

ANNUAL REPORT

SHAPING THE FUTURE OF SCIENCE



MEETING THE CHALLENGES OF OUR TIME THROUGH TRUST IN SCIENCE

Over 150 years ago, Charles Darwin, arguably The New York Academy of Sciences' most famous member, said **“Great is the power of steady misrepresentation—but the history of science shows how, fortunately, this power does not endure long.”**

The line is from his celebrated work: *Origin of Species: 6th British Edition (1872)*.

His quote was prescient, as science faces one of its biggest challenges since the Middle Ages—the forces of those who choose to challenge scientific truth, and spread falsehoods that create confusion at best, and enable a systematic attack on science at worst.

One of the most damaging charges is that scientists do not accept opposing points of view and do not see the need for constant testing and questioning of scientific orthodoxies or assumptions. Nothing could be further from the truth. Science is ALL about questions and the search, both for answers and for new questions.

I believe in the capability of science to be a force for good, but I also believe that science as an “industry” needs to be better about communicating and explaining itself, and countering the misinformation that is permeating our society.

This is where The New York Academy of Sciences has played, and continues to play, a vital role. And in one rapidly expanding area of growth, artificial intelligence (AI), the Academy has increased its portfolio of program content and expertise. We know that AI can be an enormous instrument for good, as for example in enabling research in science and helping scientists in fields from drug discovery to mapping protein folding. But it can also be extremely damaging. If we cannot know whether what we are seeing or reading is real or fake, how can we make reliable judgements?

Trust in science is crucial if humankind is to thrive in a sustainable manner. A keystone of the Academy's highly regarded programs is our dedication to ensuring the quality and accuracy of their content. Our program teams go to great lengths to secure leading subject matter experts in different disciplines, as well as moderators who ask hard questions and push experts to explore difficult topics.

In the past year, the Academy has invested heavily in ensuring the quality of our scientific content while also expanding our points of connection with the public. One such significant move was the launch of a new website in the spring, 2024, and with it, an opportunity to create original content showcasing exciting new developments in science, written by those who are leading research teams. Even in its current nascent phase, the content is gaining significant traction within the scientific community, and we are continuing to build and expand this dynamic new resource.

Another quieter, but equally crucial role the Academy has played, has been in the area of diplomacy within our community. Nothing unites the world faster than a global crisis. We saw this with the COVID-19 pandemic. While there were varying government policies for dealing with its impact on a societal level, it was collaboration in the scientific community that enabled the rapid development of the vaccines and treatments to mitigate the risk of the novel virus.



Such commitment to addressing that challenge inspired the Academy to launch the International Science Reserve (ISR). Now, just two years after its launch, the ISR is celebrating the fact that we already have a global network of more than 11,000 researchers. To further its capacity to address global crises, the ISR team has partnered with the Center for Advanced Preparedness and Threat Response Simulation (CAPTRS) to build serious digital games to help those scientists in the network prepare for disaster response.

It is easy to see how the current state of the world seems to be unique to our time. It is not. Wars, pandemics, droughts, forced migration, disasters—natural and man-made—have always been part of our history.

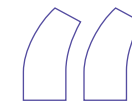
But the underlying solutions to all these crises have always relied on advances in science and technology, across sectors and disciplines, as well as across regions and countries. Today, we know that it is the microbiologist who connects to the computer scientist to develop new software that will provide faster and more accurate results of research work. It is the materials scientist who connects with the engineer to develop stronger and more sustainable materials to enable the construction of more resilient and energy-efficient buildings. It is the agricultural scientist who works with the botanist to develop disease-resistant plants to feed a hungry world. It is the hydrologist who connects to the climatologist to determine how to conserve essential supplies of fresh water, and shepherd our most important natural resource. And, always, it is the science teacher who inspires the next generation to strive to use their education to ensure future progress and societal well-being.

Making these connections has been at the core of our mission at The New York Academy of Sciences for more than 200 years. It's what we do best, and with your help, our devoted members and generous supporters, we will continue to advance our mission and the positive impact that comes with it.

NICHOLAS B. DIRKS
President and CEO
The New York Academy of Sciences



A YEAR OF SHAPING THE FUTURE OF SCIENCE



The New York Academy of Sciences looks to the future and continues to empower the next generation of STEM professionals. As the science and technology landscape rapidly evolves, this is particularly an exciting time to be part of the Academy."

Grace Wang, President, Worcester Polytechnic Institute



Attending the Science Salon was an exceptional experience. The intimate setting facilitated deep, meaningful discussions with top scientific thinkers, providing invaluable insights directly applicable to my work in energy and investment. This unique blend of cutting-edge science and elite networking is truly unparalleled."

Thomas Cardello, PhD, M.Phil, Founding Member, Venice Financial Management, LLC



I absolutely loved... the breadth and quality of speakers."

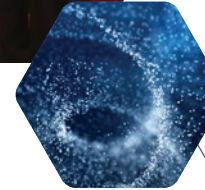
Ron Nerio, PhD, Research Program Director, City University of New York



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1. Students from the Bronx's Highbridge Green School served cucumbers they grew in their school garden and gave a presentation on the science of gardening during the 2024 Science-in-Residence Student Showcase event.
2. Academy President and CEO Nicholas B. Dirks (left) presents an Honorary Lifetime Academy Membership to Yann LeCun, PhD, Chief AI Scientist at Meta.
3. Isabella Alfaro, Mentor and Data Intern for the Academy, spoke about her internship experience during a presentation to Academy staff.
4. Nobel Laureate Venki Ramakrishnan, PhD, talks about his book "Why We Die: The New Science of Aging and the Quest for Immortality" as part of the Authors at the Academy series on April 16, 2024.
5. Nicholas B. Dirks (left), President and CEO of the Academy with Jie Zhang, PhD, President of the Shanghai Association for Science and Technology.
6. Mila Rosenthal, PhD, Executive Director of the International Science Reserve, gazes at the eclipse from Pymatuning Lake in northeast Ohio, near her hometown of Youngstown on April 8, 2024.
7. Meghan Groome, PhD, Senior Vice President of Education, presents during the Academy's Annual Meeting on November 14, 2023.
8. Padmini Srikantiah, PhD, Deputy Director, Pneumonia, Bill & Melinda Gates Foundation, presents during the Vaccines for Respiratory Diseases symposium at the Academy on May 29, 2024.
9. Students at the 2024 Scientist in Residence Showcase participated in an activity where they had to sketch a scientist.

SHAPING THE FUTURE OF LIFE SCIENCES RESEARCH

During FY24, The New York Academy of Sciences hosted a series of popular in-person and hybrid events featuring high-profile speakers. These events attracted a diverse audience, drawing hundreds of researchers from both domestic and international institutions. The Academy's programming provided a platform for fostering cutting-edge discussions and collaborations between a vibrant community of scientists and scholars across a wide range of disciplines.

Pioneering Novel Drug Delivery Systems: The Dr. Paul Janssen Award Symposium February 8, 2024

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 **Robert Langer, ScD** (MIT), for his pioneering work in designing novel drug delivery systems that can deliver medications continuously, precisely, and at controlled rates over extended periods. His groundbreaking research has transformed medical technologies across the board, from anticancer therapies and gene therapy to vaccine development—including the COVID-19 vaccine—and beyond.

Tata Knowledge Series on AI & Society

The Tata Knowledge Series on AI & Society brings together scientists, authors, and other experts to discuss the societal impact of AI technology. The series, which launched in March 2024, is sponsored by Tata Sons, a principal investment holding company based in India. Tata Sons also sponsors the Tata Transformation Prize, which is administered by the Academy.

- A Fireside Chat with **Yann LeCun, PhD** (Meta/NYU) | March 14, 2024
- Living in the Shadow of AI with **Madhumita Murgia, PhD** (Financial Times) | June 20, 2024

Authors at the Academy Series

The Spring 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 three thought provoking events in the format of fireside chats:

- Innovations in AI and Higher Education, with **Reid Hoffman, MSt** (LinkedIn) and **Nicholas B. Dirks, PhD** (The New York Academy of Sciences) | March 27, 2024
- **Erika Nesvold, PhD** (Giant Army): Off-Earth: Ethical Questions and Quandaries for Living in Outer Space | April 5, 2024
- **Venki Ramakrishnan, PhD** (MRC Laboratory of Molecular Biology): Why We Die: The New Science of Aging and the Quest for Immortality | April 16, 2024

Cancer Metabolism and Signaling in the Tumor Microenvironment April 17, 2024

The annual symposium on cancer metabolism and signaling focuses on the complex networks of metabolite-signaling in cancer that aid tumor progression and provide



Above: LinkedIn co-founder Reid Hoffman, MSt, discusses his book 'Impromptu: Amplifying Our Humanity Through AI' during the inaugural Authors at the Academy event on March 27, 2024.



Above: Thomas J. Fuchs, Dr.sc presents during The New Wave of AI in Healthcare event, May 2024.

Below: Yann LeCun, PhD, Vice President and Chief AI Scientist at Meta, presents during the first installment of the Tata Series on AI & Society at the Academy on March 14, 2024.



Below: Dafna Bar-Sagi, PhD, Executive Vice President and Vice Dean for Science, and Chief Scientific Officer, for NYU Langone Health (left), poses with Melanie Brickman Borchard, PhD, MSc, Director of Life Sciences for the Academy during the Vaccines for Respiratory Diseases symposium.



potential therapeutic targets. The 2024 event included keynote presentations and panel discussions covering such topics as mitochondrial adaptations, influences of the tumor microenvironment, and factors affecting tumor metabolism. Renowned speakers, including **Navdeep Chandel, PhD** (Northwestern University), **M. Celeste Simon, PhD** (University of Pennsylvania), and **Matthew Vander Heiden, MD, PhD** (MIT), shared their insights, stimulating meaningful discussions on translating these findings into impactful therapies for patients.

The New Wave of AI in Healthcare 2024 May 1–2, 2024

In the fast-changing world of healthcare, novel digital health solutions featuring machine learning and AI tools, are transforming research, diagnostics, therapeutics, and patient and healthcare provider experiences. The second annual symposium, "The New Wave of AI in Healthcare 2024," showcased the latest AI and data-driven technologies in healthcare. Renowned experts like **Joachim M. Buhmann, PhD** (ETH Zurich), and **Melanie Mitchell, PhD** (Santa Fe Institute), delivered groundbreaking keynotes and plenary lectures, covering a range of topics including large-scale foundation models, AI ethics and governance, next-generation deep learning, digital health, and the role of machine learning in data-driven research.

Unlocking the Mysteries of Cells with AI: A Fireside Conversation with Dr. Priscilla Chan May 2, 2024

Priscilla Chan, MD (Chan Zuckerberg Initiative—CZI), in conversation with **Richard Lifton, MD, PhD** (The Rockefeller University), commanded a compelling discussion on how AI can drive scientific breakthroughs and revolutionize biomedicine. By harnessing vast biological datasets, CZI is collaborating with the scientific community to create virtual cells capable of predicting human health outcomes—aligning with its ambitious goal to cure, prevent, or manage all diseases by the end of the century. The symposium spotlighted AI's transformative potential in shaping the future of biomedicine and unraveling the molecular underpinnings of human health and disease.

Cancer and Aging: The Inflammaging Connection May 20, 2024

Recent research highlights how "inflammaging" and chronic inflammation linked to aging can drive tumor initiation, progression, and spread, potentially impacting treatment responses. This symposium explored why cancer is less common in the first four to five decades of life and examined the factors that increase cancer risk in aging bodies. Keynote speakers **Claudio Franceschi, MD** (University of Bologna), and **James Kirkland, MD, PhD** (Mayo Clinic), along with other leading experts, presented cutting-edge insights into the intersections of cancer, immunology, and aging biology.

Frontiers in Cancer Immunotherapy 2024 May 21–23, 2024

The 11th annual Frontiers in Cancer Immunotherapy 2024 Symposium illuminated promising novel therapies for cancer patients amidst rapid advancements in the field. **Carl H. June, MD** (University of Pennsylvania), **Miriam Merad, MD, PhD** (Icahn School of Medicine at Mount Sinai), and **Katy Rezvani, MD, PhD** (University of Texas MD Anderson Cancer Center) discussed the challenges that remain in understanding the basic biology of some tumor types and identifying targets for developing new therapies.

Vaccines for Respiratory Diseases May 29–30, 2024

Respiratory diseases like influenza, COVID-19, and RSV affect millions annually, threatening global health, economies, and social equity. This two-day symposium brought together top scientists, clinical researchers, epidemiologists, and clinicians from around the world to tackle the latest in respiratory vaccine research. Keynote speakers **Barney Graham, MD**

(Morehouse School of Medicine), and **Rino Rappuoli, PhD** (Fondazione Biotechopol di Siena), shared insights into cutting-edge vaccine design and advancements.

The Chemical Biology Discussion Group End-of-Year Symposium: Deconvoluting Protein Networks

June 6, 2024

The Academy's Chemical Biology Discussion Group enhances interactions among local laboratories, and showcases cutting-edge chemical biology research to the wider community.

Michelle Arkin, PhD (University of California San Francisco) and **Rob Oslund, PhD** (InduPro), discussed ideas that could advance the frontiers of chemical biology research.

Chemical Biology of Protein Homeostasis: From Fundamentals to Translational Breakthroughs

June 17, 2024

This conference tackled the critical cellular processes of protein synthesis, degradation, folding, and trafficking. Keynote speaker **Steve Elledge, PhD** (Harvard University) kicked off the day, offering cutting-edge insights into proteostasis—vital for cellular health and function—and its potential to enhance treatment options for a variety of diseases.

Ross Prize Symposium 2024: Cancer Neuroscience

June 20, 2024

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. **Michelle Monje, MD, PhD** (Stanford University) was awarded the 2024 Ross Prize in Molecular Medicine for her groundbreaking contributions to the neuroscience of cancer and their therapeutic implications.

The Science and Business of AI-Driven Drug Discovery

June 25, 2024

Experts in the fields of AI and pharmaceuticals explored the transformative role of AI in drug discovery. Panelists highlighted how machine learning is speeding up target identification, predicting compound interactions, and refining clinical trial designs. Moderated by **Seema Kumar, MS** (Cure), the panel featured **Maria Luisa Pineda, PhD** (Envisagenics), **Grant W. Mitchell, MS, MBA** (Every Cure), **Thomas J. Fuchs, Dr.sc** (Icahn School of Medicine at Mount Sinai), and **George Church, PhD** (Harvard University/MIT).



Below: The 2023–2024 Interstellar Initiative cohort in partnership with the Japan Agency for Medical Research and Development (AMED).

SHAPING THE FUTURE OF SCIENCE THROUGH A GLOBAL NETWORK

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 FY24, the ISR continued to expand its offerings of readiness exercises, educational webinars, and discussion groups—while also expanding the network's ability to collaborate across borders and disciplines through the launch of a new online community space.

- The ISR network grew to over 11,000 global network members—a 92% increase from the year prior.
- The ISR digital hub was launched, bringing together the ISR's network to connect, collaborate, and analyze how to apply skills and research in different crisis scenarios.
- The digital hub featured a series of new crisis preparedness exercises, including short games and guided discussions.
- ISR continued the popular *Science Unusual* webinar series which covered topics including solar geoengineering, earthquake preparedness, and designing games for scientists.
- Participated in events hosted by Aspen Ideas, UNESCO, the Royal Academy, the National Academy of Sciences, and "We Don't Have Time" media platform for climate action.
- Collaborated with the US government program office working towards a National Strategic Computing Reserve (NSCR), including positioning high-performing computing resources for ISR crisis preparation and response.



THE INTERNATIONAL SCIENCE RESERVE



11,000+
SCIENTISTS IN THE
ISR'S NETWORK



30
SUB-DISCIPLINES



100+
COUNTRIES
REPRESENTED



50%+
COUNTRIES REPRESENTED
IN THE NETWORK ARE
LOW- & MIDDLE-INCOME

SHAPING THE FUTURE OF SCIENCE THROUGH INVESTMENT IN 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.

Junior Academy

The Junior Academy (JA) is an international network of high school students united by their shared love of STEM as a solution for real-world problems. 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 JA won a Silver Anthem Award in an Education or Literacy Platform and was named a “game changer” in the field of educational technology.
- At the Academy’s meeting, over 2,000 young people were inducted as Young Members of the Academy The Junior Academy Induction Ceremony – NYAS
- In the Fall 2023, an External Evaluation found that the Junior Academy program developed strong work-ready skills in areas such as creative problem solving, international collaboration, and communicating across differences.
- Our challenges were a hit with over 2,000 students from 80 countries completing their projects. Winning Innovation Challenge Solutions include:
 - Fall Challenges: Minerals of Technology, Green Homes, Green Schools, Green Communities, Cognitive Classrooms
 - Spring Challenges: Wearables, Circular Textiles

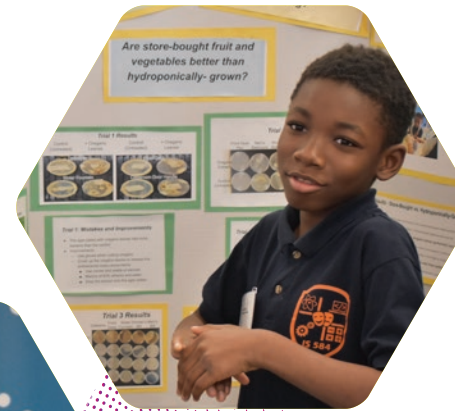
Spotlight on Junior Scientists in Kigali, Rwanda

The New York Academy of Sciences “Preparedness for Climate Change” Innovation Challenge in Rwanda engaged the participation of 1,320 local secondary school students from across Kigali, working in 225 teams to create research-driven solutions to help their community prepare for climate change. The Spring 2024 Innovation Challenge, organized by The New York Academy of Sciences in partnership with Association Mwana Ukundwa (AMU), encouraged young scientists aged 13–17 in Rwanda’s capital city of Kigali to design and test an innovative solution to improve preparedness for climate change in their homes, schools or communities with a focus on projects that protect, inform and adapt to minimize impact. It was sponsored by the Clifford Chance Cornerstone Initiative, and extended the widespread enthusiasm for the Spring 2023 Innovation challenge on Green Schools, Green Homes and Green Communities.



Above: Sumaiya Sultana, Junior Academy Intern and Chemical Engineering major at The City College of New York, presents her internship project to the Academy.

Below: A team of students present their project as part of the “Preparedness for Climate Change” Innovation Challenge in Rwanda.



Above: 7th Grade student presents his class’s research on plant proteins at our Scientist-in-Residence Showcase.

Scientists “In Residence”

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

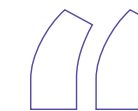
Together these programs served 112 classrooms, 162 scientists and 7,240 Pre-K through 12th grade New York City Public School students. They equip educators to inspire and prepare all students to become tomorrow’s workforce and STEM leaders.

Highlights from the 2023–24 school year include:

- Two new 10-week curricula for the Academy’s Afterschool STEM Mentoring Program. The first, called “Collaborative Communities”, centered on how humans live in collaboration with the living organisms that share our spaces, particularly in urban environments. The second “Rolling Marble Runs”, tasked students with designing and building a marble run apparatus that kept a ball rolling for more than five seconds.
- During the summer months, scientists and the ASMP team ran “Family Science Nights” to celebrate science in the summer with our students and their families.

Scientist in Residence Highlights

The Academy has placed scientists in schools since the 1970s. Starting in 1974, Academy members began teaching computer science in Junior High School classrooms throughout New York City. Today, the program shares the same spirit of engagement, by pairing working scientists with teachers to bring research projects to life in Pre-K through 12th grade classrooms. The Academy also launched its Elizabeth, New Jersey Pilot in four elementary school classrooms.



It is especially rewarding to see the switch that happens several weeks into the program, in students who may not have been very engaged at the beginning... You see you’re making a tangible change.”

Nayem Haque, PhD, Mentor: Afterschool STEM Mentoring Program

Science Alliance and Professional Development

Academy programs for adult learners are designed to help our members thrive in STEM-related professions. During the past year, we expanded our portfolio of workshops and seminars with more experiential learning activities, including our mentorship programs, Fellowships and Internships.

This year the team launched new programs, celebrated its evergreen programs, and welcomed members and learners from around the world.

- Completed a five-year longitudinal study of the Science Alliance Leadership Training program. The study, conducted by the PAST Institute, showed that not only did participants demonstrate growth in leadership metrics, they were also able to take on leadership roles previously unavailable to them. The Academy is proud of its "SALTies", and excited to continue to follow them as they take on new roles, mentoring Junior Academy students as communication coaches.
- The success of SALT inspired the Leadership in STEM series, which featured senior leadership from Pfizer. The four-part series of learning webinars focused on topics pivotal to being an effective leader, including how to design your career, managing conflict, how to be an inclusive leader, and advocacy in STEM.
- Approximately 1,000 individuals attended Academy professional learning programs this year. They represent over 300 organizations and schools and nearly 50 countries, demonstrating the global appeal and reach of our programs.
- The Academy invigorated its experiential learning opportunities for early career scientists. From the growing ranks of Mentor Community Leaders, to the CUNY Spring Forward Interns and our partnership with the New York City Mayor's office to host NYC Civic Corps Members, the Academy is benefiting from the passion and expertise of its university and recent graduate members.

Scan the QR code for a comprehensive 10-year STEM education report.



I am very proud of what we have achieved... But the proudest people were my mom... and my science teacher."

Sebsa, Junior Academy participant from Amman, Jordan

SHAPING THE FUTURE OF NUTRITION SCIENCE



The Nutrition Science Program at The New York Academy of Sciences remains a pivotal force in shaping the global nutrition landscape.

Our **Addressing Global Calcium Deficiency** initiative is a comprehensive and scientifically robust campaign aimed at tackling global calcium deficiency. This initiative is pioneering a new diagnostic tool, specifically a Calcium Isotope Biomarker, to provide accurate assessments of calcium status at the population level. A clinical trial in India is underway to test its efficacy and reliability. We have completed the experimental portion and are now moving to the analysis phase, with the goal of introducing a cost-effective biomarker for global use.

Additionally, the initiative provides targeted Technical Assistance for Calcium Programs in Ethiopia, developing culturally sensitive and geographically appropriate strategies. We have developed technical reference materials, educational guidelines for prenatal calcium supplementation, and job aids for calcium supplementation during pregnancy.

The Nutrition Science team also launched an exciting project to create a comprehensive Global Map of calcium intake and deficiency, associated disease burdens, and corresponding interventions. This map will include data on calcium intakes among pregnant women, preeclampsia prevalence, preterm birth rates, and adaptations of calcium supplementation and fortification programs. It will also illustrate the scope and impact of these programs, including reach, target populations, supplementation dosage and duration. Our objective is to provide a clear and accessible visual resource for researchers, policymakers, and public health officials.

Building on the previous experience of leading the **Multiple Micronutrient Supplementation (MMS) in Pregnancy** Technical Advisory Group, the Nutrition Science Team is now conducting a research project involving 15 global trials to determine the optimal dose of MMS required to improve pregnancy and birth outcomes. The finding of this individual patient data meta-analysis will inform programs on MMS in low- and middle-income countries.



ANNALS OF THE NEW YORK ACADEMY OF SCIENCES

One of the hallmarks of The New York Academy of Sciences, the flagship journal *Annals of the New York Academy of Sciences* has been the publication of research spanning nearly all areas of science.

Over the past year, *Annals'* editorial staff has expanded the number of topics covered in the journal's pages by commissioning work in specific areas, often with the assistance of expert scientists in the field; these collections of papers are published as online virtual special issues.

Exogenous Hormone Therapy

This collection of papers explores the benefits and risks of exogenous hormone therapies to treat a wide range of medical conditions. Hormones such as kisspeptin, testosterone, gonadotropins, and oxytocin are discussed as well as their potential use for menopause, hypogonadism, bone health, and neurodevelopmental disorders. Edited by **Andrew Dwyer, PhD** (Boston College) and **Richard Quinton, PhD** (Imperial College London).

Extreme Animal Physiology and Implications for Human Health

This collection of papers explores how the understanding of animals with unique and extreme physiologies can provide insight into human health, such as tissue regeneration, psychological distress, metabolism, and hypoxia. Edited by **Elena Gracheva, PhD** (Yale University) and **Slav Bagriantsev, PhD** (Yale University).

Applied Animal Biomechanics

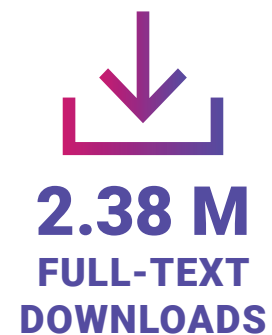
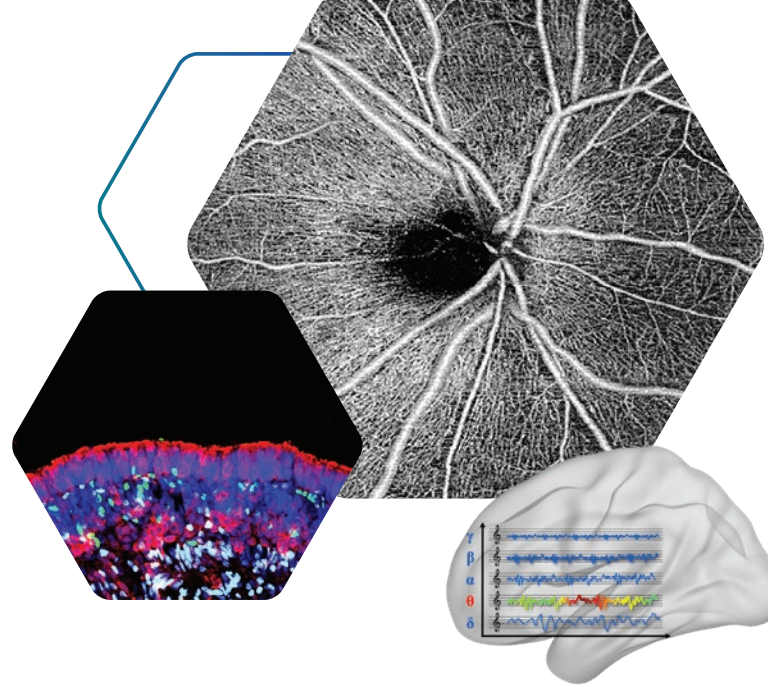
This collection of papers explores the potential applications of animal biomechanics from diverse species, ranging from snakes to insects, and how they can inspire the creation of robots and other devices. Edited by **David Hu, PhD** (Georgia Institute of Technology) and **Frank Fish, PhD** (West Chester University).

Biology of Social Behavior

This collection of papers explores the biological underpinnings of social behavior of a wide range of species, ranging from ants to monkeys, and analyzes the biology of social behavior in relation to their epigenetic, ecological, evolutionary, and neuromolecular mechanisms and influences. Edited by **Karen L. Bales, PhD** (University of California, Davis) and **Sara M. Freeman, PhD** (Utah State University).

Evolution and Epigenetics

Papers discuss epigenetic marking and its regulatory impact on transgenerational inheritance, cell fate and identity, morphology, physiology, genetic instructions, neuroepigenetic reprogramming, memory and learning, and other topics. Edited by **Guenther Witzany, MD, PhD** (Telos-Philosophische Praxis).



STEMM Excellence

Papers address talent and education in science, technology, engineering, mathematics, and medicine (STEMM), with a focus on populations that have been left out of STEMM talent development, such as underrepresented minorities and children living in rural environments. Edited by **Heidrun Stoeger, PhD** (University of Regensburg), **Linlin Luo, PhD** (Texas A&M University), and **Albert Ziegler, PhD** (University of Erlangen Nuremberg).

Loneliness

This collection of papers explores the topic of loneliness via a wide spectrum of perspectives including theoretical concepts of loneliness; assessments and interventions of loneliness in geriatric, adolescent, and LGBTQ+ communities; neurobiological and physiological impacts of loneliness; and social media and AI. Edited by **Louise Hawkey, PhD** (NORC at the University of Chicago).

Benefits and Costs of Bouillon Fortification in West Africa

Using national survey data from several countries in West Africa, the papers in this issue analyze potential impacts of bouillon fortification on dietary adequacy of women and young children, and on functional outcomes such as child lives saved; the costs of these new programs; and cost-effectiveness of fortified bouillon for achieving various nutrition and health outcomes. Edited by **Stephen A. Vosti, PhD, Katherine P. Adams, PhD, and Reina Engle-Stone, PhD** (all at University of California, Davis).

Moral Conviction

This special issue focuses on morality in a broad sense, including ideologies. Morality is often seen as a force for good in facilitating group living and cooperation, but it also has a darker side. Strong moral convictions can breed dogmatism, intolerance, and political polarization and even motivate violent collective actions—a phenomenon deserving deeper interdisciplinary exploration. Edited by **Jean Decety, PhD** (University of Chicago).

Battery Materials and Technologies

This special issue presents the latest progress in this important clean energy research field, which continues to generate significant impact on human lives, and addresses climate challenges. Edited by **Shirley Meng, PhD** (University of Chicago) and **Daniel Steingart, PhD** (Columbia University).



SHAPING THE FUTURE OF SCIENCE THROUGH 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
- Innovators in Science Award
- Interstellar Initiative
- Tata Transformation Prize
- The Leon Levy Scholarships in Neuroscience
- AI and Society Fellowship Program



Above: From the 2023 Blavatnik Awards Ceremony at the American Museum of Natural History held on September 19, 2023.

Blavatnik Awards for Young Scientists— U.S. National and Regional Awards, United Kingdom and Israel

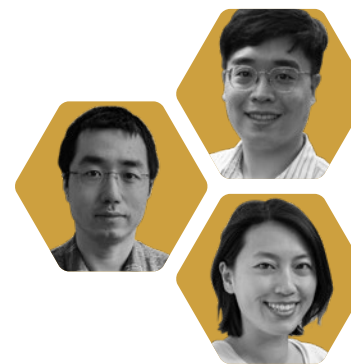
The Blavatnik Awards for Young Scientists were established in 2007 by the Blavatnik Family Foundation to identify and honor exceptional young scientists and engineers in the categories of Life Sciences, Chemical Sciences, and Physical Sciences & Engineering. The Awards celebrate extraordinary achievement, 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 then, beginning in 2017, grew to include scientists and engineers in Israel and the United Kingdom.

By the close of 2024, the Blavatnik Awards will have awarded prizes totaling \$17.4 million and will recognize over 470 young researchers from 54 countries, in over 36 scientific disciplines.

Fifty-two researchers were recognized in the 2024 fiscal year. The program continues to champion a more diverse workforce and the Blavatnik Awards strongly encourages the nomination of women and other underrepresented groups in science and engineering.

Blavatnik Awards scholars are driving economic growth by embarking on new scientific trajectories to pursue high-risk, high-reward scientific research. To date, Blavatnik Awards honorees have founded 72 companies, many of which are now publicly traded on major global stock exchanges including the New York Stock Exchange (NYSE) and the Nasdaq Stock Market. After recognition by the Blavatnik Awards, 30% of past honorees have obtained a patent or filed a patent application, 75% have started a new research direction, and 11% have started a new collaboration with another Blavatnik Awards honoree.



Blavatnik U.S. National Awards: The 2023 Blavatnik National Awards Laureates and Finalists were honored at the eighth annual Blavatnik National Awards for Young Scientists on September 19, 2023. France A. Córdova, PhD, President of the Science Philanthropy Alliance, former director of the National Science Foundation, and the first woman to be NASA's chief scientist, served as presenter.

The Awards recognize exceptional work in energy and sustainability, climate change and forest fires, and transforming solid-state physics and semiconductor physics. The 2023 Blavatnik National Awards received 267 nominations from 134 institutions in 38 U.S. states. The Laureates were each awarded US\$250,000, the largest unrestricted scientific prize offered to America's most promising, faculty-level scientific researchers under age 42.

2023 LAUREATE IN CHEMISTRY Shannon Boettcher, PhD, University of Oregon

2023 LAUREATE IN LIFE SCIENCES William Anderegg, PhD, The University of Utah

2023 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING Svitlana Mayboroda, PhD, University of Minnesota

Blavatnik U.S. Regional Awards: The 2023 Blavatnik Regional Awards received 121 nominations of talented postdoctoral scientists from 28 institutions across New York, New Jersey, and Connecticut. The three Laureates and six Finalists, each awarded US\$30,000 and US\$10,000 respectively, were announced on August 9, 2023 and were recognized at the 2023 Blavatnik Awards Ceremony at the American Museum of Natural History on September 19, 2023.

2023 LAUREATE IN CHEMISTRY Joonho Lee, PhD, Columbia University

2023 LAUREATE IN LIFE SCIENCES Yanxiang Deng, PhD, Yale University

2023 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING Zoe Yan, PhD, Princeton University

Blavatnik Awards in the UK: The Blavatnik Awards in the United Kingdom named nine 2024 honorees. Three Laureates were each awarded £100,000 and six Finalists were each awarded £30,000. Heriot-Watt University in Scotland and the John Innes Centre in Norwich, England, were honored for the first time. Their discoveries ranged from new research in RNA structure to improve crop resilience, detecting water and other life-signaling molecules from planets beyond the solar system, and creating new enzymes never before seen in nature or a lab.

The Laureates and Finalists were honored at an awards ceremony at Banqueting House in London on February 29, 2024 and their work was featured at a public symposium, "Sparking Innovation" held at RSA House.

2024 LAUREATE IN CHEMICAL SCIENCES Anthony P. Green, PhD, The University of Manchester

2024 LAUREATE IN LIFE SCIENCES Nicholas McGranahan, PhD, University College London

2024 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING Rahul R. Nair, PhD, The University of Manchester

Blavatnik Awards in Israel: The 2024 Blavatnik Awards in Israel, jointly administered by The New York Academy of Sciences and the Israel Academy of Sciences and Humanities, honored the most promising and impactful young scientists in Israel. Three Laureates were awarded US\$100,000. Their discoveries ranged from identifying key sensing and signaling mechanisms in the human brain, to groundbreaking methods in RNA modifications, to quantum computing. The Laureates were honored at a celebration at the Peres Center for Peace & Innovation in Tel Aviv on June 4, 2024, and they presented their work at a symposium held on June 3, 2024 at the Israel Academy of Sciences and Humanities in Jerusalem.

2024 LAUREATE IN CHEMICAL SCIENCES Moran Shalev-Benami, PhD, Weizmann Institute of Science

2024 LAUREATE IN LIFE SCIENCES Schraga Schwartz, PhD, Weizmann Institute of Science

2024 LAUREATE IN PHYSICAL SCIENCES & ENGINEERING Thomas Vidick, PhD, Weizmann Institute of Science

Innovators in Science Award

The New York Academy of Sciences, in partnership with Takeda, launched the fifth cycle of the Innovators in Science Award (IISA), a global recognition program to honor both a promising Early-Career Scientist and an outstanding Senior Scientist for their exceptional research and contributions to a specific field of study. During the 2023–24 cycle, the focus of the award was cancer immunology.

The 2024 Innovators in Science Award Winners were announced publicly on December 5, 2023. They were celebrated at an awards ceremony held at The Tower in Boston, MA, on April 11, 2024. Laura Helmuth, PhD, then Editor-in-Chief of *Scientific American*, served as Presenter of Ceremonies. Each Winner received an unrestricted prize of US\$200,000 to support their commitment to innovative research.

The IISA received 119 nominations in cancer immunology from 22 countries around the world.

2024 SENIOR SCIENTIST WINNER Robert D. Schreiber, PhD, Washington University in St. Louis

2024 EARLY-CAREER SCIENTIST WINNER Elham Azizi, PhD, Columbia University

Interstellar Initiative | September 2023–February 2024

The Interstellar Initiative, developed by the Japan Agency for Medical Research and Development (AMED) and The New York Academy of Sciences, fosters international and interdisciplinary collaboration between scientists early in their careers. The program brings together researchers from around the world, selected via a competitive application process, and teams them with peers in complementary disciplines. With the guidance of leading senior researchers, each team develops a grant proposal centered on a novel scientific research question.

The **2023–2024 Interstellar Initiative** focused on basic research to elucidate the complex mechanisms of living organisms, with projects studying social homeostasis, protein interactions in cells, the cellular basis of Alzheimer’s Disease, biomolecular condensates, the gut-brain axis, neurocognitive changes in aging, microRNAs to monitor environmental exposure on intestinal epithelial cells, B-cell signaling in cancer, and brain evolution and development. Twenty-nine early-career investigators and twelve mentors from nine countries met in-person for a workshop in September 2023 to develop their proposals, followed by a virtual presentation session in February 2024.

The **Interstellar Initiative Beyond Program** provides further funding and support to the most promising team research projects developed through the Interstellar Initiative. In this next phase, 14 returning early-career investigators and five esteemed mentors from seven countries convened virtually to refine and elevate their research proposals, pushing the boundaries of their initial concepts to reach new levels of scientific innovation and impact.

Tata Transformation Prize

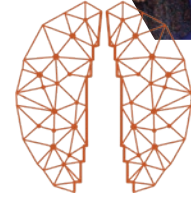
The New York Academy of Sciences, in partnership with Tata Sons, launched the first prize cycle of the Tata Transformation Prize to support breakthrough, innovative technologies that address India’s greatest challenges. The Prize leverages the exceptional potential of scientists in India to address critical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

On November 7, 2023, three inaugural Winners, one in each of the three categories were announced. Each Winner was announced and awarded INR 2 crores (approximately US \$240,000). They were celebrated at a gala ceremony at the Taj Lands End, Mumbai, India on December 8, 2023.

FOOD SECURITY WINNER Shilpi Sharma, PhD, Indian Institute of Technology Delhi

SUSTAINABILITY WINNER Purnananda Guptasarma, PhD, Indian Institute of Science Education and Research Mohali

HEALTHCARE WINNER Anurag S. Rathore, PhD, Indian Institute of Technology Delhi



Above: Three Leon Levy Program Alumni presented during the 2024 symposium. From left: Priya Prakash, PhD, NYU Grossman School of Medicine; Justin Steinfeld, MD, PhD, Columbia University Irving Medical Center; and Ryan Dosumu-Johnson, MD, PhD, Columbia University, New York State Psychiatric Institute.



Below: The 2024 AI and Society Fellows. Akuadasuo Ezenyilimba, PhD (upper right), Marjorie Xie, PhD (left), and Nitin Verma, PhD (lower right).

Below: The 2024 Tata Transformation Prize winners. Purnananda Guptasarma, PhD, Anurag S. Rathore, PhD, and Shilpi Sharma, PhD (left to right).



Leon Levy Scholarships in Neuroscience

The Leon Levy Foundation partnered with The New York Academy of Sciences to administer its second year of the Leon Levy Scholarships in Neuroscience. This highly regarded postdoctoral program supports 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. On May 6, 2024, the Academy hosted the Annual Leon Levy Symposium at The New York Academy of Sciences, with presentations given by the ten 2023 Leon Levy Scholars.

On May 29, 2024, the new scholars for 2024 were announced. Their research included the study of the neural circuitry of memory and decision-making, psychedelic-based treatment of alcohol and substance abuse disorders, the chemical communication of insects, use of organoids to study Alzheimer’s, as well as vocal learning research in mammals.

AI and Society Fellowship Program

The emergence of powerful new AI tools brings unprecedented opportunities for technological advances, as well as concerns about how these technologies might reshape society.

A new generation of scholars is needed who can bridge the divide between technical disciplines and the humanities to capitalize on the ethical use of AI. To address this need, The New York Academy of Sciences, in partnership with Arizona State University and partial support from the Simons Foundation, launched the Artificial Intelligence and Society Fellowship Program.

The two-year program is designed for exceptional early-career researchers across the United States, drawing from diverse disciplines including computer science, life sciences, social sciences, and the humanities.

In FY24 the AI and Society Fellows achieved significant milestones as evidenced by an extensive list of publications and invited conference presentations. Their groundbreaking new research spans critical areas, from utilizing AI for diagnosing and treating traumatic brain injuries and mood disorders to exploring the implications of deepfakes on trust in democracies.

Programmatic highlights for the Fellows included opportunities to meet with world leaders in the field, such as Yann LeCun, PhD, Chief AI Scientist at Meta, Reid Hoffman, Co-founder of LinkedIn and Inflection AI, and Miles Brundage, PhD, Head of Policy Research at OpenAI.

The Fellows co-led a workshop on Reinforcement Learning with Human Feedback, emphasizing the need for transparent documentation, and collaborated on drafting AI policy recommendations alongside New York City government representatives and a diverse group of AI and ethics scholars. Notably, several publications resulted from collaborations between Fellows and AI startups in residence at the Academy, showcasing the incubator environment we have established for research on the ethical use of AI.

AI and Society Fellows

The AI and Society Fellowship Program currently supports three postdoctoral Fellows in its inaugural cohort:

Akuadasuo Ezenyilimba, PhD | Research Projects: Mild Traumatic Brain Injury Rehabilitation and Detection, Athlete Development: Academic Performance in Adolescent Athletes, Safe AI Driven Access and Availability of Course Materials to Learners

Marjorie Xie, PhD | Research Project: Role of Attention on Mood Changes During Reward-based Learning

Nitin Verma, PhD | Research Project: Assessing ChatGPT’s ‘Understanding’ of Common Topics

SHAPING THE FUTURE OF SCIENCE AS A SCIENCE CONTENT CREATOR

As part of our role in shaping the future of science, The New York Academy of Sciences launched a new website in March 2024.

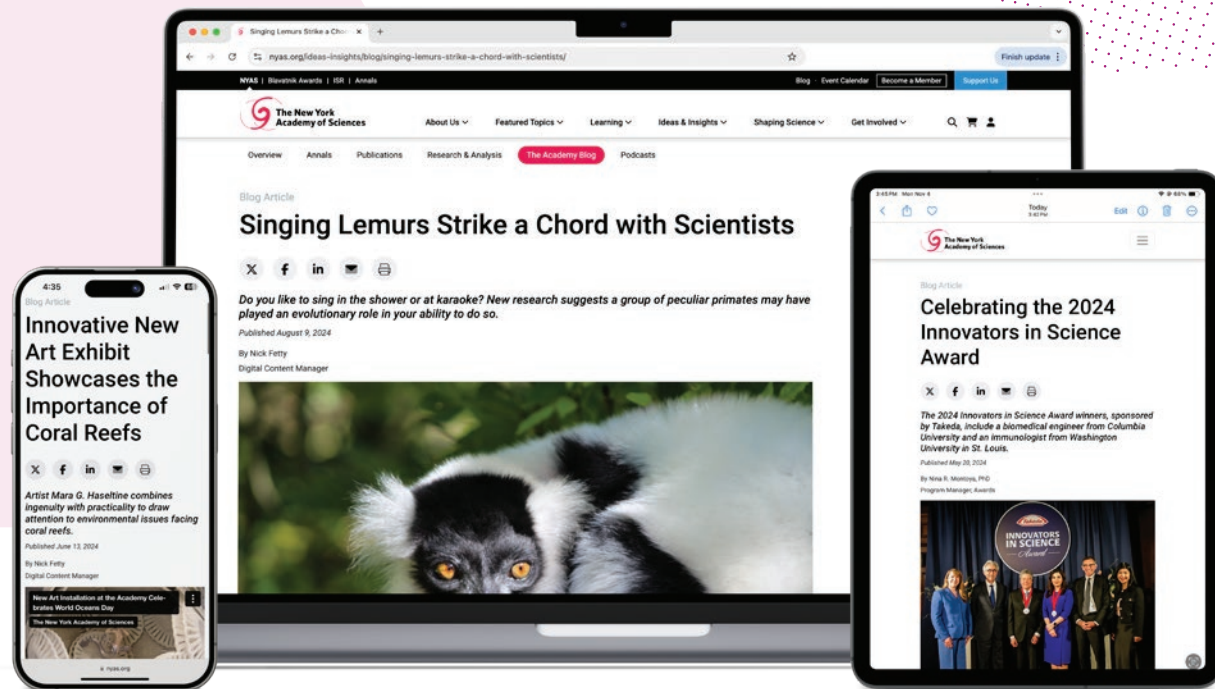
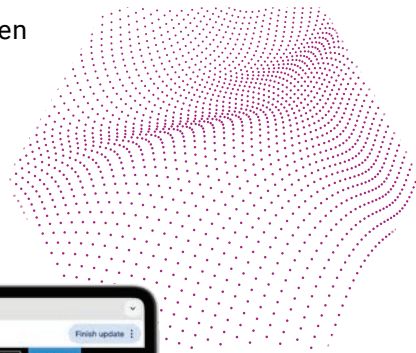
A centerpiece of the new website is the Academy's Blog, which leverages the Academy's distinguished community by showcasing perspectives from an impressive roster of esteemed guest voices, as well as celebrates the many accomplishments from our Board, partners, members, staff, and others.

This includes thought leaders and subject matter experts, with engaging narratives and storytelling in a variety of formats, including articles, videos, photos, podcasts and more.

The new website features streamlined navigation and an overall user experience that is more intuitive and logical, reflecting the many interests of the Academy's global community.

The clean, contemporary design enhances this new platform, thus enabling the Academy to more effectively connect with members and other key stakeholders for many years to come.

The Academy also launched a series of Science Salons to further advance our role as science content creators. These invitation-only events convene approximately ten attendees for a private dinner featuring an invited scientific speaker. During the event, the speaker gives a short presentation about advances in their field, and the guests then participate in an intimate group discussion.



NYAS.ORG: A SNAPSHOT



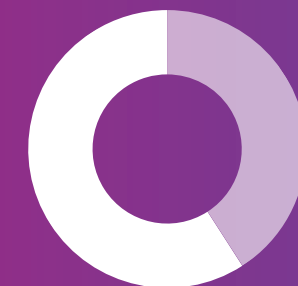
TOP 10 COUNTRIES FOR SITE VISITORS

1. UNITED STATES
2. INDIA
3. EGYPT
4. PHILIPPINES
5. UNITED KINGDOM
6. SWEDEN
7. CANADA
8. MEXICO
9. BANGLADESH
10. NORWAY

TOP 5 CITIES

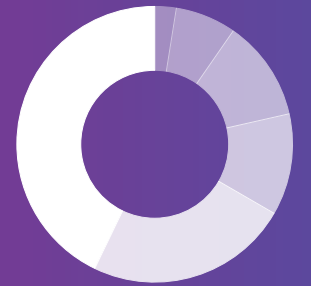
- NEW YORK, USA
- WASHINGTON DC METRO, USA
- LONDON, UK
- PATNA, INDIA
- LOS ANGELES, USA

DEMOGRAPHICS



FEMALE 59.1%
MALE 40.9%

AGE

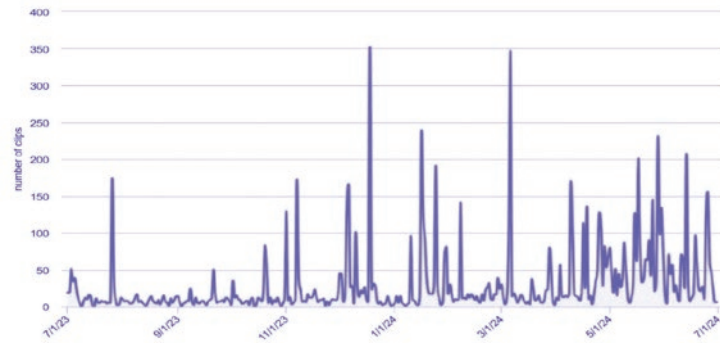


18-24 42.85%
25-34 23.81%
35-44 11.90%
45-54 11.80%
55-64 7.14%
65+ 2.5%

THE NEW YORK ACADEMY OF SCIENCES IN THE NEWS

The marketing and communications teams at The New York Academy of Sciences increased its media outreach through both earned and paid media opportunities. The following media coverage analysis reflects coverage from July 2, 2023 through June 30, 2024. It was provided by Cision, The New York Academy of Sciences' media monitoring service.

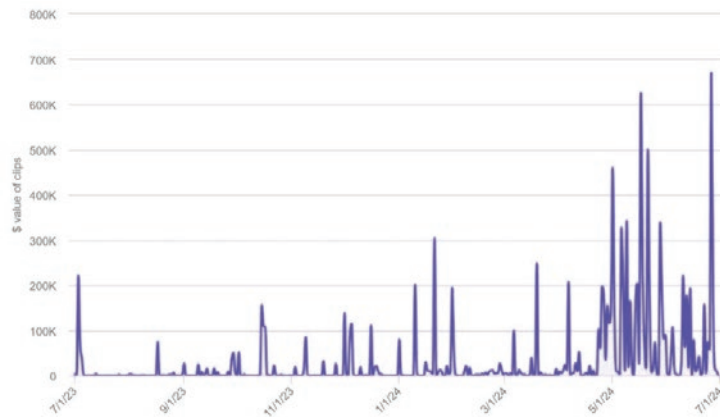
ESTIMATED ACADEMY MENTIONS: 10,000+



MENTIONS (10.6K)

Includes all forms of media outlets such as social media, blogs, online and print media, as well as citations of *Annals of the New York Academy of Sciences*, in academic published papers.

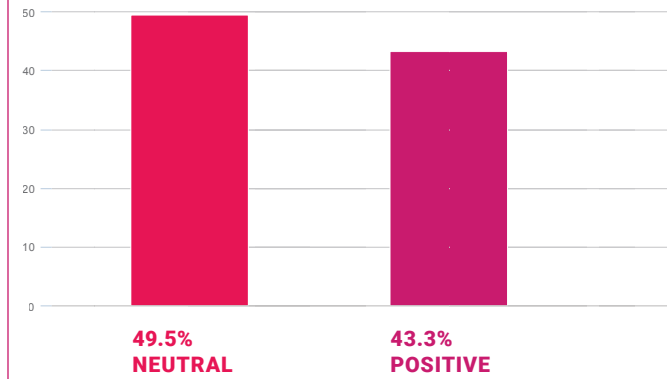
ESTIMATED VALUE OF EARNED MEDIA COVERAGE: \$11 MILLION



PUBLICITY VALUE (\$11.6M)

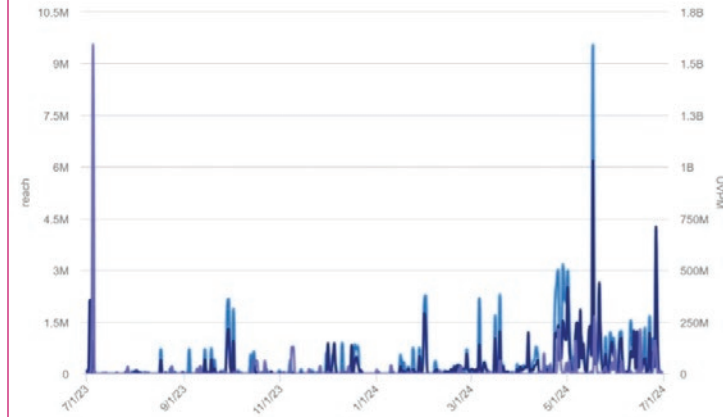
Value is calculated on amount of editorial coverage equivalent to advertising space. However, it should be noted that editorial mentions have greater intrinsic value because of their integration into larger stories, rather than paid advertising.

SHARE OF SENTIMENT



The majority of media coverage occurred on online consumer media outlets (73%), and the sentiment was overwhelmingly positive or neutral (93%).

ESTIMATED AUDIENCE IMPRESSIONS: 28+ MILLION

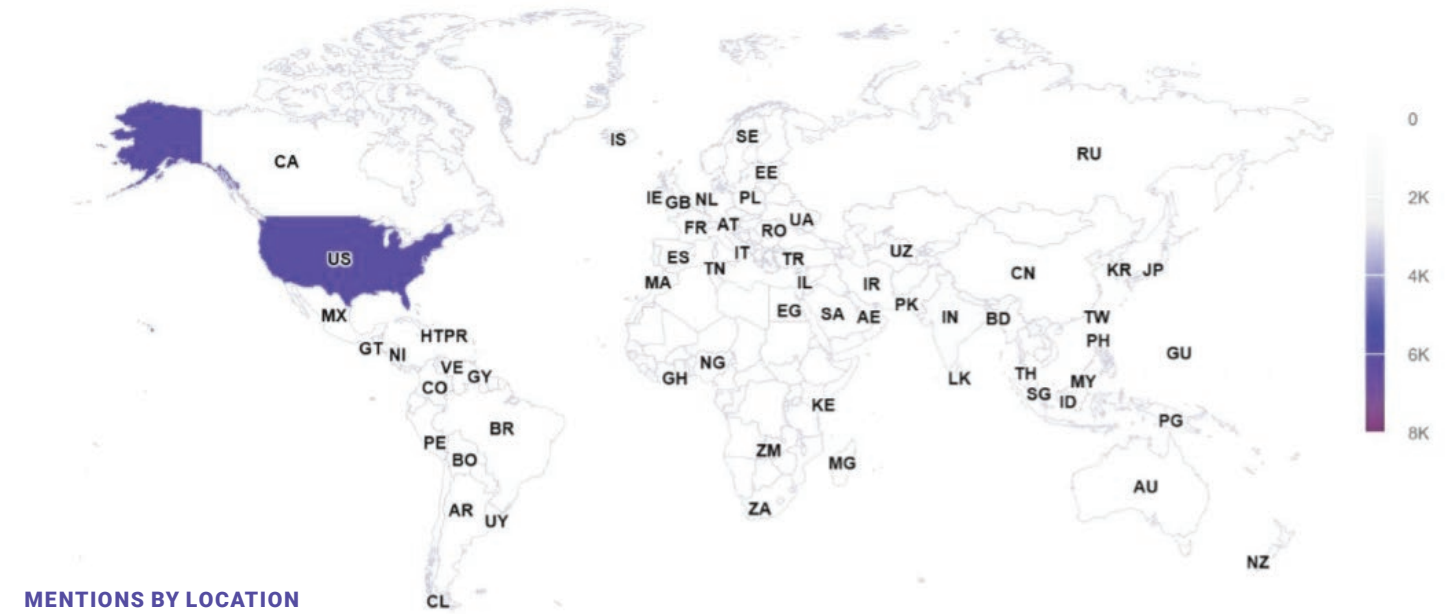


MOBILE UVPM (18.6B) DESKTOP UVPM (13.2B) REACH (26.M)

An "audience impression" is defined as the number of times an item is viewed i.e. One person viewing the same thing 15 times would be counted as 15 impressions.

GEOGRAPHIC COVERAGE: 40+ COUNTRIES

The Academy's activities were covered in more than 40 countries.



MENTIONS BY LOCATION

SELECTED MEDIA HIGHLIGHTS

OPINION: THE NEW YORK TIMES | OCTOBER 15–16, 2023
Nicholas Dirks' letter to the editor focused on restoring trust in public institutions, such as science, in the aftermath of COVID-19.
[Opinion | The New York Times](#)

THE HILL | OCTOBER 5, 2023
Nicholas Dirks' opinion piece on the pending Supreme Court ruling re: the use of mifepristone and its potential threat to scientific research, was published by The Hill.
[One judge's ruling threatens American scientific research](#)

CHRONICLE OF PHILANTHROPY | AUGUST 24, 2023
Chief Scientific Officer, Brooke Grindlinger's letter to the editor "[Restricted Funding Is Stifling Scientific Progress](#)" is published. The letter was in response to a feature about tech billionaires funding scientific research.

THE HILL | JANUARY 31, 2024
An opinion piece by Nicholas Dirks calling for geopolitics to be set aside in favor of advancing scientific collaborations between the U.S. and China.
[Don't let geopolitics get in the way of scientific cooperation with China](#)

THE WASHINGTON POST | JANUARY 28, 2024
Brooke Grindlinger's Letter to the Editor. The letter also ran in the print edition, Monday, January 29.
[Opinion | The 'Barbie' movie could help push more girls into STEM fields](#)

GENERAL ACADEMY NEWS

WORTH | NOVEMBER 21, 2023
Nicholas Dirks is quoted in an article about the AI panel discussion in which he was a guest expert at Techonomy23.
[AI Could Make Humans Even Less Exceptional](#)

POLITICO NEW YORK PLAYBOOK | FEBRUARY 1, 2024
Nitin Verma, PhD, AI Fellow, quoted in article about deep fake political videos.
[How a fake, 10-second recording briefly upended New York politics](#)

INSIDE HIGHER ED | JANUARY 30, 2024
Nicholas Dirks is interviewed about his career in academia and his current role as president and CEO of The New York Academy of Sciences.
[Former chancellor reflects on his misadventures in higher ed](#)

THE JERUSALEM POST | MARCH 26, 2024
Blavatnik Awards for Young Scientists – Israel:
["Prestigious Blavatnik awards for young scientists in Israel announces 2024 laureates"](#)

YAHOO FINANCE | MAY 11, 2024
"Philanthropy and academic freedom are colliding in ways that have the potential to undermine the true purpose and mission of our universities," wrote New York Academy of Sciences president Nicholas Dirks
[There's One Main Reason People Donate to Their Alma Maters](#)

The story was also carried by:
• **PHILANTHROPY NEWS DIGEST | MAY 11, 2024**
• **SLATE | MAY 11, 2024**

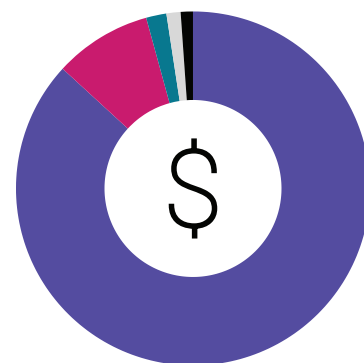
FINANCIAL SNAPSHOT

FOR THE YEAR ENDED JUNE 30, 2024

CONSOLIDATED STATEMENT OF ACTIVITIES

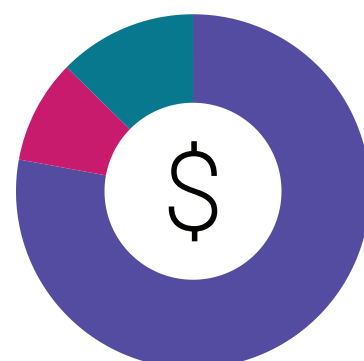
OPERATING SUPPORT AND REVENUE

● Contributions.....	\$18,262,875
● Publication Sales.....	\$1,874,771
● Membership Fees.....	\$390,262
● Registration And Meeting Fees.....	\$271,646
● Other Income.....	\$234,755
Total Operating Support And Revenue.....	\$21,034,309



OPERATING EXPENSES

● Program Expenses.....	\$17,865,933
● Fundraising.....	\$2,175,426
● General And Administrative.....	\$2,901,104
Total Operating Expenses.....	\$22,942,463



Change In Net Assets Before Depreciation And Amortization.....	(\$1,908,154)
Less: Depreciation And Amortization.....	\$222,672
Change In Net Assets After Depreciation And Before Unrealized Gain On Investments.....	(\$2,130,826)
Realized And Unrealized Gain On Investments.....	\$15,999
Change In Net Assets.....	(\$2,114,827)*

* This loss consists of an operating loss of \$380,173 and a decrease in net assets with donor restrictions of \$1,734,654.

The above data has been condensed from the consolidated financial statements as of June 30, 2024, audited by EisnerAmper, LLP. Copies of the audited statements including the accountant's unmodified opinion are available from the Academy upon request.

SUPPORTERS

Mission Partner

(\$1 Million+)

Blavatnik Family Foundation
Leon Levy Foundation

Visionary Partner

(\$250,000 – \$999,999)

Japan Agency for Medical
Research and Development
(AMED)
Empire Offshore Wind LLC
Google LLC
IBM Corporation
Icahn School of Medicine
at Mount Sinai
NEOM
The PCLB Foundation
Pfizer Inc.
Takeda Pharmaceutical
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Estate of Richard E. Parr*
Ethel Romm*
Leroy Safian*
Michael Samek*
Vera Studer

* Deceased

Premier Partners

(\$100,000 – \$249,999)

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Charitable Trust
Chan Zuckerberg Initiative
Clifford Chance
Johnson & Johnson
The Royal Swedish
Academy of Engineering
Sciences (IVA)
Simons Foundation
International
Stevens Initiative

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(\$50,000 – \$99,999)

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Medical Research
Fondation Botnar
The Pinkerton Foundation

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AstraZeneca
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CURE Deerfield
Management
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Trust/George Frampton
GSK plc
Halis Family Foundation
Royalty Pharma
Chandrika Tandon

Friends Of The Academy

(\$1,000 – \$24,999)

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Art Guild, Inc.
Agiros Pharmaceuticals
AKA Strategy
American Association of
Immunologists
American Chemical Society
New York Section
Benefit Plan Manager
Bristol-Myers Squibb
Company
Gyorgy Buzsaki
Robert B. Catell
Peter S. Coleman
Columbia University
Engineering
Charles Craig
Nicholas Dirks
EisnerAmper
MaryEllen Elia
Katherine Forrest
The Kurt Forrest Foundation
Foundation for the National
Institutes of Health
Aida Habtezion
John P. Hall III and R. May
Lee
Hevolution Foundation
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Jerry and Jill Hultin
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Kasirer LLC
Ralph Kaslick
Seema Kumar
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Ronay Menschel

Merck & Co., Inc.
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Biomedical Research
Northwest Biotherapeutics
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Marean Pompidou
James Reddoch
Lowell Robinson and Leila
Heckman
Ellis and Joanna Rubinstein
Konstantin Shakhnovich
Robin Stephenson
Masaki Tan
Thermo Fisher Scientific
UCSF Medical Center
Vertex Pharmaceuticals

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Peter Thorén, Executive Vice President, Access Industries

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Grace Wang, 17th President of Worcester Polytechnic Institute

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

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Jeremy Wertheimer, Chief Executive Officer, Biological Engineering Ventures

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EMERITI

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Chairs Emeriti

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Nancy Zimpher, Chancellor Emeritus, The State University of New York

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Martin Chalfie, Nobel Laureate; University Professor of Biological Sciences, Columbia University

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Peter Doherty, Nobel Laureate; Researcher, St. Jude Children's Research Hospital (Memphis, TN); Researcher, the Department of Microbiology and Immunology, University of Melbourne

Mikael Dolsten, President, Worldwide Research and Development; Senior Vice-President, Pfizer Inc.

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Jerome I. Friedman, Nobel Laureate; Institute Professor & Professor of Physics, Emeritus, Massachusetts Institute of Technology

Joseph Goldstein, Nobel Laureate; Chairman, Molecular Genetics, University of Texas Southwestern Medical Center

S. Kris Gopalakrishnan, Chairman, Axilor Ventures / Co-founder Infosys

Glenda Greenwald, President, Aspen Brain Forum Foundation

William A. Haseltine, President, The Haseltine Foundation for Medical Sciences and the Arts; Chairman, Haseltine Global Health, LLC

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Eric Kandel, Nobel Laureate; Professor, Physiology and Cell Biology, Columbia University

Kiyoshi Kurokawa, Former Science Advisor to the Prime Minister of Japan; Professor, National Graduate Institute for Policy Studies (GRIPS)

Gregory Lucier, Chief Executive Officer, Corza Health

Roderick MacKinnon, Nobel Laureate; John D. Rockefeller, Jr. Professor, Rockefeller University; Investigator, HHMI

Richard Menschel, Senior Director, Goldman Sachs

Ronay Menschel, Chairman of the Board, Phipps Houses; Board of Overseers, Weill Cornell Medical College

John F. Niblack, Former President, Pfizer Global Research & Development; Honorary Life Governor, The New York Academy of Sciences

Paul Nurse, Nobel Laureate; Former President, The Rockefeller University; Former President, The Royal Society, London; Chief Executive, The Francis Crick Institute

Yoshinori Ohsumi, Nobel Laureate; Professor, Institute of Innovative Research, Tokyo Institute of Technology (IIR)

Venkatraman Ramakrishnan, Nobel Laureate; Former President, the Royal Society

Richard Roberts, Nobel Laureate; Chief Scientific Officer, New England Biolabs

James E. Rothman, Nobel Laureate; Yale University School of Medicine, Fergus F. Wallace Professor of Cell Biology and Professor of Chemistry; Chairman, Department of Cell Biology; Director, Nanobiology Institute

Bengt Samuelsson, Nobel Laureate; Professor, Medical and Physiological Chemistry, Karolinska Institute; Former Chairman, The Nobel Foundation

Ismail Serageldin, Director, Bibliotheca Alexandrina, The Library of Alexandria, Egypt

Phillip A. Sharp, Nobel Laureate; Director, The McGovern Institute, MIT Center for Cancer Research

Feike Sijbesma, CEO/Chairman of the Managing Board, Royal DSM

Michael Sohlman, Former Executive Director, The Nobel Foundation

Paul Stoffels, Chief Scientific Officer, Johnson & Johnson; Member of the Johnson & Johnson Executive Committee and Management Committee; Worldwide Co-Chairman, Pharmaceuticals Group

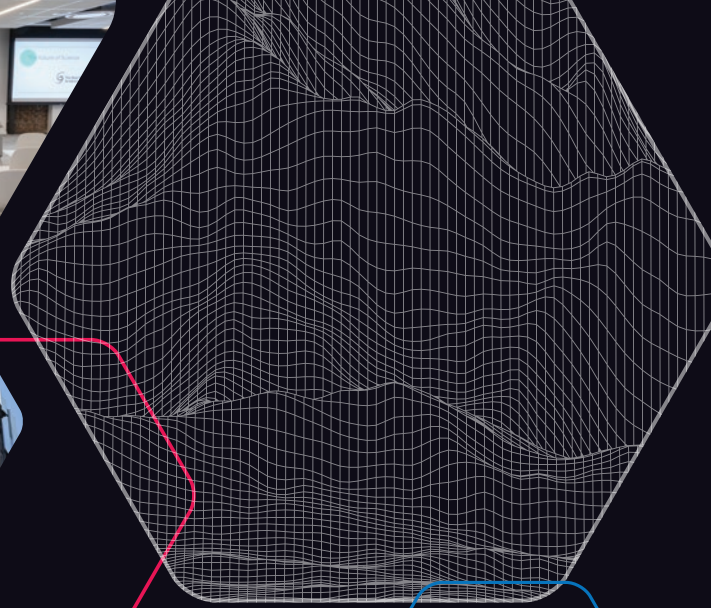
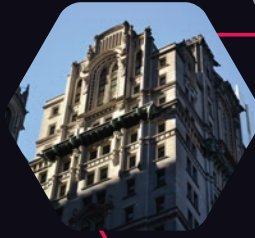
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Andrew Witty, Former Chief Executive Officer, GlaxoSmithKline

Tan Sri Zakri Abdul Hamid, Science Adviser to the Prime Minister of Malaysia

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