



10 YEARS OF NEBNEXT®

# It's time to celebrate!

For 10 years, NEB® has helped advance next generation sequencing (NGS) by streamlining sample prep workflows, minimizing inputs, and improving library yield and quality.

As sequencing technologies improve and applications expand, the need for compatibility with ever-decreasing input amounts and sub-optimal sample quality grows. Scientists must balance reliability and performance with faster turnaround, higher throughput and automation compatibility. Our NEBNext portfolio addresses these challenges and includes solutions for DNA and RNA sample prep from a wide range of sample types.

Reaching far beyond standard library prep, NEBNext reagents continue to innovate with:

- a novel enzymatic alternative to bisulfite sequencing
- solutions for FFPE DNA and enzymatic DNA fragmentation
- customized target enrichment with fast turnaround

## New to NEBNext?

Get started with a **free sample** at [NEBNext.com](https://www.neb.com).

NEBNext products continue to set the bar for quality and flexibility. All reagents are extensively QC'd at the individual component and kit levels, while product formats are designed for workflow customization. From individual kits to bulk and custom configurations, we've got you covered.

If you still aren't convinced, why not see for yourself? NEBNext reagents have been cited in over 5,000 peer-reviewed publications to date.

**As we celebrate 10 years of NEBNext, we would like to thank you for making NEBNext part of your workflows, and we are excited to continue to exceed your expectations for NGS sample prep innovation.**



### Fluid Collection Vent

Porvair Sciences has developed a high-performance fluid collection vent for a surgical suction canister using their proprietary Vyon porous plastic. A large fraction of the waste produced during surgery is in the form of liquids, such as blood and bodily fluids that have been diverted during the operation.

One key component of suction canister design is the valve found embedded in the lid, which functions to maintain system integrity and prevent overspilling. This ensures the safety of both the vacuum system lines and the users by sealing off the canister. Porvair leveraged the unique liquid-swelling properties of Vyon to create a composite-based filter that could act as a vent, providing optimal air flow and an effective seal for fluids contained within the suction canister. When collected surgical fluids reach critical levels and come into contact with the Vyon, the filter's inherent shutoff capabilities prevent unwanted fluid transmission. The new Vyon fluid collection vents, used as a recyclable single-use product, offer an easily installed, safer, sturdier, and cost-effective alternative to traditional mechanical valves.

#### Porvair Sciences

For info: +44-(0)-1978-661144  
www.porvair-sciences.com

### Minicircle DNA Service

When you want sustained transgene expression without the risks of introducing exogenous DNA—such as for developing animal models or pioneering new gene-therapy approaches—minicircle technology is a great option. But many labs have neither the time to spend constructing and producing minicircles nor the in-house expertise—which is why System Biosciences offers Custom Minicircle Services. Delivered by our experienced scientific team, our Minicircle Services are highly flexible and can include a complete end-to-end experience—we clone your complementary DNA, microRNA, or short hairpin RNA into one of our highly regarded minicircle parental vectors and produce large quantities of minicircles—or only parts of the cloning and production process. We can even customize the parental vector for you. Whether you need 250 µg or 10 mg of minicircles, we can deliver, with a typical end-to-end project taking as little as four weeks.

#### System Biosciences

For info: 888-266-5066  
www.systembio.com

### Biotin Interference Solutions

Veravas' portfolio of biotin interference solutions allows lab professionals to rule in or rule out biotin interference, determine clinically significant levels, and reduce interfering biotin in patient samples. VeraTest Biotin can identify unwanted free biotin in patient samples at levels greater than 15 ng/mL. When it is determined that biotin levels may interfere with results, VeraPrep Biotin can be used for the capture and removal of biotin from samples prior to running a diagnostic assay. Also included in this portfolio is a product to support diagnostic manufacturers in re-developing lab assays to be biotin-interference free. VeraBind Biotin is a proprietary monoclonal antibody that performs similarly to streptavidin

but has a much lower affinity for free biotin. These products are research use only.

#### Veravas

For info: 888-466-4166  
www.veravas.com/products

### Host Cell Protein Impurity Characterization

Cygnus Technologies now offers services to identify and quantify host cell protein (HCP) impurities in biopharmaceuticals and vaccines, which can impact the efficacy and stability of these therapeutics. Regulatory groups are increasingly asking biopharmaceutical companies to use advanced methods that are orthogonal to the standard ELISA, to quantify and characterize HCPs that might be present in the biologic under development. Mass spectrometry, with its high sensitivity, combined with Cygnus' proprietary antibody affinity extraction (AAE) sample preparation method, is an ideal tool for this next stage of analysis. AAE enriches HCPs as much as 240-fold, making it possible to detect low-abundance, problematic HCPs with mass spectrometry.

#### Cygnus Technologies

For info: 910-454-9442  
www.cygnustechnologies.com

### SNP Genotyping Assays

PACE (PCR Allele Competitive Extension) SNP genotyping assays are well-suited for projects that require a reliable, cost-effective approach for single-nucleotide polymorphism (SNP) and indel detection. PACE is especially suitable for high-volume screening projects, such as plant breeding research. Integrated DNA Technologies and 3CR Bioscience (United Kingdom) have partnered to offer optimally designed genotyping assays with a high-performance master mix, all provided in a short delivery time and at the lowest overall cost in the industry. We can help you screen larger sample libraries affordably, get cleaner data from an improved reduction in nonspecific amplification, and change reaction volumes without losing performance or having to order a different master mix. Contact our experts to discuss whether this technology is right for your genotyping project.

#### Integrated DNA Technologies

For info: 800-328-2661  
www.idtdna.com

### Tissue Clearing Kit

Tissue Clearing Kit ab243298 enables the easy setup of rapid tissue clearing for 3D tissue imaging using simple protocols and standard laboratory equipment. The protocols can be applied with immunostaining, fluorescent proteins, and chemical dyes. Clearing is reversible so that you can treat your sample for conventional H&E (hematoxylin and eosin) or immunohistochemical staining after 3D imaging. To help you get started with tissue clearing, we have tissue clearing-validated antibodies. Validated antibodies are for key markers, such as NeuN, GFAP, Iba1, etc., and are tested for tissue clearing with 1-mm mouse brain sections, and also for 3D cell culture clearing with neuronal spheroids and hepatic spheroids (depending on the marker). If you want to set up tissue clearing on a sample type that we haven't tested or use your own antibodies, please consult the protocol book for this kit. Tissue clearing reagents and companion products are also available as individual products.

#### Abcam

For info: 888-772-2226  
www.abcam.com

Electronically submit your new product description or product literature information! Go to [www.sciencemag.org/about/new-products-section](http://www.sciencemag.org/about/new-products-section) for more information.

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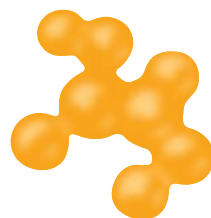
A microscopic view of several cells, likely fibroblasts, with prominent nuclei and cytoplasm, set against a warm, orange-toned background. The cells are interconnected, with one large cell in the foreground and others in the background.

# Exceptional scientists wanted

Present your work to the world.

Are you a representative of the upcoming generation of thought leaders in your field? Together we look forward to your application for the new Sartorius & *Science* Prize for Regenerative Medicine & Cell Therapy.

Apply now!



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Prize for Regenerative  
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[www.sartorius.com/sartorius-and-science-prize](http://www.sartorius.com/sartorius-and-science-prize)

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