

**SCIENCE
STARTS
HERE**

Impact Report 2025





Science Starts Here

A message from the Executive Director

This year, more than any other in our 14-year history, we saw what happens when students first encounter science not as spectators, but as makers, problem-solvers, and contributors. We see young people entering BioBuilder programs tentative about whether they belonged in science and discovering instead a sense of capability, purpose, and place.

A 2025 study of BioBuilder's programs showed how our work measurably strengthens students' science identity — their belief that they can understand, do, and *be* a "science person," is a key predictor of persistence in STEM pathways. It fuels both individual opportunity and local workforce readiness.

Two milestones this year embodied the theme of "Science Starts Here." Our skills-based CTE curriculum, *BioTechBuilder*, earned its second consecutive *Best of STEM* Educators' Pick Award, reinforcing its value as a classroom-ready pathway to industry skills. We also opened the Allston Learning Lab, a dedicated home for training Boston's future biomanufacturing workforce. Teachers report that BioBuilder graduates walk into labs, internships, and first-year college programs already knowing what to do — powerful proof that science truly starts here.

With like-minded partners, BioBuilder is preparing for national expansion while strengthening the foundation that has already served more than 87,000 students and 600 educators across all 50 states and 80 countries. As we pursue our aspirational goal of "**BioBuilder in every high school in America,**" we remain anchored to what makes this organization so effective: empowering educators, equipping students with real scientific skills, and opening doors to meaningful careers.

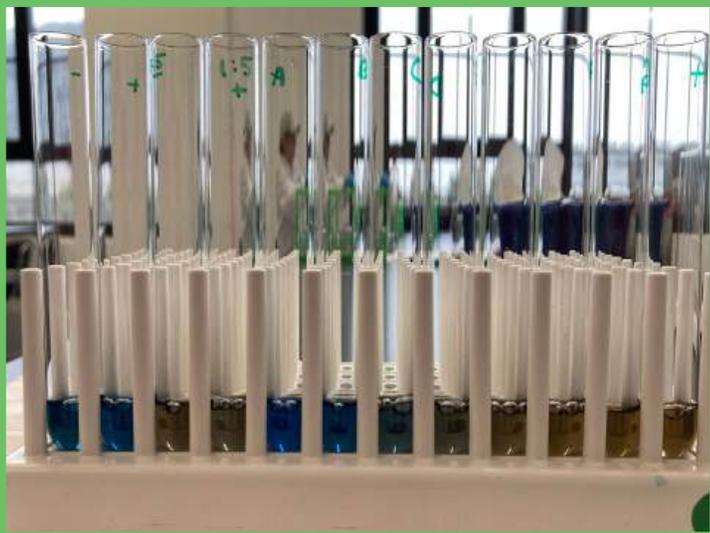
Thank you for being part of this journey. Science starts here — and with your partnership, its impact reaches far beyond the walls of any single classroom.

Natalie Kuldell, PhD
Executive Director, BioBuilder Educational Foundation

**I just finished my first year
at Texas A&M, and
officially started as an
undergraduate researcher!**

**I see evidence of my
BioBuilder experience
every day in the lab.**

- Hadeeqah Qazi



Opening New Doors to Science

In February 2025, BioBuilder opened its third Learning Lab. This 2,000-square-foot, state-of-the-art training facility inside Allston Labworks will focus on biomanufacturing and skills-based training for local high school students.

More than a classroom, the lab expands access to hands-on science and helps build tomorrow's biotech workforce. It blends technical training with the human side of science, giving students a place to learn about bioscience and shape its future.

"We've already begun collaborating with local schools like Brighton High School to offer new student workshops," said Natalie Kuldell. "Our goal is for every student to be exposed to life-science careers."

This expansion was supported by King Street Properties and the Massachusetts Life Science Center's Capital Grant Program.



New Curriculum New Opportunity



The opportunity to reach more students accelerated in 2025 with the launch of BioTechBuilder. This new curriculum focuses on the skill students need to succeed in science labs. The lessons were developed in partnership with industry-leading companies to help educators everywhere build a future-ready workforce.



My favorite part about teaching this is the genuine excitement of the students when they're successful in the lab.

Kelley Pagura
Biotechnology Instructor
Lynn Vocational Technical Institute





Career-Ready Students

The BioBuilder High School Apprenticeship Challenge is an eight-week program that helps prepare high school students to apply to paid summer internships, higher education, or full-time jobs in the life sciences. Students build technical knowledge, lab techniques, research-based thinking, and professional skills.

Special acknowledgement to our the sponsors of this program including Ginkgo Bioworks, Clark University, Massachusetts Life Science Center, Kelly Science and Clinical, Massachusetts Biomedical Initiatives (MBI), Josephine Lawrence Hopkins Foundation, and the City of Boston.

27
Schools
represented

52
Students
completed the
program

163
Microcredentials
awarded

I feel like I'm coming out of this program with an abundance of knowledge.

Josie S.
High School Apprenticeship Challenge student

Expanding Science at the Club Level

BioBuilderClub

The BioBuilderClub engages high school students in a unique, student-driven research program. Teams choose a project topic that interests them - ranging from medicine to sustainability, agriculture and beyond - and are paired with a mentor whose expertise aligns with their goals. Mentors work closely with teams, providing scientific insight and support as students design experiments, carry them out, analyze their data, and refine their ideas. Each team then presents its works at the Final Assembly, sharing posters and results with peers and industry professionals.

Regional hubs for this program have increased access through shared resources including mentors, lab spaces, and training opportunities. Special acknowledgement to Ragon Institute and UCB for their generous sponsorship.



357
Students

57
Student Teams

190
Hours of
Mentorship

55
Lightning
Talks

14
States

3
Countries

31
Publications

Summer of Discovery



BioBuilder's Summer Research Program, led by champion educators and PhD scientists, immerses rising 10-12th graders in hands-on research inside BioBuilder's state-of-the-art bioengineering Learning Labs in Boston's Seaport and Allston. Alongside conducting real experiments that apply biology companies to meet working scientists and learn about their career paths. Thanks to donor support, we provided full scholarships for an entire cohort this year.

The program delivers strong results: students' understanding of synthetic biology nearly doubled over the two-week session, and 91% reported strengthened interest in STEM education and careers.

Thank you to Erin Lavik, ScD, James B. Boskey Memorial Foundation, Ginkgo Bioworks, and King Street Properties for their generous support.



44
Students

32
Different
Schools

3
US States
Represented

4
Different
Countries

Inspired to Discover More

Maria Bennes

Biotechnology Instructor
Blackstone Valley Regional
Vocational Technical High School

Pairing a passion for science communication and extensive experience in a multitude of pharma spaces, Maria Bennes has leveraged those skills into a career in education.

Throughout her teaching career she inspires the next generation of scientists and engineers with innovative approaches to science and discovery. In 2025, as an educator at Blackstone Valley Technical High School she implemented the *BioTechBuilder* with her students. She champions the program for opening graduate-level lab training to high school students.



Liam Klug

University of
North Texas
Student Ambassador
for BioBuilder

Inspiration comes in many forms — and when Liam Klug first stepped into a laboratory as a high school student, everything changed. The projects he worked on during that experience combined with the mentorship provided by Natalie ignited his passion for science, sparking an interest in improving lives through health and bioscience. Working in the lab, research and publishing his findings have become central to Liam's journey.

In addition to pursuing his degree in Applied Science at the University of North Texas, Liam also volunteers as a Student Ambassador for BioBuilder.



To have the BioBuilder training to shore up my own skills as well as provide lesson plans at just the right level has been invaluable.

BioBuilder has forever changed my life. What started as a school project fostered a passion for synthetic biology.

Outreach Across the Nation

Building a future biotech workforce is vital to our nation's growth.

This summer, Commissioners from the National Security Commission on Emerging Biotechnology (NSCEB) visited East Tennessee State University (ETSU) to see how Appalachian educators and industry leaders are preparing students for careers in science and biotechnology. Tennessee was one of only a handful of sites selected nationwide.



Our goal is to excite this next generation of young people to think about life science as a career.

Natalie Kuldell
Founder and Executive Director
BioBuilder Education Foundation

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Natalie Kuldell
Founder
Executive Director



Keira Krausz
Board President



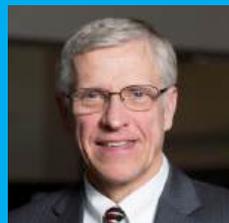
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Head of Operations
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Core Partnerships

ALLSTON
LABWORKS



Massachusetts
LIFE SCIENCES CENTER

CAROLINA



JAMES B BOSKEY MEMORIAL FOUNDATION

Lab | Central

BioMADE



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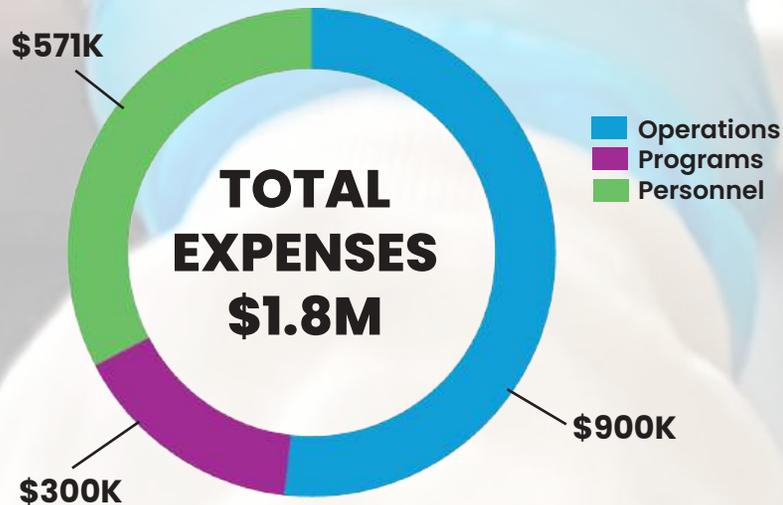
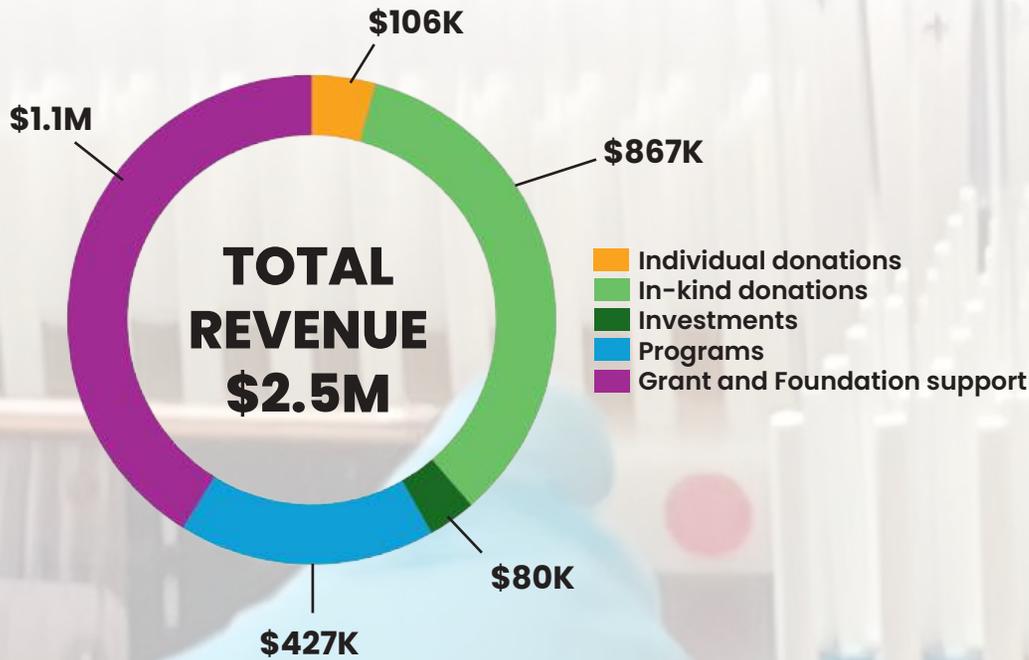
RI Ragon
Institute
MASS GENERAL | MIT | HARVARD

Schmidt Sciences

TEKNOVA
science matters



Impact Numbers



SINCE 2011

80
COUNTRIES

50
STATES

600
EDUCATORS
TRAINED

87,000
STUDENTS REACHED

2
CLASSROOM READY
CURRICULA

Future Starts Now

Your support has never been more important to advancing the next generation of scientists.

In times of uncertainty, science provides stability, direction, and hope. Investing in science ensures that we continue to ask hard questions, uncover evidence-based answers, and create solutions that strengthen our communities. It fuels innovation in health, technology, and the environment, each of the very fields that help us adapt and recover when challenges arise.

Be confident in making your gift.

BioBuilder has achieved a **Four Star** rating from **Charity Navigator** and a **Gold Level** from **Candid**, both independent organizations that evaluate the financial health, accountability, and transparency of US-based charities. In addition, BioBuilder has received **Best in STEM** for the past two years from **Educators Pick of Best in STEM Awards**.

**DONATE
TODAY**



Every gift is an investment in our future scientists and their ability to address the complex issues of our world.



BioBuilder

Educational Foundation

Visit us at [BioBuilder.org](https://biobuilder.org)

Individuals and Foundations are vital partners in BioBuilder's educational mission. We encourage you to make BioBuilder part of your philanthropic giving.

For more information contact: info@biobuilder.org



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