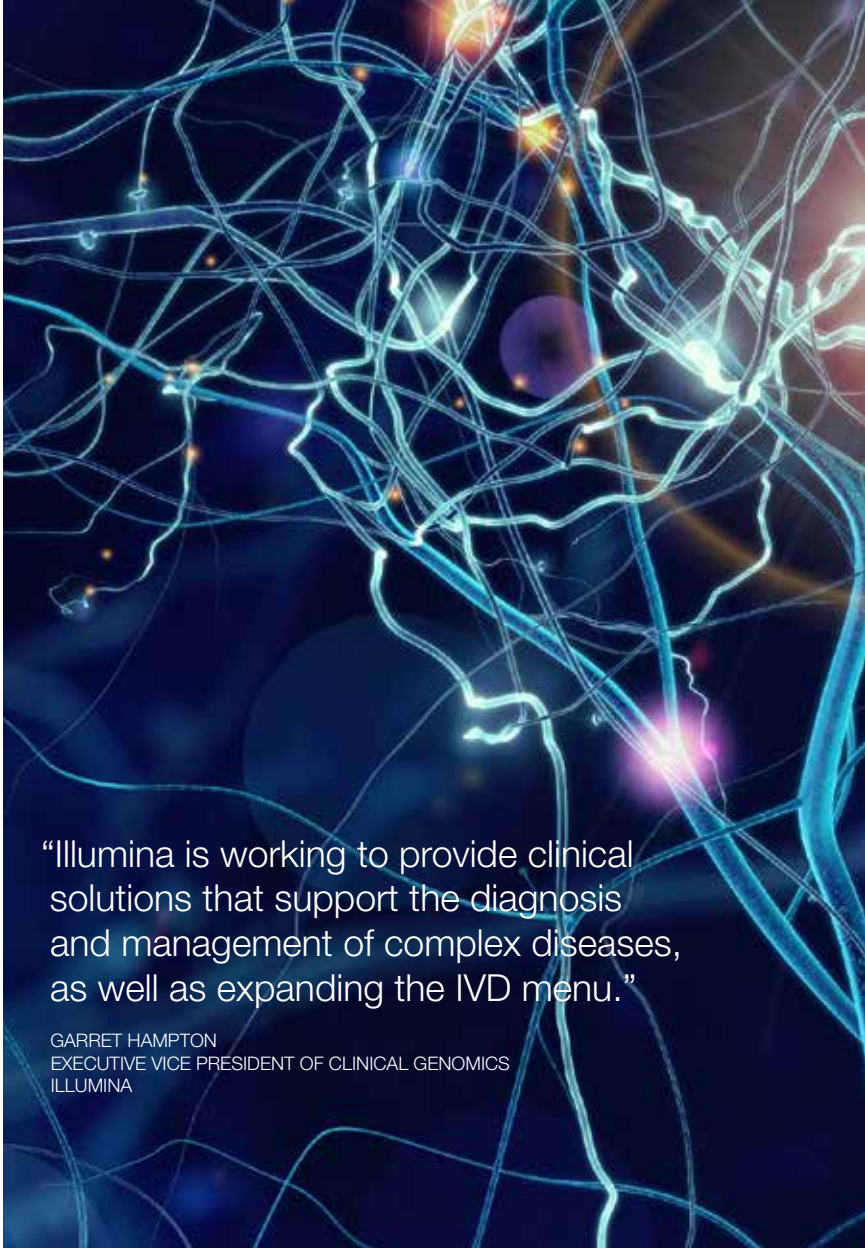
	MiSeq™Dx*,†
Key methods	Targeted DNA sequencing (Dx mode) All associated MiSeq methods (Research mode)
Flow cell	—
Flow cells processed per run	1
Output range	> 5 Gb
Run time	< 28 hours
Clusters passing filter per flow cell§	15 million
Maximum read length	2 x 300 bp

* For In Vitro Diagnostic Use.
† For MiSeqDx Reagent Kit v3 only.

NextSeq™ 550Dx[†,‡]

Targeted DNA sequencing (Dx mode) All associated NextSeq methods (Research mode)
High-output (Dx mode)
1
> 90 Gb
< 35 hours
400 million
2 x 150 bp

‡ The NextSeq 550Dx Platform has similar sequencing specifications to the NextSeq 500 System depending on which kit is being used and includes array scanning functionality for cytogenomic and karyomapping applications in research mode only.



"Illumina is working to provide clinical solutions that support the diagnosis and management of complex diseases, as well as expanding the IVD menu."

GARRET HAMPTON
EXECUTIVE VICE PRESIDENT OF CLINICAL GENOMICS
ILLUMINA

FROM INSTRUMENT TO INSIGHT

Illumina offers bioinformatics and software to translate data generated using our sequencing instruments. Our cloud-based approach to software enables us to deliver high-quality solutions within a secure, scalable, and compliant environment.

Manage, analyze, interpret, and share data. Get up and running with genomics quickly with our simple informatics tools.

RUN MONITORING AND INSTRUMENT PERFORMANCE

Monitor runs on your instrument from anywhere. Maximize sequencer performance and identify potential issues when you send instrument operational data.

PUSH-BUTTON DATA ANALYSIS

Access a variety of NGS data analysis applications from Illumina and our growing ecosystem of providers.

DATA MANAGEMENT AND COLLABORATION

Store and manage data simply and economically with secure, HIPAA- and ISO-compliant cloud-based solutions. Collaborate easily with data transfer and sharing tools.

COMPREHENSIVE INTERPRETATION AND REPORTING

Annotate and filter variants, review supporting evidence, and create reports from germline and somatic cancer data.

A CONTINUUM OF COMPREHENSIVE RESOURCES

From an initial evaluation to product support, Illumina offers streamlined NGS solutions to optimize your process. As the innovators of next-generation sequencing technology, we're here to deliver the experience and expertise to help accelerate your progress and propel your success.

EVALUATING YOUR NEEDS

We help you find the right solution now and into the future. Discuss your needs with a sales representative and determine the right tools for your needs. Get training from our instructors to discover how to fully expand your research.

SETTING UP YOUR WORKFLOW

From library prep to informatics, our solutions help optimize your workflow so you know you're being the most efficient you can be.

MAINTAINING AND SUPPORTING YOUR SYSTEM

Our support doesn't end once you're set up. Whether you need bioinformatics training or sequencing consulting, we have the services you need to keep your lab running smoothly.


>90%
of the world's sequencing data
is generated using Illumina SBS technology[1]

Our trusted solutions, built with the best-in-class sequencing technology[1], allow you to expand your research and achieve the highest yield of error-free reads. They also allow you to obtain the greatest accuracy with the highest percentage of sequenced bases above Q30. And with the fewest false positives, false negatives, and miscalls among leading sequencing platforms—you can improve efficiency like never before.[1,2]

From library prep and sequencing to informatics, Illumina genomic solutions empower researchers across the globe to find the answers they're looking for.

Learn more about the right solution for your lab
www.illumina.com/systems

[1] Data on File. Illumina, Inc. 2017.
[2] Based on a comparison of the 2 industry-leading sequencing platforms.

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