

LEARNING UNDEFEATED

Driving race and gender equity in STEM



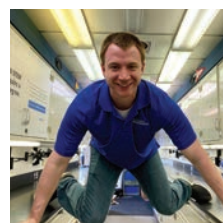
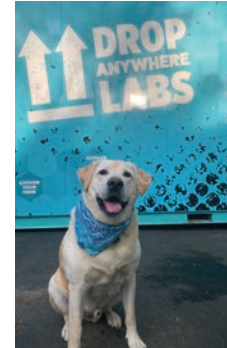
CELEBRATING
20 YEARS OF DRIVING
STEM ENGAGEMENT

2022 ANNUAL REPORT



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LEARNING UNDEFEATED IS DRIVING RACE AND GENDER EQUITY IN **STEM** THROUGH EXPERIENTIAL AND DEEP-IMPACT LEARNING EXPERIENCES FOR STUDENTS FROM UNDER RESOURCED COMMUNITIES.



Learning Undeclared provides innovative programs and resources to educators, students, and communities at *no cost* thanks to generous donors and supporters.

SIGNATURE PARTNERS



COMMUNITY PARTNERS

Bender JCC of Greater Washington
Boys & Girls Clubs of Greater Houston
Building STEPS
The Children’s Inn at NIH
Fort Meade Alliance
Housing Opportunities Commission of Montgomery County
Maryland Tech Council
Montgomery County Economic Development Commission
NASA
Naval Medical Research Center
NIH-National Cancer Institute
REACH Riverside
STEM for Her
The WRK Group: REACH Riverside, Kingswood, The Warehouse
Walter Reed Army Institute of Research

EDUCATION PARTNERS

American Institutes of Research (AIR)
Building Engineering and Science Talent (BEST)
Baltimore City Public Schools
Calcasieu Parish School Board
Cheney University of Pennsylvania
Delaware Technical Community College
Discovery Education
DOD STEM/Defense STEM Education Consortium
Frederick County Public Schools
Maryland State Department of Education
Mobile Laboratory Coalition
Montgomery College
Morgan State University
Prince George’s Community College
Purdue University
Region 5 STEM Center, Louisiana
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Texas Education Agency
Universities at Shady Grove
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University of Maryland Bio Park

CORPORATE & FOUNDATION PARTNERS

AstraZeneca
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REGENXBIO
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UPDATE FROM OUR CEO



Learning Undeclared has had an extraordinary year as we celebrated our 20th anniversary, delivering our flagship mobile laboratory program across the nation. We’ve now reached an astounding 1.5 million students with our immersive and experiential education programs for K-12 students. Our fleet now comprises seven state-of-the-art mobile labs currently serving Maryland, Delaware, Virginia, Texas, and Louisiana. In 2022, we launched two groundbreaking programs: the Port of Corpus Christi’s PORT-Able Learning Lab and Explorer7. We also introduced an exhilarating escape-room-style experience onboard the award-winning Drop Anywhere Lab.

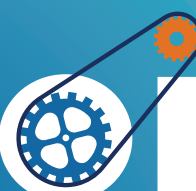
Learning Undeclared has set an ambitious goal to reach one million more students by 2027. To accomplish this, we continue to expand our scope and footprint to engage an increasingly diverse range of students. This expansion is driven by new partnerships with leading employers that have expanded our curriculum and hands-on activities spanning a wide range of career opportunities, from auto collision, advanced manufacturing, biotechnology, cybersecurity, engineering, and artificial intelligence. And we have exciting plans to expand our reach in the 2023 school year.

Our programs are designed to equip students with the skills they need to thrive in the future workforce by fostering STEM identity, instilling self-efficacy, teaching critical thinking skills, and empowering students to reach their full potential. Learning Undeclared’s Emerging Leaders in STEM program, now in its fifth cohort, has forged meaningful connections between young women and female STEM leaders and has over 100 internship-ready alumnae.

The driving force behind our success is the team of talented and passionate individuals dedicated to our mission. We are also immensely grateful for the support of our partners and donors, whose contributions make it possible for us to provide STEM education resources for schools free of charge. On behalf of our team and board of directors, thank you for your partnership and support.

BRIAN GAINES
CEO, LEARNING UNDECLARED





PREPARING

1 MILLION


< MORE >

STUDENTS

FOR STEM CAREERS BY 2027.

292,460

STUDENTS IN ALL 50 STATES
+ DC + PUERTO RICO



9,472

EDUCATORS



Making a **BIG IMPACT** with Digital Learning

Our digital resources have reached **1.5M students** and **50K educators**

MOBILE LAB REACH
2021-22
SCHOOL YEAR



3,322
STUDENTS
DELAWARE

2,044
STUDENTS
LOUISIANA

4,797
STUDENTS
MARYLAND

7,884
STUDENTS
TEXAS

DIGITAL PORTFOLIO INCLUDES ANYWHERE LABS, AT HOME SCIENCE, AND SPARK 101.



PARTNER SPOTLIGHT: ASTRAZENECA

OVER 3,000 DELAWARE STUDENTS LEARN NEW STEM SKILLS

An expanded, multistate partnership with AstraZeneca has provided over 3,000 Delaware students with cutting-edge STEM curriculum and hands-on scientific techniques. A signature partner for Learning Undeclared's Maryland programming, AstraZeneca's additional support has allowed Learning Undeclared to expand our reach into the Wilmington, Delaware area.

In addition to providing year-round Drop Anywhere Lab visits across Maryland, the program introduces Delaware students to in-demand STEM careers

and groundbreaking discoveries being made right in their own backyard. In addition, afterschool programming to help local teenagers build workforce skills has been provided in collaboration with a teen center in Wilmington's Riverside neighborhood.

The partnership also includes deep-impact Emerging Leaders in Biotechnology cohorts for female students ages 14-22 in both states, which builds advanced laboratory skills with a focus on career pathways in the biopharmaceutical industry.



"My students had a blast this week! They were talking all day about how they felt like real scientists with their gloves and their chemical reactions. The oohs and the ahhs are what make people love science and education! I cannot thank you enough for this opportunity for all of my students."

—JAMIE GRIVAS, 8TH GRADE SCIENCE TEACHER
GEORGE READ MIDDLE SCHOOL
WILMINGTON, DELAWARE



MEET OUR MOBILE LABORATORY FLEET

Our flagship education program for 20 years, Learning Undefeated's mobile laboratories increase student interest in STEM careers by bringing scientific tools and techniques right to the school parking lot. Our fleet of seven mobile labs are custom-built to offer a wide range of student experiences.



DROP ANYWHERE LABS

Shipping-container based Drop Anywhere Labs offer a truly immersive learning experience, with touchscreen walls, augmented reality, and movie-quality light and sound. Student activities include escape-room style biology, environmental science, chemistry, physical sciences, and agriculture experiences.



E SERIES: EXPLORER7 MODEL

Our newest mobile laboratory, the E series is light, flexible, and easy to transport. This adaptable laboratory features professional-grade fixtures and finishes and seating for 24 students in groups, to accommodate activities ranging from engineering to chemistry and everything in between.

NEW FOR 2022/23 SCHOOL YEAR!

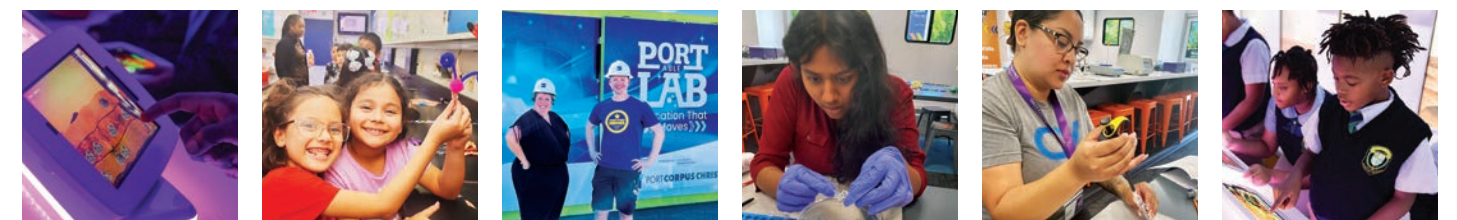
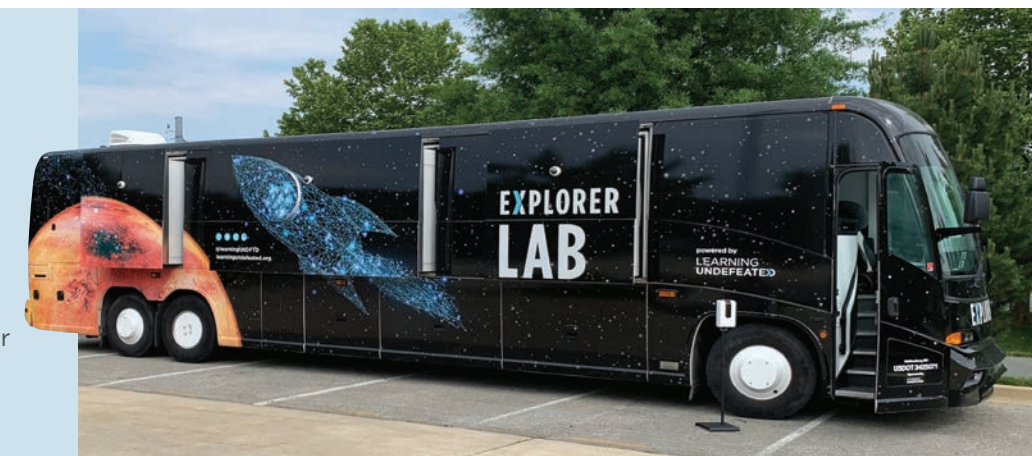
M SERIES: MXLab & MdBioLab

The largest vehicles in the Learning Undefeated fleet, our trailer models include the country's largest mobile STEM labs for education. These labs are capable of handling classes up to 42 students, and include professional-grade equipment, reagents, and supplies to teach sophisticated biology, chemistry, physics, technology, and engineering curricula.



EXPLORER LAB

This one-of-a-kind bus takes students on an immersive trip across the solar system, visiting each planet through a jaw-dropping 360-video experience. After touching down on Mars, students explore concepts of engineering and earth & space science by designing their own rover to navigate and analyze the surface of the red planet.



20TH SCHOOL YEAR SUPERLATIVES

OVER 20 SCHOOL YEARS, WE'VE CELEBRATED A LOT OF MILESTONES. LEARNING UNDEFEATED IS GRATEFUL TO ALL THE PEOPLE WHO HAVE MADE THIS WORK POSSIBLE.

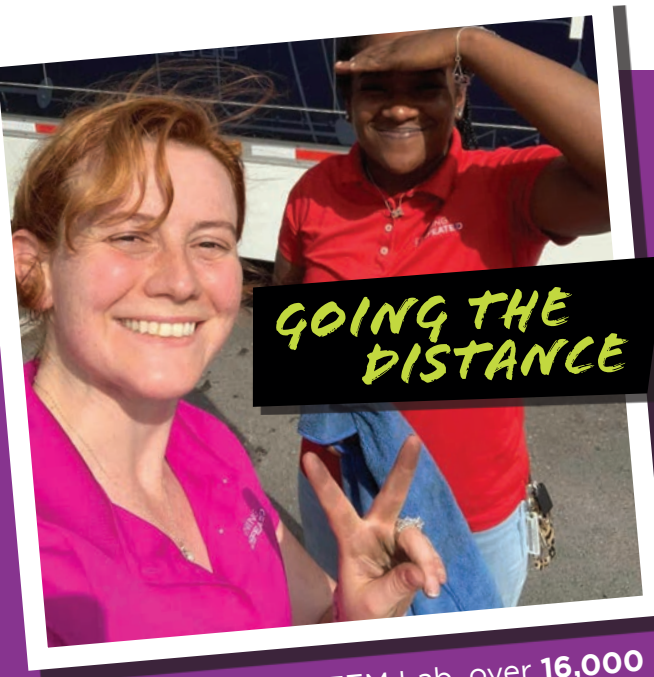
BEST DRESSED



Five different "looks" since her debut in 2003



GOING THE DISTANCE



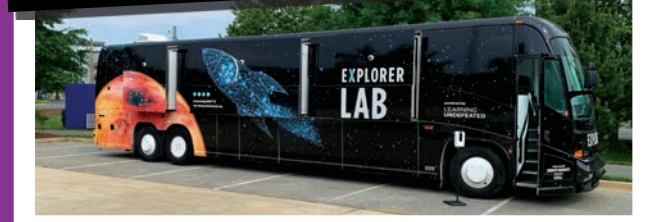
Texas Mobile STEM Lab, over 16,000 miles last school year alone!

MOST LIKELY TO STICK AROUND



Jen Colvin, 15 years with Learning Undefeated!

MOST LIKELY TO BE ABDUCTED BY ALIENS



Our Maryland Driver, Tony Bailey

PERFECT ATTENDANCE



MOST ATHLETIC



BEST TEAMWORK



OUR TEAM

- | | |
|---------------------|--------------------|
| KATIE ASKELSON | ALI MAIN |
| TORI BISHOP | DESURAE MATTHEWS |
| NORA BRANSON | BENEDETTA NAGLIERI |
| ALEJANDRO CARDEMIL | TORI NUTT |
| JENNIFER COLVIN | JANEÉ PELLETIER |
| KRISTIN DIAMANTIDES | NICOLE SANTORO |
| BRIAN GAINES | SAVANNAH STONE |
| JAMES HONG | JOE WILKERSON |



BUILDING THE STEM WORKFORCE

Our intensive courses prepare students for careers by building both STEM proficiency and real-world skills.



PARTNER SPOTLIGHT: DOD STEM

NURTURING EMERGING LEADERS IN BIOTECHNOLOGY

Now over 100 alumnae strong, Learning Undefeated's Emerging Leaders in STEM program connects young women ages 14-22 with biotechnology content and inspires them towards military and civilian careers. This rigorous, 40-hour hybrid learning experience builds high-demand biotech skills and introduces students to female STEM luminaries who are inventing the future of biotechnology every day.

Emerging Leaders in Biotechnology was built specifically for DOD STEM, and directly aligned to DOD's strategic imperative to build a deep, diverse STEM talent base around modernization priorities that also include robotics, advanced manufacturing and AI.

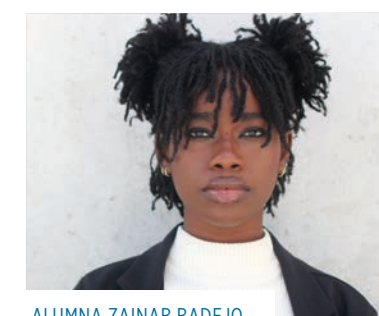
In its third year, the Emerging Leaders hybrid program model combines custom-designed at-home science kits with in-person

advanced laboratory workshops exploring content including synthetic biology, biomarkers, and gene editing. Students also visit laboratory facilities, build career readiness and networking skills, and develop friendships that will support their journey in STEM.



ALUMNA ZAINAB BADEJO RETURNS AS MENTOR TO EMPOWER YOUNG GIRLS INTERESTED IN STEM

"One of my life missions is to work with women and encourage them to work in STEM," said Zainab Badejo, one of Learning Undefeated's interns for the Emerging Leaders in Biotechnology program. Badejo is one of three Emerging Leaders alumnae mentors who returned to Learning Undefeated this year to help run the fourth student cohort of the deep-impact talent accelerator program. For Badejo, the relationships formed in the program have been most beneficial for her career trajectory. After feeling inspired by the guest speaker portion of the program she reached out to an NIH director who spoke to her cohort. "She inspired me to apply to jobs in biotech, land my first job in the field, and helped me revamp my resume while I studied for the MCAT," said Badejo. Her goal in life is to empower young girls in developing countries and help them pursue their dreams.



ALUMNA ZAINAB BADEJO





PARTNER SPOTLIGHT: CALIBER



NEW PARTNERSHIP WITH CALIBER TACKLES THE SKILLED TECHNICIAN SHORTAGE

Labor shortages have impacted the automotive industry, including collision repair. According to TechForce Foundation's 2022 Transportation Technician Supply and Demand Report, in the collision repair industry alone, demand for 35,000 technicians was met with only 4,500 trained body tech graduates. This emphasizes the dire need for a fresh, innovative approach to get students into the body tech career path, give them the training and tools that they need beyond a traditional four-year degree route, and help them reach their full potential.

As a leader in the collision industry, Caliber is at the forefront of addressing auto body technician shortages with its proprietary Technician Apprentice Program (TAP). In support of TAP, Caliber also partnered with Learning Undeclared and TechForce to pilot an

awareness-building, hands-on high school student outreach program that highlights the extensive career opportunities available in the collision repair technician field.

Since the pilot program debuted in October 2022, nearly 2,000 high school students participated with MXLab and explored the physics of car collisions and engaged with experienced Caliber auto body technicians who shared their career journeys. During each session, Learning Undeclared's talented STEM educators connected real-world examples to the skills taught during Caliber's apprenticeship program. Students also received information about the unique opportunity that Caliber's proprietary TAP provides for apprentices to be paid a living wage, while training for a fulfilling career, directly after high school.

"We are influencing the next generation of auto body techs and helping students achieve their goals, as well uncover career opportunities which they may not have previously considered."

—CALIBER PRESIDENT AND CEO MARK SANDERS

CALIBER
RESTORING YOU



PARTNER SPOTLIGHT: PORT OF CORPUS CHRISTI



NEW IMMERSIVE BREAKOUT BOX: ENVIRONMENTAL MISSION DEBUTS IN CORPUS CHRISTI

Despite its compact footprint, the Drop Anywhere Lab is offering a BIG upgrade for the 2022/23 school year: a totally reimagined learning experience that helps students learn about real-world environmental engineering.

The new Breakout Box: Environmental Mission takes high school students on an immersive adventure using computational thinking and the practices of science and engineering as they balance budget and project timeline with impact mitigations for a new wharf. Custom-built for the Port of Corpus Christi's PORT-Able Learning Lab, in this experience high school "intern trainees" will focus on measures to protect wildlife

in the area, diminish concerns for residents, and reduce emissions. Each 30-minute mission session accommodates up to 12 participants.

A new partnership for Learning Undeclared, the Port of Corpus Christi PORT-Able Learning Lab helps students build the problem-solving and critical thinking skills needed for the jobs of tomorrow.

"The Port of Corpus Christi partnered with Learning Undeclared in March 2022 to effectively engage, inspire and attract our next generation of STEM talent. By igniting interest in STEM and maritime jobs across the Coastal Bend, our PORT-Able Learning Lab already is reinforcing our efforts at the Port of Corpus Christi to cultivate the workforce and tools of the future."

—ROSAURA BAILEY, DIRECTOR OF COMMUNITY RELATIONS FOR THE PORT OF CORPUS CHRISTI



PORTCORPUSCHRISTI®

DROP ANYWHERE LAB BRINGS HANDS-ON STEM EDUCATION TO HURRICANE-IMPACTED LOUISIANA COMMUNITIES

Since 2021, Learning Undefeated has given more than 2,000 Louisiana elementary and middle school students a new way to think about science, technology, engineering, and math. The Lake Charles area is recovering from multiple weather-related disasters including Hurricanes Laura and Delta in 2021, which were followed by devastating flooding in the spring of 2022.

In an effort to help local public schools in this community, Learning Undefeated's Drop Anywhere Lab travels to a new school each week, engaging local students with STEM concepts through hands-on projects on board the mobile lab and introduces them to in-demand STEM careers located right in their own backyard. Learning Undefeated's STEM disaster recovery education program in Lake Charles is supported by local partners CITGO and CenterPoint Energy.



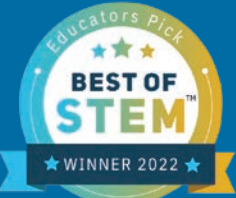
“Ray D. Molo Middle School is proud to host this unique learning experience for our students. Hands-on science, technology, engineering, and math experiences help engage our students at an early age and build their confidence in these critical subjects.”

— SHONNA ANDERSON, PRINCIPAL
RAY D. MOLO MIDDLE SCHOOL
LAKE CHARLES, LOUISIANA

AWARD WINNING PROGRAMS

BEST OF STEM SOCIAL IMPACT AWARD: PROMOTING DIVERSITY & EQUITY INCLUSION

The Educators Pick Best of STEM awards celebrates tools that engage critical thinking and is the only awards program created for educators and judged by a panel of STEM educators. Based on expert judge interviews and votes from over 250,000 educators across the U.S. and Europe, Learning Undefeated's Drop Anywhere Lab was chosen for the 2022 Social Impact Award: Promoting Diversity and Equity Inclusion category. The award was presented at the National Science Teaching Association conference in Chicago.



“Learning Undefeated focuses on providing STEM opportunities for marginalized groups, fostering STEM identities, and developing the mindset of a learner within the process. Learning Undefeated is a fully mobile experience, allowing high-quality learning even in the most remote areas.”

—Dr. Linda Johnson-McClinton, Educator Judge
Educators Pick Best of STEM 2022.

DROP ANYWHERE LAB TWO-PART EXPERIENCE HONORED AS AN EDTECH “COOL TOOL” FINALIST

For the first time, Learning Undefeated's Drop Anywhere Lab was chosen as a finalist in the STEM Solutions category. This annual program is focused on education technology, recognizing outstanding contributions in transforming education through technology to enrich the lives of learners everywhere. The program honors cool tools, inspiring leaders and innovative trendsetters across the K-16 space plus skills and workforce sectors.



STEER NEIGHBORHOOD IMPRESSION AWARD

Learning Undefeated's partnership with the Port of Corpus Christi also was honored by the South Texas Energy and Economic Roundtable (STEER). The Neighborhood Impression award recognized this signature career and education outreach program for the Coastal Bend Region. STEER coordinates communication and public advocacy surrounding the oil and natural gas industry in South Texas and serves as the bridge connecting industry and communities throughout the region.

REIMAGINE EDUCATION AWARDS: ACCESS, DIVERSITY AND INCLUSION

Learning Undefeated was shortlisted for the Reimagine Education awards, the a prestigious international awards program for innovative pedagogies. The Access, Diversity and Inclusion category recognizes innovators who, driven by a keen sense of social responsibility, are seeking to improve access to higher education for under-served, under-privileged students.



Learning Undeclared is able to provide innovative programs and resources to educators, students, and communities at no cost thanks to our generous donors and supporters.

DONATE

Help us keep STEM education free for schools! Thanks to the support we receive from donors, we are able to provide life-changing STEM experiences for students and teachers across the country. You can show your support by making an online donation through our website. We welcome gifts of any size!

VOLUNTEER

By giving your time—a little or a lot—you can completely change a student’s perspective on what it means to work in a STEM field. Do you have an amazing STEM job? Help us spark interest in STEM careers by volunteering with Learning Undeclared! Check out our [Volunteer page](#) to learn more.

FUND A PROGRAM

You can support our mobile STEM lab program by sponsoring:

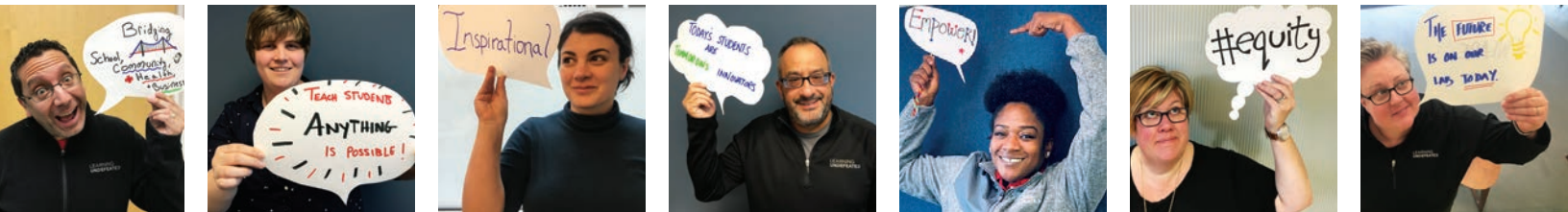
- mobile lab visits in your priority geographic market
- an Emerging Leaders in STEM cohort
- a specific lab activity for curriculum development

“Our partnership with Learning Undeclared directly enables our commitment in making STEM accessible to all by supporting enriching, equal educational opportunities so students of diverse backgrounds feel empowered pursuing their interests.”

—TIFFANY LUKIS, DIRECTOR STEM AND COMMUNITY ENGAGEMENT, ASTRAZENECA



Reach out to partnerships@learningundeclared.org to find out how you can get involved and support our mission.



2022 BOARD OF DIRECTORS

A longtime champion of both Learning Undeclared and MdBio, in early 2022 Elizabeth Huntley ascended to the board chair position. As the first female to serve in the role, Huntley brings a substantive business operations experience along with strategy and transformation, communications, marketing, corporate philanthropy, and a keen understanding of the need for workforce development.

Learning Undeclared also welcomed two new board members, Lisa Carlton



ELIZABETH HUNTLEY
HEAD OF BUSINESS PLANNING AND OPERATIONS FOR LATE-STAGE RESPIRATORY AND IMMUNOLOGY CLINICAL DEVELOPMENT ORGANIZATION, ASTRAZENECA



LISA CARLTON
VICE PRESIDENT OF GLOBAL REGULATORY AFFAIRS
REGENXBIO INC.



KERRON DUNCAN
CHIEF TECHNOLOGY OFFICER AND DIRECTOR OF ARCHITECTURE AND ENGINEERING CHIEF INFORMATION OFFICE (CIO) ORGANIZATION NORTHROP GRUMMAN

CHAIR

ELIZABETH HUNTLEY
Head of Business Planning & Operations
AstraZeneca

IMMEDIATE PAST CHAIR

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Senior Vice President Public Policy, Novavax

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Partner, Rimon, PC

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JENNIFER BAHRAMI
Founder and CEO, Strategy & Pitch

HENRY BERNSTEIN
Senior Vice President, Scheer Partners

LISA CARLTON
Vice President of Global Regulatory Affairs, REGENXBIO Inc.

STEVE COATS, PH.D.
Chief Development Officer
ImmunOs Therapeutics

and Kerron Duncan. Carlton brings over 25 years of experience in regulatory affairs and technical writing in the government/nonprofit sectors, with the majority of her career spent in the pharmaceutical and biotech industry. Duncan’s work focuses on solving complex problems for customers, accelerating the insertion and adoption of key technologies such as cybersecurity, cloud, data analytics and artificial intelligence into enterprise solutions.

KERRON DUNCAN
Director, Architecture and Engineering & Chief Technology Officer, Next Gen Technology
Chief Information Office, Northrop Grumman Corporation

ED EISENSTEIN, PH.D.
President Institute for Bioscience and Biotechnology Research, University of Maryland

J.J. FINKELSTEIN
President and Chief Executive Officer, RegeneRx Biopharmaceuticals, Inc.

JEFF FORD
Principal, CFR Engineering Consultants, Inc.

ALAN S. KLEIN
Chief Development Officer, HealthWell Foundation

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Senior Vice President, Chief Financial Officer & Treasurer, Sinclair Broadcast Group

KELLY LYN WARFIELD, PH.D.
Vice President, Vaccines Research and Development, Emergent Biosolutions

LEARNING UNDEFEATED

Driving race and gender equity in STEM



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