

2020  
Annual  
Report



Hands-On  
Interdisciplinary  
Life Sciences —  
Wherever You Are

**Genspace**<sup>®</sup>  
Learn. Create. Grow

# Thank you!

Without our community of volunteers, members, project leads, instructors, youth interns, partner nonprofit organizations, board members, donors and funders, none of our work would be possible. We are profoundly grateful for each and every one of you.

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[f GenspaceNYC](#)  
[@genspacenyc](#)  
[@genspacenyc](#)  
[info@genspace.org](mailto:info@genspace.org)  
[www.genspace.org](http://www.genspace.org)

Genspace NYC  
 132 32nd St.  
 Suite 108  
 Brooklyn, NY 11232  
 929-387-8100

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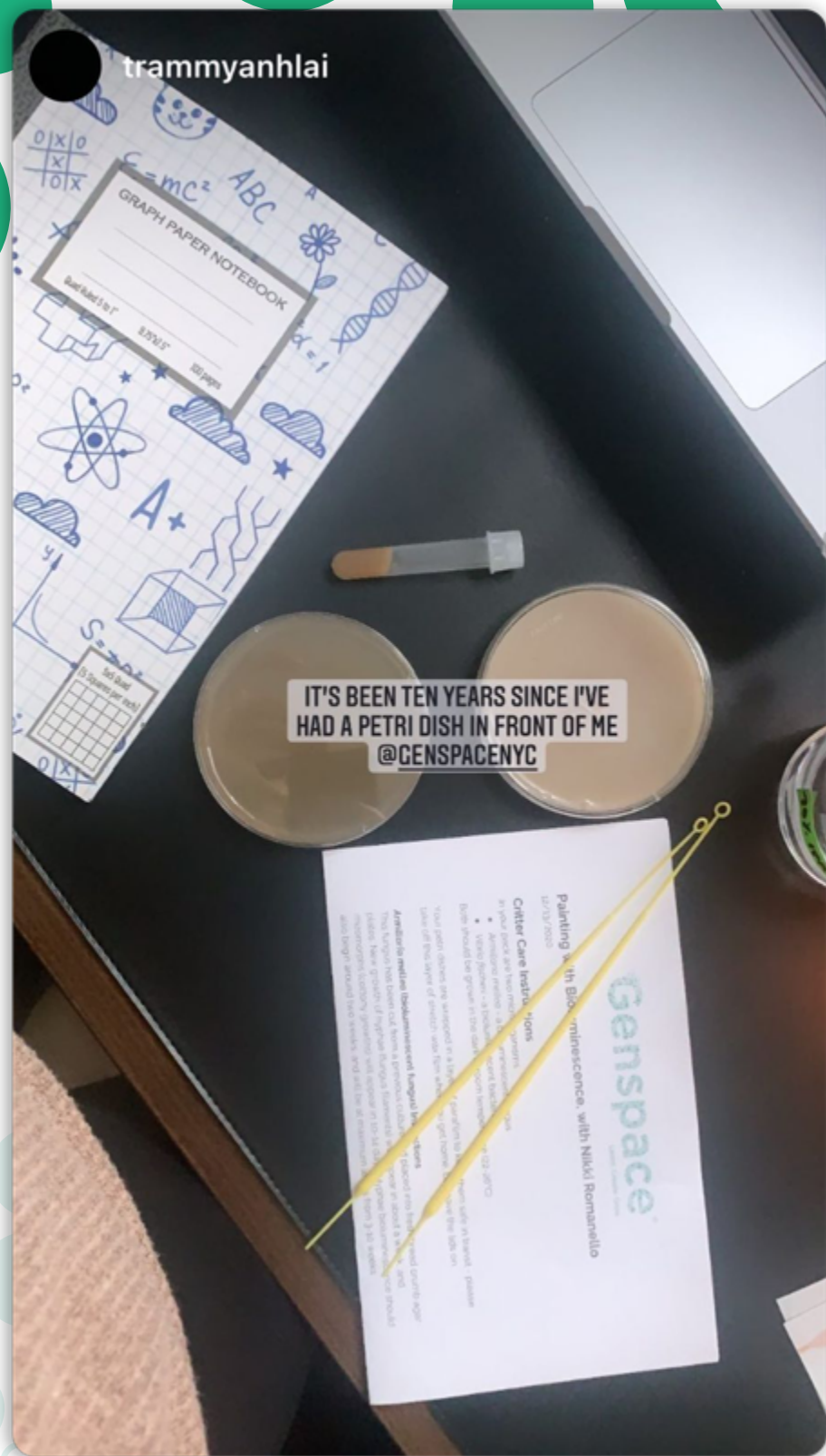
# 2020 Annual Report



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# Letter from the Director

*Beth Tuck, Executive Director*



Wow. Last year was... unexpected... I want to first acknowledge the trauma we've endured, the loved ones we've lost, and the hardships we've faced. And I want to express profound gratitude for all the joy and hope we've experienced together in spite of this deeply difficult time.

Like most other organizations, Genspace closed its doors in March with the onset of the COVID-19 pandemic in New York City. Our closure had significant impacts on our lab members, shutting down projects and hampering our strongest asset — our community! With budgetary constraints and safety concerns, we

decided to stay closed to the public into 2021.

Even with these challenges, we were fortunate to see the silver linings - with more than 2,000 people joining us to learn, create, and grow from home. We welcomed new participants from all over the world to join our hands-on bioinformatics and bioart/ design workshops. We rolled out a new course on the history and legacy of racism in scientific research. Our members continued to meet for community projects, coming up with creative technology solutions and leaning into the "DIY" spirit. We launched a virtual monthly member social, discussing hot topics in life sciences. And we welcomed three small biotech startups back to the lab in support of entrepreneurship and inclusive innovation.

Our youth development programs emerged stronger than they've ever been, and we'll be featured in an upcoming book chapter on informal educational leadership during the pandemic. The Biorocket Research Interns developed inspiring podcast clips on the social issues of emerging life sciences topics, ranging from health disparities of COVID-19 to CRISPR-Cas9 and so-called designer babies. And the Teen Leadership Council raised funds to stock a local community fridge and launched a social media campaign about food insecurity and social justice.

As we look ahead to 2021, we are encouraged and strengthened by our community to face the continuing challenges of the COVID-19 pandemic. With your help, we will reopen the lab, and continue to work toward a future in which all people can use the life sciences to explore questions and develop applications that are connected to their lives and rooted in their communities.

Elizabeth Tuck





# About Genspace

Genspace is a community biology laboratory in Brooklyn, New York where **anyone** can learn the fundamental scientific concepts and lab skills they need to **meaningfully** engage with the life sciences — including biology, biotechnology, microbiology, genetics, and related subjects.





# Our Story

We got our start in 2009, when a small collective of biology hobbyists, entrepreneurs, artists, and scientists gathered in a North Brooklyn living room. The group reflected on their shared interest in the emerging field of biotechnology, and dreamt up visions of what a more accessible, democratized biotechnology could look and feel like.

**A year after that initial meeting, co-founders Nurit Bar-Shai, Russell Durett, Daniel Grushkin, Ellen Jorgensen, and Oliver Medvedik opened Genspace in downtown Brooklyn, welcoming community scientists, artists, engineers, designers, hackers, and anyone with passion and curiosity to join the lab. Early members started million-dollar companies, created groundbreaking artwork, and competed in international contests.**

## Our Mission

### *The work that we do.*

Our mission is to foster a safe and inclusive community where all people – including those from non-traditional and underrepresented backgrounds – can experientially learn, boldly create, and meaningfully grow with the life sciences.

## Our Vision

### *The world that we work to realize.*

Everyone is empowered to use the life sciences to explore questions and develop applications that are connected to their lives and rooted in their communities.

Our opening had ripple effects around the nation, with a handful of similar community biology laboratories opening in California, Maryland, and Washington shortly afterward. Over the last decade, more than a hundred community groups and labs have cropped up across the United States and around the world. While this global community thrives, we are thinking about what we can and should do to shape the future of this movement.

Coinciding with our 10th anniversary in 2019, we purposefully restructured our work to center equity and inclusion. We see Genspace as a home for people from diverse backgrounds to shape the experiences, conversations, and potential of emerging global technologies. We believe that the Genspace community can proactively lead this field by promoting a socially-conscious life sciences ecosystem.





# Our Core Values

Guiding principles for our staff, board, members, instructors, interns, and volunteers. We **embody** these values as we work together to fulfill our mission, **engage** our community, and recruit new employees.

## Who we are:

**Diversity and Inclusivity:** Each person's unique identity and life experiences enrich the Genspace community. We work to break down barriers, build access, and listen to and learn from each other in order to exchange ideas and create a space that welcomes everyone.

**Transparency:** We are open and honest. We communicate our goals, activities, and projects. We are accountable to each other. We strive to create systems that make information accessible to each other on staff, within the Genspace community, and with the general public.

**Ethics:** We strive to be responsible stewards of technology by considering the implications of our work and the impact that we will have on others and our environment. We evaluate who carries the risks and who benefits from our work. We practice integrity and work towards a more just society.

## What we cultivate:

**Curiosity:** We believe that learning is a lifelong process. We are eager to ask questions, to wonder at the world around us, and to follow our interests. We build pathways to spark inquiry and engagement.

**Experimentation:** We try new things and embrace unexpected outcomes. We think outside the box and make connections between traditionally siloed disciplines. We explore new concepts, iterate on our processes, and are resilient and brave.

**Collaboration:** We believe that the best ideas are sparked by many minds coming together. We work to build a community of support and exchange. We acknowledge each other's contributions, respect each other's expertise, ask for help when we need it, and offer our time and skills when we can.





# 2020 At a Glance

## Courses and Workshops:

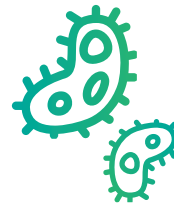
- 14 new classes designed
- 10 new instructors
- 12 in-person classes and workshops
- 35 virtual classes and workshops
- 242 hours of hands-on learning



## New Monthly Series:

*Tools of the Trade: Lab Skills*

**LEARNERS  
786 ENGAGED**



## Youth Development:

- 70 hours of online learning and at-home research
- 4 podcast clips produced
- 2 Biorocket Research Internship Program alumni leaders
- 13 Biorocket Research Internship Program interns
- 15 Teen Leadership Council members

## Partnership Programs:

- 3 university programs
- 4 K-12 schools served
- 246 learners engaged

**5 Fashion Institute of Technology Genspace Scholars**

## Membership Program:

- 10 Individual Members
- 6-10 participants for monthly "Unsocial" discussions
- 2 "at-home" labs set up
- 3 Premium Members



## Community Project Teams:

- 21 Community Project Members
- 5-15 Open Plant Members, **WEEKLY MEETINGS**
- 4-6 MolBio Study Group Members **WEEKLY MEETINGS**
- 5-15 Expressive Matter Members **BIWEEKLY MEETINGS**

## Outreach and Public Events:

**8 free public outreach** events and online conferences hosted by partners such as **the American Society of Human Genetics, the Global Community Biology Summit, CRISPRCon, NewBioCity, Art in the Lab, Nation of Makers**

- 20 free or low-cost public events and discussion groups hosted by Genspace
- 766 people served
- 1434 new bio-enthusiasts on social media

## Volunteers and Interns:

- 1 LifeSci NYC intern
- 55 volunteers contributed to programs, committees and mentorship
- 165 volunteer hours logged







# 2020 Program Highlights

# Learn

We firmly believe that **meaningful, rigorous learning** and **innovation** can occur beyond the confines of a formal degree or certificate program, and outside academic and industry settings. Through our programming, we provide learners with **hands-on, experiential learning connected** to their **lives** and **interests**.



**To date, we have hosted more than 520 classes and events, attended by more than 7,700 people... and counting!**

Our classes are designed for those with little or no formal scientific training, and we welcome learners from a wide range of backgrounds and experiences. 60% of our learners do not consider themselves scientists, and 30% are from STEM fields other than biology.

*"I do artwork for film & tv and use a lot of toxic materials, so I am interested for example exploring mycelium as a substitute for foam (carving props and other scenery), making the film industry less wasteful and less toxic."*

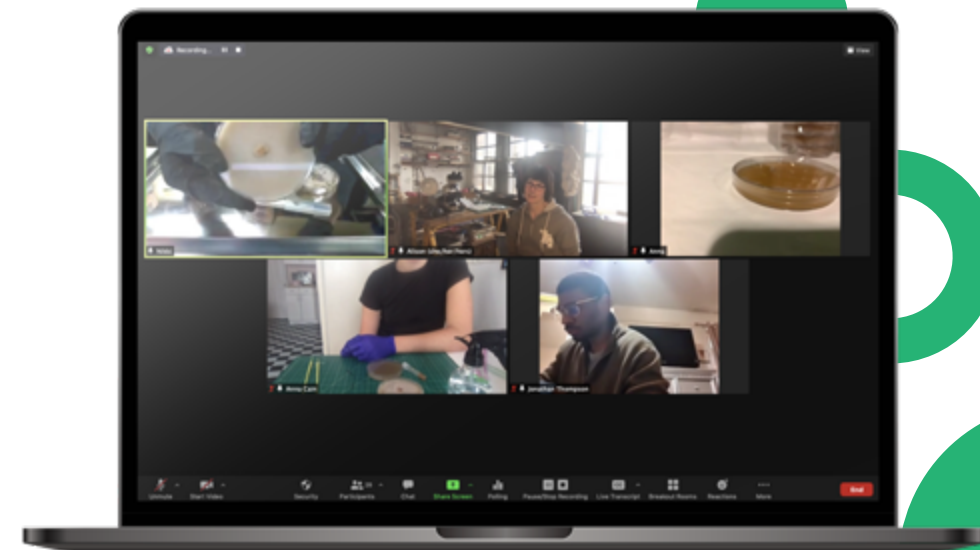
**Hanna Wellish**

# Courses and Workshops

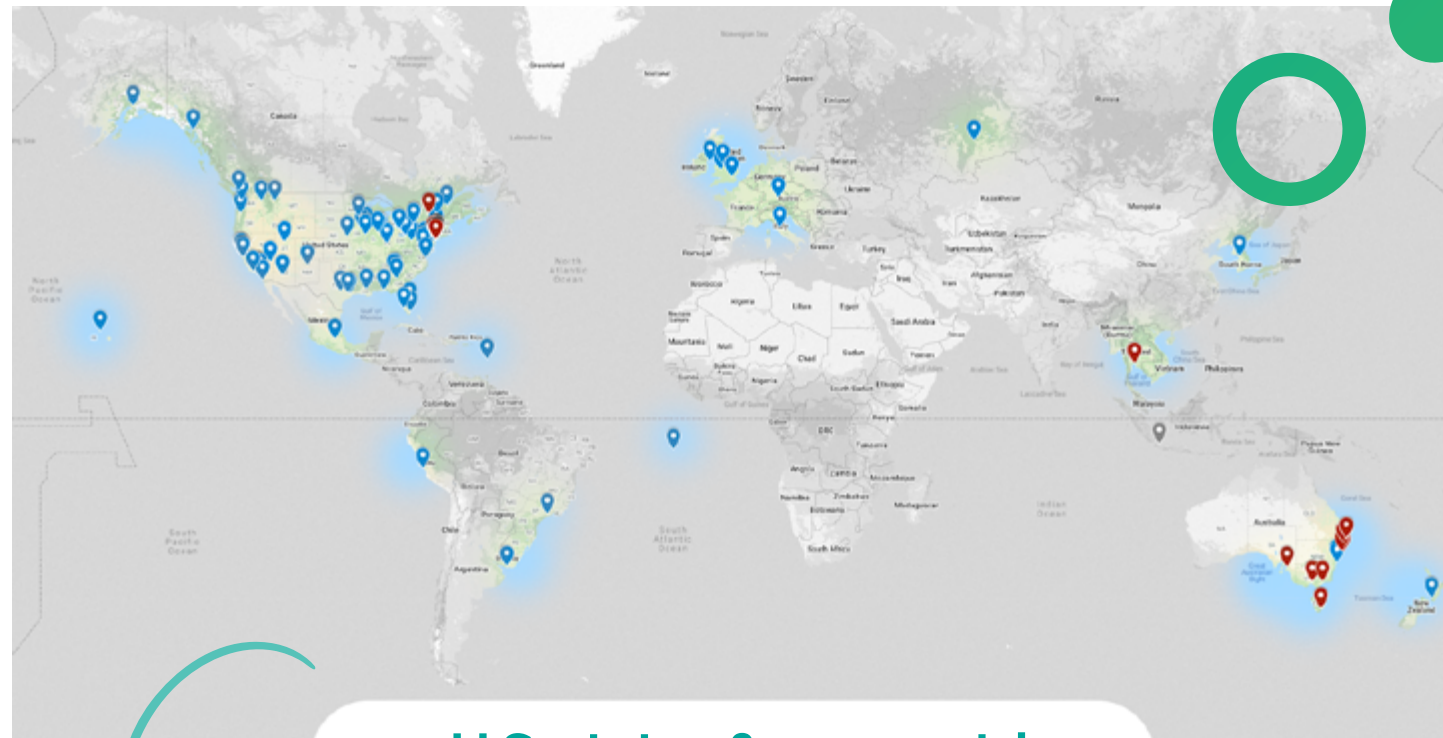
*Nurturing Interdisciplinary Explorations of Science Online and At Home*

The **COVID-19 pandemic** forced us to zoom in and out on our educational goals, and creatively imagine and plan ways to meet our mission without being able to gather in person. We quickly **transitioned to virtual workshops** and we were stunned at the larger community's interest and willingness to learn with us from home.

**Our instructors skillfully transitioned their workshops to a virtual format, coming up with creative ways to teach data analysis in the cloud or brew kombucha to make SCOBY paper at home. We even experimented with making and distributing supply kits for our New York participants!**







27 U.S. states & 15 countries

Prior to 2020 (red), participants concentrated in the NYC Metropolitan area with the occasional overseas visitor. This year (blue) we welcomed learners from five continents and all across the USA.

Thanks to the virtual format, we welcomed learners from 27 U.S. states and 15 countries. Participants joined before dawn in Jakarta, Seoul, and Wellington and after midnight in Paris and Warsaw. Even New Yorkers expressed gratitude that they didn't have to commute to participate in our programs!

**We look forward to continuing to engage our virtual communities in 2021.**

### Meet Our Learners

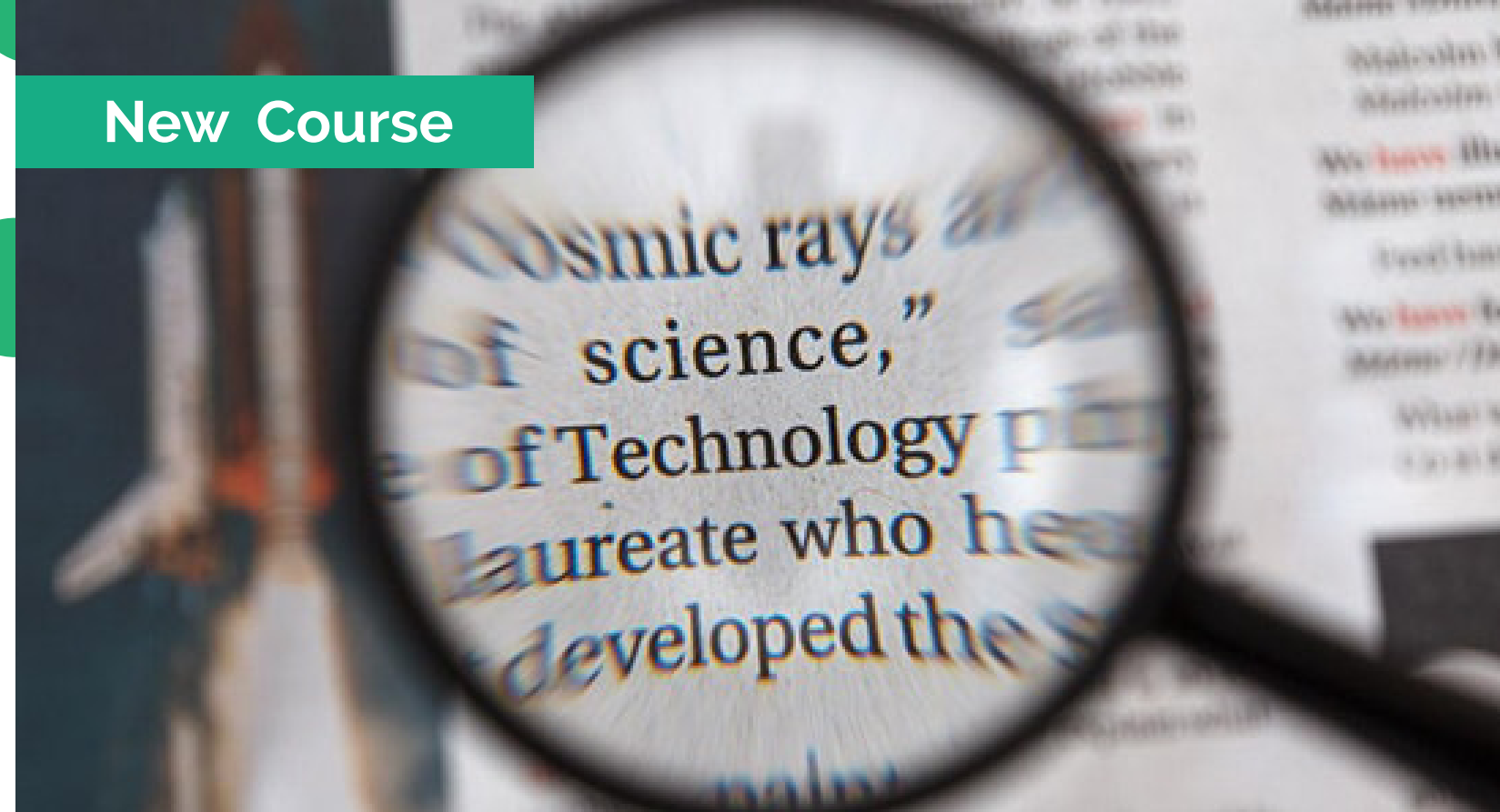
*"My experience at Genspace was eye-opening and left me motivated to continue learning about molecular biology and its potential to solve many of the big issues affecting humanity today."*

**Carlos Gaitan**

*"My experience at Genspace was one of the driving forces that helped me to go back to university: I turned sixty last October, so yes definitely a driving force. I live in Hamilton Canada, otherwise I would have taken many of the courses offered at Genspace and probably volunteered as well. I will check out your online courses!"*

**Paul Sheeler**

### New Course



In response to the murder of **George Floyd** and ongoing **Black Lives Matter**, protests Instructor Hala Iqbal, Ph.D. designed and taught a **new course** called **Bad Science: An Introduction to the Legacy of Racism in Science Research**.



**This class examined past and ongoing injustices including medical research on marginalized bodies, legacies of eugenics in institutions of higher learning, and current technology research that aids in surveillance and criminalization.**

Participants finished the course by presenting past and ongoing resistance movements in science organizing for justice. Participants increased their knowledge and ability to self-reflect and speak about these topics. Class fees were donated to two social justice organizations of Dr. Iqbal's choice — Movimiento Cosecha and Black & Pink Bail Fund.

## 2020 Course Highlights

### Seeing Science: An Introduction to Biomolecular Modeling

**Instructors:** Daniel Fried Ph.D.

**Course description:** Learn how to create beautiful and informative images of biomolecules using the 3D molecular computer modeling program, PyMol.



### Synthetic Biology 101

**Instructors:** Sudarshan Pinglay

**Course description:** Explore the potential of synthetic biology using the BioBits® cell-free system from the comfort of your home!



### Slime Mold Bioart

**Instructors:** Nikki Romanello

**Course description:** Explore the beauty, intelligence, & collaborative nature of slime mold as a medium for art-making.



## Meet Our Instructors

*"Genspace has helped spark a DIY Biology revolution around the world. At this time, we have to all do our best to make sure that this spark is not extinguished. Spaces like Genspace are crucial to keep the public engaged with science after this current pandemic is behind us. A scientifically literate society is likely to be better prepared to handle the next crisis - be sure that one is coming!"*

**Sudarshan Pinglay**

*Synthetic Biology 101 Instructor*



## Partnership Programs

*Building Relationships with Schools, Colleges, and Nonprofit Organizations*

This year we welcomed back two of our **ongoing partnership** programs: the **Fashion Institute of Technology (FIT)** Genspace Scholars, and students from **Uncommon Collegiate Charter High School's** High School 2.0 Program.

Uncommon Schools | UNCOMMON COLLEGIATE CHARTER HIGH SCHOOL



Our five FIT Scholars were interested in prototyping self-cleaning textiles, environmentally responsive textiles, using food waste for bioplastics and sustainable textiles, and adaptive materials for people with disabilities. To get them started, we designed and taught a new "How to Science" crash course, exploring scientific methodologies and experimental design, accessing scientific literature and databases, and practicing safe lab techniques.

**Although the students were unable to complete their research due to the COVID-19 pandemic, they are looking forward to coming back to the lab in 2021 to prototype and share their ideas with the community.**

## Meet Our Partners

*"Genspace is one of our favorite and strongest partnerships, so we'd love to feature the work kids are doing [in an upcoming promotional film]."*

**Shraddha Nunziata**

*Uncommon Schools*

Our Uncommon Collegiate Charter High School students kicked off the year exploring the biodiversity in their neighborhood with a BioBlitz and using an AI-based tool called Seek. As we've continued to engage online, students have started to learn to code using the statistical programming language R, and in 2021 they will test their creative technology skills by building an Arduino-based multi-sensor tool to monitor their mycelium.



# Youth Development

*Creating a Space for Youth to Learn and Lead*

Genspace launched the **Biorocket Research Internship Program in February 2017 as its first intensive research experience** for Title I high school students. This program is part of the NYC Science Research Mentoring Consortium (SRMC).

**The program has now finished its fourth year of operations, with 43 students completing the program in its entirety. In 2019, we launched Beyond Biorocket, an alumni internship experience at local biotech companies and organizations.**

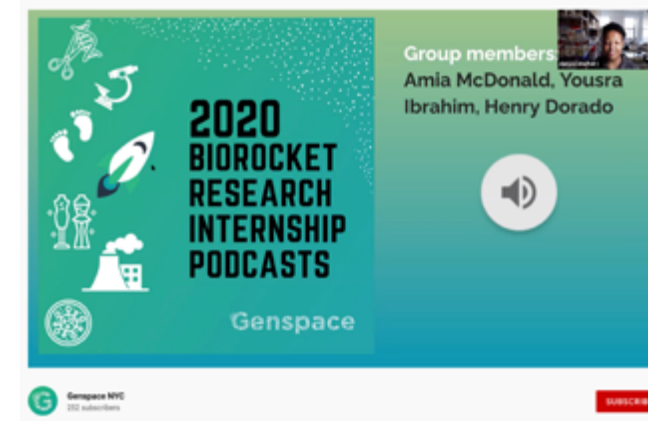
Between the **COVID-19 pandemic** and widespread **protests**, 2020 has presented unforeseen and endlessly exhausting challenges for our interns.

We rapidly transitioned our program to a **remote learning experience** that maintained a healthy sense of community and support for youth as they navigated life during these extraordinarily stressful times.



## Biorocket 2020 Virtual Program Highlights

- At-home ecological, health, social and behavioral research projects ranging from the effects of different colors of light on sleep quality, to the effects of music on mood and stress, to testing the effectiveness of a new eczema medication.
- Survey of biotechnology innovation in different sectors such as genome editing and medicine, food and agriculture, fashion and beauty, biomimicry and architecture, and environmental conservation.
- Social and emotional learning and improv training to build youth confidence and connection with each other.
- Bioinformatics and genomic ancestry analysis using the statistical programming language R to analyze real data from the 1000 Genomes Project.
- College and career readiness sessions via virtual lunches with Black and LatinX scientists from a variety of life science fields; virtual lab tours; and skills workshops on college applications, professional communications, and finding internships.
- Science communication, interviewing, storytelling, and audio editing lessons culminating in youth-made podcast clips about the ethical and social implications of different science topics.
- Presentations to more than 136 Genspace community members, their families and friends at the NYC Science Research Mentorship Consortium symposia and our End-of-Summer Celebration.



**Youth podcasts focused on the environmental and economic impacts of fast fashion, COVID-19 health disparities in marginalized communities, and the hype and hope of CRISPR-Cas9 genome editing for conditions like sickle cell disease and the ethics of so-called “designer babies.”**

[Listen here.](#)



Under the leadership of Iza Sid, the **Teen Leadership Council kicked off two successful projects this fall**, with grand ambitions for 2021. Youth leader and Biorocket alumni Agalby Morel led the activism team in a successful GoFundMe campaign to purchase food for a local community fridge. The team also launched a bilingual social media campaign (@tlc.genspace) to inform others about food insecurity, social issues, and justice. They will continue to pursue this project, and they plan to expand into community education and climate justice activism in 2021.



## Meet Our Youth Leaders

*"Previous to Genspace I think I had such a misunderstanding about what scientists do... I think I always had this idea of you've got this person in there in a white lab coat mixing chemicals and I genuinely did not know what research looked like ... so when I got exposed to this biochemistry and how you can manipulate bacteria and living organisms and learning how you can produce data I think that was really cool... I think if I didn't do that experience I still might have [these] misunderstandings about what scientists do and what research looks like." -Biorocket Alum*





# Create

**Anyone**, regardless of educational background, can become a **member of Genspace** and undertake their own projects in our fully-functional molecular biology lab. All projects must meet federal Biosafety Level 1 guidelines. These guidelines help us to ensure that our shared laboratory space remains safe for all.

**We offer three membership tiers — Individual, Premium, and Community — to accommodate the wide range of interests, needs, and goals of our community. Regardless of membership tier, all lab members receive 24/7 access to Genspace's facility, shared equipment and materials, along with mentorship and basic lab training from our staff.**



**Since 2012, 142 people** have been members at Genspace, including artists, researchers, designers, high school students, engineers, hobbyists, and teachers.

# Membership Program

*Supporting Community Scientists, Creatives, and Local Entrepreneurs*

Our **Individual and Premium Memberships** facilitate innovation and entrepreneurship in the life sciences by providing low-cost access to facilities and a knowledgeable, diverse community of users. This year, **three small businesses** called Genspace home while they developed innovative solutions to environmental issues such as plastic degradation and sustainable textile design using bioengineered fibers.

**Vader Nanotechnologies** is a biotech startup company that uses directed evolution techniques to optimize organisms that can grow on environmental pollutants such as plastic and PFAS. Founder and CEO Trévon Gordon started working at the lab in 2019, where he met his CTO, Gordon Fleetwood, and in 2020 they were selected for the Communitas Ventures Accelerator program for social innovation.



**In addition to serving entrepreneurs, our membership program also provides high school students, community scientists, and creatives with the space, training, and tools they need to pursue independent research, art and design projects. In 2020, member projects ranged from mushroom barcoding, to using CRISPR-Cas9 to fight antibiotic resistance, to artisanal DNA jewelry and bacterially dyed textiles.**

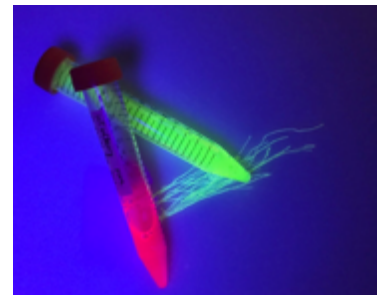
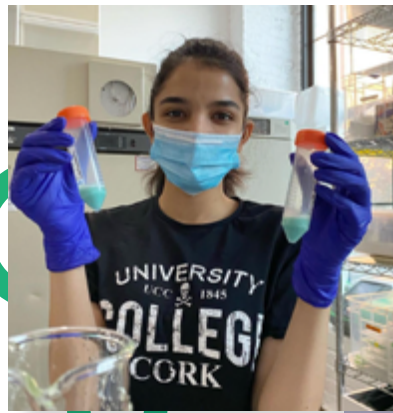


## Meet Our Members

"At Werewool, we're developing biodegradable textile fabrics with inherent material properties such as color and stretch that rely on protein structure instead of plastic and dye... In 2019, we became Genspace scholars, and through that program we took a Biomimicry class that was taught by Danielle Trofe. Her class really showed us the way that nature could inspire these performance properties in our fibers and how to communicate our work better through explaining how nature does things."

**Valentina Gomez**

"We found our research come to a halt this March, right as we were becoming a company. Which was terrifying, because as a startup we were like "Oh my god, what are we going to do? We didn't budget for this." But we were able to connect with Angela and Beth, and they really helped us out. This past summer and fall we've been working at Genspace and continuing our research, developing new proteins that we can use in our fibers." **Chui-Lian Lee**



Even though the lab was closed, our members got creative and found alternative ways to carry on their science. For example, Jelani Wilson set up his **own biotechnology lab at home!** Peter Russell assisted mycologist Sigrid Jakob's DNA barcoding workshop, to lend his expertise in identifying different mushroom species. And artist Lori Solondz even self-published a beautiful board book on her slime mold art and poetry!

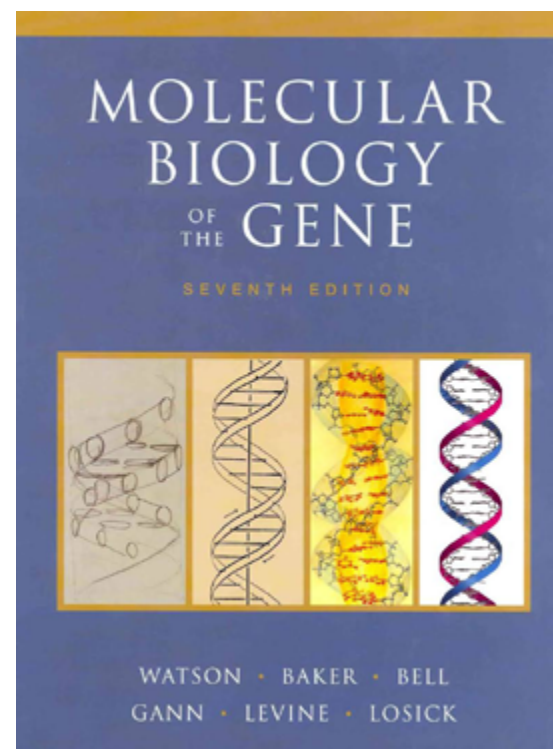




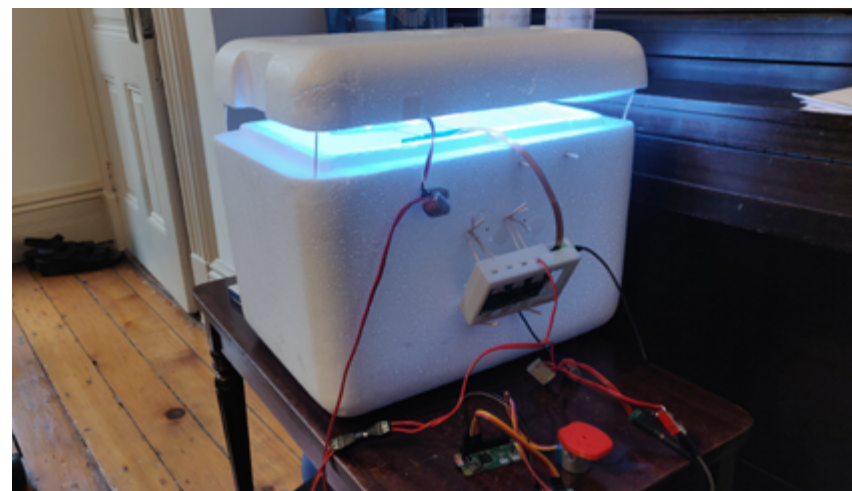
# Community Project Teams

*Facilitating an Environment for Collaborative Experimentation*

Our **Community Memberships** are aimed at those who want to explore advanced lab techniques in a more supportive and collaborative environment. Community Project members are high school students, retirees, software engineers, scientists, artists, and local college students. They work collectively with other members on one or more of our group research projects.



**In 2020, our Community Project Teams continued to engage in ongoing learning and collaboration. They met weekly or biweekly to continue their projects from home, and one group even started a Molecular Biology Study Group to dive more deeply into the conceptual basis of their optogenetics project. We shared books, movies, and other biology-themed media at our monthly Zoom socials — including a virtual get-together for the holidays! All the teams are enthusiastic about coming back to the lab to continue their work in 2021.**



- **Open Plant** - Participates in an international research consortium focused on using liverwort (*M. polymorpha*) to develop open source tools and methods for plant synthetic biology
- **Optogenetics** - Uses genetic tools to program microbes to be responsive to light, with potential applications for studying the brain's neural circuits
- **Gadgeteering** - Provides hardware and technical support to Genspace members and community project teams
- **Expressive Matter: Biomaterials** - Explores sustainable, biomass-sourced materials for product design and other applications

**The Open Plant team** had a highly successful year, in spite of the challenges. They streamlined the design to their open source plant incubator, set up easy-to-install software for automated image analysis, and prototyped new ways to multiplex their plant imaging system.

Dave Jackson, Ph.D., Professor at Cold Spring Harbor Laboratory, provided his expertise in plant biology, and the team had helped him troubleshoot his Raspberry Pi. This kind of mutual learning can only happen when you bring together a group of people with a diverse set of backgrounds and experiences around a common goal.

**Genspace's biomaterials research group Expressive Matter taught three bioplastics workshops this year, including a new Tools of the Trade: Lab Skills session. The group busily prototyped from their kitchens, experimenting and documenting the process and sharing their creations in bi-weekly meetings. They even got together for a socially distanced field trip to see the Neri Oxman: Material Ecology exhibition at MoMA.**





# Biosafety Manual Publication

*Building Safe and Responsible Lab Practices in the Community Biology Movement*

We support the thriving global community biology movement by **guiding best practices in biosafety**, sharing our insights in starting and maintaining a lab, and participating in the Global Community Bio Summit— an annual meeting of community biology practitioners hosted by MIT Media Lab.

**Culminating a three-year project spearheaded by Genspace Co-Founder Daniel Grushkin and colleague Todd Kuiken, Senior Research Scholar at NC State University, we published the first ever Community Biology Biosafety Handbook. This open manual offers biosafety protocols, practices, and recommendations aimed specifically for the community biology movement. [Read more here.](#)**



Previous Director of Operations, Angela Armendariz, and Co-Founder, Daniel Grushkin, collaborate with Biosafety Fellows from all across the globe to publish the first open-source safety manual for community biology.





# Grow

At Genspace, **we believe science can and does happen everywhere**, and that science is at its best when it is in dialog with other forms of knowledge. With this in mind, we host and participate in a wide variety of **free programs** and activities aimed at engaging learners wherever they are to bring their expertise into the life sciences.

**To date, Co-Founder Ellen Jorgensen's TED talks, along with our participation in public outreach and engagement activities, has allowed us to spark curiosity and share the joy of biology with millions of new learners all over the world.**



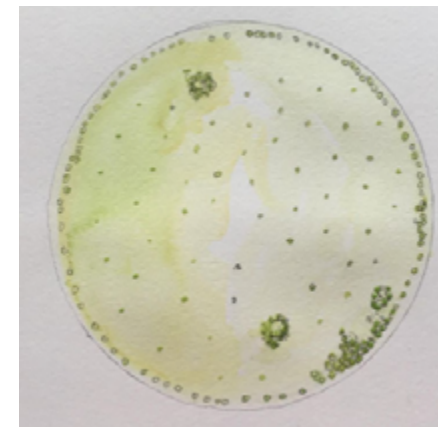
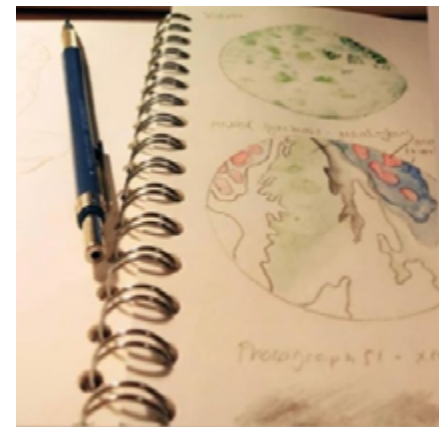
# Outreach and Public Events

*Bringing Our Science to the Public*

In April, we launched a new monthly environmental microbiology discussion group called Planet Microbes facilitated by Kyle Frischkorn, Ph.D. (view the recordings on our YouTube channel), exploring methane-munching viruses, bacteria that can live without water in the desert, diatoms and their microbiomes, soil microbes and carbon capture, and the potential for microbes to mine for rare earth elements in space!



We experimented with new digital public engagement efforts in 2020 to reach a broader audience in more equitable, accessible, and novel contexts. For example, we partnered with Art in the Lab to host a Wednesday afternoon drawing session about symbioses. We also used our online platform to engage learners in hot topics in the life sciences, such as innovative vaccine development technologies with Steve Kaminsky, Ph.D., zombie insects with Brian Lovett, Ph.D., and science (mis)information with Marjorie Linares, Ph.D.





Our **Cyborg Reading Group**, facilitated by performance artist Kathryn Hamilton of Sister Sylvester, kicked off in 2019 in response to ongoing dialog about the language and culture of science. **Our goal is to unpack the military- and colonialism-filled analogies common in popular discourse about science, and disentangle the utilitarian ways we work with organisms in research.**



**We discussed everything from interspecies collaborations, leftist biology, and eco-evo-devo as a new frame to combat reductionist and essentialist viewpoints. We even experimented with how to run a Zoom call using feminist practices!**

In addition to our virtual programming, we hosted socially-distant nature walks at the height of NYC's fall mushroom season. Instructor Sigrid Jakob of the New York Mycological Society led Genspace participants through the Green-Wood Cemetery to explore and identify a diversity of local fungi. Our younger participants found over two dozen specimens, and others even picked some out for dinner!

**Before the pandemic**, we participated in college and career awareness days at Sunset Park High School and MESA Charter High School, sharing opportunities for youth to learn more about life sciences careers and the Biorocket Research Internship Program. We extracted strawberry DNA at the PS 516 Winter Carnival for our neighbors in Sunset Park. And we visited Parsons School of Design's Transdisciplinary Design Studio and spoke at NYU's Processing Community Day.





# Volunteers and Interns

*Engaging the Many Talents of our Community*

Volunteers and interns are a **vital part** of our Genspace community, both at the lab and in virtual space. This year we were blessed with the incredible gifts of our LifeSci NYC Intern, Bryan Campos, who curated educational resources, facilitated discussions, and mentored the students in science communication and podcasting for our Biorocket Research Internship Program. Bryan was integral to our success this summer.



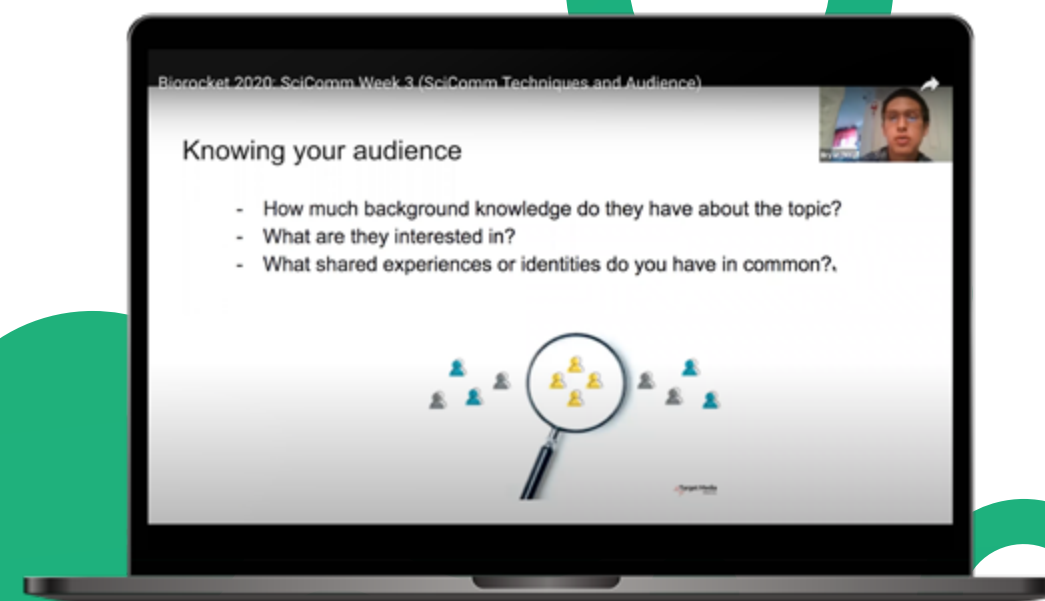
**In addition, 55 volunteers shared their time and talent this year. Pre-pandemic, they helped clean and organize the lab, and they mentored our FIT-Genspace Scholars and other youth lab members. They also readily stepped up to serve as virtual Teaching Assistants for our classes and workshops, providing much needed infrastructure for class documentation and learning support.**

We also launched a new fundraising committee in 2020, and we are grateful to the members of our community with expertise in public relations, marketing, corporate social responsibility, foundation relations, and deep commitment to our mission to help us move toward our sustainability goals.

## Meet Our Intern

**Bryan Campos**, LifeSci NYC Intern

*"I really loved the freedom and opportunities this internship gave me to learn and teach others about upcoming topics. If I could change anything it would be the duration of the internship to a bit longer haha but I know it is only a summer position.... At the end of this internship I did appreciate being welcomed and included in as many of the day to day tasks the team takes and gave me a true reality check on what to expect [in this career field]."*





# Financials

The **ongoing economic challenges of the COVID-19** pandemic have certainly impacted our financial status, including making difficult decisions about staffing. However, in spite of those challenges **our community stood by us** and stepped up to help, and we are hopeful about growing a culture of giving at Genspace in 2021.

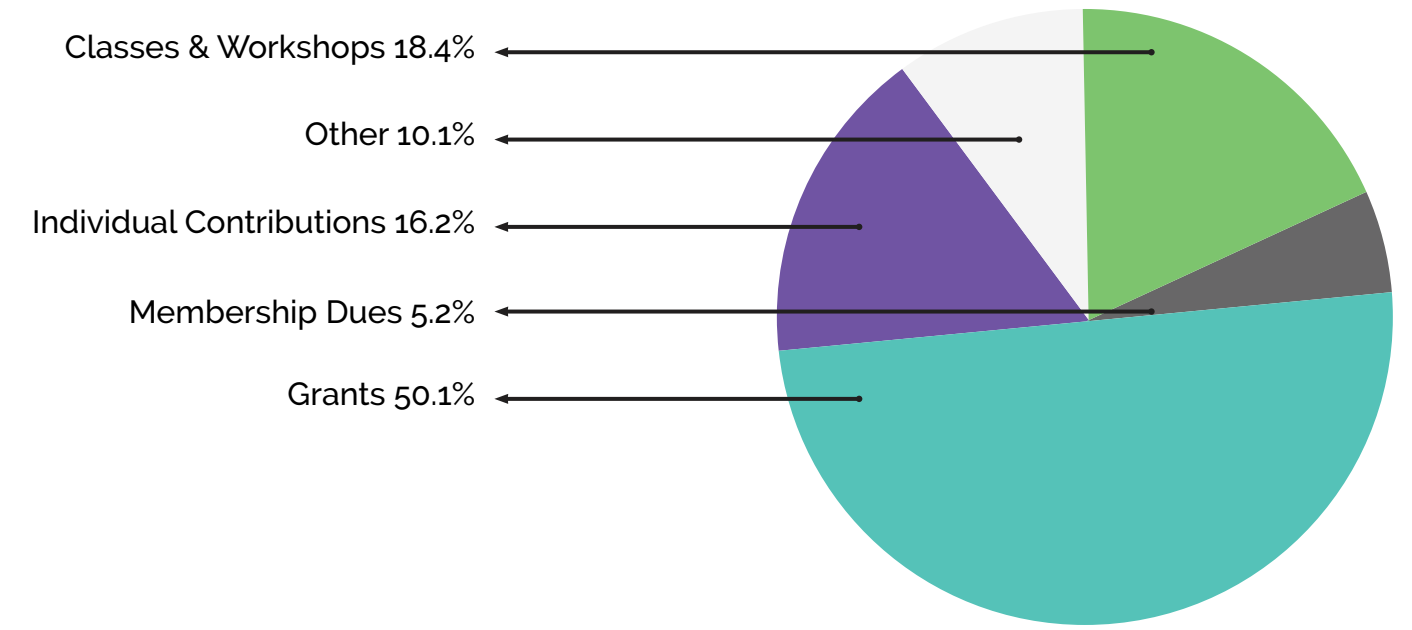
Thanks to the generous support of many new donors, and especially to our lab members who transitioned their membership dues to monthly donations, we were able to balance our 2020 budget and close the year with a surplus. We are optimistic about what 2021 has in store to help us reopen the lab, rebuild the community, and enable more people to experience life science in creative and personally meaningful ways.

## 2020 Expenses

Program Expenses	71%
Management & General	20%
Fundraising	9%

## 2020 Revenue

Income	2020 Actuals
Classes & Workshops	\$92,374
Membership Dues	\$26,301
Grants (Foundation, Gov)	\$251,180
Individual Contributions	\$81,422
Other (includes PPP loan)	\$50,460
<b>Total Income</b>	<b>\$501,737</b>



## Statement of Financial Position

	2019	2020
<b>Assets</b>		
Current Assets		
Cash	\$142,321	\$198,533
Due from Paypal	\$290	\$581
Total Current Assets	\$142,611	\$199,114
Property and Equipment, Net	\$19,853	\$20,012
Security Deposit	\$12,000	\$12,000
<b>Total Assets</b>	<b>\$174,464</b>	<b>\$231,126</b>
<b>Liabilities and Net Assets</b>		
Current Liabilities		\$8,027
Accrued Expenses	\$7,179	\$6,000
<b>Total Current Liabilities</b>	<b>\$7,179</b>	<b>\$14,027</b>
<b>Long Term Liabilities</b>		
PPP Loan Payable		\$44,345
<b>Total Long Term Liabilities</b>		<b>\$44,345</b>
Net Assets		
Without Donor Restrictions	\$84,285	\$171,099
With Donor Restrictions	\$83,000	\$46,000
<b>Total Net Assets</b>	<b>\$167,285</b>	<b>\$217,099</b>
<b>Total Liabilities and Net Assets</b>	<b>\$174,464</b>	<b>\$231,126</b>



# Meet the Team



**Jasmin Alim**  
*Education Manager*



**Vanessa Fleury**  
*Development Manager*



**Elizabeth Tuck, M.S.**  
*Executive Director*



**Previous Staff**  
**Danya AbdelHameid**  
*Development and Communications Manager*



**Angela Armendariz, Ph.D.**  
*Director of Operations*



**Leticia Cartier Oxley, M.A.**  
*Program Associate*



**David Chuchuca**  
*Biorocket Research Internship Program Educator*

## Instructors and Facilitators

- Neta Agmon, Ph.D., *Neochromosome*
- Jil Berenblum, *Cartier Retail Innovation Lab*
- Asmaa Butt, *WeWork*
- Sara Bandres Ciga, Ph.D., *National Institutes of Health, National Institute of Aging*
- David Chuchuca, *NYC H2O*
- Caitlin Cooney, *Certified Genetic Counselor*
- Laura Cox, *Opentrons*
- Michael Flanagan, Ph.D., *Flanagen*
- Kyle Frischkorn, Ph.D., *Nature Communications*
- Dan Fried, Ph.D., *St. Peter's University*
- Grant Goldner, *Grant Goldner Consulting*
- Vanessa Gonzalez, Ph.D., *Smithsonian Institution, National Museum of Natural History*
- Emily Gordin, *Industrial Design, Pratt Institute*
- Kathryn Hamilton, *Sister Sylvester*
- Hala Iqbal, Ph.D., *NYU Langone Health*
- Sigrid Jakob, *New York Mycological Society*
- Janina Jeff, Ph.D., *Illumina, Inc.*
- Ben King, Ph.D., *NYU Langone Health*
- Marjorie Linares, Ph.D., *Troy Corporation*
- Mandana Manzari, Ph.D., *Memorial Sloan Kettering Cancer Center*
- Paolo Mita, Ph.D., *NYU Langone Health*
- Lera Niemackle, *Mushroom Revival*
- Aki Nikolaidis, Ph.D., *Child Mind Institute*
- Sudharshan Pinglay, *NYU Langone Health*
- Nikki Romanello, *Artist*
- Jane Shmushkis, *Mosa Meat*
- Jessica Smith, *Pratt Institute*
- Anthony Thayer, *Urban Sustainable Design*
- Danielle Trofe, *Danielle Trofe Design*
- Julie Wolf, Ph.D., *IndieBio*
- Kumar Veerapen, Ph.D., *the Broad Institute*



## Volunteers

- Neta Agmon, Ph.D.
- Annette Angus, Ph.D.
- Niko Arranz
- Addisew Ayalew
- Alaa Ayoub
- Kevin Bishop
- Eva Carillo
- Helen Chen
- Chazman Childers
- Caitlin Cooney
- Isabel Correa
- Laura Cox
- Lada Emelianova
- NseAbasi Etim
- Nora Farnisa, Ph.D.
- Eugene Fong
- Gordon Fleetwood
- Madison Fletcher, Ph.D.
- Yi Fu
- Jeremy Hoffman
- Janina Jeff, Ph.D.
- Melissa Jiannalone
- Jennifer Jones, Ph.D.
- Steve Kaminsky, Ph.D.
- Shoily Khondker, Ph.D.
- Esther Kim
- Ivan Linares
- Dian Liu
- Brian Lovett, Ph.D.
- Eva Mann
- Jose Martinez
- Liz McClellan
- Leslie Mitchell, Ph.D.
- Merisa Nisic, Ph.D.
- Jeanne Pfordresher
- Alder Phillips
- Sudarshan Pinglay
- Kara Powder, Ph.D.
- Arantxa Roach
- Paulami Roychoudhury
- Peter Russell
- Ashley Schloss, Ph.D.
- Justin Shaifer
- Jane Shmushkis
- Iza Sid
- Marlee Tavlin
- Amber Trujillo
- Tiffany Truong
- Elizabeth Tulchinsky
- Michele Waters, Ph.D.
- Justin Whitfield
- Rosemary Valenta
- Kumar Veerapen
- Juliette Ziegler
- Emily Zyko

## Teen Leadership Council

- Alaa Ayoub, Beacon High School
- Daniela Cabrera Mendoza, Bard High School Early College Queens
- Craig Chen, Stuyvesant High School
- Farrah Emam, Beacon High School
- Ezequiel Espinal, Brooklyn College
- Django Francesco, New Exploration in Science, Technology, and Mathematics
- Yousra Ibrahim, Sunset Park High School
- Tamari Kvaratskhelia, Midwood High School
- Agalby Morel, Uncommon Collegiate Charter High School
- Evelyn Ortega, Midwood High School
- Iza Sid, BASIS Independent School
- Daniela Shoham, BASIS Independent School
- Sally Rogers, Bard High School Early College Manhattan
- Sujana Yeasmin, Sunset Park High School
- Juliette Ziegler, Beacon High School

## Board of Directors

**Angela Armendariz, Ph.D., Treasurer**  
*Deputy Director, Upward Roots*

**Jonathan Badal, Chair**  
*CEO, Opentrans*

**Janina Jeff, Ph.D.**  
*Senior Bioinformatics Scientist, Illumina*

**Dorothy Jones-Davis, Ph.D.**  
*Executive Director, Nation of Makers*

**Laura Maher, M.A., Secretary**  
*Relationship Manager, Siegel Family Endowment*

## Emeritus Board Members

**Nurit Bar-Shai**  
*Co-Founder, Genspace, Artist*

**Dan Grushkin**  
*Co-Founder, Genspace*  
*Executive Director, Biodesign Challenge*

**Kathy High**  
*Professor, Rensselaer Polytechnic Institute*

**Tom Knight**  
*Founder, Ginkgo Bioworks*

**Mark Merrill**  
*Strategy & Operations, Poncho Solutions*



# 2020 Annual Report



## Want to Get Involved?

Here are five ways to get started at Genspace:

1. Take a [class](#)
2. Join [the lab](#)
3. [Volunteer](#) with us
4. Network at our [public events](#)
5. Become a [Friend of Genspace](#)

## Stay in touch

Genspace NYC  
132 32nd St.  
Suite 108  
Brooklyn, NY 11232  
929-387-8100

-  [GenspaceNYC](#)
-  [@genspacenyc](#)
-  [@genspacenyc](#)
-  [info@genspace.org](mailto:info@genspace.org)
-  [www.genspace.org](http://www.genspace.org)