

# Accelerate your drug discovery research at every step

GE Healthcare provides innovative tools and analytics to support therapeutic development from target identification, all the way through bioprocessing. Confidently move through the drug development pipeline while reducing costs and maximizing productivity throughout development and biomanufacturing. Learn more at [gelifsciences.com](http://gelifsciences.com).





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## More data. One reaction.

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**Totally on-target assay design.** The most intelligent targeted sequencing assay design ever. With comprehensive coverage of critical hotspot SNVs, contiguous tiled regions in coding sequences, and intron-exon boundaries in a revolutionary fast, simple, single-tube workflow, characterization and screening of your targets of interest is finally within reach. And on-target.

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**Accel-Amplicon™  
Custom NGS Panels**

**Swift**  
BIOSCIENCES™

[swiftbiosci.com](http://swiftbiosci.com)

ion torrent



## One tube. Many answers.

Ion AmpliSeq technology helps you get the most from your precious samples in a single NGS run

From inherited disease and cancer research to animal health studies, Ion AmpliSeq™ targeted next-generation sequencing (NGS) panels, combined with Ion Torrent™ systems, enable reliable, scalable analysis of many genes and important biomarkers, including SNPs, indels, and fusions—all with one panel, in just one NGS run.



See how Ion AmpliSeq technology can work for you at [thermofisher.com/ampliseq](http://thermofisher.com/ampliseq)

**ThermoFisher**  
SCIENTIFIC

# Agarose for Molecular Biology

## Besta™ LE Agarose, Multi-purpose

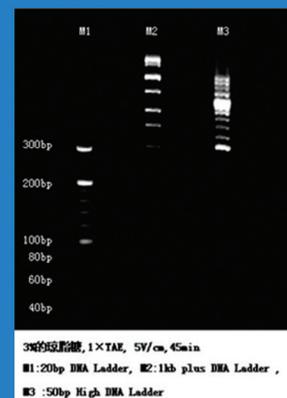
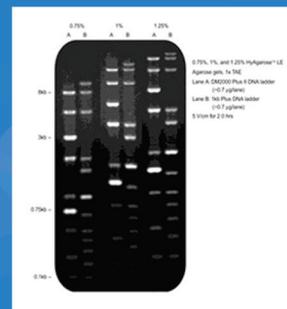
Besta™ LE Agarose is a low EEO, multi-purpose, standard melting point agarose that yields high resolution sharp DNA bands with high clarity and low background. Its optimized gel strength enhances ease of gel processing and handling.

## Besta™ LM Agarose

Besta™ LM Agarose is a Low Melting and gelling point agarose producing gels with great sieving properties and higher clarity when compared with standard agarose. Besta™ LM Agarose is ideal for in-gel manipulations which can be performed without prior extraction of the DNA from the gel slice.

## Besta™ HR Agarose

Besta™ HR Agarose is a PCR grade, intermediate melting point agarose that efficiently separates small DNA fragments between 20 and 800 bp in length and yields ultra-high resolution with high clarity and low background. It is suitable for the analysis of AFLP's (Amplified Fragment Length Polymorphisms), STR's (Short Tandem Repeats) and tetra-nucleotide repeats.



## Celebrating the Arrival of NovaSeq at Novogene's California Lab

# RNA-Seq at \$199/Sample

(library prep and sequencing: 20 million reads, PE 150)

### World's Largest Capacity

25 NovaSeq 6000, 30 HiSeq X, and 10 PacBio Sequel

### High Quality Data & Affordable Prices

Our latest NovaSeq systems enable highly affordable **RNA-Seq** and **exome sequencing** services with fast turnaround

**Substantial discount available for a full NovaSeq flow cell (>1000 GB)**

Also check out our **Whole Genome Sequencing** service on HiSeq X Ten





# Exiqon and QIAGEN have joined forces!

## Anticipate great things

Breakthroughs in science come from pushing boundaries and exploring uncharted waters. Since 1995, we've had the pleasure of supporting research that has revealed the diversity and importance of RNA to the world.

We aim to empower this work. We strive to catalyze new insights. Thus, we've joined forces with QIAGEN to bring you a merged portfolio of products and services that opens new research areas and ties RNA into the diverse landscape of biology and diagnostics.

**These exciting developments will bring about great things. And we want you to be a part of it.**

### Exiqon to QIAGEN – Highlights

- Exiqon joined QIAGEN on 1 October 2017
- Exiqon accounts are becoming QIAGEN accounts
- Exiqon Services have expanded to QIAGEN facilities in Germany and the USA

[www.exiqon.com](http://www.exiqon.com)

**EXIQON**  
Now a QIAGEN company



# YOUR PARTNER FROM CONCEPT TO CLINIC



## Supporting IVD Manufacturers with:

- Broad portfolio of high quality raw materials
- Risk mitigation expertise for your supply chain, quality, and regulatory needs
- Contract manufacturing of intermediates and finished IVDs
- Bulk and custom reagent formulation
- R&D tools and support

**EMD Millipore and Sigma-Aldrich come together to solve the toughest problems in life science.**



[sigmaaldrich.com/diagnostic-solutions](http://sigmaaldrich.com/diagnostic-solutions)

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

# High Efficiency Chemically Modified Synthetic sgRNA for CRISPR

Essential for CRISPR Editing  
in Primary, Stem Cells,  
Therapeutic Applications  
and Challenging Cell Lines.

Echo® Acoustic LIQUID HANDLING  
for GENOMICS



## Reduce Library Prep Costs **100-Fold**

Echo® Liquid Handlers enable library preparation in low microliter volumes for a range of sequencing methods. Dramatically reduce reagent costs, conserve samples, and eliminate steps – all while improving library quality.

### Echo acoustic liquid handling allows...

- ▶ 100-fold reduction of library prep reaction volumes
- ▶ 30-fold reduction of sample pooling turnaround time
- ▶ Increased sample throughput
- ▶ Automation of workflow to easily prepare thousands of samples
- ▶ Improved accuracy of results

### Comparison of Liquid Handling Methods\*

	Manual Pipetting	Echo® Liquid Handler
Amount of DNA	50 ng	0.06 – 2.0 ng
DNA volume (Rxn)	25 µL	200 nL
Library prep volume (Rxn)	25 µL	300 nL
Total volume	50 µL	0.5 µL
Reactions per kit	96	9600
Cost per reaction	\$72.91	<b>\$0.73</b>

For more information, visit [www.labcyte.com/sequencing](http://www.labcyte.com/sequencing).

\* Low-Cost, High-Throughput Sequencing of DNA Assemblies Using a Highly Multiplexed Nextera Process. Shapland et al. ACS Synth. Biol., 2015

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**LABCYTE** ™  
The Future of Science is Sound

 @LabcyteInc

[info-us@labcyte.com](mailto:info-us@labcyte.com)

# Quantify multiple pathogens in water.



RPA has enabled researchers in Germany to develop an automated DNA amplification and chemiluminescence microarray platform that can simultaneously identify and quantify multiple viral and bacterial contaminants in water.

Hear more about this and other amazing innovations:  
[twistdx.co.uk/water](http://twistdx.co.uk/water)

*RPA. It really works.*  
twistdx.co.uk | +44 (0)1223 496700

# AACR

American Association  
for Cancer Research®

# ANNUAL MEETING

2018 ★ CHICAGO



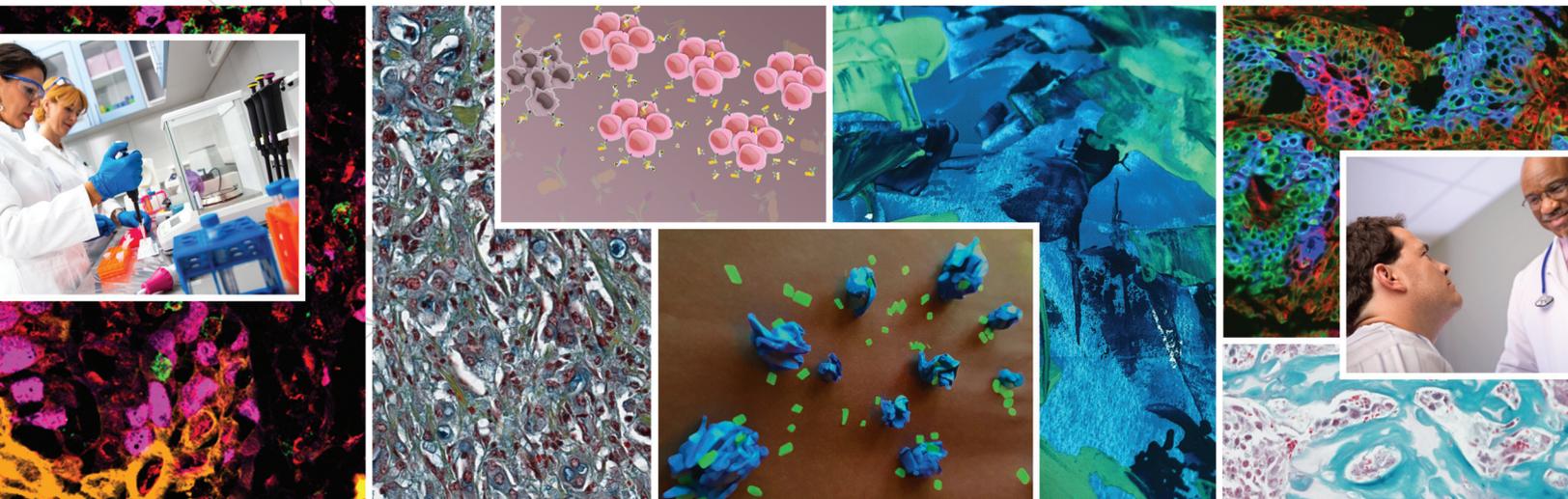
APRIL 14-18, 2018 • MCCORMICK PLACE NORTH/SOUTH • CHICAGO, ILLINOIS • AACR.ORG • #AACR18

## DRIVING INNOVATIVE CANCER SCIENCE TO PATIENT CARE

Join us in Chicago, for the latest innovative and inspiring cancer research from around the world...

### THE AACR ANNUAL MEETING 2018!

The AACR Annual Meeting highlights the work of the best minds in cancer research and medicine from institutions all over the world. This meeting presents the many scientific discoveries across the breadth of cancer research – from population science and prevention, to cancer biology, translational, and clinical studies; to survivorship and advocacy. You will form new collaborations and learn how to apply exciting new concepts, tools, and techniques to your research. This year's program, with the theme of "Driving Innovative Cancer Science to Patient Care," will be a comprehensive, cutting-edge scientific event that you will not want to miss!



**Register and save by February 5, 2018**

**Become a Member! Join the AACR and receive a discount on registration.**

*We look forward to seeing you in Chicago!*

# Science Directed Technology Development



**THE RNA INSTITUTE**  
UNIVERSITY AT ALBANY STATE UNIVERSITY OF NEW YORK

Overcoming obstacles of working with RNA

Enabling insight into RNA Chemistry and structure-function relationships

Analyzing modified RNA, epitranscriptomics

Disseminating tools, technologies, methods and materials for basic and applied research

Developing RNA pharmaceutical analyses

Offering academic and corporate visitors lab space for collaborative research and training

**Save the days: March 14 – 16, 2018**

**5th Annual Symposium on RNA Science and its Applications**

[www.rna.ualbany.edu](http://www.rna.ualbany.edu)

[rna@albany.edu](mailto:rna@albany.edu)

# Long story short: Bionano reveals more.

Long- and short-read NGS data identifies smaller DNA mutations, but lacks critical information around genome structure.

Bionano genome mapping fills in what's missing from sequencing-based data providing unmatched structural variation discovery and analysis for structural variations ranging from 1,000 bp to megabase pairs in length.

**99%** sensitivity for large homozygous insertions and deletions\*

**87%** sensitivity for large heterozygous insertions and deletions\*

**98%** sensitivity for translocations\*

**98%** sensitivity for inversions\*\*



**bionano**<sup>®</sup>  
GENOMICS

Put the power of Bionano data to work in your research.

Learn more at [bionanogenomics.com](http://bionanogenomics.com)

\*Bionano Genomics. (2016). Bionano Genomics' Next-Generation Mapping Identifies Large Structural Variants in Cancer and Genetic Disorders [White paper]. [http://bionanogenomics.com/wp-content/uploads/2017/02/Bionano\\_Human-Structural-Variations-White-Paper.pdf](http://bionanogenomics.com/wp-content/uploads/2017/02/Bionano_Human-Structural-Variations-White-Paper.pdf)

\*\*Bionano Genomics. (2017). Bionano Genomics Announces Inversion Detection Algorithms With Unmatched Sensitivity [Press release]. <https://bionanogenomics.com/wp-content/uploads/2017/09/Press-Release-Bionano-Genomics-Announces-Inversion-Detection-Algorithms-With-Unmatched-Sensitivity.pdf>

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# Struggling with Low Titer / Poor Purity?

## DOWNLOAD FREE VIRAL VECTOR GUIDE

Discover the advantage of Vigene's viral-tools and technologies to help meet your basic, preclinical studies, and/or clinical application needs. Explore your possibilities with Vigene today.

Download your free viral vector guide today: [vigenebio.com/viral-guide](http://vigenebio.com/viral-guide)



**AAV**



**LENTIVIRUS**



**ADENOVIRUS**