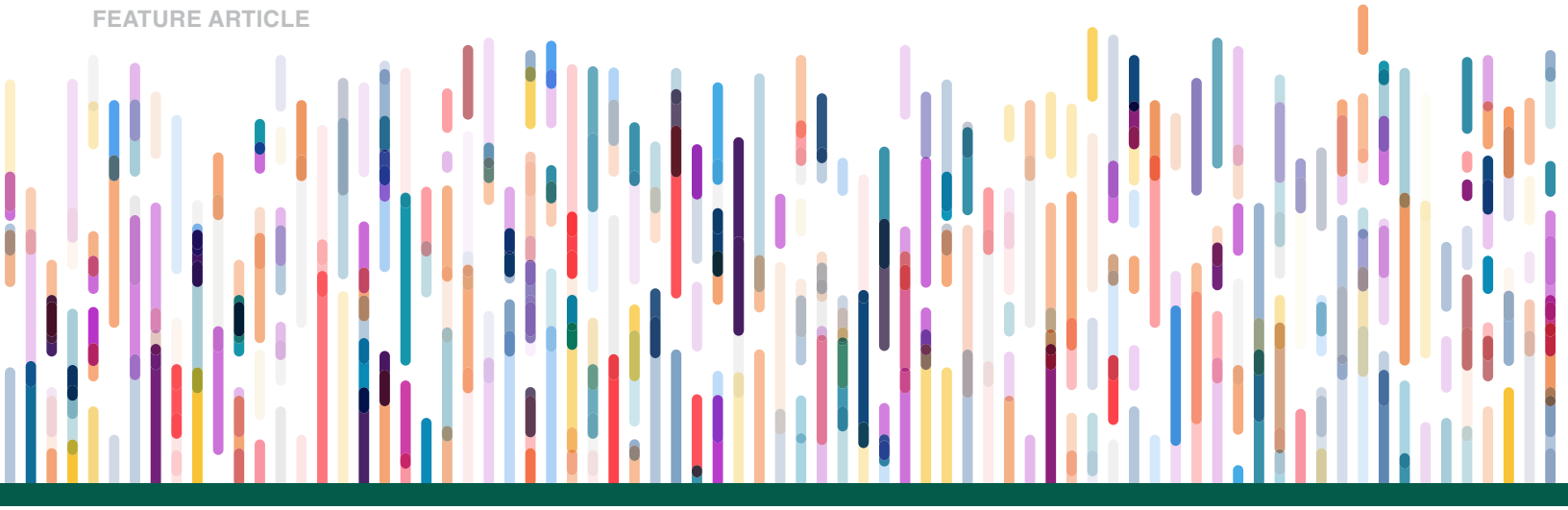
NEW ENGLAND Biolabs®

EXPRESSIONS

A SCIENTIFIC UPDATE

Issue I | 2026

IN THIS ISSUE



BCR-ABL: A Case Study in Precision Medicine

By Andrew J. Barry, MS, New England Biolabs

Scientific discovery is driven by passionate scientists who push the limits of available tools to make observations and formulate and test hypotheses. These discoveries often provide a foundation for accelerating our understanding of biology in unexpected ways. In parallel, advances in technology improve the tools needed to understand biology, providing greater insight into molecular interactions, catalyzing discovery in profound ways.

In 1959, Peter Nowell and David Hungerford, cytogeneticists at the Fox Chase Cancer Center in Philadelphia, using a confocal microscope, observed that the blood cells of patients with Chronic Myeloid Leukemia (CML) carried an abnormally small chromosome 22. They named this chromosome after the city where it was discovered, and their findings were published in 1960 (1), linking the "Philadelphia Chromosome" to CML and providing the first evidence of a direct genetic link to cancer.

It wasn't until 12 years later that Dr. Janet Rowley, a physician and human geneticist at the University of Chicago, identified the specific genetic rearrangement involved in CML by pioneering a novel cytogenetics technique. She described the first ever chromosomal translocation, in which a segment of chromosome 9 had broken off and reattached to chromosome 22 (2).

Further studies of this translocation provided insight into the mechanism behind its association with CML, showing that the translocation results in a fusion transcript, BCR-ABL, which is then translated into Bcr-Abl tyrosine kinase. It was further proven that this tyrosine kinase disrupts red blood cell function and results in the overproduction of white blood cells. These discoveries provided a target for potential therapeutic intervention and spurred efforts to discover molecules that inhibit this faulty pathway.

In the 1990s, a collaboration between oncologist Brian Druker from Oregon Health and Sciences University and Nicolas Lydon from Novartis led to the design of a small molecule, originally named STI-571, that specifically inhibited Bcr-Abl tyrosine kinase in the affected cancer cells without harming normal cells (3). 1998 marked the start of the first clinical trial of the drug, now named imatinib. The therapeutic benefit and lack of side effects were overwhelmingly positive.

In 2001, the US Food and Drug Administration (FDA) approved imatinib, marketed under the brand name Gleevec, providing a targeted therapy for patients with CML, revolutionizing the standard of care.

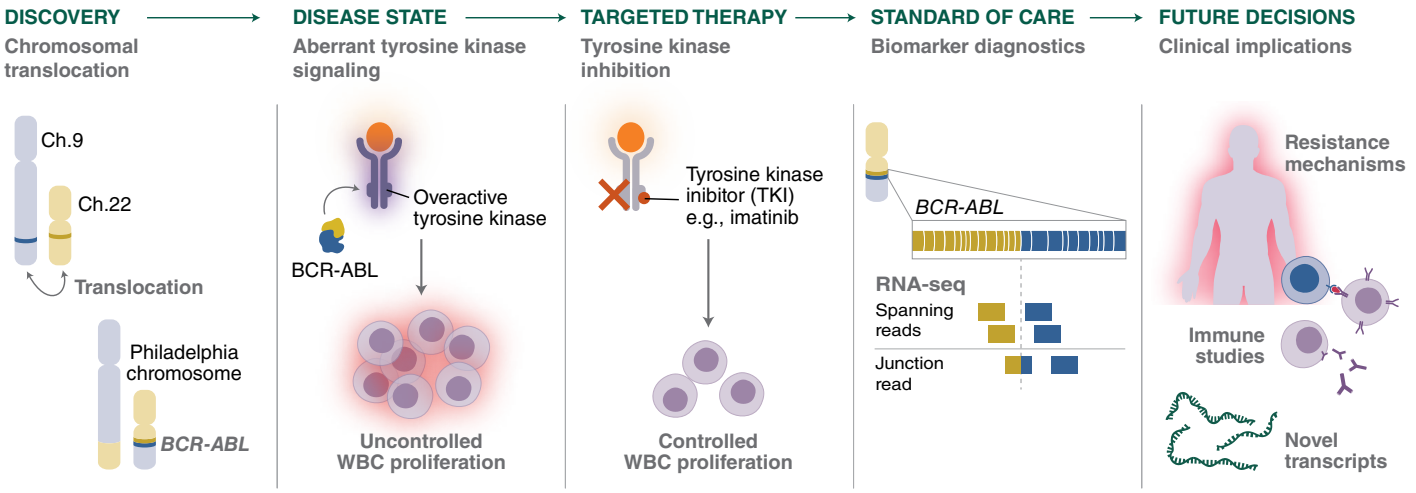
While the standard diagnostic tests for CML still rely on cytogenetics, FISH and RT-qPCR, more recent work comprehensively characterizes BCR-ABL using targeted RNA sequencing. RNA-seq can detect rare or atypical fusion variants and analyze transcriptome-wide resistance mechanisms. As such, RNA-seq has become a valuable companion diagnostic.

Future work includes characterizing host immune responses triggered by the therapeutic intervention, which can lead to mechanisms of resistance, and therapeutic strategies to overcome resistance.

This vignette provides a valuable, if unintended, framework for precision medicine: it traces a path from scientific observation and hypothesis testing, to elucidation of disease pathways and rational drug design aimed at restoring cellular function. The pace of therapeutic development has accelerated with technological advancements, both in the ability to observe cellular dynamics, as well as in the expanding range of therapeutic intervention approaches, including RNA silencing, genome editing, and RNA as a direct therapeutic agent.

Just as Nowell, Hungerford and Rowley used the tools of their time to study red blood cells in CML patients, RNA sequencing is a technology being applied within this framework today, enabling the ability to extract molecular information with unprecedented speed and breadth, accelerating the drug discovery process.

Bulk RNA sequencing is performed to discover transcript anomalies associated with disease, both in the discovery of novel transcripts as well as expression profiling to understand temporal changes across the roughly 20,000 genes comprising the human transcriptome.



Supporting NEBNext® technologies

DISCOVERY	DISEASE STATE	TARGETED THERAPY	STANDARD OF CARE	FUTURE DECISIONS
• NEBNext UltraExpress® RNA • NEBNext® rRNA depletion (human/mouse/rat)	• NEBNext UltraExpress DNA • NEBNext FFPE DNA library prep • NEBNext EM-seq™, E5hmC-seq™	• NEBNext UltraExpress RNA • NEBNext rRNA depletion (human/mouse/rat)	• NEBNext UltraExpress RNA • NEBNext FFPE DNA library prep	• NEBNext UltraExpress RNA • NEBNext Immune sequencing

Advances in single-cell RNA sequencing offer additional precision at the cellular level, enhancing scientists' ability to understand disease-causing pathways and inform therapeutic strategies. Detection of disease-causing transcripts can be performed rapidly and easily using either targeted gene sequencing or quantitative PCR, and the immune response can be monitored to understand resistance mechanisms.

To support these RNA-based approaches, researchers rely on robust workflows for RNA purification, library preparation and immune sequencing. As developers of research tools, NEB offers a wide range of products to support RNA-based precision medicine workflows, starting with Monarch® RNA extraction kits that enable high-quality RNA purification for downstream analysis and NEBNext NGS sample preparation kits for RNA sequencing workflows. Efforts have been focused on producing streamlined faster, higher accuracy workflows to provide researchers with cutting-edge tools offering broad insight into the underpinnings of disease and hope for future therapies.

The NEBNext UltraExpress RNA Library Prep Kit allows for the production of sequence-ready libraries in a single day. The NEBNext Single Cell/Low Input RNA Library Prep Kit is incorporated into single-cell workflows, using a template switching mechanism to generate libraries from as little as 2 picograms of RNA input. Immune profiling is made simple through the NEBNext Immune Sequencing Kit, providing targeted sequencing of the full immune repertoire, with available primer sets for both mouse and human in both B- and T-Cells. Most recently, the NEBNext Low-bias Small RNA Library Prep Kit was developed to provide unfettered insight into this emerging class of biomarkers, offering a 3.5-hour workflow while maintaining accurate representation of the cellular material across the range of small RNAs classes.

References:

1. Nowell, P.C. and Hungerford, D.A. (1960). "A minute chromosome in human chronic granulocytic leukemia". Journal of the National Cancer Institute.
2. ROWLEY, J. A New Consistent Chromosomal Abnormality in Chronic Myelogenous Leukaemia identified by Quinacrine Fluorescence and Giemsa Staining. Nature 243, 290–293 (1973). https://doi.org/10.1038/243290a0
3. Druker, BJ, Tamura, S, Buchdunger, E, et al. Effects of a selective inhibitor of the Abl tyrosine kinase on growth of Bcr-Abl positive cells. Nat Med 1996;2:561-566

To learn more about **the products mentioned in this article**, continue to page 4.

Key features of the NEB products mentioned in this article:

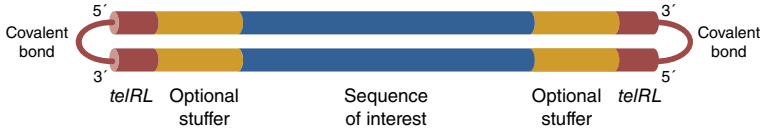
Product Name	NEB #	Features
Monarch® Spin RNA Isolation Kit (Mini)	T2110	• Isolates up to 100 µg of high-quality total RNA • Handles diverse samples (cells, fibrous/lipid-rich tissues, bacteria, yeast, plants, insects) • Removes genomic DNA contamination • Retains small RNAs (<200 nt) in the total RNA pool
NEBNext UltraExpress® RNA Library Prep Kit	E3330	• Generates directional RNA-seq libraries in ~3 hours • Reduces steps and cleanups (streamlined workflow) • Uses one protocol across input amounts • Supports 25–250 ng total RNA and automation
NEBNext rRNA Depletion Kit v2 (Human/Mouse/Rat)	E7400	• Cleaner RNA-seq data with efficient removal of cytoplasmic and mitochondrial rRNA • Flexible and robust performance across inputs (10 ng–1 µg) and RNA quality • Fast, low-touch workflow completed in ~2 hours
NEBNext UltraExpress DNA Library Prep Kit	E3325	• Faster library prep with a streamlined <2-hour workflow and fewer steps • Consistent, high-quality libraries from 10–200 ng pre-sheared DNA using a single protocol • Automation-ready and efficient with fewer cleanups and consumables
NEBNext FFPE DNA Library Prep Kit	E6650	• High-quality data from FFPE DNA with repair reagents and optimized library prep • Increased library yields and sensitivity with improved sequencing metrics and somatic variant calling • Automation-friendly workflow across a 5–250 ng input range
NEBNext Enzymatic Methyl-seq v2 Kit	E8015	• Superior sensitivity of 5mC and 5hmC detection with even GC coverage • Detects more CpGs with fewer sequencing reads using high-performance library preparation • Flexible 0.1–200 ng input range with larger insert sizes and separate index primers
NEBNext Enzymatic 5hmC-seq Kit	E3350	• High-sensitivity detection of 5hmC with even GC coverage • High-efficiency library preparation across a 0.1–200 ng input range • Compatible EM-seq and E5hmC-seq data for combined analysis
NEBNext® Single Cell/Low Input RNA Library Prep Kit for Illumina®	E6420	• Delivers high-yield, high-quality libraries from single cells or 2 pg–200 ng RNA • Improves detection of low-abundance transcripts • Provides uniform transcript coverage across inputs and sample types • Minimizes handling steps and hands-on time
NEBNext® Immune Sequencing Kit	E6320 (Human) E6330 (Mouse)	• Enrich for and sequence both B & T cell receptors • Enables deeper receptor repertoire analysis • Uses UMIs for accurate transcript quantification
NEBNext® Low-bias Small RNA Library Prep Kit	E3420	• Minimizes bias (low-bias performance) • Supports broad, biologically relevant inputs (0.5–1,000 ng total RNA; 0.05–5 ng enriched small RNA) • Completes in a single-day workflow • Multiplexes up to 480 LV Unique Dual Index primer pairs (available separately) • Offers an 18-month shelf life

EnClose™ Cell-free dbDNA™ Synthesis Kit

dbDNA: the superior choice for RNA therapeutics, AAV payload construction, gene editing donor design, transient transfection and DNA synthesis applications.

The EnClose Cell-free dbDNA Synthesis Kit (NEB #E9301) includes everything needed to enzymatically generate closed-ended linear dsDNA containing a sequence of interest (SOI). The robust combination of phi29-XT DNA Polymerase for high-yield rolling circle amplification (RCA) and TelN Protelomerase for deconcatenation and covalent closure of linear dsDNA ends enables a streamlined one-day workflow that produces cell-free dbDNA for downstream applications such as *in vitro* transcription (IVT), lentiviral (LV) payload, adeno-associated virus (AAV) payload and more.

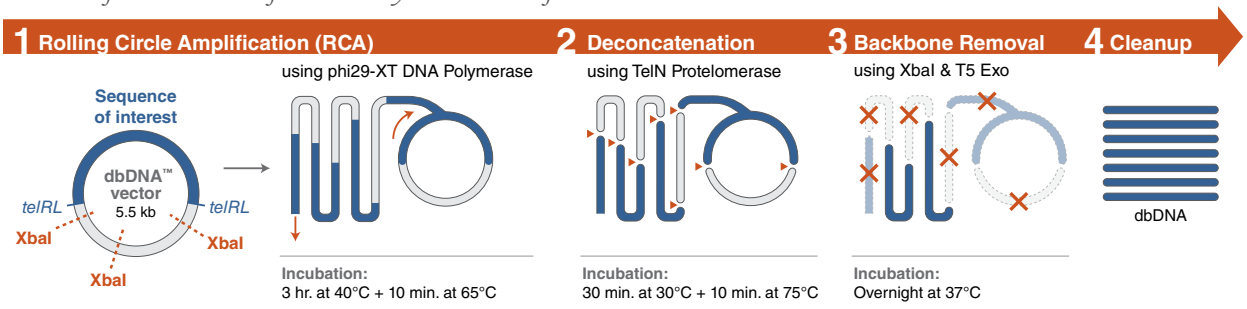
dbDNA is a linear, double-stranded DNA with covalently-closed ends



BENEFITS

- **Streamline manufacturing** with fast, clean, and fermentation-free DNA production.
- **Simplify safety and regulation requirements** by avoiding bacterial sequences and antibiotic markers.
- **Use directly in sensitive downstream applications,** including mRNA therapeutics workflows.
- **Experience enhanced stability and reduced NHEJ** due to closed-ended structure.
- **Easily move to commercial scale production** with scalable workflows from R&D to GMP.
- **Reduce material costs** with lower DNA inputs and higher yields.

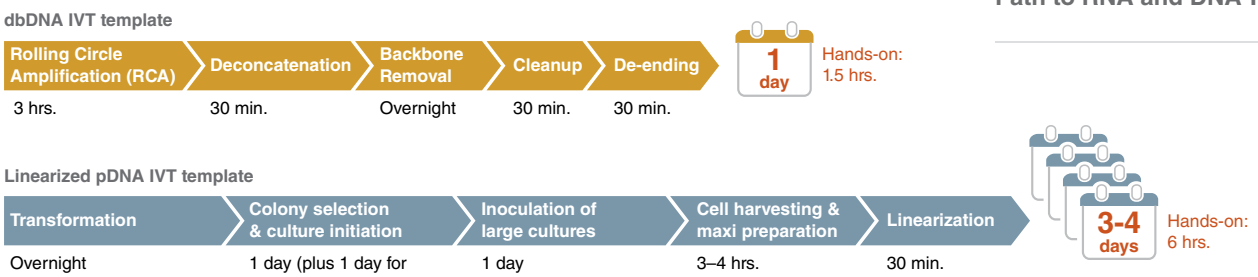
Overview of the EnClose Cell-free dbDNA Synthesis Kit workflow



dbDNA: A Faster, Cleaner, More Scalable Alternative to Plasmids

With its streamlined one day synthesis workflow and additional advantages, including scalability, the dbDNA Kit is the superior choice for generating templates for IVT therapeutics.

Generate IVT templates in <24 hours with dbDNA



NEBinspired

Read our most recent blog

Cell-free DNA Synthesis for a Faster Path to RNA and DNA Therapeutics

Listen up! The message is spreading.

The versatility of RNA makes it a powerful tool in transforming how we understand, diagnose and treat disease. Over the past several years, advances in RNA research have catalyzed breakthroughs in therapeutics, personalized medicine, molecular diagnostics, infectious disease research and agricultural biology. Therefore, advanced tools for manipulation and analysis of mRNA are more important than ever. For many years, NEB has invested in the development of products to support RNA research, all of which are vetted by our own scientists in their work. Whether you are in an academic or industrial setting, we have the products, tools, services and support that will help drive your research forward.

mRNA Therapeutics and Personalized Medicine – mRNA therapeutics have emerged as a versatile platform, enabling vaccine development, protein replacement therapies and immunotherapies. NEB offers products for the full mRNA synthesis workflow, which are also available GMP-grade*.

RNA in Agricultural Biology – RNA is emerging as a transformative technology for agricultural applications, including crop protection and precision breeding. NEB's solutions for AgBio researchers include reagents for RT-qPCR, NGS library prep, and nucleic acid purification.

RNA-based Diagnostics and Surveillance – RNA-based diagnostics enable rapid, sensitive and specific detection of pathogens and biomarkers. NEB products for RT-qPCR, RNA-seq, and isothermal amplification deliver sensitive detection and streamlined workflows.

RNA in Basic Research – RNA research in academia focuses on understanding the role of RNA in diverse biological processes, and can be foundational for translational applications. NEB's basic research program focused on RNA biology utilizes many of our reagents and has contributed to advances in this area.

Find more details on products available, request samples, and access helpful RNA-related resources at **NEBrna.com**

** "GMP-grade" is a branding term NEB uses to describe products manufactured or finished at NEB's Rowley facility. The Rowley facility was designed to manufacture products under more rigorous infrastructure and process controls to achieve more stringent product specifications and customer requirements. Products manufactured at NEB's Rowley facility are manufactured in compliance with ISO 9001 and ISO 13485 quality management system standards. However, at this time, NEB does not manufacture or sell products known as Active Pharmaceutical Ingredients (APIs), nor does NEB manufacture its products in compliance with all of the Current Good Manufacturing Practice regulations.*

NEB products supporting RNA-related workflows

NEB offers a wide selection of reagents for purification, quantitation, detection, synthesis and manipulation of RNA. We can support all of your RNA-related workflows, from start to finish. We also offer samples for many of these reagents so that you can test directly in your workflow and see how they perform for you. View the table of products below, which also indicates whether samples are available, and access the sample request form at **www.neb.com/products-for-rna-workflows** to get started.

RNA Isolation and Detection

RNA analysis often begins with high-quality RNA isolation, ensuring that downstream assays are both reliable and reproducible. Once purified, RNA can be detected and quantified using nucleic-acid–based methods that enable researchers to study gene expression, monitor pathogens, and support diagnostic workflows. Two commonly used approaches are RT-qPCR and RT-LAMP. RT-qPCR combines reverse transcription with real-time PCR amplification to deliver sensitive, quantitative measurement of RNA targets. RT-LAMP amplifies RNA targets at a constant temperature without the need for thermocycling. This enables rapid detection, minimal equipment requirements, and visual or real-time readouts, making RT-LAMP well-suited for point-of-need testing and high-throughput screening.

RNA Isolation	One-Step RT-qPCR
Monarch® Spin RNA Isolation Kit (Mini)*	Luna® Universal One-Step RT-qPCR Kit*
	Luna Universal Probe One-Step RT-qPCR Kit*
	Luna Probe One-Step RT-qPCR Kit (No ROX)*
	Luna Probe One-Step RT-qPCR Mix with UDG*
	Luna Probe One-Step RT-qPCR 4X Mix with UDG (No ROX)
	LyoPrime Luna® Probe One-Step RT-qPCR Mix with UDG

RNA Isolation	RT	Two-Step RT-qPCR
Monarch Spin RNA Isolation Kit (Mini)*	LunaScript® RT SuperMix Kit*	Luna Universal qPCR Master Mix*
	LunaScript RT SuperMix*	Luna Universal Probe qPCR Master Mix*

RNA Isolation	RT-LAMP
Monarch Spin RNA Isolation Kit (Mini)*	*Bst*-XT WarmStart™ Multi-Purpose LAMP/RT-LAMP 2X Master Mix
	WarmStart® Fluorescent LAMP/RT-LAMP Kit (with UDG)
	WarmStart LAMP Kit (DNA & RNA)
	WarmStart Colorimetric LAMP 2X Master Mix with UDG
	WarmStart Colorimetric LAMP 2X Master Mix (DNA & RNA)
	LyoPrime WarmStart® Fluorescent LAMP/RT-LAMP Mix (with UDG)

**Samples available*

Additional NEB products supporting RNA-related workflows (cont.)

RNA-seq

RNA sequencing workflows require high-quality inputs for optimal readouts. Monarch and NEBNext reagents together enable smarter, more-streamlined library preparation for RNA-seq. If saving time and sequencing budget matters to you, consider NEB's RNA-seq solutions.

RNA Isolation	RNA Enrichment/ Depletion	RNA Library Preparation	Library Quantitation
Monarch Spin RNA Isolation Kit (mini)*	NEBNext Poly(A) mRNA Magnetic Isolation Module*	NEBNext Ultra™ II Directional RNA Library Prep Kit for Illumina*	NEBNext Library Quant Kit for Illumina*
	NEBNext rRNA Depletion Kit v2 (Human/Mouse/Rat)*	NEBNext UltraExpress® RNA Library Prep Kit*	
		NEBNext Low-bias Small RNA Library Prep Kit*,**	

**Samples available*
***Not compatible with upstream enrichment/depletion*

Announcing the

2026 Passion in Science Awards®

At New England Biolabs, we believe science has the power to build a greener, more compassionate world. The Passion in Science Awards recognize members of the scientific community whose work extends beyond the laboratory — advancing discovery while positively impacting society, education, sustainability and creativity.

The Passion in Science Awards celebrate achievements across the following four core areas that are aligned with NEB's values:

Arts & Creativity
Highlighting innovative intersections between science, art and creative expression.

Humanitarian Duty
Celebrating scientists applying science to improve human health and well-being worldwide.

Scientific Mentorship & Advocacy
Recognizing scientists who educate, mentor and promote engagement within the scientific community.

Environmental Stewardship
Honoring efforts to protect natural resources and promote sustainability in or beyond the lab.

Award recipients will be invited to a special celebration with the NEB community and will receive either a $1,000 travel grant or a charitable donation made in their honor.

Whether mentoring future scientists, advancing sustainability, supporting communities, or expressing science

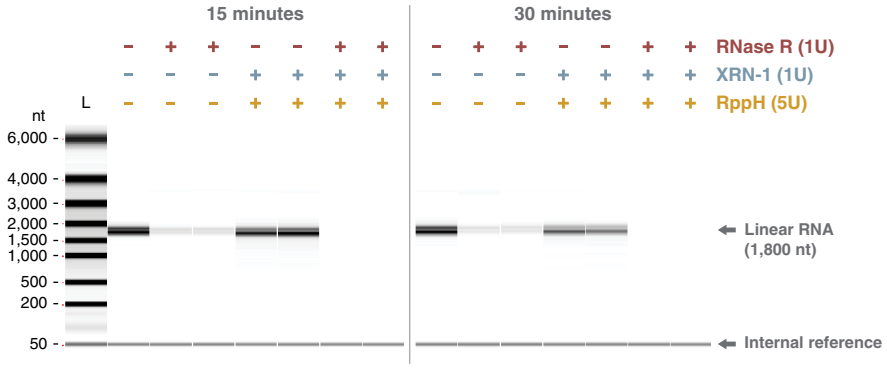
Applications for the Passion in Science Awards will be accepted **April** through the end of **May, 2026**.
Be sure to apply today!

www.neb.com/ PassionInScience

Go Full Circle: Enzymatic Solutions for Circular RNA Enrichment

Circular RNA has emerged as a promising modality for RNA therapeutics with substantially enhanced durability relative to linear mRNA. Circular RNA research and therapeutic development demand robust, selective tools for linear RNA removal and circular RNA enrichment. This overview highlights three complementary enzymes (RNase R, XRN-1 and RppH) that support workflows from enrichment through more complete linear RNA depletion, including stubborn RNase-R-resistant linear RNAs.

One-pot solution for RNase R-resistant linear RNA removal



Digesting linear RNAs from both the 5´ and 3´ends with XRN-1 and RNase R, respectively, is an effective method for depletion of linear RNA transcripts. 1 unit RNase R, 1 unit XRN-1, and 5 units RppH were added to 1 µg of an RNA sample containing RNase R-resistant linear RNA. This reaction ran for 15 or 30 minutes at 37°C in 1X RNase R Reaction Buffer.

RNase R (NEB #M0100)
Core enzyme for circular RNA enrichment

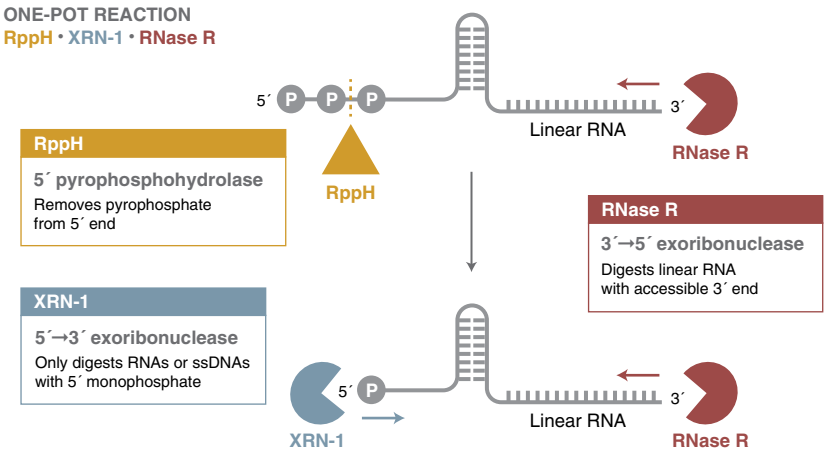
RNase R is a highly processive 3´ → 5´ exoribonuclease that digests linear RNA with an accessible 3´ end while leaving circular (and lariat) RNA intact.

Important note on enzyme:RNA ratio
Maintaining a 1:1 ratio (µg RNA : units RNase R) helps minimize star activity and unintended digestion; excessive RNase R can lead to loss of both linear and circular RNA.

XRN-1 (NEB #M0338)
Digests linear RNA from the opposite end

XRN-1 is a 5´ → 3´ exoribonuclease. In workflows where some linear RNAs resist RNase R (due to structure or inaccessible ends), XRN-1 adds complementary digestion from the 5´ end.

Key requirement: XRN-1 digests RNAs (or ssDNA) with a 5´ monophosphate.



RppH (NEB #M0356)
Unlocks XRN-1 digestion by converting 5´ ends

RppH is an RNA 5´ pyrophosphohydrolase. It removes pyrophosphate from the 5´ end of triphosphorylated RNA, converting it to monophosphorylated RNA - the preferred substrate for XRN-1.

Scan the QR code to review **two methods to digest RNase R-resistant linear RNAs**

Opening the lab doors and strengthening science communication

For over 30 years, New England Biolabs (now in collaboration with Quinnipac University) has offered a two-week, immersive, hands-on Molecular Biology Workshop for curious professionals from all backgrounds. From medicine and engineering to law, education, and communications, the workshop participants come together with a shared goal: understanding the science that shapes our world.

Quinnipiac UNIVERSITY

At NEB, we are proud to be "by scientists, for scientists" – founded, built and run by researchers whose focus is to design high-quality research tools to serve the life science community. We also have a strong commitment to supporting science education and effective science communication. Biology influences everything from healthcare decisions to public policy, and broader access to scientific knowledge helps strengthen those conversations.

Our annual summer workshop does not require prior molecular biology experience. It is an opportunity for non-scientists to step into a lab and experience the tools and techniques that drive today's biological discoveries. The participants wear lab coats, handle real samples, and learn by doing, helping them transform complex concepts into tangible skills.

Learning by Doing

Over two weeks, participants gain hands-on experience with a wide range of foundational and advanced molecular biology methods. These include molecular cloning, DNA and RNA isolation, PCR and gel electrophoresis, real-time PCR, Sanger sequencing, next-generation sequencing (NGS) library preparation, and a coding-free introduction to NGS analysis. The workshop also explores cutting-edge applications, such as CRISPR-Cas9 genome editing. There are essential protein techniques, including basic chromatography and western blotting. To round out the experience, learners complete a DNA fingerprinting module, connecting laboratory methods to real-world applications.

In addition to developing hands-on technical skills, each lab session is paired with clear explanations of the underlying theory, giving participants an understanding of why each experiment matters. This integrated approach builds confidence and equips learners to engage thoughtfully with scientific topics.

A Diverse Learning Community

A defining feature of the workshop is the interdisciplinary cohort. Participants are intentionally selected from varied professional backgrounds to encourage collaboration and fresh perspectives. During the course, a healthcare professional might work alongside an engineer or teacher, each bringing unique insights to a shared challenge.

These connections often extend to well after the program has finished. Many participants leave with expanded professional networks, as well as an appreciation for how science intersects with their own fields. For some, the workshop opens doors to future study or career shifts. For others, it simply deepens their ability to interpret scientific information and communicate it clearly within their organizations or communities.

Building Skills and Expanding Understanding

Beyond the technical experience gained and the professional networks broadened, the participants leave better prepared to ask informed questions, evaluate scientific claims, and serve as 'knowledge bridges' between the laboratory and the wider world.

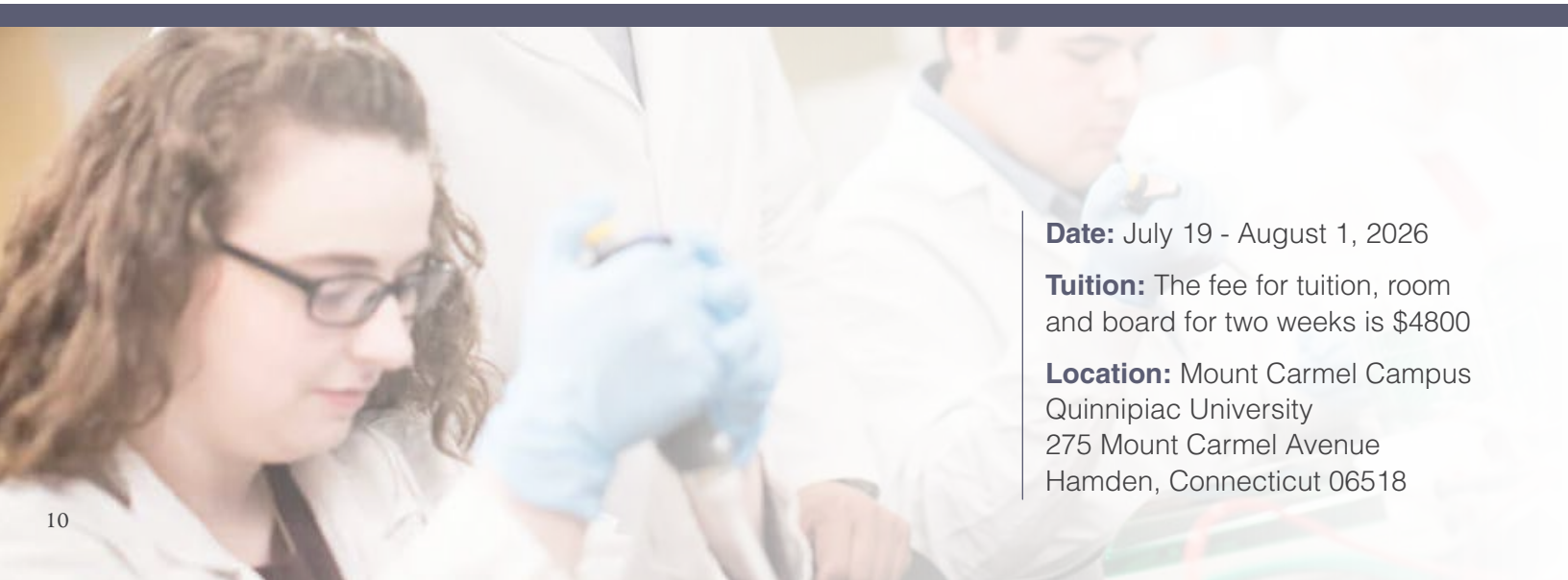
Science does not exist in isolation, and neither should scientific education. Firsthand experience in the lab helps demystify complex topics and supports clearer communication across the gap between specialists and the public—an increasingly important skill in an era of widespread scientific misinformation.

At its core, the summer workshop expands access to knowledge, tools, and experiences often reserved for specialists. By opening the lab to learners from diverse backgrounds, the program helps build the scientific literacy needed to engage confidently with biology in everyday professional contexts.

As we look ahead to this summer's program, we're excited to continue to support interdisciplinary connections and thoughtful science communication.

Gain **hands-on molecular biology experience** this summer and register today!

www.neb.com/SummerWorkshop



Date: July 19 - August 1, 2026

Tuition: The fee for tuition, room and board for two weeks is $4800

Location: Mount Carmel Campus
Quinnipiac University
275 Mount Carmel Avenue
Hamden, Connecticut 06518

Osa Conservation

By Eleanor Flatt, Osa Conservation

Osa Conservation is a nonprofit organization dedicated to protecting the extraordinary biodiversity of Costa Rica's Osa Peninsula—one of the most biologically rich regions on Earth. Since 2003, we have worked to conserve and restore critical ecosystems through a holistic, science-driven approach that integrates habitat protection, ecological research, education, and community engagement.

By connecting landscapes "from ridge to reef," Osa Conservation helps ensure that both wildlife and local communities can thrive in the face of climate change and environmental challenges.

The Osa Conservation Campus

At the heart of this mission lies the Osa Conservation Campus—a 10,000+ acre private wildlife refuge and living laboratory where conservation comes to life.

The campus is designed to inspire and advance conservation through multiple interconnected goals: fostering the next generation of field biologists, facilitating cutting-edge scientific research, strengthening local conservation stewardship, implementing sustainable practices, restoring rainforest habitat, connecting conservation leaders, developing regenerative farming models, and generating resources for lasting conservation impact.

Welcoming volunteers, students, researchers, and visitors from Costa Rica and around the world, the campus offers a rare opportunity to connect deeply with nature while contributing to meaningful, real-world conservation efforts.

Discover Purpose Through Volunteering

For those seeking a hands-on and meaningful way to give back, our volunteer programs offer a unique opportunity to directly support conservation in one of the most biodiverse regions on Earth.

At the campus, volunteers work alongside scientists and field experts on initiatives such as wildlife monitoring, reforestation, sustainable agriculture, community outreach, scientific research, and sea turtle conservation.

Participants gain practical skills while contributing to real-world environmental solutions—all while immersed in the beauty of a tropical rainforest. With structured, year-round programs ranging from 2 to 8 weeks, volunteering is both impactful and transformative.

Experience the Impact as a Conservation Visitor

If you're looking for a nature-focused travel experience, you can visit the Osa Conservation Campus as a conservation visitor and stay in one of our rustic rainforest cabins.

Explore over 35 km of trails winding through lush rainforest, mangroves, rivers, and coastal habitats. Discover our regenerative farm, tree nursery, arboretum, sea turtle hatchery, waterfalls, viewing platforms, and 30-meter canopy tower.

Photo by Osa Conservation

You can explore independently or with a knowledgeable local guide. During sea turtle season (July–January), visitors may also have the unforgettable opportunity to join night patrols to monitor nesting females or morning patrols to release hatchlings into the ocean.

Photo by Ian Rock

Reconnect and Recharge: Nature Retreats for Teams and Families

For those seeking a deeper retreat into nature—without sacrificing comfort—our private Nature Retreat Center offers a more exclusive and elevated experience.

Available for groups of at least six guests for a minimum of three nights, the retreat combines immersive conservation activities with comfortable accommodations. Guests will join our team of experts in experiences such as:

- Exploring our native tree nursery and arboretum, helping prepare trees for future forest restoration
- Volunteering on our regenerative farm and harvesting produce for a true farm-to-table experience
- Contributing to long-term sea turtle monitoring on pristine nesting beaches
- Checking motion-sensor camera traps to observe rainforest wildlife

This is a unique opportunity to reconnect, recharge, and engage meaningfully with conservation in a truly extraordinary setting.

Start Your Conservation Journey:

To learn more or begin planning your experience, please contact:

reservations@osaconservation.org

LESSONS from Lab & Life

Listen to our recent podcast

Interview with Osa Conservation: Protecting habitats and rebuilding migratory corridors in Costa Rica

Featuring Andrew Whitworth, Ph.D., Executive Director, Osa Conservation and Eleanor Flatt, Director of Conservation Campus, Osa Conservation

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