The New York Academy of Sciences

2025

ANNUAL REPORT

Letter from the President

Dear members and supporters of the Academy,

As I reflect on the past year at The New York Academy of Sciences, one theme stands out above all others: the urgent need to defend and renew public trust in science. Around the world – and particularly here in the United States – we have witnessed how easily misinformation can corrode confidence in evidence, disrupt research, and dissuade young scientists from entering or remaining in the field. Science, as I noted in my address at the Annual Meeting, is not merely under scrutiny; it is under siege.

In such a moment, the Academy's mission – to advance scientific knowledge, promote integrity in research, and apply science for the public good – has never been more essential. For more than two centuries, the Academy has stood as a beacon of independent thought and global collaboration. This past year, we have worked tirelessly to ensure that science remains not only credible but connected: to communities, to classrooms, to policymakers and to people everywhere.

Through our **conferences and symposia**, we have convened leading voices to discuss some of the defining issues of our time: from ethics in artificial intelligence (AI) and data transparency to renewable energy, climate resilience and the future of scientific leadership. These gatherings remind us that science thrives on open dialogue and diversity of perspective, not isolation or ideology.

Our **education programs** – including our **Junior Academy** and **Scientist-in-Residence** programs – have continued to ignite curiosity among students across New York City and around the world, providing mentorship and research opportunities that excite and empower the next generation of scientists. In a time when public education faces significant headwinds, this program represents hope in action – proof that scientific curiosity, once sparked, can transform lives and communities.

The Blavatnik Awards for Young Scientists and the **Tata Transformation Prize** have deepened our commitment to global scientific capacity-building. By supporting young innovators and entrepreneurs across the world, these programs are helping to turn scientific ideas into tangible solutions for sustainable development.

The **International Science Reserve (ISR)** has expanded to include more than 20,000 researchers across the globe. Its partnership with the Center for Advanced Preparedness and Threat Response Simulation (CAPTRS) is pioneering new ways to train scientists for crisis coordination through "serious games," preparing them to respond swiftly to climate, health and humanitarian emergencies.

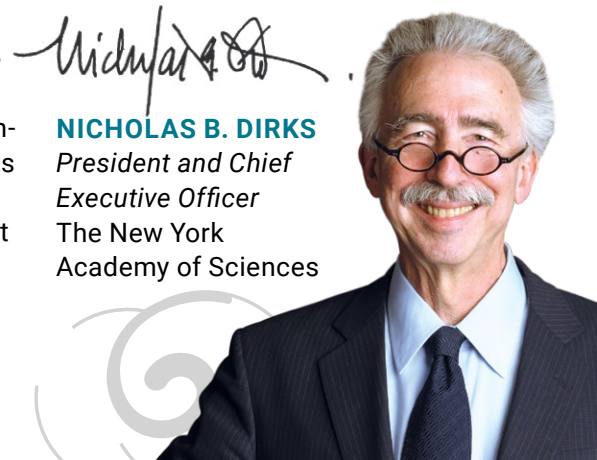
At the same time, our **AI and Society Fellowship**, developed in partnership with Arizona State University, supported young researchers investigating how artificial intelligence can serve humanity rather than undermine it. We are continuing to nurture the next generation of science leaders through our **Leon Levy Scholarships in Neuroscience** which since 2022 has supported the most innovative young researchers at a critical stage of their careers – their postdoctoral research – as they develop the new ideas and directions that will help establish them as independent neuroscientists.

Across all of these efforts, we have been guided by a single conviction: that science must not retreat behind paywalls or politics, but must engage the world openly, courageously and truthfully.

In a year when truth itself has too often been contested, the Academy has also stepped up as a public voice for science. Through op-eds, media partnerships, and our growing **"Shaping Science" podcast** *(do check us out and subscribe on any of the major podcast platforms!)*, we explore how science works, reveal surprising connections across scientific disciplines, probe how scientists can communicate more effectively with the public, and interrogate what lies behind the current attacks on science. We are also continuing to spotlight leading research across all fields through our multi-disciplinary journal: ***Annals of the New York Academy of Sciences.***

As we look toward the year ahead, I draw strength from the extraordinary community that sustains the Academy – our members, partners, donors and staff. Their commitment keeps our mission vibrant. Thank you to all those who have donated to keep this mission intact. Together, we will continue to demonstrate that science is not just a body of knowledge, but a way of thinking – a commitment to truth, evidence and the shared pursuit of a better future for all.

Thank you for standing with us, for science and for the world it serves.



NICHOLAS B. DIRKS
President and Chief Executive Officer
The New York Academy of Sciences

Life Sciences Research

During the past fiscal year, The New York Academy of Sciences successfully hosted a series of popular in-person and hybrid events featuring high-profile speakers. These events attracted a diverse audience, drawing thousands of researchers from both domestic and international institutions. The Academy's programming provided a platform for cutting-edge discussions and collaborations, fostering a vibrant community of scientists and scholars across a wide range of disciplines. These programs included:

AUTHORS AT THE ACADEMY SERIES

The **Summer 2024 Authors at the Academy Series** aimed to develop scientific literacy among scientists and science enthusiasts by encouraging the reading of science-themed books and engaging in conversation with scientific authors. This series featured two thought-provoking events in the format of fireside chats:

- *"The Beauty of Falling: A Life in Pursuit of Gravity"* with theoretical physicist, **Claudia de Rham, PhD** (Imperial College London) | July 16, 2024
- *"What If Fungi Win?"* with **Arturo Casadevall, MD, PhD** (Johns Hopkins University) | July 18, 2024

UNITED STATES OF SCIENCE

September 16, 2024

This evening panel discussion – presented jointly by the Academy and Research!America – centered on national science strategy, drawing on findings from the Science & Technology Action Committee's (STAC) award-winning State of Science Report which examined the need for alignment among science, industry, education, and other sectors to develop a cohesive national strategy that guides federal policies and investment in research and development. Survey data from the report highlighted concerns that insufficient funding for agencies such as the NSF negatively impacts STEM education, workforce development, international competitiveness and national security. Notably, 70% of respondents expressed worry that future generations will be worse off than the current one. The panel exploring these themes featured Academy President and CEO **Nicholas B. Dirks** as moderator, with panelists **Dario Gil, PhD** (IBM) and member of the Science and Technology Action Committee; **Mary Woolley, MA**, (Research!America); and **Keith Yamamoto, PhD** (University of California, San Francisco) and member of STAC.

DEEPFAKES AND DEMOCRACY IN THE AGE OF AI

September 17, 2024

An Associated Press poll revealed that 58% of U.S. adults across party lines believed AI would amplify misinformation in the 2024 presidential election. This evening panel discussion, presented as a partnership between the Academy and Cure, examined the dual nature of AI technologies – highlighting their risks to electoral integrity and social cohesion while also exploring their potential to strengthen democratic institutions by improving accessibility, reducing bias and fostering civic engagement. The event opened with welcome remarks from **Seema Kumar** of Cure and was moderated by **Nick Dirks**, featuring expert insights from **Luciano Floridi, PhD** (Yale University), **Maya Kornberg, PhD** (Brennan Center for Justice) and **Joshua Tucker, PhD** (NYU Center for Social Media and Politics).

15TH ANNUAL MACHINE LEARNING SYMPOSIUM

October 18, 2024

Machine Learning, a subfield of computer science, focuses on developing algorithms that learn from data to make predictions. The fifteenth symposium in an ongoing series by the Machine Learning Discussion Group at the Academy highlighted its broad applications, from natural language processing and medical diagnosis to financial fraud detection and stock market analysis. The meeting featured keynote addresses from **Pin-Yu Chen, PhD** (IBM) and **Daniel Russo, PhD** (Columbia University).

SCIENCE FOR THE CITIES OF TOMORROW

October 22-23, 2024

This forum was jointly organized by the Shanghai Association for Science and Technology and the Academy. It endeavored to establish a platform that nurtures dialogue, cooperation, and knowledge exchange between Shanghai and New York, two global mega-cities. Through this platform, distinguished leaders including Vice Chancellor of NYU Shanghai **Jeffrey Lehman, PhD**, Columbia University Climate School Interim Dean **Jeffrey Shaman, PhD**, and economist **Jeffrey Sachs, PhD** (Columbia University) shared novel ideas and forged common ground at the nexus of science and society.

TATA KNOWLEDGE SERIES ON AI & SOCIETY: 100 YEARS OF AI WITH DR. ALOK AGGARWAL

December 5, 2024

Artificial Intelligence (AI) is ushering in a wave of change that will touch every aspect of our daily lives. This conversation between **Nick Dirks** and **Alok Aggarwal, PhD** (Johns Hopkins University), one of the early innovators and developers in this field, set out to demystify AI by explaining its history, capabilities and limitations. Aggarwal explained transformative capabilities of AI to drive innovations in the current and the Fourth Industrial Revolution, including the Internet of Things (IoT), Blockchains, Metaverse, Robotics, Autonomous Vehicles, Three-Dimensional Printing, inventions related to predicting, mitigating, and adapting to rapid climate change, and innovations related to gene editing, protein folding, and personalized healthcare.

CHEMICAL BIOLOGY OF NUCLEIC ACIDS

January 14, 2025

This conference explored the intersection of chemistry and biology to advance our understanding of nucleic acid functions, including DNA, RNA and their synthetic analogs. This event highlighted cutting-edge research at the intersection of chemistry and biology, with sessions covering topics such as chemical control of RNA function and RNA-based therapeutics. Talks included speakers from a range of leaders in the field such as **Matthew Disney, PhD** (UF Scripps Institute for Biomedical Innovation & Technology), **Ralph Kleiner, PhD** (Princeton University) and **Brahma Ghosh, PhD** (Johnson & Johnson).

REGULATED DEGRADATION OF RNA AND PROTEINS: THE DR. PAUL JANSSEN AWARD SYMPOSIUM

January 30, 2025

Since 2004, the Dr. Paul Janssen Award for Biomedical Research has celebrated visionary scientists who have revolutionized human health. This year, the half-day symposium honored **Lynne Maquat, PhD** (University of Rochester) and **Alexander Varshavsky, PhD** (California Institute of Technology) for their fundamental discoveries in the regulated degradation of RNAs and proteins.

HEALTHNEXT AI SUMMIT

March 3-4, 2025

Presented by Cornell Tech, Weill Cornell Medicine and the Academy, this third annual conference brought together scientists, entrepreneurs, health system leaders, payors, and providers to explore the evolution of health AI across such topics as leveraging AI for drug discovery, medical imaging, genomics, how generative AI is reshaping mental health, rethinking healthcare law and policy in the age of AI, as well as entrepreneurship and investment in science and healthcare AI.

ETHICS AND EQUITY: NAVIGATING INCLUSIVE EXCELLENCE IN HEALTHCARE AND HEALTH RESEARCH

March 25, 2025

This conference explored critical issues in creating a more inclusive and equitable healthcare and research ecosystem. Discussions focused on building trust through representation by engaging

communities and refining research practices, developing ethical and equitable strategies to diversify the biomedical research workforce, and ensuring fairness and ethical rigor in clinical trials. Keynote talks were delivered by **Lisa Cooper, MD, MPH** (Johns Hopkins University) and **David Williams, PhD** (Harvard T.H. Chan School of Public Health).

ADIPOSE HEALTH AND OBESOGENIC MEMORY

April 3, 2025

Gaining deeper insight into the biology of adipose tissue is crucial for understanding how it impacts metabolic diseases and for guiding the development of innovative therapies aimed at improving metabolic outcomes. This one-day symposium brought together leading experts at the forefront of adipose biology, genetics, metabolism, and metabolic memory to explore the most current adipose biology studies and their relevance to obesity and cardiometabolic diseases. Keynote speaker **Michael Czech, PhD** (UMass Chan Medical School) shared insights into adipose dysfunction in obesity and associated diseases.

CANCER METABOLISM AND SIGNALING IN THE TUMOR MICROENVIRONMENT

April 8, 2025

The yearly symposium on cancer metabolism and signaling focuses on the complex networks of metabolite-signaling in cancer that aid tumor progression and provide potential therapeutic targets. The 2025 event included plenary presentations covering cancer cell and tumor microenvironment metabolism, systemic and organismal metabolism in cancer and aging, and targeting and measuring cancer metabolism. Renowned speakers included **Eileen White, PhD** (Rutgers University) and **Elaine Fuchs, PhD** (Rockefeller University), who shared their insights, inspiring meaningful discussions on translating these findings into impactful therapies for patients.

THERAPEUTIC APPROACHES TO PROTEIN MISFOLDING IN NEURODEGENERATIVE DISEASE

April 28-29, 2025

This symposium brought together leading experts in proteostasis biology, neurodegenerative disease research, clinical practice, pharmaceutical development and investors to discuss the latest advancements in the field. Anchored by an opening talk from keynote speaker **Judith Frydman, PhD** (Stanford University), the meeting served as a dynamic platform for stimulating discussions on translating current knowledge of proteostasis into innovative therapeutic strategies to address protein misfolding in neurodegenerative diseases. This event was presented in partnership with AbbVie Inc.

SICKLE CELL DISEASE: EXISTING PARADIGMS AND NOVEL APPROACHES

April 30, 2025

The conference showcased cutting-edge research and transformative discussions across five key themes: health disparities and real-world challenges in sickle cell disease; advanced disease modeling; vascular pathology and its implications; breakthroughs in autologous gene editing and reprogramming therapies; and curative approaches through allogeneic hematopoietic stem cell transplantation. The program was highlighted by a keynote address from **Alexis Thompson, MD, MPH** (Children's Hospital of Philadelphia).

THE SCIENCE OF AGING: COMBATING THE ONSET OF AGE-RELATED DISEASES

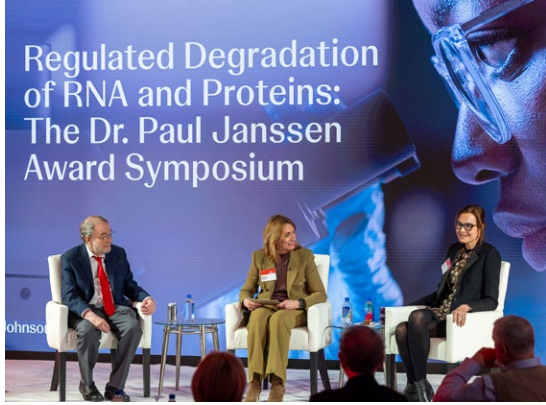
May 5, 2025

Recent discoveries in genome methylation patterns and omics technologies have revealed critical links between aging metabolism and chronic diseases and the evolution of age-related biomarkers. This one-day symposium brought together leading aging research experts to discuss foundational models of aging in higher species and the role of multiomics in unraveling the intersectionality of aging, chronic disease and health. Keynote speakers **Vadim Glayshev, PhD** (Harvard University) and **Vera Gorbunova, PhD** (University of Rochester) shared novel insights into the molecular signatures and mechanisms of longevity.

VACCINES AND THERAPIES FOR CHRONIC VIRAL DISEASES

May 21-22, 2025

Chronic viral infections, like HIV, hepatitis C and B, and herpesviruses, pose a significant threat to global health, affecting hundreds of millions of people, and causing diseases that may require months, years or decades to develop. This two-day



symposium brought together top scientists, clinical researchers, and clinicians from around the world to explore how the most current research can be leveraged for transformative pharmacologic advances to battle chronic viruses and virus-associated diseases. Keynote speakers Nobel Laureate **Charles Rice, PhD** (The Rockefeller University), **Rafi Ahmed, PhD** (Emory University), and **Galit Alter, PhD** (Ragon Institute of MGH, MIT, and Harvard) shared cutting-edge insights into vaccine design and therapeutic advancements.

THE CHEMICAL BIOLOGY DISCUSSION GROUP END-OF-YEAR SYMPOSIUM

May 28-29, 2025

The Academy's Chemical Biology Discussion Group fosters collaboration among local laboratories while highlighting groundbreaking chemical biology research for the broader scientific community. This year's keynotes, **Christina Schroeder, PhD** (Genentech) and **Jack Taunton, PhD** (University of California, San Francisco), shared innovative insights poised to push the boundaries of chemical biology forward.

2025 ROSS PRIZE SYMPOSIUM: PROTEIN MISFOLDING AND AGGREGATION IN DISEASE

June 4, 2025

The Ross Prize in Molecular Medicine, established with the Feinstein Institutes for Medical Research and Molecular Medicine, recognizes mid-career biomedical scientists whose discoveries have transformed medical practice. **Jeffery W. Kelly, PhD** (Scripps Research Institute) was awarded the 2025 Ross Prize in Molecular Medicine for his contributions to the science of protein misfolding and aggregation in disease. His pioneering research has illuminated how proteins fold, misfold, and clump in toxic quantities in the body, leading to progressive damage in the nervous and cardiovascular systems.

FRONTIERS IN CANCER IMMUNOTHERAPY 2025

June 16-17, 2025

The development of cancer immunotherapies spans a wide range of strategies – from stimulating immune responses with tumor antigen vaccines and cytokine treatments to overcoming immune suppression using checkpoint inhibitors. Innovations such as adoptive cell transfer therapy are transforming the way scientists can engineer the immune system to recognize and eliminate tumors. The 12th Annual Frontiers in Cancer Immunotherapy 2025 Symposium highlighted groundbreaking therapies for cancer patients amid rapid advances in RNA technologies, engineered cell therapy, innate immunity, model systems and immunological competence. The event featured keynote presentations by Nobel Laureate **James Allison, PhD** (MD Anderson Cancer Center), **Antoni Ribas, MD**, PhD (University of California, Los Angeles) and **Stefani Spranger, PhD** (Massachusetts Institute of Technology).

ENDOMETRIOSIS: A LOOK AT CURRENT PRACTICES AND EMERGING SCIENCE

June 23, 2025

In the past two years, several publications have outlined significant steps forward in the diagnosis, treatment, staging and characterization of endometriosis, including large single-cell sequencing data sets, the commercial availability of a new non-surgical diagnostic test and a clinical trial for the first non-hormonal treatment for endometriosis. This one-day symposium brought together top academic researchers, clinicians, epidemiologists, and industry leaders to discuss how these advances can further spur innovation and translate emerging technologies to the clinic. Keynote speaker **Stacey Missmer, ScD** (Michigan State University) shared recent insights into clinical challenges, novel innovations and emerging therapies for endometriosis.

INTERSTELLAR INITIATIVE COMPREHENSIVE PROGRAM REVIEW

June 2024 – February 2025

Launched in 2017 by the Japan Agency for Medical Research and Development (AMED) and the Academy, the Interstellar Initiative fosters interdisciplinary research and international collaboration among Early Career Investigators (ECIs). Over seven years, it has engaged more than 390 ECIs and 120 mentors worldwide through dynamic teams, mentorship, proposal development and workshops. The Interstellar Initiative is uniquely positioned to advance global scientific collaboration and drive transformative innovation. A retrospective review was conducted that synthesizes key insights from participant surveys, interviews, and program documentation to evaluate key outcomes and provide actionable recommendations for future program refinement. By refining its approach and building on its successes, the program will set a new global standard for interdisciplinary research and mentorship.

International Science Reserve

Launched in 2022, the International Science Reserve (ISR) mobilizes the global scientific community to respond to complex crises across borders – such as the next pandemic or climate-related disasters – by establishing an open, global network of scientists and preparing them to act when crisis hits.

During fiscal year 2025, the ISR focused on co-developing a series of role-playing "serious games" to enact readiness exercises across a wide range of potential global disasters – while also expanding the network's ability to collaborate across borders and disciplines via a dramatic increase in membership around the world:

- The ISR network doubled to over 20,000 global network members – with 181 countries represented, an increase of 80 countries over the prior year.
- We cultivated a greater proportion of scientists from low-resource contexts and developing countries with our largest proportion from Asia (44%) with Bangladesh, India, U.A.E., Indonesia, Brazil, Saudi Arabia, Sri Lanka and Nepal all represented in our top ten countries with the most members in our network.
- We continued to grow the ISR digital hub, bringing together the ISR's network to connect, collaborate and analyze how to apply skills and research in different crisis scenarios – attaining over 16,500 interactions on the site.
- In collaboration with the Center for Advanced Preparedness and Threat Response (CAPTRS) we developed and released interactive simulations which had participants wrestle with information uncertainty and conflicting source data under time pressure, such as identifying novel pathogens amid other types of known disease outbreaks and attempting to predict the extent of global food shortages after a supervolcano eruption via guidance from experts at the Alliance to Feed the Earth in Disasters (ALLFED), a U.K.-based nonprofit.
- Collaborated with the U.S. National Laboratories, National Science Foundation and other government agencies via the DECIDE project to develop crisis scenarios that would require high performance computing resources to solve. This work is ongoing despite U.S. government budget cuts.
- Meeting the moment as to changes in U.S. federal policy, we have pivoted to advocating for resumption of funding for climate and weather data sources and systems which are used by global scientists to model and respond to climate changes and extreme weather patterns. We have surveyed our network to identify programs and datasets that will impact their research and held a panel discussion to bring individual stories to national and international attention.

20,000+
GLOBAL NETWORK MEMBERS

181
COUNTRIES REPRESENTED

16,500
INTERACTIONS ON THE SITE

STEM Education

The New York Academy of Sciences is dedicated to delivering impactful, top-tier Science, Technology, Engineering and Mathematics (STEM) programs. Our commitment to nurturing the next generation of STEM leaders has yielded tangible results that extend far beyond the borders of New York City.

Global Programming: Junior Academy

The Junior Academy (JA) is an international network of students aged 13–17 united by a shared passion for STEM and a deep commitment to creating lasting, real-world impact. Our flexible technology platform enables virtual collaboration for teams of problem solvers to work together across geographies and time zones to share their ideas, fine-tune designs and put concepts to the test.

Notable milestones during the past year include:

- The Junior Academy Innovation Challenge curriculum was accepted as a 2a. Civics Project counting toward their Seal of Civics Readiness within the New York City Department of Education.
- At the Academy's Annual Member Meeting, over 2,000 young people were inducted as young members of the Academy at the Junior Academy Induction Ceremony.
- Members celebrated the end of the academic year with the Junior Academy Annual Symposium on June 26th.
- 3,372 students from 90 countries completed their Innovation Challenge projects in the 2024-2025 academic year.

Innovation Challenges of the Junior Academy from the Fall and Spring:

- **Fall Challenges:**
  - Ethical AI
  - Upcycling and Waste Management
  - Remediation in South Brooklyn
- **Spring Challenges:**
  - Air Quality and Health
  - Living in the Extremes

Innovation Challenges Winners from the Fall and Spring:

- Combating Extreme Heat Environments through Technology Architecture Infrastructure and Urbanization: Winner of the Junior Academy Challenge – Spring 2025 "Living in the Extremes"
- Eco-twisters Winner of the Junior Academy Challenge – Spring 2025 "Air Quality & Health"
- The Last Strand Winner of the Junior Academy Challenge – Fall 2024 "Upcycling & Waste Management"
- fAIrify – Reducing BIAS in AI Models: Winner of the Junior Academy Challenge – Fall 2024 "Ethical AI"
- Upgrading the Hydraulic System: Winner of the Junior Academy Challenge – Fall 2024 "Remediation in South Brooklyn"

New York City STEM Programming: Scientists “In Residence” and Afterschool Mentoring

The Afterschool STEM Mentoring Program (ASMP) and Scientist-in-Residence (SiR) are two programs within the Academy’s New York STEM City portfolio, which actively harness the city’s extraordinary STEM resources to create transformational STEM experiences for its youth.

In 2024–25, our programs reached 111 classrooms and 7,040 K–12 students, and engaged 161 scientists and 128 educators in meaningful collaboration. They equip educators to inspire and prepare all students to become tomorrow’s workforce and STEM leaders.

Highlights from the 2024–25 school year include:

AFTERSCHOOL MENTORING PROGRAM HIGHLIGHTS

- The Academy launched four new 10-week curricula for ASMP. In the fall semester, *Floating Boats (K-3)* and *Paddle Boats (4-8)* invited students to investigate buoyancy, stability, propulsion, kinetic energy and the engineering design process through hands-on challenges. In the spring semester, *Neighborhoods (K-3)* introduced students to mapping, spatial reasoning, urban planning and community design, while *Building Bridges (4-8)* engaged students in applying concepts of force, load distribution and structural engineering as they constructed and tested model bridges.
- Throughout the year, scientists and the ASMP team ran “Family Science Nights” that brought together scientists, students, families and community members to explore hands-on STEM activities and celebrate science learning beyond the classroom.

SCIENTIST-IN-RESIDENCE HIGHLIGHTS

- In late May, the Academy hosted its annual SiR Student Showcase, featuring over 240 NYC students (grades 2-12) presenting yearlong STEM projects with support from their teachers and scientists. From robotics to sleep studies, students impressed audience members with their creativity, curiosity and public speaking skills. The event also featured inspiring guest speakers, including Seema Kumar, CEO of Cure; New York City Council Member Rita Joseph; and Roy Nachum, Co-Founder of Mercer Labs.
- The Academy continued its second year of SiR programming in Elizabeth, New Jersey. Four classrooms, grades 3-5, participated in the program and worked on yearlong projects focused on a variety of topics, from biochemical analysis for disease diagnosis to erosion and its impact on the environment.

AI in Education

In February 2025, the Academy convened a high-impact workshop that brought together leaders from education, government, industry and nonprofit sectors to explore actionable strategies for accelerating AI literacy in NYC public schools. The event served as both a catalyst for cross-sector collaboration and a platform to showcase the Academy's leadership in emerging technologies.

Building on this momentum, the Academy launched an AI pilot program open to all NYC educators, creating a sandbox environment for experimentation and peer learning. Educators participated in guided explorations of AI tools like ChatGPT, Claude and MagicSchoolAI to enhance instruction and assessment, culminating in case studies that will inform future classroom integration.

Science Alliance and Professional Development

Scientific careers are evolving. Early-career researchers must navigate interdisciplinary workplaces, expanding career pathways, and increasing professional expectations, often amid funding uncertainty. The Academy's Science Alliance portfolio responds directly to these realities, equipping early-career scientists with the skills, perspectives and networks needed to build resilient, high-impact careers.

PREPARING SCIENTISTS FOR EVOLVING CAREERS

This year's programs focused on the competencies shaping today's scientific workforce. Programs were delivered across in-person, virtual and hybrid formats, encompassing expert panels, in-depth courses, applied workshops, networking events and individualized 1:1 coaching.

Career Strategy and Advancement

- Job search strategy
- CV and cover letter optimization
- Career transitions and pivots
- Professional networking

Leadership and Professional Effectiveness

- Science communication
- Funding and grantsmanship
- Mentorship and sponsorship
- Inclusive leadership
- College-level teaching and pedagogy

Well-Being, Identity and Resilience

- Mental Health First Aid
- Managing career complexity and uncertainty
- Redefining failure and resilience in STEM

Broadening Career Visibility

The *Chat with a Scientist* series introduced participants to diverse scientific career pathways spanning academia, industry, policy, communication, education, and applied science. By illuminating real-world trajectories, the Academy helps early-career scientists navigate an increasingly dynamic professional landscape.

Internships: Cultivating Emerging Talent

The Academy launched a structured internship program designed to cultivate future scientific and professional leaders while strengthening institutional capacity.

In partnership with the City University of New York and LifeSci NYC, five interns contributed more than 1,070 hours, delivering tangible programmatic impact while bringing fresh perspectives, capabilities, and insight to the Academy's work.

PORTFOLIO REACH AND ENGAGEMENT

3,000+
SCIENCE ALLIANCE EARLY-CAREER MEMBERS

22
PROFESSIONAL LEARNING PROGRAMS

1,000+
PROGRAM PARTICIPANTS

23
UNIVERSITY AND INSTITUTIONAL PARTNERS

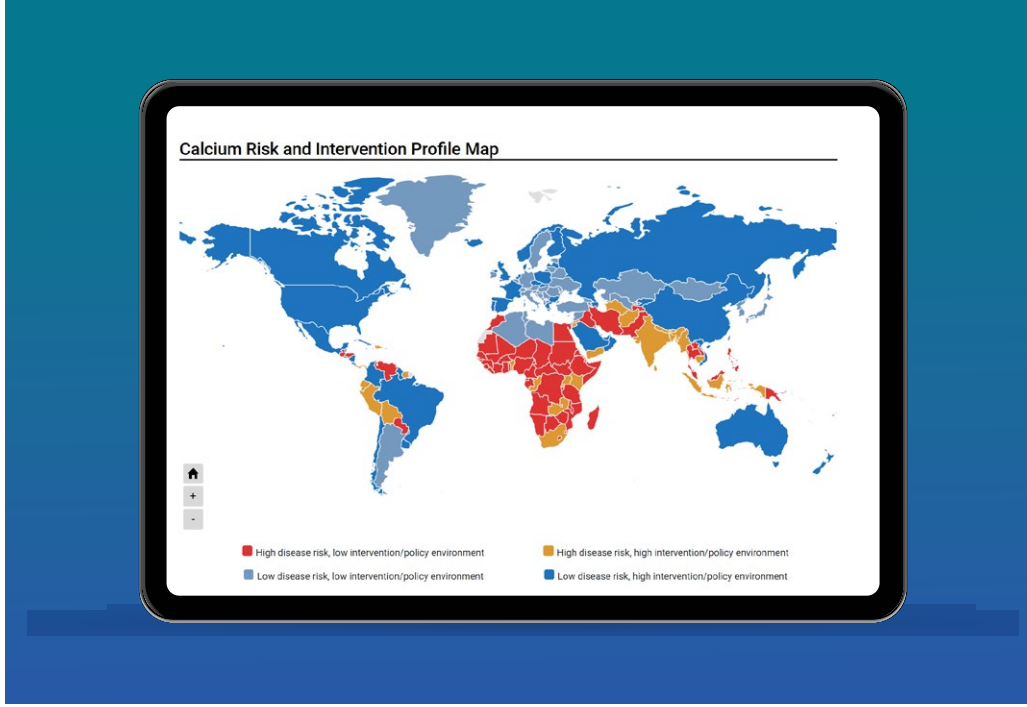
Nutrition Science

Through innovation and evidence, The New York Academy of Science's Nutrition Science Program is redefining how research translates into solutions that improve the health of women and children worldwide.

The **Addressing Global Calcium Deficiency** initiative marked a breakthrough with the successful completion of a clinical trial evaluating a biomarker using calcium isotopes. This novel diagnostic tool offers, for the first time, a scientifically robust method to measure calcium status at the population level. Analysis and validation are now underway to develop an approach that can guide national programs and global policy.

Together with this scientific advance, the program launched the **Global Calcium Map Dashboard**, an interactive, living atlas of nutrition. More than a data platform, it illustrates patterns of dietary calcium intake, preeclampsia and preterm birth rates, and program responses. Its country typology framework makes the invisible visible, categorizing nations by urgency and readiness, and highlighting where interventions can have the greatest impact. For policymakers and researchers, the map functions as both a compass and a call to action, guiding efforts to close critical gaps in maternal and child health.

The team also published a major analysis on multiple micronutrient supplementation (MMS) in pregnancy, drawing on data from 15 clinical trials and more than 61,000 women. The findings showed that higher adherence to MMS was consistently linked to better birth outcomes, highlighting the importance of early initiation and program strategies that support sustained use. Science alone cannot change the world, but science, made accessible and actionable, can. That is the work of the Nutrition Science Program.



Annals of the New York Academy of Sciences

A landmark year of growth in submissions, publications, readership and marketing effectiveness.

2,165
SUBMISSIONS
131% increase over 2024

307
ARTICLES PUBLISHED
The most in five years

2.41M
FULL-TEXT VIEWS
Sustained record engagement

$2.67M
TOTAL REVENUE
Steady via Open Access growth

MARKETING AND IMPACT

- Author program email: **64.4%** open rate and **27.3%** click-to-read — substantial year-over-year gains
- Google paid search click-to-read climbed to **23.5%**, more than doubling its rate
- Marketing-impacted acceptances reached a multi-year high
- Total revenue held steady at **$2.67M**, consolidating prior-year gains via increased Open Access revenue

VIRTUAL SPECIAL ISSUES

~33 special issues in progress or development—focused, high-impact research, including:

- **Eco-Anxiety and Loneliness**
  Edited by L. Hawkley (U. Chicago)
- **Moral Conviction**
  Edited by J. Decety (U. Chicago)
- **Digital Media and Public Health**
  Edited by T. K. Gilbert (Hortus AI)
- **Bat Biology and Ecology**
  Edited by S. Vernes (U. St. Andrews)
- **Language and Decision-Making**
  Edited by L. Polyanskaya (U. Coimbra)

Scientific Recognition and Awards

The New York Academy of Sciences is proud to continue its support and recognition of young researchers through the following partnerships:

- Blavatnik Awards for Young Scientists: U.S. National and Regional Awards, United Kingdom and Israel
- Tata Transformation Prize
- The Leon Levy Scholarships in Neuroscience

Blavatnik Awards for Young Scientists

The **Blavatnik Awards for Young Scientists** were established in 2007 by the Blavatnik Family Foundation to identify and honor exceptional young scientists and engineers in the categories of Life Sciences, Chemical Sciences, and Physical Sciences & Engineering. The Awards celebrate extraordinary achievement, recognize outstanding promise and accelerate innovation through unrestricted funding.

Honoring groundbreaking young scientists around the world, the original Blavatnik Regional Awards for Young Scientists recognized researchers in New York, New Jersey and Connecticut. The program expanded with the Blavatnik National Awards in 2014, and beginning in 2017, grew to include scientists and engineers in Israel and the United Kingdom.

By the close of 2025, the Blavatnik Awards have recognized over 500 scientists from 120 international research institutions and awarded prizes totaling nearly $20 million, representing 55 countries in over 36 scientific disciplines. Since their inception, the Awards, administered by our Academy, have received close to 7,500 applications from over 450 research institutions across the U.S., the U.K. and Israel.

Thirty-nine researchers were recognized in the 2025 fiscal year. Blavatnik scholars are driving global economic growth by embarking on new scientific trajectories to pursue high-risk, high-reward research. To date, Blavatnik Awards honorees have founded over 52 companies after receiving the award, six of which are publicly traded and collectively valued at over $10 billion.

Blavatnik U.S. National Awards

The 2024 Blavatnik National Awards Laureates and Finalists were honored at the tenth annual Blavatnik Awards for Young Scientists Ceremony on October 1, 2024. **Christina H. Paxson, PhD,** President of Brown University, served as presenter.

For the second time in the National Awards' history, all three Laureates named were women, and they were selected among 331 nominations from 172 institutions in 43 U.S. states. The 2025 National Awards recognized exceptional research of this year's Laureates, including chromatin remodeling complexes and their role in human disease, nanoscale chemical tools for addressing human health, and groundbreaking research on ice-ocean interactions using Icefin, an underwater robotic vehicle. The Laureates were each awarded $250,000, the largest unrestricted scientific prize offered to America's most promising, faculty-level scientists and engineers under age 42.

2024 LAUREATE IN CHEMICAL SCIENCES

Markita del Carpio Landry, PhD
University of California, Berkeley

2024 LAUREATE IN LIFE SCIENCES

Cigall Kadoch, PhD
Dana-Farber Cancer Institute, Harvard Medical School, and Howard Hughes Medical Institute

2024 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING

Britney E. Schmidt, PhD
Cornell University

Blavatnik U.S. Regional Awards

The 2024 Blavatnik Regional Awards for Young Scientists drew 134 nominations from 24 leading institutions across New York, New Jersey and Connecticut. On September 17, 2024, the three Laureates and six Finalists were announced, each receiving prizes of $30,000 and $10,000, respectively, and were celebrated at the Blavatnik Awards for Young Scientists Ceremony at the American Museum of Natural History on October 1. This year's Laureates were recognized for pioneering research spanning the "dark matter" of viral genomes and new immune targets for vaccines, groundbreaking discoveries in human ribosome assembly, and advances toward creating a "brain-memex" – a system designed to interface computers with the human brain.

2024 LAUREATE IN CHEMICAL SCIENCES

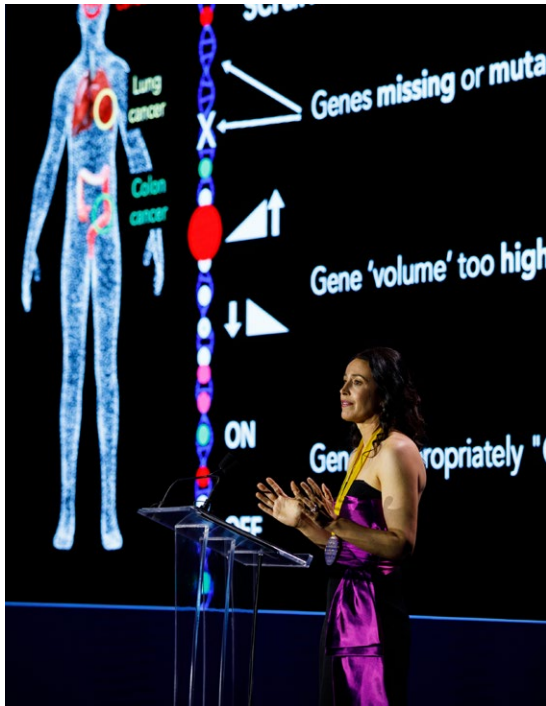
Arnaud Vanden-Broeck, PhD
Nominated by The Rockefeller University

2024 LAUREATE IN LIFE SCIENCES

Shira Weingarten-Gabbay, PhD
Nominated by The Rockefeller University

2024 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING

Raghavendra Pradyumna Pothukuchi, PhD
Nominated by Yale University



Blavatnik Awards in the U.K.

The Blavatnik Awards in the United Kingdom named nine Finalists in January 2025, and the three winning Laureates were announced at the Blavatnik Awards U.K. ceremony held on March 4, 2025, at The Orangery at London's Kensington Palace. An independent jury of expert scientists selected the honorees from a pool of 94 nominees representing 45 academic and research institutions across England, Scotland, Wales and Northern Ireland. Three Laureates were each awarded £100,000, and six Finalists were each awarded £30,000. Their discoveries included microbiome-based therapies to reduce infant mortality in pre-term infants, new processes to improve green manufacturing of industrial chemicals, and long-term climate change models. On March 5, 2025, the honorees presented their work at the public symposium, "Imagining the Impossible: U.K. Scientists Changing Our World," held at the Royal Academy of Medicine for the first time.

2025 LAUREATE IN CHEMICAL SCIENCES

Liam Ball, PhD
University of Nottingham

2025 LAUREATE IN LIFE SCIENCES

Christopher Stewart, PhD
Newcastle University

2025 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING

Benjamin Mills, PhD
University of Leeds

Blavatnik Awards in Israel

The 2025 Blavatnik Awards in Israel, jointly administered by the Academy and the Israel Academy of Sciences and Humanities, honored the most promising and impactful young scientists in Israel. Three Laureates were each awarded $100,000. Their discoveries ranged from how animals make crystals to embryonic modeling to climate change timescale predictions. The Laureates were honored at a celebration at the Peres Center for Peace and Innovation in Tel Aviv on June 4, 2025, and they presented their work at a symposium held on June 3, 2025, at the Israel Academy of Sciences and Humanities in Jerusalem.

2025 LAUREATE IN CHEMICAL SCIENCES

Benjamin Palmer, PhD
Ben-Gurion University of the Negev

2025 LAUREATE IN LIFE SCIENCES

Yonatan Stelzer, PhD
Weizmann Institute of Science

2025 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING

Chaim Garfinkel, PhD
Hebrew University of Jerusalem

2024 Blavatnik Science Symposium

On July 14 and 15, 2024, the Academy, in collaboration with the Blavatnik Family Foundation, hosted the 2024 Blavatnik Science Symposium. The interdisciplinary two-day meeting convened 50 distinguished honorees representing the four Blavatnik Awards programs in the U.S., U.K. and Israel to nurture scientific collaborations and discourse through networking, talks and discussions focused on the latest cutting-edge research. Due to the global COVID-19 pandemic, this was the first time in five years that the Academy hosted the conference, and it was held at the Academy's new home at 115 Broadway. Over 50 Blavatnik Awards honorees from around the world attended the symposium, including 20 scientists who gave presentations on topics ranging from penguin populations in Antarctica to black holes.

Tata Transformation Prize

The Academy, in partnership with Tata Sons, launched the second prize cycle of the Tata Transformation Prize to support breakthrough, innovative technologies that address India's greatest challenges. The Prize leverages the exceptional potential of scientists in India to address critical national challenges in three categories – Food Security, Sustainability and Healthcare – and generate improved life quality outcomes across India and beyond.

On November 25, 2024, three Winners, one in each of the three categories, were announced. Each Winner was awarded ₹2 crore (approximately US$240,000). The 2025 Winners' research encompassed new micronutrient-fortified rice with a low glycemic index, new sodium-ion battery technology and a low-cost RSV vaccine.

They were celebrated at a gala ceremony at the renowned Taj Mahal Palace, Mumbai, India, on December 13, 2024.

FOOD SECURITY WINNER

C. Anandharamakrishnan, PhD
CSIR - National Institute for Interdisciplinary Science and Technology

SUSTAINABILITY WINNER

Amartya Mukhopadhyay, DPhil
Indian Institute of Technology Bombay

HEALTHCARE WINNER

Raghavan Varadarajan, PhD
Indian Institute of Science

TATA
TRANSFORMATION PRIZE

Scientific Scholarships and Fellowships

The Leon Levy Scholarships in Neuroscience

In its third year under the administration of The New York Academy of Sciences, the prestigious Leon Levy Scholarships in Neuroscience program competitively selected ten new Scholars (announced on April 29, 2025), at its Annual Symposium (May 8, 2025), which featured world-renowned neuroscientists **Joseph LeDoux, PhD**, and **Daphna Shohamy, PhD** as keynote speakers, and provided multiple bespoke career development opportunities to its 16 Scholars. This program is generously sponsored by the Leon Levy Foundation to support exceptional young researchers throughout New York City for three years as they pursue innovative investigations in neuroscience and advance their careers toward becoming independent principal investigators. Examples of currently funded research topics include the neurobiological mechanisms underlying relapse in substance use disorder, species-specific differences in parental behavior, neural circuits of decision making, and the pathology of Parkinson's Disease.

AI and Society Fellowship Program

In the 2025 fiscal year, the AI and Society Fellows completed their second and final year of the program. The Fellows co-developed and taught a course on the social, ethical and political dimensions of AI at Arizona State University (ASU). They also co-developed and facilitated an interactive workshop on Responsible Innovation in Generative AI, which was presented by Meta, ASU, and the Academy at the Academy headquarters on April 4, 2025. The success of the program is evidenced by all three Fellows having advanced their careers to the next level. **Akuadasuo Ezenyilimba, PhD**, is now Chief of Human Factors at the Air Force Operational Test Center in Albuquerque. **Nitin Verma, PhD**, joined the faculty of the University of Illinois Urbana-Champaign as Teaching Assistant Professor. **Marjorie Xie, PhD** is a postdoctoral fellow at the New York University Grossman School of Medicine to advance treatments for psychiatric disorders using computational tools.

Outcomes in Numbers

23
PEER-REVIEWED PAPERS PUBLISHED

28
CONFERENCE PRESENTATIONS

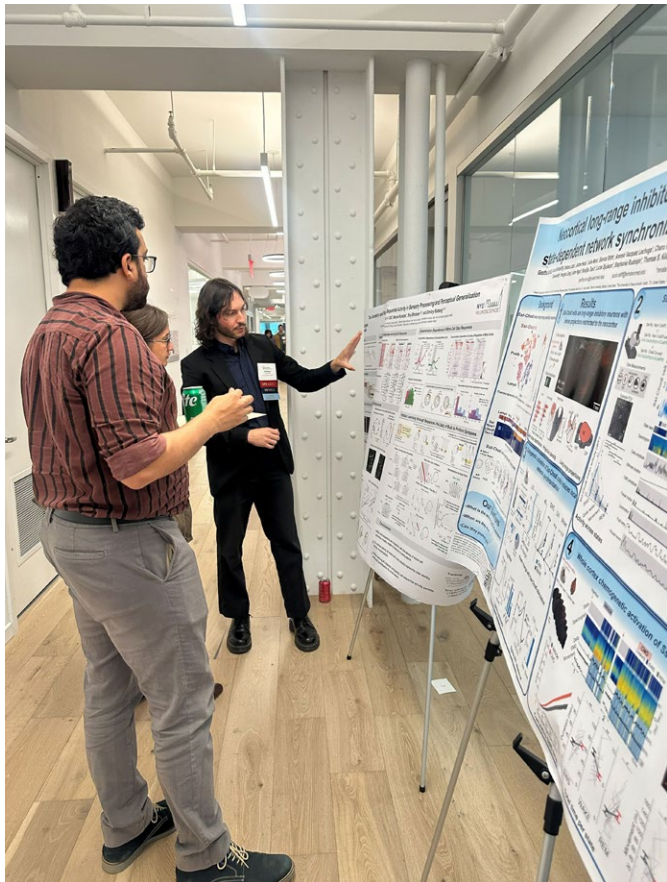
7
AWARDS/PRIZES RECEIVED

20
GRANT APPLICATIONS SUBMITTED

176
NEW PROFESSIONAL CONNECTIONS MADE

95%
"VERY SATISFIED" WITH PROGRAM

5%
"SATISFIED" WITH PROGRAM



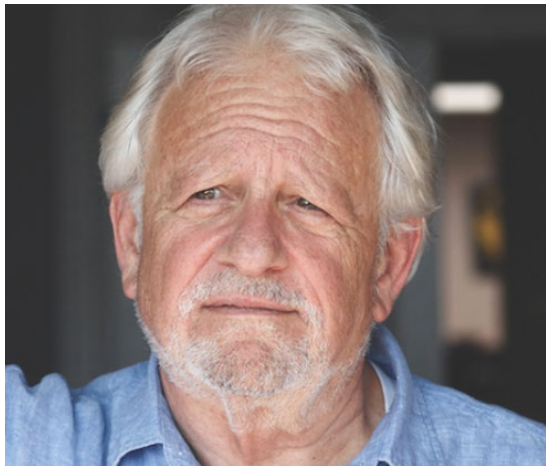
Thoughtful Scientific Exchanges

The **Science Salon** is an invitation-only dinner series that creates space for thoughtful exchange across disciplines. Each gathering features one distinguished marquee speaker – an esteemed scientist, innovator or thought leader – who shares their work and insights with a small, diverse group of guests.

Designed to be intimate and conversational, the evening allows participants to engage directly with the speaker, ask candid questions, and explore ideas at the intersections of science, society and culture. By bringing together leaders from academia, industry, finance, the arts and beyond, the Science Salon fosters unique dialogue and connection that extends far beyond the dinner table.

In the 2025 fiscal year, the Science Salon featured marquee guests such as:

- **Nir Barzilai, MD** (Albert Einstein College of Medicine)
- **Emily A. Carter, PhD** (Princeton University)
- **Ariel Ekblaw, PhD** (Aurelia Institute)
  Photo, Top Right
- **Stuart J. Firestein, PhD** (Columbia University)
  Photo, Middle Right
- **Brittany Schmidt, PhD** (Cornell University)
  Photo, Bottom Right
- **Jeffrey Shaman, PhD** (Columbia Climate School)



Celebrating Scientific Discovery and Innovation

Celebrating innovation and discovery with the STEM trailblazers, visionaries and communicators who illuminate our scientific community.

On April 22, 2025, The New York Academy of Sciences' Spring Soirée celebrated the changemakers shaping the future of STEM while raising funds to power innovative scientific responses to society's toughest challenges. Over 270 science supporters and scientists gathered at the University Club to honor four outstanding experts in their respective fields who were recognized for impactful contributions in advancing science for the public good.

- **Visionary Award: Albert Bourla, DVM, PhD**, *Chairman and CEO, Pfizer*
- **Trailblazer Award: Yann LeCun**, *VP and Chief AI Scientist, Meta*
- **Communicating Science Awards: Jared Lipworth**, *Head of Studio, HHMI Tangled Bank Studios;* and **Janet Tobias**, *Emmy Award-Winning Director, Writer and Producer*

Additionally, representatives of our education community were honored for their contributions in the Scientist-in-Residence program and the Junior Academy.

- **STEM Teacher of the Year: Brittany Beck**, *Biology Teacher at the High School of Telecommunication Arts and Technology*
- **STEM Mentor of the Year: Megan C. Henriquez**, *CUNY Graduate Center*
- **Emerging Student Researchers:** Mohammad A. K., Prithila B., Afif C., Kwizera P. and Maria R.

Donors' and supporters' partnerships helped turn ambition into triumph as auctioneer Pat Tully enlivened the room with lively bidding on unique science experiences. Chandrika Tandon, a member of the Academy's Board of Governors, served as Dinner Chair for the evening.

As we look ahead, Spring Soirée 2026 will build on this momentum of purpose, connection and inspiration—join us in this special gathering to reconnect and mingle with leading researchers, collaborators and science enthusiasts across our vibrant network.

The New York Academy of Sciences Fiscal Year '25 Financial Report

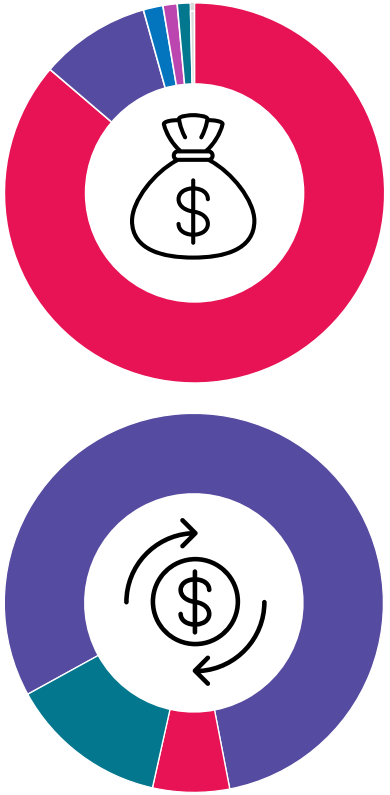
CONSOLIDATED STATEMENT OF ACTIVITIES

OPERATING SUPPORT AND REVENUE

CONTRIBUTIONS AND SPECIAL EVENTS	$18,241,441
PUBLICATION SALES	$1,988,703
MEMBERSHIP FEES	$354,392
REGISTRATION AND MEETING FEES	$253,410
AWARDS ADMINISTRATION SERVICE REVENUE	$236,522
OTHER INCOME	$72,465
TOTAL OPERATING SUPPORT AND REVENUE	**$21,146,933**

OPERATING EXPENSES

PROGRAM EXPENSES	$17,408,900
FUNDRAISING	$1,424,072
GENERAL AND ADMINISTRATIVE	$2,940,585
TOTAL OPERATING EXPENSES	**$21,773,557**



CHANGE IN NET ASSETS BEFORE DEPRECIATION AND AMORTIZATION ..... ($626,624)

LESS: DEPRECIATION AND AMORTIZATION	$208,572
CHANGE IN NET ASSETS AFTER DEPRECIATION AND BEFORE UNREALIZED GAIN ON INVESTMENTS	($835,196)
REALIZED AND UNREALIZED GAIN ON INVESTMENTS	$25,867
CHANGE IN NET ASSETS	($809,329)*

**This loss consists of an operating surplus of $26,963 and a decrease in restricted net assets of $836,292.*

The above data has been condensed from the consolidated financial statements as of June 30, 2025, audited by EisnerAmper, LLP. Copies of the audited statements including the accountant's unmodified opinion are available from the Academy upon request.

The New York Academy of Sciences Board of Governors July 1, 2024–June 30, 2025

Peter Salovey, Chair of the Board; Immediate Past President, Yale University

Thomas Pompidou, Vice-Chair of the Board; Partner and Founder, Marker, LLC

Amber Miller, Treasurer of the Board; President, William and Flora Hewlett Foundation

Nicholas Dirks, President and Chief Executive Officer, The New York Academy of Sciences

Tino van den Heuvel, Corporate Secretary, The New York Academy of Sciences

Armen Avanessians, Former Head and Chief Investment Officer, Goldman Sachs Asset Management's (GSAM) Quantitative Investment Strategies Group

Serg Bell, Founder and Chairman, Constructor Group, and Founder, Acronis

Jacqueline Corbelli, Chairman, Chief Executive Officer and Co-Founder, Brightline

MaryEllen Elia, President, Success for Students, Inc.; former Partner and Senior Fellow, International Center for Leadership in Education; former Commissioner of Education and President of The University of the State of New York

Katherine Forrest, Partner at Paul, Weiss, Rifkind, Wharton & Garrison LLP

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Stacie Grossman Bloom, Vice Chancellor for Global Research and Innovation, Vice Provost for Research, Chief Research Officer, New York University

Aida Habtezion, Adjunct Professor of Medicine, Stanford University; Former Senior Vice President, Chief Medical Officer and Head of Worldwide Medical & Safety, Pfizer Inc.

Reid Hoffman, Co-Founder of LinkedIn, Co-Founder of Inflection AI and Partner at Greylock

Jerry Hultin, Chair and Co-Founder, Global Futures Group, LLC; Chair Emeritus, The New York Academy of Sciences

Seema Kumar, Chief Executive Officer, Cure.; former Global Head – Office of Innovation, Global Health and Scientific Engagement, Johnson & Johnson

Ravi Kumar S., Chief Executive Officer, Cognizant

R. May Lee, President, Olin College of Engineering

David K. A. Mordecai, Co-Managing Member, Numerati® Partners LLC, RiskEcon® Lab for Decision Metrics @ Courant Institute for Mathematical Sciences NYU, and Co-Founder, Risk Economics, Inc.

Martin Nesbitt, Founding Partner and Co-Chief Executive Officer, Vistria, LLC

Jim Reddoch, Executive Vice President, Investments & Chief Scientific Officer, Royalty Pharma

John Reed, Executive Vice President, Innovative Medicine, R&D, Johnson & Johnson

Lowell Robinson, Corporate Director and Advisor, Barnes & Noble Education

Laura Sachar, Managing Partner and Co-Founder, StarVest Partners

Konstantin Shakhnovich, Former Global Head of Trading, Citadel Asset Management; Former Partner and Global Head of Systematic Market-Making, Goldman Sachs

Subra Suresh, President, Global Learning Council; Former President of Carnegie Mellon University, and former Director of the US National Science Foundation

Chandrika Tandon, Recognized Business Leader, Grammy Award Winning Artist, and Humanitarian

Peter Thorén, Executive Vice President, Access Industries

Robert Tjian, Professor of Biochemistry, Biophysics and Structural Biology, University of California, Berkeley; Former President, Howard Hughes Medical Institute

Grace Wang, 17th President of Worcester Polytechnic Institute

Faye Wattleton, Co-Founder and Director, EeroQ Quantum Hardware

Sanford I Weill, Chairman Emeritus, Citigroup; Chief Executive Officer, Casa Rosa Ventures

Jeremy Wertheimer, Chief Executive Officer, Biological Engineering Ventures

George D. Yancopoulos, Co-Founder, President and Chief Scientific Officer, Regeneron

Michael Young, Nobel Laureate; Richard and Jeanne Fisher Professor and Vice President for Academic Affairs, The Rockefeller University

Nadav Zafrir, Co-Founder and Managing Partner, Team8

The New York Academy of Sciences

About The New York Academy of Sciences

The New York Academy of Sciences is an independent, not-for-profit organization that since 1817 has been committed to advancing science for the benefit of society. With more than 16,000 members in 100 countries, the Academy advances scientific and technical knowledge, addresses global challenges with science-based solutions, and sponsors a wide variety of educational initiatives at all levels for STEM and STEM-related fields. The Academy hosts programs and publishes content in the life and physical sciences, the social sciences, nutrition, artificial intelligence, computer science, and sustainability. The Academy also provides professional and educational resources for researchers across all phases of their careers. Please visit us online at **www.nyas.org**.

115 Broadway, 8th floor
New York, NY 10006

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