



If you think research is expensive . . . try disease.

### **OUR MISSION**

To improve health by accelerating support for medical research through recognition of research excellence, advocacy, and education

### Letter



### Using Science Communication to Increase Support for Medical Research and Improve Health

2023 was an exciting year for the Lasker Foundation as we welcomed five new Lasker Laureates, strengthened our education programs for young scientists, and expanded our advocacy work. Key to the success of those initiatives is effectively communicating the importance of science in improving health for all. In this Annual Report, you will learn about the many new (and old) ways in which we are sharing our message about the power of medical research to prevent and treat human diseases.

We were delighted to return to an in-person celebration to bestow the Lasker Awards this year. The Awards honored two pioneers in using artificial intelligence to decipher protein structures, three engineers and clinicians who reached across disciplinary boundaries to develop optical coherence tomography to diagnose retinal disease, and a global statesman who made diverse biological advances and battled science misinformation. Communicating those accomplishments through the scientific and lay media, social media, videos, and in-person presentations helped advance our mission of increasing support for medical research.

This year, Lasker's education programs included the opportunity to add four new Lasker Clinical Research Scholars in our partnership with the National Institutes of Health (NIH), exciting lectures for scientists and the public, a popular Essay Contest, and engaging programs for our Lasker Lessons in Leadership series. As just one inspiring example, two students in the NIH Oxford~Cambridge Scholars program had the chance to hone their interview skills in a special conversation with two amazing scientists—one of our Lasker Laureates (Karl Deisseroth) and a MacArthur Fellow (Michelle Monje-Deisseroth)—about their marriage and their research. The Foundation was especially pleased to partner with Research!America to support the development of an interactive database that can serve as a "one stop" entry to access information on training opportunities in science communication. We are deeply committed to ensuring that science communication skills are an integral part of every researcher's training and lifelong learning, and this tool is a significant advance in supporting that goal.

Communication is central to effective advocacy, and that shines through in the Lasker Foundation's outreach work. We value our new memberships in the STEMM Opportunity Alliance, dedicated to creating a more diverse research workforce, and in the Coalition for Trust in Health & Science, committed to improving equitable access to accurate information needed to make appropriate health decisions. By battling misinformation, we can all help ensure that the benefits of medical research advances reach the people who need them.

We invite you to join us in communicating about the wonder of medical research. We urge you to visit our website and join our social media network to receive updates on scientific advances and then to share that information. In the face of the current challenges to medical research funding, especially at the federal level, we hope that you will add your voice to the chorus calling to prioritize science in our funding and policy decisions. We must effectively communicate the value of science for the world's future.

It remains as true as ever: "If you think research is expensive . . . try disease."

Anthony Evnin Chair, Board of Directors

Claire Pomeroy President

### Awards Program

Please join us in congratulating our 2023 Lasker winners, whose research breakthroughs have had a profound impact on human health.

### Albert Lasker Basic Medical Research Award

For the invention of AlphaFold, a revolutionary technology for predicting the three-dimensional structure of proteins





John Jumper Google DeepMind

Demis Hassabis Google DeepMind



Lasker President Claire Pomeroy honors the 2023 Lasker Award winners.

### Lasker ~ DeBakey Clinical Medical Research Award

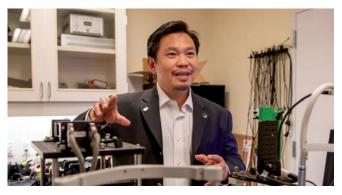
For the invention of optical coherence tomography, a technology that revolutionized ophthalmology allowing rapid detection of diseases of the retina that impair vision



James G. Fujimoto Massachusetts Institute of Technology



Eric A. Swanson Massachusetts Institute of Technology



David Huang Oregon Health & Science University



Piet Borst Netherlands Cancer Institute

### Lasker~Koshland Special Achievement Award in Medical Science

For an exceptional 50-year career of scientific discovery, mentorship, and leadership



René Magritte. Oils on canvas. ©2023 C. Herscovici/Artists Rights Society, New York. Clear Ideas (1958), 50 × 60 cm.

### **Art and Science**

In his annual Art and Science essay, Medical Research Awards Jury Chair Joseph Goldstein likened the surrealism of Magritte's paintings to the amazing insights offered by the 2023 Lasker Awardees' work. The essay, along with 22 others, has now been published in a beautiful hardcover book.

# Education



### Lasker Essay Contest

The Lasker Essay Contest engages early-career scientists and clinicians in discussions about important questions in policy, medicine, and the role of biomedical research in society. The contest also gives applicants a chance to showcase their science communication skills. This year, medical, research, and public health trainees were asked to **describe an unanticipated ethical issue they have encountered and the strategies used to address it**. We received responses from trainees at 128 institutions across 25 countries. The video interviews with the five winners were again a success, garnering more than 53,000 views on social media.

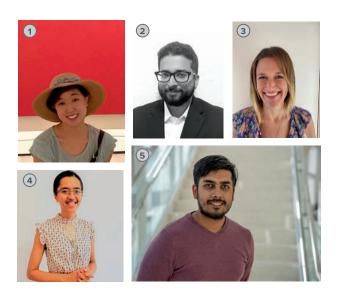
We are excited to announce that this year began a three-year partnership with the *Journal of Clinical Investigation (JCI)*; the five winning essays were published in *JCI*'s July issue.

### MEET OUR 2023 ESSAY CONTEST WINNERS

1. Allison R. Chen earned her BS in bioengineering from the University of California, San Diego, and is now a PhD candidate in the Biomedical Engineering Department at Cornell University. Allison researches lipid nanoparticles in the laboratories of Matt Delisa and Chris Alabi, funded by a National Science Foundation Graduate Research Fellowship. Allison aspires to use her research to advance drug therapeutics.

Essay: "Research Training in an AI World"

2. Salman E. Qasim earned his PhD in biomedical engineering at Columbia University and is a postdoctoral researcher at the Icahn School of Medicine at Mount Sinai. He is interested in how cognition emerges and has spent his career trying to understand the information contained in human brain recordings. Salman is especially interested in untangling the neural circuits underlying human decision making and emotion and how they affect memory. **Essay:** "The Human Brain: The Final Frontier and the Wild West"



**3.** Louise O. Downs is a second-year PhD student at Oxford University and a Specialist Registrar in Clinical Infection at Oxford University Hospitals. Her PhD led her to Kilifi, Kenya, where she set up a testing program for chronic hepatitis B virus (HBV) infection in the local hospital; her work is supported through the KEMRI–Wellcome Trust Research Program. She aims to enable access to improved diagnostics and treatment for people living with HBV in low-resource settings.

**Essay:** "Is a Test Better Than No Test When There Is No Treatment?"

4. Sneha P. Rath was born in Mumbai and moved to the United States at the age of 15. As a graduate student, she studied innate immune responses with Alexei Korennykh at Princeton University. Sneha is an NIH K99/R00–funded postdoctoral fellow, studying mitochondrial biology and genomics with Vamsi Mootha at the Broad Institute of the Massachusetts Institute of Technology and Harvard. **Essay:** "Cementing the Bricks"

**5.** Ayush Kumar immigrated to the United States as an infant and went on to graduate as valedictorian of the engineering school at Washington University in St. Louis. He is a fifth-year MD–PhD student in Arthur Mercurio's laboratory at the University of Massachusetts Chan Medical School, where he researches breast cancer resistance to radiotherapy. Ayush plans to become a radiation oncologist and to study radioresistance in cancer.

**Essay:** "Using HG1222—A Perspective into the Ethics of Collecting Biospecimens"

### Lasker Clinical Research Scholars

This initiative supports early-career medical researchers for five to seven years, allowing them to conduct independent translational and clinical research at the National Institutes of Health (NIH). Four new Lasker Clinical Research Scholars joined the program in 2023, bringing our total to 43.

This year, three scholars became tenured at NIH: Armin Raznahan, senior investigator and chief of the Section on Developmental Neurogenomics, Human Genetics Branch, National Institute of Mental Health; Beth Kozel, senior investigator and chief of the Laboratory of Vascular and Matrix Genetics, National Heart, Lung, and Blood Institute; and Anish Thomas, senior investigator and chief of the Developmental Therapeutics Branch, Center for Cancer Research, National Cancer Institute.

Two scholars accepted prestigious positions elsewhere: Catherine Ann Cukras, senior medical director, Roche Pharmaceutical Ophthalmology; and Robert Hufnagel, senior investigator, Center for Integrated Health Care Research, Kaiser Permanente, Hawaii.



Payal P. Khincha National Cancer Institute Khincha is dedicated to improving the lives and outcomes of people and families with inherited cancer predisposition syndromes, particularly Li-Fraumeni syndrome. This syndrome confers an extremely high lifetime risk of developing multiple primary cancers.



Rosa Nguyen National Cancer Institute Nguyen aims to develop cellular and cytokine-based immunotherapies for pediatric solid tumors, such as neuroblastoma, for which outcomes remain poor. She conducts translational research and is involved with implementing promising new treatments in the clinic.



Ramya Ramaswami National Cancer Institute Ramaswami focuses on identifying therapeutic options for patients with HIV and cancer. She leads NCI's natural history and treatment study of patients with Kaposi sarcoma herpesvirus-associated multicentric Castleman disease (KSHV-MCD), which includes the largest group of patients treated for the condition in the United States.



Nitin Roper National Cancer Institute

Roper studies the biological mechanisms responsible for neuroendocrine tumors, particularly small cell lung cancer. He aims to understand the relationship between intracellular signaling pathways and immunologic, epigenetic, and molecular aspects of neuroendocrine tumors with the goal of translating experimental data to the clinic.

# Education



NIH OxCam students Hallie Gaitsch and John Hancock interview Michelle Monje-Deisseroth and Karl Deisseroth.



NIH OxCam student Marya Sabir with Harvey Alter at the April Lasker Lessons in Leadership program

### Lasker Lessons in Leadership

In collaboration with the International Biomedical Research Alliance and the National Institutes of Health (NIH) Oxford–Cambridge Scholars Program, the Lasker Foundation hosted two Lasker Lessons in Leadership (LLL) presentations in 2023.

On April 4, Lasker Laureate and Nobel Prize winner Harvey Alter presented his lecture "HCV: The End of the Beginning. Could This Be the Beginning of the End?" in which he talked about the past, present, and future of hepatitis C virus and discussed how failure can lead to success.

On October 17, the LLL program live streamed Lasker Laureate Karl Deisseroth and MacArthur Fellow Michelle Monje-Deisseroth in a joint interview. The students specifically requested this pair because they are both successful scientists who have a family together. Michelle and Karl acknowledged that it is difficult, but they approach managing their family life and their two busy careers as a collaboration and strive to remain flexible. As they put it, "every day is a puzzle to be worked out together," and "the norm is to deviate from the norm."

### Lectures

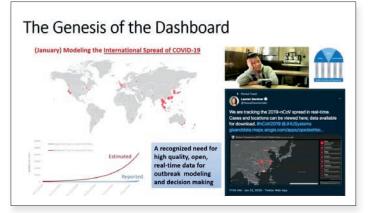
### Lauren Gardner

### **APSA** Lecture



Lasker Laureate Lauren Gardner delivered the 2023 Lasker-APSA Lecture at the annual meeting of the American Physician Scientists Association (APSA) on April 23. Gardner is the Alton and Sandra Cleveland Professor in the Department of Civil and Systems Engineering and the Department of Epidemiology at Johns Hopkins University as well as director at the Center for Systems Science and Engineering. In her talk, "Tracking Covid-19 in Real Time: Challenges Faced and Lessons Learned," Gardner discussed the development of the Covid-19 Dashboard, which set a new standard for disseminating authoritative public health data in real time.

This lecture was produced in partnership with APSA, with the goal of providing mentorship and inspiration for the next generation of clinician researchers.

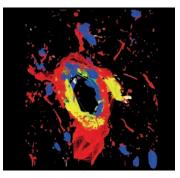


### Communications

In 2023, Lasker released a new video series, "Celebrating the Fight Against Cancer"; added four new episodes to our "Classic Lasker" podcast series; and continued to grow the Foundation's visibility on social media.

### Newsletter

Featuring articles, videos, podcasts, and Lasker news, our monthly newsletter has more than 2,600 subscribers from around the globe. In 2023, the newsletter included an article on Lasker Jury Chair Joseph Goldstein and his longtime collaborator and Lasker Award co-winner Michael Brown; portraits of Christiane Nüsslein-Volhard and Rosalyn Yalow; and a two-part series on the Lasker Laureates who uncovered mechanisms of cell signaling.



From the November newsletter cell signaling article



Detail of a postcard honoring Yalow

### Podcast

The "Classic Lasker" podcast series included four new episodes, featuring Willem Kolff, Oliver Smithies, David



Cushman, and Evelyn Witkin. The interviews are taken from the archives of the Lasker Foundation and give a new platform for the public to hear Lasker Laureates share their personal and professional stories.



Evelyn Witkin during her 2015 interview with Flora Lichtman



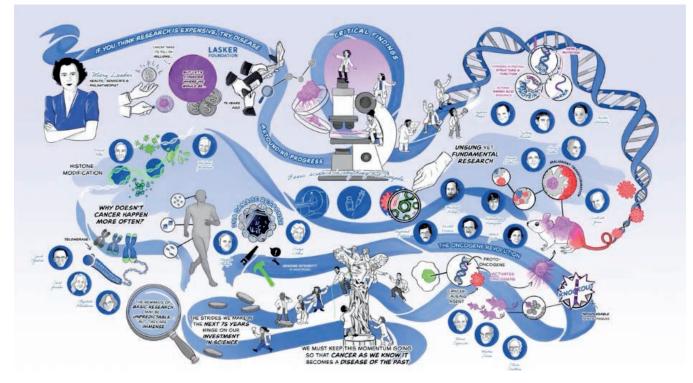
The Twitter (now X) announcements of the Lasker Awards were met with great excitement.

### Social Media

The Lasker Foundation uses its social media channels to share updates about Lasker programming, highlight the latest biomedical research, and interact with scientists worldwide. Across our channels, Lasker has more than 7,000 followers.

### **Celebrating the Fight Against Cancer Video Series**

The Lasker Foundation was created to galvanize public support for biomedical research. A series of whiteboard animations highlight major advances in the fight against cancer and the Lasker Laureates who contributed to those advances. The series was published in Lasker's June newsletter and shared throughout the year on social media. The social media shorts have been viewed more than 16,000 times.



"Celebrating the Fight Against Cancer: Basic Research," a whiteboard animation video produced by We Are Cognitive



### Ask a Scientist Video Series

More short videos were produced in 2023 for this popular series, once again partnering with researchers from all career stages. The scientists share anecdotes about how they became interested in science and how they stay motivated, as well as addressing issues such as the importance of science communication and how to increase trust in science.

### **Books**

To celebrate the Foundation's 75th anniversary, Lasker published a collection of articles that each feature a Laureate. In addition, two books about Mary Lasker were published this year. The Act for NIH Foundation published *Angel in Mink: The Story of Mary Lasker's Crusade for Medical Research and the National Institutes of Health*, by Shirley Haley. Mayo Clinic Press published *Crusade to Heal America: The Remarkable Life of Mary Lasker*, by Judith L. Pearson. The Foundation is grateful to have Mary's story brought to the public's attention.

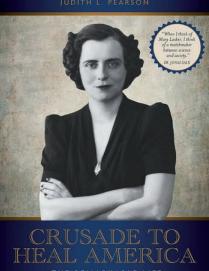




Angel in Mink

Mary Lasker The story of Mary Lasker's Crusade For At Research and the NATIONAL INSTITUTES OF HEALTH

BY SHIRLEY HALEY



MARY

12 Lasker Foundation

### Advocacy



### **President's Presentations**

#### February 7, 2023

"Medical Philanthropy—and You!," philanthropy webinar, University of Michigan, Ann Arbor, MI

### November 3, 2023

"Core Values and Your Research Career: Health Equity and the Social Determinants of Health," SCORE (Specialized Centers of Research Excellence on Sex Differences) meeting, Office of Research on Women's Health, National Institutes of Health, Bethesda, MD

### December 12, 2023

"Addressing Social Determinants to Create a Healthier World," Grand Rounds, Katz Institute for Women's Health, Northwell Health, NY

### **Publications**

Gottlieb AS, Brita R, Herrin J, Holaday LW, Weiss J, Salazar M, Okoli N, Nagarkatti N, Otridge J, **Pomeroy C.** Why are there so few women medical school deans? Debunking the myth that shorter tenures drive disparities. *Academic Medicine*, 99(1):63–9, 2024.

Sanfilippo F, **Pomeroy C**, Bailey D. *Lead, Inspire, Thrive: A Handbook for Medical School Department Chairs (and Other Leaders)*, Springer, 2023.

### LIFE SCI 불

Lasker President Claire Pomeroy and Board Chair Anthony Evnin continued to serve on the Life Sciences NYC Advisory Council. Pomeroy co-chairs the group. The Council advises the city's Economic Development Corporation in its work to grow the life sciences ecosystem, including expanding and diversifying the workforce, catalyzing the creation of companies, stimulating the economy, and contributing to improved health for all. Since inception, more than 750 students—including more than 160 in 2023—have been placed in paid internships to help develop the next generation of leaders in the life sciences.

### Partnerships





SOA's Northwest STEMM Summit; Lasker representative Jeanette Mladenovic is third from left.

The Lasker Foundation is proud to be a member of the newly formed STEMM Opportunity Alliance (SOA). SOA's goal is to achieve STEMM equity by 2050. After a year of local summits and community engagement, the SOA posted its draft National Strategy for STEMM Equity and Excellence, which was open for comment through November 6, 2023.

In June 2023, Lasker participated in SOA's Northwest STEMM Summit: "Achieving Equity and Excellence," hosted by Micron, in Boise, Idaho.

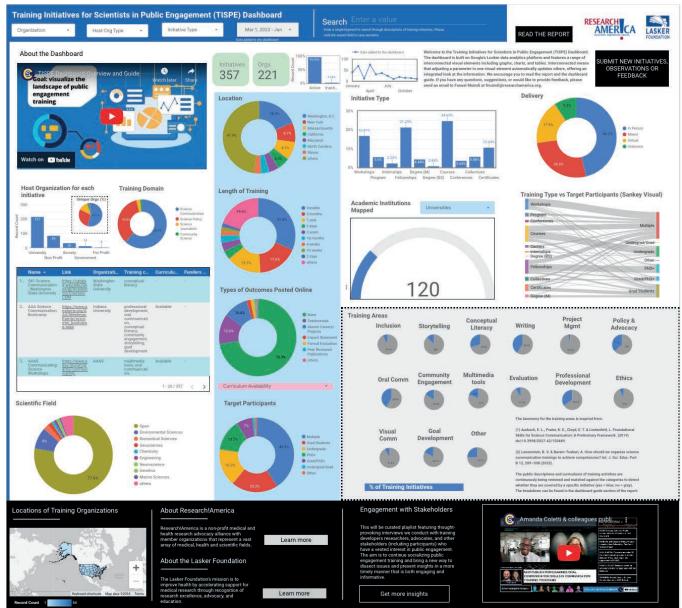
### **Coalition for Trust in Health & Science**

The Foundation is a member of the Coalition for Trust in Health & Science, a nonpartisan, nonprofit collection of organizations dedicated to creating a measurable increase in public trust for public health and science organizations and their representatives. Created in 2023, the coalition has a vision for all people to have equitable access to accurate, understandable, and relevant information necessary to make appropriate health decisions.

### **Research!America**

In partnership with Research!America, our Civic Science Scholar, Fanuel Muindi, conducted a landscape analysis of civic science training programs for scientists. The aim is to create a diverse cadre of science communicators to engage the public and increase trust in and support for science. A public announcement of the report and release of the interactive database was made on November 15.





Snapshot of the TISPE Dashboard created by Fanuel Muindi

# Leadership



### IN THE SPOTLIGHT: Chris Jones

When you search the internet for Lasker Board member Chris Jones, you will find an impressive list of companies that he has run or advised: private equity firms, health care companies, makers of luxury goods, financial services companies, and marketing and advertising firms. What that list does not tell you is that, at heart, his work has been about improving public health.

As a fresh graduate of the University of Cambridge, Jones worked at the marketing firm Saatchi & Saatchi, where he was assigned the Health Education Council account. Working on that account, Jones says, taught him a lot about behavior and health.

"You have to think about the other side of the hill—the people you can't see but whose minds you're trying to change," he says. For the Lasker Foundation, Jones says that the other side of the hill includes those who can change the minds of lawmakers, the people who have the power to fund biomedical research. That is something Mary Lasker knew well, and Jones admires her brilliant use of publicity to further her cause.

The Awards program that Mary conceived "gives the oxygen of publicity, recognition, and praise to those doing great biomedical research," and the work the awards honor shows how biomedical research benefits human health. Jones emphasizes the importance of presenting Lasker's message that science can improve lives—freshly and relevantly, time and again, to keep it in the forefront of the public's mind. "Our biggest problem isn't skepticism," he says. "Our biggest problem is indifference."

Even in the current climate of misinformation and distrust in science, Jones finds a place for optimism. He says he is excited about all the great research happening in the world especially the promise of what artificial intelligence could bring to biomedical research—and is looking forward to recognizing more scientific breakthroughs. After all, he says, "Science can move mountains when it comes to improving human well-being."

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### Donors

### In grateful appreciation to the following donors in 2023:

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# Looking Ahead:

### LASKER AWARDS

The 2024 Lasker Awards will accept nominations through February 5, and winners will be celebrated in September.

### ESSAY CONTEST

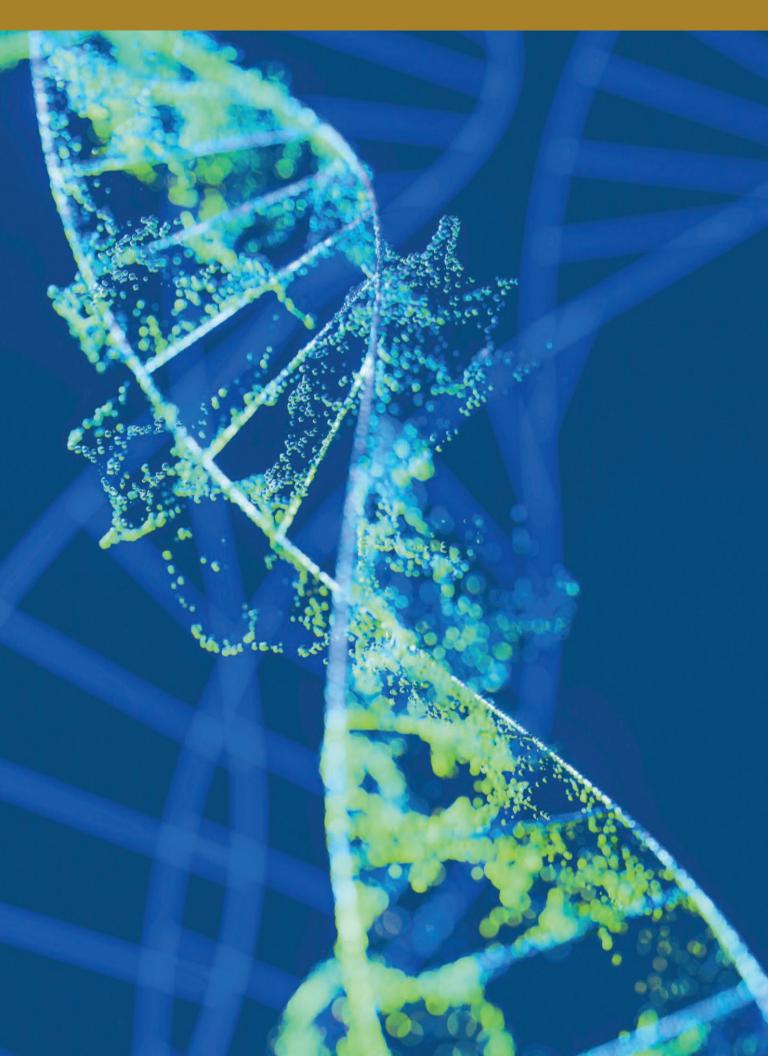
The 2024 Lasker Essay Contest will open February 6 and close April 2. Winners will be announced in July.

#### LESSONS IN LEADERSHIP

Dennis Lo, 2022 Lasker Laureate, will give a presentation on May 16.

#### APSA

2023 Lasker Laureate David Huang will give the Lasker~APSA lecture on April 6.





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