

2020 ANNUAL REPORT



NSTMF

BUILDING INCLUSIVE STEM COMMUNITIES



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A note to our community

DEAR NSTMF FAMILY,

2020 was a year of loss. We watched with fear and sadness as businesses closed, universities sent students away, and the rhythms of everyday life slowed to a stop. We held back tears and seethed as Black, Brown, and Asian American members of our community were brutalized and killed by a disproportionate pandemic, systems of oppression, and the cruelty of strangers.

But in the midst of this rubble, in the midst of pain, we stayed the course and took action; we maintained a belief cultivated over years of work that we could build better STEM communities that are inclusive and diverse in service of an equitable future. We had hope, unlocked by our countless supporters: our donors, our student community, our institutional partners, and the various organizations that joined us in our effort. Without their support and guidance we would not have been able to persist.

As the fall of 2020 began and undergraduate students across the country braced for their most challenging academic year yet, we worked diligently to launch our inSTEM mentorship program. Despite the obstacles created by remote learning, and the inherent difficulty in building community online, we knew we could deliver a program that emphasized holistic wellness, community support, and mentorship to STEM students from underrepresented groups. More than ever,

undergraduate students in STEM needed resources, access to their peers and mentors, and opportunities to forge new bonds even with COVID-19 continually altering the undergraduate education landscape. The launch of the inSTEM program at Howard University shepherded a new era for the NSTMF and firmly established our Foundation as an advocate for improving and shaping the undergraduate experience for underrepresented groups in STEM. As 2020 closed, we knew we had found our north star, a programmatic cornerstone that would truly empower us to realize our mission and affect needed and positive change within the STEM community.

In a year of tremendous loss, we remained dedicated to doing our part in building more inclusive, diverse, and equitable STEM communities. It was a privilege to be able to stay true to this commitment and it was only possible because of the incredible support of our donors, students, mentors, and institutional partners.

Sincerely,



ANDY RATHMANN-NOONAN
Executive Director

INTRODUCING



Student audience at NSTMF event at Spelman College.

Early this year, the NSTMF board moved to approve a new mission that enables us to do our part building STEM communities that provide equal access and opportunity for all.

In 2019, we began to formalize the broader scope of our activities and the values that drive our efforts. Over the course of an incredibly difficult year, we've felt the gravity of this new mission time and time again. The work to make STEM spaces more inclusive and equitable is essential. Livelihoods and lives depend on it.

We are proud to introduce our new mission and the work it inspires.

OUR MISSION

is to build inclusive STEM communities across the United States. Fundamental to these communities are the significant, inspirational connections we foster between the individuals who have received national recognition for excellence in STEM and today's diverse generation of college and high school students. Together they will pave the way for a more equitable future in science and technology.

OUR VISION

is to be a driving force in creating a world in which the diversity of the American society is reflected in the recipients of all prestigious STEM honors, including future Laureate classes of the National Medal of Science and the National Medal of Technology and Innovation.



i n S T E M

"[IT IS SO IMPORTANT TO AFFIRM] THE VARIOUS IDENTITIES THAT WE ALL INHABIT, PRESENTING NOT ONLY OURSELVES AS EXPERTS WITHIN OUR FIELDS BUT ALSO AS ACTUAL PEOPLE WITH RICH BACKSTORIES THAT THE STUDENTS ARE CAPABLE OF IDENTIFYING WITH."

John Harkless, inSTEM Coach

The inSTEM program is designed to combat the alarmingly high rate of attrition in STEM majors. Less than half of undergraduates who declare STEM majors as first-years graduate with a corresponding degree, and the statistics are even worse for students from underrepresented groups. inSTEM connects students interested in science and technology with the top minds in the field who can support them in their pursuits and help them navigate the unique obstacles they face.

AI researchers chat with students at the University of Maryland Baltimore at a 2019 event.

O V E R V I E W

O V E R V I E W

- INSTEM PILOT LAUNCHES AT HOWARD UNIVERSITY
- MORE THAN 40 APPLICATIONS RECEIVED WITHIN FIRST 48 HRS
- 15 FIRST-YEAR STUDENTS ACCEPTED
- JOHN HARKLESS, ASSOCIATE CHEMISTRY PROFESSOR AT HOWARD, SERVES AS FACULTY COACH
- 29 EXPERTS SIGN ON AS PROGRAM MENTORS; 96% ARE WOMEN OR INDIVIDUALS OF COLOR
- INSTEM VIDEO LIBRARY CREATED TO HELP WITH VIRTUAL LEARNING
- 100% OF SCHOLARS PLAN TO CONTINUE WITH THE INSTEM PROGRAM
- 100% OF SCHOLARS PLAN TO CONTINUE IN THEIR STEM MAJOR



Emmanuel Johnson, inSTEM mentor and advisory council member, chats with students.

A HOLISTIC APPROACH

This multi-year mentorship program focuses on holistic student development with an emphasis on community building and emotional resilience.

The first-year curriculum brings together power skills and coping tools to help students navigate their class and career work with confidence.

Group discussion topics include:

- TIME MANAGEMENT
- EFFECTIVE WRITTEN & VERBAL COMMUNICATION
- MINDFULNESS, IDENTITY, & RESILIENCE
- STRATEGIES FOR SHOWING UP AUTHENTICALLY
- MENTORING

- NETWORKING
- LEADERSHIP & TEAMWORK
- LANDING YOUR FIRST JOB
- NEGOTIATION

And over the course of four years, inSTEM Scholars will have developed a set of tools that will allow them to bring their whole selves to their respective STEM careers.

And, with the help of the incredible network of mentors participating in the program, they will have lasting relationships with experts who can speak to the challenges of being a member of an underrepresented group in STEM and provide support far beyond graduation.

LAUNCHING VIRTUALLY

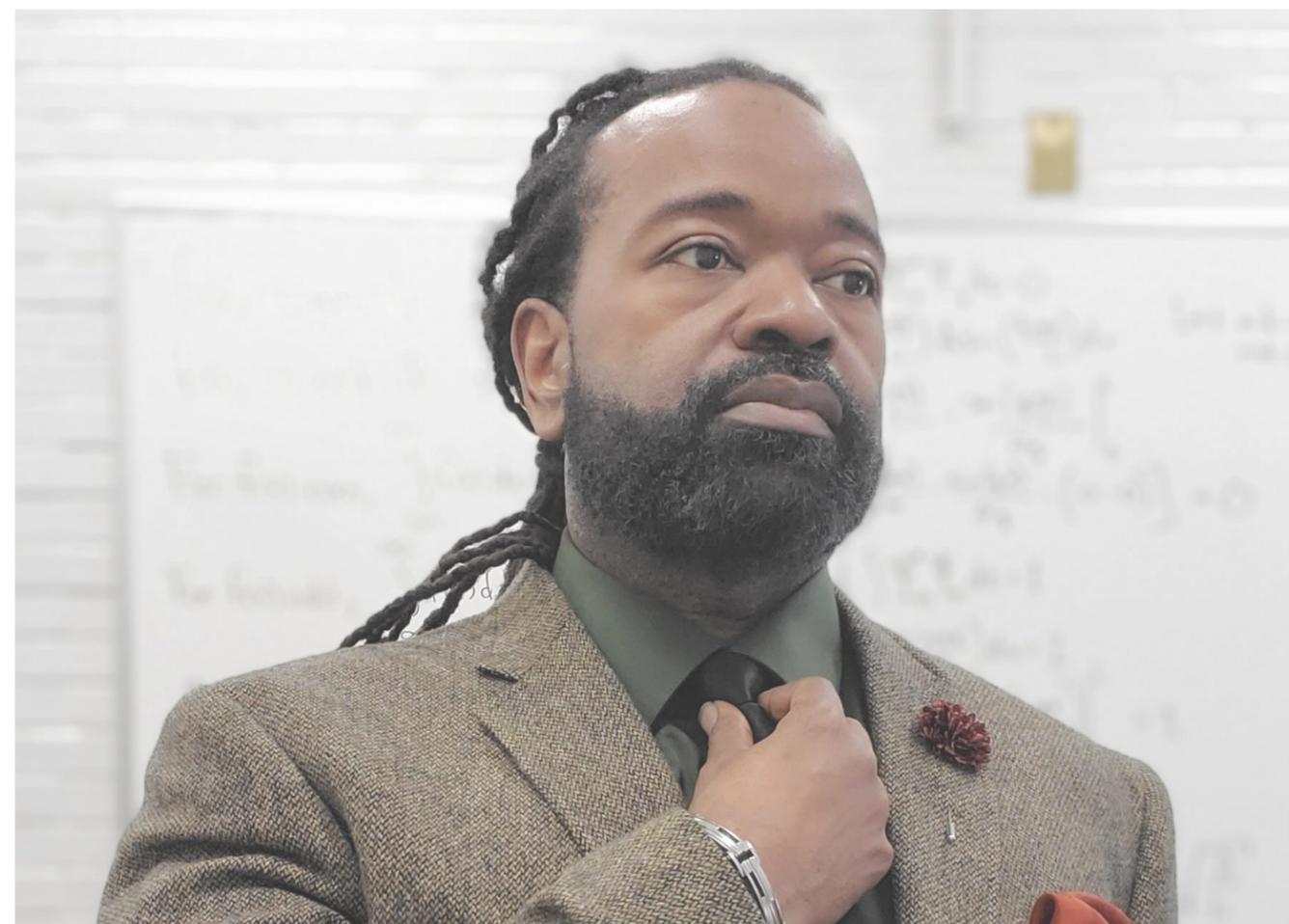
In November 2020, we launched inSTEM with Howard University in Washington, DC. The effort was a testament to our commitment to the program and willingness to be flexible as Howard pivoted to fully virtual learning for all students. Though the fall semester's meetings were abbreviated, we hosted two engaging mentor meetings with Mayra Montrose and Tequila Harris.

We added a new layer to our inSTEM launch to help provide additional flexibility to students in the program. We developed "inSTEM Virtual," a video library with an installment for each of the first-year curriculum topics. To help guide

us, we collaborated with a student focus group at Haverford College to discuss the videos' content and best uses. Available in its entirety on our website, this video library serves as an important entry point as we introduce the inSTEM program to potential students and university partners.

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In my short time working with inSTEM as the Faculty Coach, I have developed a deeper appreciation for making sure that the whole student is served. In terms of what that looks like for our population - overwhelmingly underrepresented minorities - this means affirming the various identities that we all inhabit, presenting not only ourselves as experts within our fields but also as actual people with rich backstories that the students are capable of identifying with. The NSTMF, through creating and supporting this program, has recognized the need for not only technical talent but also culturally competent and confident personnel to address the many challenges that our nation's scientific and technical workforce will face."



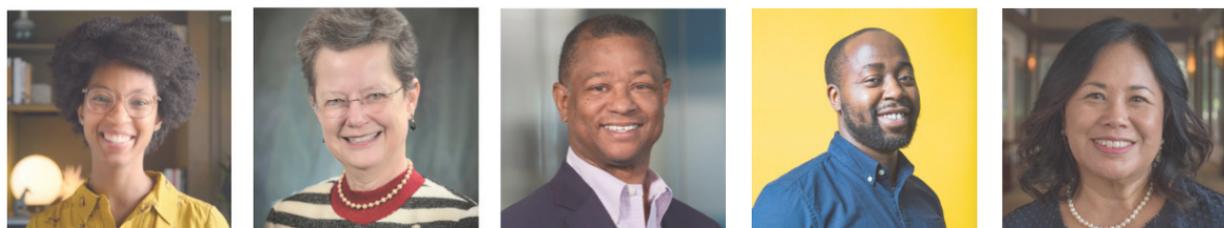
JOHN HARKLESS

ASSOCIATE PROFESSOR OF CHEMISTRY, HOWARD UNIVERSITY
COACH OF THE INSTEM PILOT

inSTEM was launched thanks to the hard work of the NSTMF staff. But the program would not be such a success without the support and participation of our generous partners, advisors, and mentors who have gone above and beyond in a difficult year.



Photos of inSTEM mentors in the 20-'21 class.



MENTORS :

- AMON MILLNER, Olin College of Engineering
- BRIDGETTE POWELL, Industrial Light & Magic
- CAROL O'DONNELL, Smithsonian
- CIKU KARANJA, Lucasfilm
- EMMANUEL JOHNSON, University of Southern California
- GODWIN DZIDOTOR, University of Connecticut
- GULEID AWALE, University of Connecticut
- JAKITA THOMAS, Auburn University
- JULIA PHILLIPS, Sandia National Laboratories (Retired)
- JUNG CHOI, Global Blood Therapeutics
- KAREN ANDRADE, Science Philanthropy Alliance
- KEI KOIZUMI, Science Policy Practitioner
- LAUREN D. THOMAS, IBM
- LORETTA CHEEKS, Strong TIES
- LORI BECK, Industrial Light & Magic
- MARILYN MACKIEWICZ, Oregon State University
- MAYRA MONTROSE, NASA
- MEGAN ROBERTS, Alliance for Decision Education
- MINERVA CORDERO, UT Arlington
- MIZZRAIN "MIZZ" LARA NAVA, UC Merced
- PK MORROW, Amgen
- PRERNA BHARGARA, Massachusetts Institute of Technology
- RYAN S. SMITH, Industrial Light & Magic
- STEVE SASSON, National Medal of Technology and Innovation
- TAREK FADEL, Massachusetts Institute of Technology
- TED LOVE, Global Blood Therapeutics
- TEQUILA HARRIS, Georgia Institute of Technology
- TERI ODOM, Northwestern University
- YUL WILLIAMS, National Security Agency

ADVISORY COUNCIL :

- EMMANUEL JOHNSON**
 - Ph.D. candidate & AI researcher, USC
 - NSF Fellow
 - Fulbright Scholar
- GERALDINE RICHMOND, PH.D.**
 - National Medal of Science Laureate
 - Professor of Chemistry, University of Oregon
 - COACH Co-Founder
- MEGAN ROBERTS, ED.D.**
 - Chair, inSTEM Advisory Council
 - Director of Education at the Alliance for Decision Education
 - NSTMF Board Member
- YUVI RATTIGAN, LCSW-C, RPT**
 - Founder and Director, Oasis Therapeutic Services, LLC
 - Mental Health Program Manager, Center for Hope

SCIENCE & INNOVATION UNSCRIPTED

OVERVIEW

OVERVIEW

- LONGEST RUNNING PROGRAM
- 4TH YEAR OF EVENTS
- 3 VIRTUAL EVENTS
- 6 INDUSTRY EXPERTS IN LIVE WEBINARS WITH STUDENTS
- 5 OF 6 FEATURED SPEAKERS FROM UNDERREPRESENTED GROUPS IN STEM
- MORE THAN 300 LIVE ATTENDEES
- 35 STUDENT QUESTIONS ANSWERED LIVE
- STUDENT PARTNERS:
 - SPELMAN SISTERS OF STEM
 - GW ASSOCIATION FOR COMPUTING MACHINERY



Deborah Kariuki, Expert Connect member and Unscripted panelist, smile with a student attendee.

The Unscripted Series returned for its fourth year of programming with three engaging virtual events. Existing relationships with universities and student groups helped to make these some of our best events regardless of format. The Spelman Sisters of STEM and The George Washington University chapter of ACM have our sincere gratitude for helping us shape these events into something great.

These events contribute to our larger effort to build an inclusive coalition of inspired STEM students. By highlighting voices not often amplified in STEM communities, we show audiences that there isn't one "right" way to build a STEM career.

1. Architect of the Internet, **Vint Cerf**, and "Digital Divide" scholar, **Larry Irving**, discussed the ways the Internet shapes our lives, economy, and society, and how we might set a better course for the future. As two individuals shaping policy and procedure for one of the most important inventions in human history, Vint and Larry spoke about their careers, failures, discoveries, inspirations, and work still ahead.

2. **Ted Love** took to the Science Unscripted stage to discuss the revolutionary strides being made in Sickle Cell Disease research both in the industry and academia. As President and Chief Executive Officer of Global Blood Therapeutics, Ted Love is on the leading edge of Sickle Cell Disease research. Dr. Love's work at GBT focuses on quality and equitable care for Black patients, who are disproportionately affected by Sickle Cell Disease.

3. **Sherika Ekpo** of Google AI, **Marisa Ferrara-Boston** of KPMG, and **Susann Keohane** of IBM join for our final Unscripted event of the year to discuss AI's increasingly prevalent role in the daily operations and long term strategy at tech companies and corporations.

WHAT STUDENTS ARE SAYING ABOUT UNSCRIPTED

In post-event surveys, students shared the words that captured their experiences.

ENCOURAGING
INSPIRATIONAL
EXCITING
DETERMINATION
INFORMATIVE
HOPE
ENJOYABLE
CURIOSITY

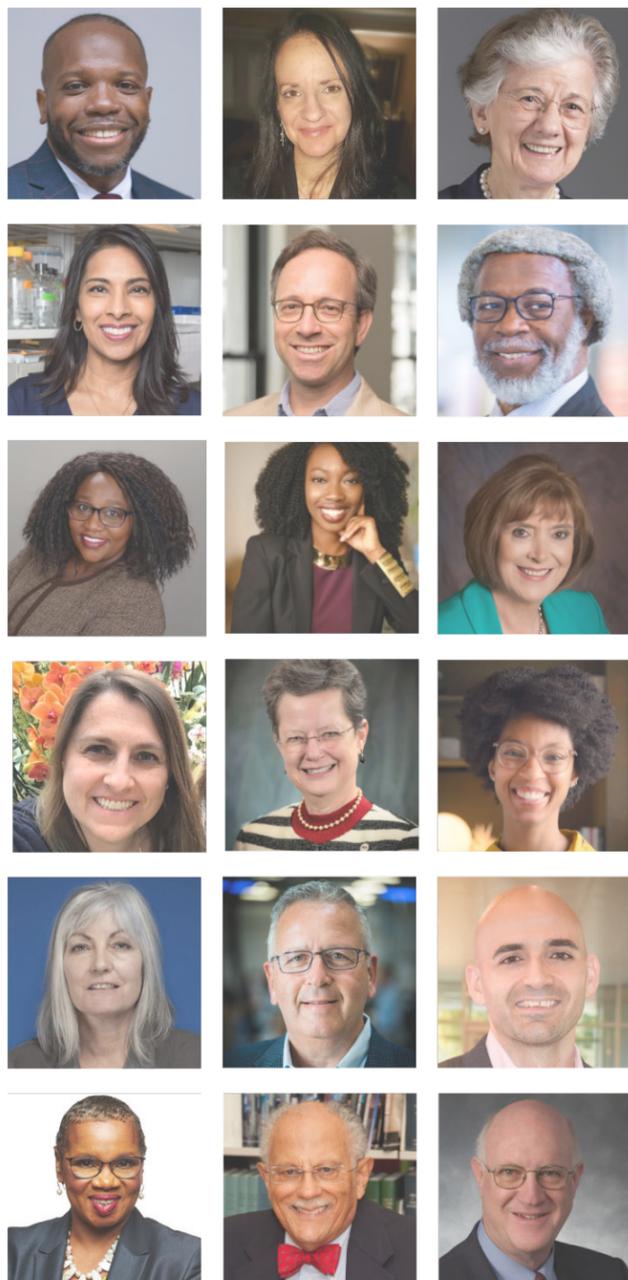
Learn more about the Unscripted series at nationalmedals.org/Unscripted



EXPERT CONNECT

OVERVIEW

- 1ST YEAR OF THE PROGRAM
- 22 FOUNDING MEMBERS
- 7 NATIONAL MEDAL LAUREATES
- 13 MEMBERS PARTICIPATED IN PROGRAMMING
- MORE THAN 80% OF MEMBERS ARE WOMEN OR INDIVIDUALS OF COLOR



Founding members of Expert Connect.

Expert Connect is a group of STEM experts who share our vision for more inclusive and equitable STEM communities and are passionate about working with young students who want to pursue STEM careers. Our goal with this program is to build a network of committed STEM leaders who will work closely with us as we cultivate a confident and diverse generation of young STEM professionals.

This year, 22 highly accomplished experts joined our network and began offering their insight and subject matter expertise to students across the country. Members of the Expert Connect Program have been featured in Unscripted Series events, STEM Spotlight episodes and webinars, and serve as mentors for our inSTEM pilot.



Learn more at
nationalmedals.org/ExpertConnect

STEM SPOTLIGHT

OVERVIEW

- VIDEO INTERVIEW SERIES
- FULLY FUNDED BY THE NATIONAL SCIENCE FOUNDATION
- 12 EXPERTS FEATURED IN 10 VIDEO EPISODES
- 100% FEATURED EXPERTS ARE WOMEN OR INDIVIDUALS OF COLOR
- MORE THAN 1,250 EPISODE VIEWS

OVERVIEW

This series answered a call for connection and community. In a time of unprecedented challenges for undergraduates across the country, we listened and responded to their needs. Our goal was to connect STEM leaders with students, providing guidance and support. And we were able to accomplish that and more.

The series is a poignant collection of candid conversations with some of the most fascinating and successful minds in science and tech on topics that aren't often covered in the classroom:

- HOW DO YOU MAKE HARD CHOICES BETWEEN LIFE AND CAREER?
- HOW DO YOU REBOUND FROM SETBACKS?
- WHAT ARE WAYS TO NAVIGATE SPACES THAT WEREN'T BUILT FOR PEOPLE WHO LOOK LIKE YOU?

These conversations reminded us that there is so much wisdom in our communities and we are grateful each and every time we are able to share these stories with a new viewer.



Learn more at
nationalmedals.org/STEM-Spotlight

SERIES HIGHLIGHTS

EPISODE 1

KNATOKIE FORD



Knatokie Ford, Ph.D., chats with viewers about how negative stereotypes impact perceptions about being able to go into STEM careers.

EPISODE 4

NICKI WASHINGTON



Nicki Washington, Ph.D., shares advice for Black women and girls looking for community in their STEM studies.

EPISODE 10

RAVEN BAXTER



Raven Baxter opens up about being a spokesperson for Black women in STEM and how we can all advocate better for our communities.

BOARD OF DIRECTORS & LEADERSHIP

BOARD CHAIR

James Rathmann
Naples, Florida

BOARD TREASURER

Vinton Cerf
Arlington, Virginia

BOARD MEMBERS

Afua Bruce
Washington, District of Columbia

Monique Dorsainvil
Washington, District of Columbia

Richard Elkus Jr.
Atherton, California

Todd Elmer
San Francisco, California

Ted Love
San Francisco, California

Robin Rathmann-Noonan
Brooklyn, New York

Megan Roberts
New York, New York

Smita Satiani
San Francisco, California

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Andrew Rathmann-Noonan
Silver Spring, Maryland

DIRECTOR OF PROGRAMS & CULTURE

LC Charity
Silver Spring, Maryland

DIRECTOR OF STRATEGY & COMMUNICATION

Allison Courtin
Washington, District of Columbia

OUR NEW BOARD MEMBERS

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I'm incredibly excited about the new programming that supports college students in one-on-one and small-group settings. We hear from inSTEM participants, for example, that the programs create a safe and supportive environment for students to both be themselves and grow in their respective STEM careers."



AFUA BRUCE



SMITA SATIANI

//

I love how the NSTMF has been able to grow and change their mission as the needs of STEM change. Right now, the current snapshot of work is where the NSTMF feels like they can be the most impactful, but this could evolve as they see fit. It shows flexibility and adaptability, and that makes me excited to see what is going to come next!"

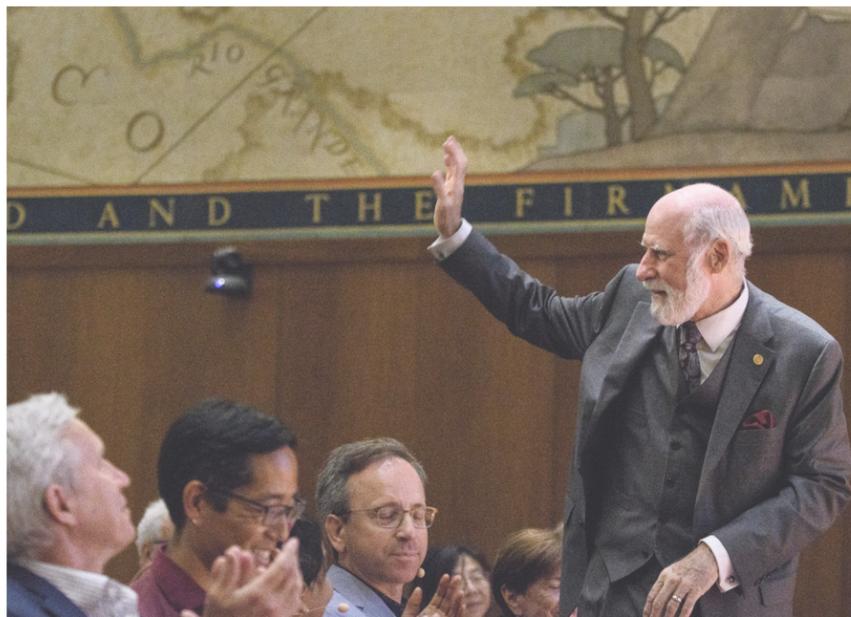
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The NSTMF is broadening the scope of who is able to become a valued member of a STEM community. Elevating historically excluded voices and curbing the STEM attrition rate among college students from underrepresented groups are just two of NSTMF's areas of work that I am most proud of. I am excited about the future of this work as the NSTMF team continues to ensure its vision for equity is aligned with the current needs of the students it serves."



MONIQUE DORSAINVIL

OUR DONORS



In the face of an unprecedented year, we remain committed to and energized by the path we have laid out for the Foundation. Our new mission and vision honor our founding charge while empowering us to work toward healthy change in classrooms, labs, and boardrooms across the country. And our programming is more relevant than ever as COVID-19 brings conversations about the importance of STEM into living rooms around the world. We would not be here, on firm ground, without the steadfast support of our donors. We are grateful for your support and partnership.

PATHFINDERS

\$50,000+

Anonymous
Google
Jim Rathmann and Anne Noonan
National Science Foundation
Rathmann Family Foundation
Vint Cerf

DREAMERS

\$10,000-\$29,999

Richard Elkus Jr.
Ted Love

THEORISTS

\$1,000-\$2,499

Alan Mendelson
Charlene Barshefsky and Ed Cohen
Joe DeSimone
Margaret Rathmann

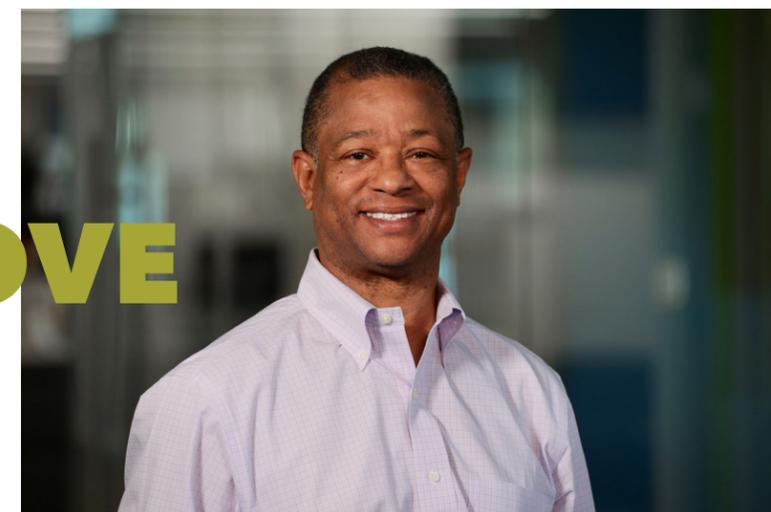
ELEMENTS

\$0-\$999

Andrew and Rebecca Grzybowski
Brian Stout
Bryant Madden
Corey Stein
Evan Guimond
Max Hjelm

DONOR SPOTLIGHT

TED W. LOVE



We sat down with Ted Love, CEO of Global Blood Therapeutics, to talk about his work and why he not only donates to the NSTMF but also serves as a mentor for inSTEM students. Edited for length.

WHAT MOTIVATES YOU IN YOUR WORK TODAY?

The quest to dramatically improve the lives of patients is what really motivates me. GBT is focused on completely changing the terrible medical and social conditions faced by patients with SCD, who are most often poor and people of color. These patients have a single DNA mutation on their hemoglobin gene, and we know we have a treatment which will dramatically improve their long-term outcomes and survival if it is widely used. We also have additional therapies in our pipeline which we think can provide even greater benefits.

WHAT DOORS DO YOU HOPE OXBRYTA'S ACCELERATED APPROVAL FROM THE FDA WILL OPEN FOR GBT AND IN BIOTECH/BIOPHARMA MORE BROADLY?

GBT wants to be a force to broadly eliminate healthcare disparities due to race, gender or socioeconomic status. We also like to be a shining light to reflect how our industry is focused on helping the sick and most vulnerable in our society, not just profits.

AMONG ITS BIOMEDICAL PEERS, GBT EXCELS AT EMBRACING DIVERSITY AND INCLUSION. CAN YOU SHARE A BIT ABOUT HOW THAT SHOWS UP IN GBT'S WORK AND CULTURE?

I think it shows up as people feeling free to be who they are, feeling embraced for who they are,

and free of the distractions which exists in many work environments. Our diversity and inclusion actually brings us together as one GBT; focused on how we can deliver on our mission.

WHAT PARTS OF BEING AN INSTEM MENTOR SPEAK TO YOU?

I particularly like the programs which bring today's students into direct contact with Laureates. I also think documenting and achieving the accomplishments of the Laureates is critical, particularly in a format which is accessible and exciting to today's students and teachers.

WHAT DID YOU ENJOY ABOUT SERVING AS A MEMBER OF THE NSTMF BOARD?

I loved working with my fellow board members, the leadership and staff of the foundation and the interactions with the laureates. I also love the mission of NSTMF, and seeing that mission come to life.

WHY DO YOU CONTINUE TO GIVE TO THE NSTMF?

Accomplishing the mission of the NSTMF is an eternal endeavor. We continue to produce new laureates, and there is an endless supply of students who can be inspired about laureate achievements if given the opportunity.

The NSTMF raised \$1,603,552 in 2020. We remain grateful to our donor community that stepped up during a difficult year to support NSTMF programs and the students we serve. While the pandemic necessitated that we bring many of our planned in-person programs to the virtual world, we were able to adapt quickly and deliver quality content online..

The financial snapshot shown here is derived from a August 30, 2021 audit of our 2020 financials. This audit received an unmodified opinion from the auditor. The Foundation's complete, audited financial statements can be obtained by emailing contact@nationalmedals.org.

Foundation Expenses // 2020

60%
program services

21%
administration

19%
development

Fundraising Sources // 2020

80%
foundations & corporations

12%
public funding

8%
individuals

STATEMENT OF FINANCIAL POSITION

as of December 31, 2020 & 2019

ASSETS	2020	2019
CURRENT ASSETS		
Cash and cash equivalents	348,802	59,778
Contributions receivable	500,000	301,500
Prepaid expenses	42,227	-
Refundable deposit	1,025	1,025
Total current assets	892,054	362,303
FIXED ASSETS		
Computer equipment	4,501	-
Less: Accumulated depreciation	(503)	-
Total Equipment Assets, Net	3,998	-
INTANGIBLE ASSETS		
E-Museum	935,518	935,518
NSTMF Lab	542,380	542,380
	1,477,898	1,477,898
Less: Amortization	(197,054)	(98,527)
Total intangible assets, net	1,280,844	1,379,371
TOTAL ASSETS	2,176,896	1,741,674
LIABILITIES AND NET ASSETS		
LIABILITIES		
Accounts payable	1,040	12,908
Accrued wages	-	37,500
Deferred revenue	-	40,000
Total liabilities	1,040	90,408
NET ASSETS		
Without donor restrictions	2,175,856	1,351,266
With donor restrictions - time purpose	-	300,000
Total net assets	2,175,856	1,651,266
TOTAL LIABILITIES & NET ASSETS	2,176,896	1,741,674

STATEMENT OF ACTIVITIES

for fiscal years ending on December 31, 2020 & 2019

	WITHOUT DONOR RESTRICTIONS	WITH DONOR RESTRICTIONS	2020	2019
REVENUE				
Contributions and grants	1,370,240	-	1,370,240	791,426
Sponsorship income	40,000	-	40,000	105,000
Federal contracts	116,636	-	116,636	243,364
Government grant	76,496	-	76,496	-
Dividend & interest income	180	-	180	14
Net assets released - time purpose	300,000	(300,000)	-	-
TOTAL REVENUE	1,903,552	(300,000)	1,603,552	1,139,804
EXPENSES				
Program Services Expenses:				
National Medals Event	-	-	-	39,281
Unscripted	169,895	-	169,895	587,649
Laureate E-Museum	63,335	-	63,335	92,062
STEM Spotlight	186,902	-	186,902	-
inSTEM	216,473	-	216,473	-
Expert Connect	8,320	-	8,320	-
Total program services expenses	644,925	-	644,925	718,992
Support Services Expenses:				
General administration	225,379	-	225,379	81,642
Development	210,874	-	210,874	222,934
Total support services expenses	436,253	-	436,253	304,576
TOTAL EXPENSES	1,081,178	-	1,081,178	1,023,568
Change in net assets from operations	822,374	(300,000)	522,374	116,236
NONOPERATING ACTIVITIES				
Gain on sale of donated stocks	2,216	-	2,216	-
CHANGE IN NET ASSETS	824,590	(300,000)	524,590	116,236
Beginning net assets	1,351,266	300,000	1,651,266	1,567,393
Prior period adjustment	-	-	-	(32,363)
NET ASSETS, END OF YEAR	\$2,175,856	-	\$2,175,856	\$1,651,266

A COMMITMENT
TO THE NEXT
GENERATION



We are grateful for all our forward-thinking donors and supporters who share our vision for STEM communities. Your support ensures that the NSTMF can continue to eliminate barriers for students to access the top minds in STEM.

NATIONALMEDALS.ORG/DONATE
kate@nationalmedals.org | (202) 556-0258



Creating inclusive and diverse STEM communities and the tangible benefits they have on scientific and technological progress. Through our programming, the NSTMF is creating vibrant, inclusive STEM communities across the country that reflect the fabric of society.

Learn more about the NSTMF's work at nationalmedals.org