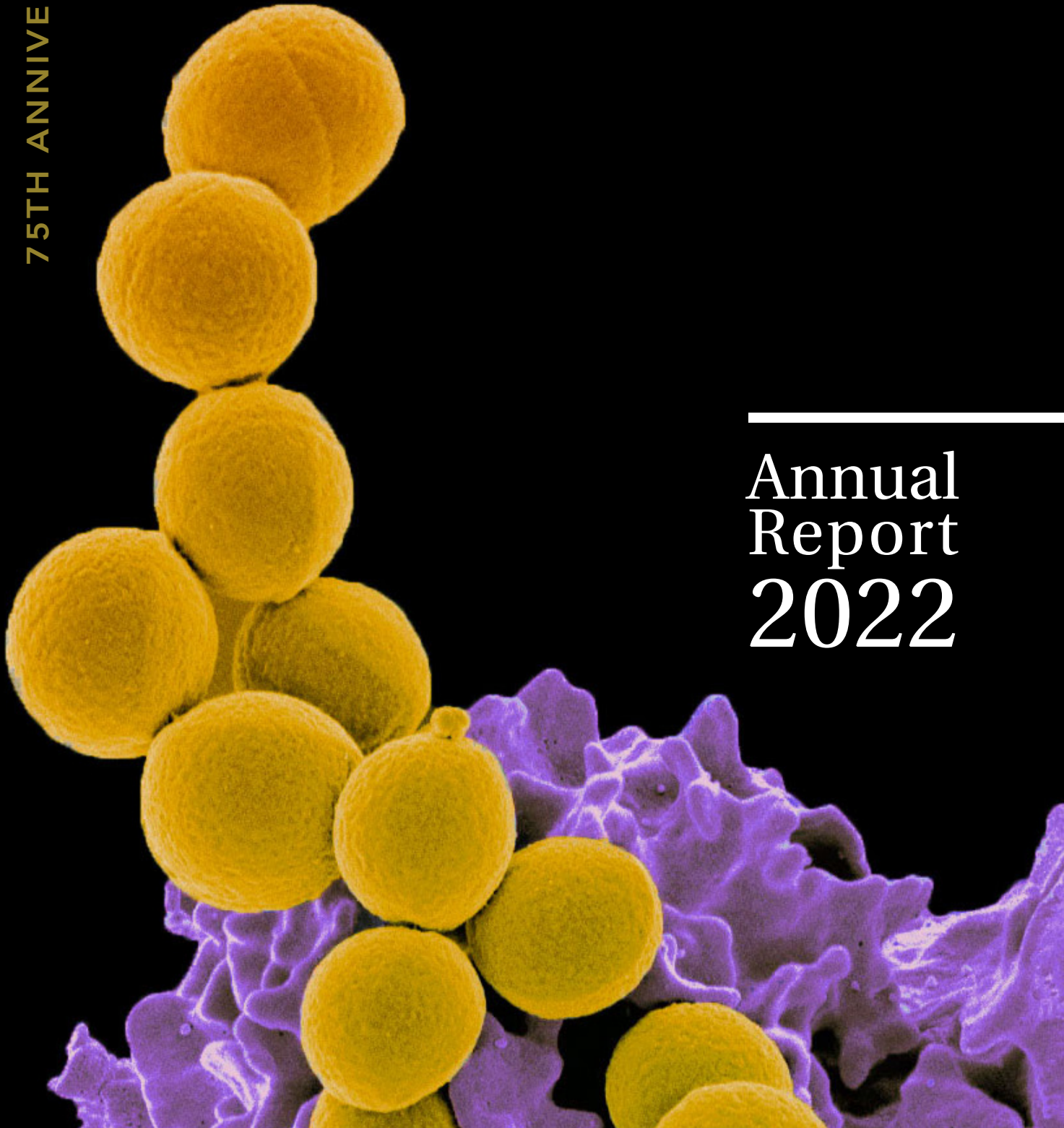




**LASKER**  
FOUNDATION

75TH ANNIVERSARY



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# Annual Report 2022

RESEARCH  
FOR BETTER  
HUMAN HEALTH

## Our Mission

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

If you think  
research is  
expensive ...  
try disease

# Letter

## A KEY PART OF LASKER'S MISSION: Supporting the Next Generation of Biomedical Researchers

In 2022, the Foundation was pleased to bestow Lasker Awards to five outstanding investigators whose work has advanced fundamental scientific insights and improved human health. In this issue, you will read about Timothy Springer, Richard Hynes, and Erkki Ruoslahti and their groundbreaking studies of the role of integrins in physiology and disease. You will be inspired by Dennis Lo who was honored for discovering fetal DNA in maternal blood, leading to the development of noninvasive prenatal testing. And you will cheer for Lauren Gardner, an engineer who created the Covid-19 Dashboard that kept us all informed about the spread of the pandemic.

The honorees have emphasized the importance of the mentorship and support that they received early in their careers. As we experience the devastating (and ongoing) impacts of Covid-19, it is clear that the virus is taking a large toll on the careers of young scientists. Therefore, as part of our mission to increase funding for medical research overall, the Lasker Foundation has redoubled efforts to nurture current early-career investigators and ensure that their scholarship can thrive to benefit the world far into the future.

This Annual Report highlights several of our programs to support future scientific leaders in biomedical research:

**The 2022 Lasker Essay Contest** urged the writers to think about a key aspect of research—multidisciplinary collaborations. The record-breaking number of entries discussed a wide range of approaches that bring diverse and synergistic perspectives together, such as clinical care teams, collaborations in space, and partnering for global health equity. Congratulations to the six outstanding winners of this year's competition.



**The Lasker-NIH Clinical Research Scholars Program** has now enrolled 39 junior academicians who pursue clinical research projects at the National Institutes of Health (NIH) Clinical Research Center. Several of those impressive young scientists have now received tenure at NIH or accepted faculty appointments at major universities across the country.

**Expanding social media offerings**—Young scientists often access information in new ways, and Lasker is reaching out to them by using an array of technologies, such as our “Classic Lasker” podcasts and “Ask a Scientist” videos.

The Lasker Foundation recognizes the value of a diverse scientific workforce and strives to create inclusive and equitable learning environments. To accelerate those efforts, the Foundation was pleased to partner in 2022 with over 90 other organizations to support the new STEMM Opportunity Alliance. That initiative aims “to bring about fundamental, systemic change to ensure STEMM equity is a reality by 2050.”

As we look forward to 2023, we are excited to watch the accomplishments of early-career scientists supported by the Lasker Foundation and others. The Covid-19 pandemic has emphasized the importance of medical research, and these emerging leaders hold the key to a healthier world for all.

Thank you,

A handwritten signature in dark ink, appearing to read 'Anthony Evnin'.

Anthony Evnin  
Chair, Board of Directors

A handwritten signature in dark ink, appearing to read 'Claire Pomeroy'.

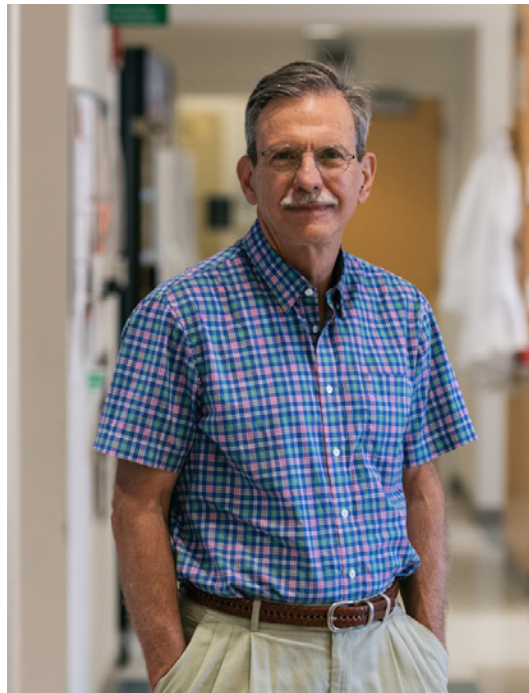
Claire Pomeroy  
President

# Awards Program

Please join us in congratulating our 2022 Lasker winners, whose research breakthroughs have had a profound impact on human health.

## Albert Lasker Basic Medical Research Award

For discoveries concerning the integrins—key mediators of cell–matrix and cell–cell adhesion in physiology and disease



**Timothy A. Springer**  
Boston Children's Hospital/Harvard Medical School



**Richard O. Hynes**  
Massachusetts Institute of Technology



**Erkki Ruoslahti**  
Sanford Burnham Prebys Medical Discovery Institute



## Lasker~Bloomberg Public Service Award

For creating the Covid-19 Dashboard, which set a new standard for disseminating authoritative public health data in real time

**Lauren Gardner**  
Johns Hopkins University



## Lasker~DeBakey Clinical Medical Research Award

For the discovery of fetal DNA in maternal blood, leading to noninvasive prenatal testing for Down syndrome

**Yuk Ming Dennis Lo**  
The Chinese University of Hong Kong



## The Lasker Awards

The 2022 virtual announcement of the Lasker Award winners took place on September 28. The video was live streamed from the Lasker website.



2021 and 2022 Lasker Laureates met in New York City on September 29



Boy Building a House of Cards *Jean-Siméon Chardin (1735)*

## The Art and Science of Building Castles in the Sky and Houses of Cards That Don't Collapse

Medical Research Awards Jury Chair Joseph Goldstein reminded us in his annual essay that the creative process involves two phases—generating new ideas and then focusing on the most tractable and useful ones.

# Education



## Lasker Essay Contest

In 2014, the Lasker Foundation launched the Lasker Essay Contest, aiming to engage early-career scientists and clinicians in discussions about important questions in policy, medicine, biology, and the role of biomedical research in our society.

The Contest provides applicants a chance to improve their science communication skills. This year, we asked graduate students, and other trainees to address the following prompt:

Solving complex questions often calls for expertise in many fields. Describe how multidisciplinary collaborations and approaches (or future opportunities for them) have already or will in the future impact your own training, research, or career.

Interest in the Contest continues to grow, and we again received a record number of submissions, including responses from essayists at 128 institutions in 27 countries. For the first time this year, we made short video clips from interviews of the winners for our social media channels. The videos received over 1200 views.

## MEET OUR 2022 WINNERS



**Kaelyn Cummins** was born and raised in Maryland and knew from a young age that she wanted to be a surgeon. She attended Baylor College of Medicine, where she completed Baylor's Space Medicine elective pathway in conjunction with the Translational Research Institute for Space Health (TRISH). She is now in general surgery residency at the University of Virginia. She is interested in trauma surgery and plans to make both teaching and research part of her future career. **Essay: "Microbes, Medicine, and Astronauts: Reflections on a Collaborative Project"**



**Azmina Karukappadath** was born in Abu Dhabi, UAE, and grew up in the suburbs of Boston. After college, she worked as a software engineer at the Broad Institute for two years, where she helped develop an online computational biology platform to support researchers in analyzing biomedical data in the cloud. She is currently a student at Johns Hopkins School of Medicine and dreams of developing innovative health care technology with multidisciplinary teams. **Essay: "Two Fields, One Dream"**



**Hussain Lalani** is a first-generation American from Dallas, Texas. He is a General Internal Medicine Fellow at the Program on Regulation, Therapeutics, and Law (PORTAL) at Brigham and Women's Hospital and Harvard Medical School. He is the co-founder of This Is Our Shot and VacunateYa, a national grassroots social media effort to elevate the voices of medical professionals to build healthier communities, share accurate health information, and combat health misinformation. **Essay: "I Would Be Scared if I Heard That Too"**



**Rutvij Merchant** is a medical student at the Icahn School of Medicine at Mount Sinai with interests in internal medicine, psychiatry, and health care delivery. He was born in India and raised between the cities of Mumbai, India, and Dubai, UAE. Rutvij earned an MPH from the Harvard T.H. Chan School of Public Health. His research interests involve studying health systems in low- and middle-income countries with a focus on improving primary care delivery. **Essay: "Pathways to Global Health Equity: More Seats, Fresh Perspectives"**



**Kirti Nath** grew up on Long Island, NY, and is currently a second-year student in the Harvard-MIT MD-PhD program, studying for her MD in the Health Sciences & Technology Program. Her research interest lies in understanding how subtle deviations in peripheral and lymphoid tissue can lead to breaks in or the development of immune tolerance. **Essay: "Puzzles"**



**Avik Ray** is a Master of Science candidate in epidemiology with a concentration in pharmacoepidemiology at Harvard T. H. Chan School of Public Health. He completed medical school and residency in clinical pharmacology in India and worked with the WHO as a clinical research assistant before starting his master's. His research interests include methods for causal inference, especially in the setting of sparse data, and computational health economics and policy evaluation. **Essay: "Unified Diversity: The Team Game"**

## 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 NIH. Several previous scholars enjoyed big successes this year: 2019 Scholar Paule Joseph of NIAAA was selected as the inaugural American Academy of Nursing Fellow at the National Academy of Medicine; 2014 Scholar Andrea Apolo of NCI obtained tenure at NIH; and Nehal Mehta (our first Scholar) left NIH and is now Clinical Professor of Medicine at George Washington University.

### Sam Ng

**National Cancer Institute**

One new Lasker Clinical Research Scholar joined the program in 2022.

Ng studies the molecular mechanisms that underlie mature T-cell malignancies in order to improve the treatment of T-cell non-Hodgkin lymphomas. This work includes identifying features of normal or malignant T cells that could be targeted by existing or novel therapies used to treat patients afflicted by these diseases.



## iBiology/Science Communication Lab

The Lasker Foundation co-sponsors the Share Your Research competition—an iBiology program designed to develop the communication skills of early-career scientists. The six winners attended a virtual communication workshop, which culminated in each scientist recording a research seminar. The winners' seminars can be found at [laskerfoundation.org](https://laskerfoundation.org).

### 2022 Share Your Research Winners:

Lukas Anneser of the Friedrich Miescher Institute for Biomedical Research  
Isabella Catalano of McGill University  
Dylan McClung (aka Dyna Cockus Rose) of UC Berkeley  
Justine Noel of the Icahn School of Medicine at Mount Sinai  
Swati Shrestha of the University of Florida  
Wang Xi of Johns Hopkins University

# Lectures

Dennis Lo

## Public Lecture in Honor of Al Sommer



Dennis Lo (right) with Charles Cantor, former chief scientific officer at Sequenom, at a conference in Thailand. Sequenom was the first company to license Lo's technology.

This year's Lasker Public Lecture was given by the 2022 Lasker Award winner Dennis Lo, director of the Li Ka Shing Institute of Health Sciences, Li Ka Shing Professor of Medicine and professor of Chemical Pathology of the Chinese University of Hong Kong (CUHK), and associate dean (Research) of the Faculty of Medicine of CUHK. His talk, "Circulating DNA as a Window into Our Health," took the listeners on the journey of his Award-winning work. Early on, Lo showed that fetal cells circulate in maternal blood, but they do so at such low levels that it was difficult to design a reliable test. Years later, Lo was inspired by the finding that tumor DNA can be found in patient plasma.

He discovered that fetal DNA was consistently present in maternal plasma and could reliably be used to predict the baby's sex and blood type. His technology is now routinely used around the world to test for genetic diseases.

This event was co-hosted by Secret Science Club, a nonprofit that promotes public engagement in science. The lecture was supported by an anonymous donation made in honor of Lasker Foundation Board member Alfred Sommer, recipient of the 1997 Albert Lasker Clinical Medical Research Award and dean emeritus at Johns Hopkins Bloomberg School of Public Health.

Katalin Karikó

## APSA Lecture



Lasker Laureate Katalin Karikó delivered the 2022 Lasker-APSA Lecture at the annual meeting of the American Physician Scientists Association (APSA) on April 9. Karikó started her lecture by reviewing decades of mRNA research and discussed why she and her collaborator Drew Weissman stayed the course when so many others left the field of mRNA therapeutics. Karikó encouraged attendees not to be intimidated when others disagree with their work. Instead, concentrate on what you can do that others cannot, and do it well. That outlook allowed her to focus on the work that ultimately led to the technology used in the mRNA-based Covid-19 vaccines.

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



Jasmine Mack and Kenneth C. Frazier

"It's better to  
know a little  
about a lot than a  
lot about a little."

— Kenneth C. Frazier

## Lasker Lessons in Leadership

In collaboration with the International Biomedical Research Alliance and the US National Institutes of Health (NIH) Oxford-Cambridge Scholars Program, the Lasker Foundation hosted Lasker Lessons in Leadership on June 7, 2022. In a new format for this event, NIH Oxford-Cambridge Scholar Jasmine Mack interviewed Kenneth C. Frazier (executive chairman of the board and former CEO, Merck & Co., Inc.). The interview was live streamed to an audience of over 150 people, who had the opportunity to send in questions. Frazier discussed his career path from trial lawyer to CEO, emphasizing the importance of the role models and mentors who helped him on his journey. He shared his philosophy on leadership—empower your people to do what needs to be done—and he advised students that the best way to become a leader is to be a "learning" person, not necessarily a "knowledge" person.



All the lectures  
can be viewed  
on our web site

# Communications

This year, our social media presence continued to grow, we launched a new podcast series called “Classic Lasker,” released the video series “Ask a Scientist,” and completed our 75th anniversary book featuring 24 stories of medical advances.

## Newsletter

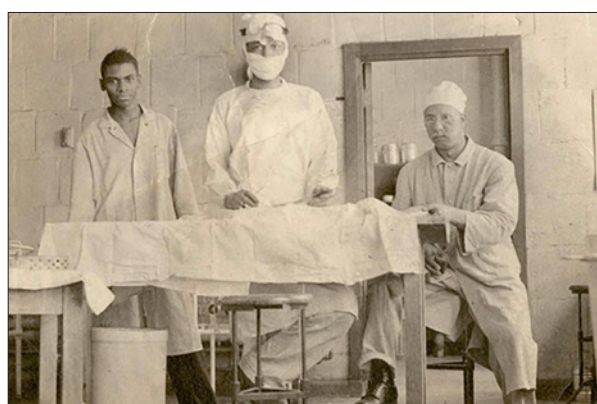
Our monthly newsletters shone a spotlight on Lasker Laureates.



A nurse administers pneumococcal vaccine.



Feldmann hiking circa 1990



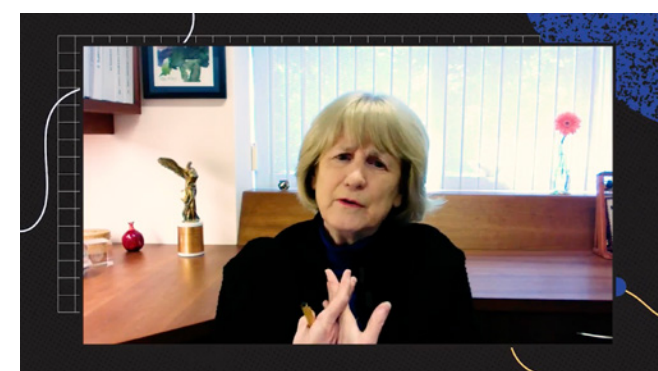
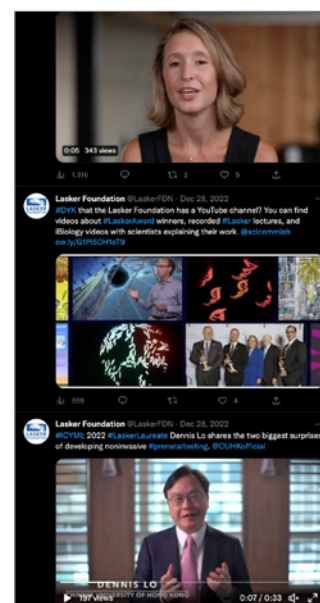
As Blalock's lab assistant at Vanderbilt University, Thomas (center) honed his surgical skills by operating on dogs. Image courtesy of The Alan Mason Chesney Medical Archives, Johns Hopkins University



Sign up for our Newsletter here

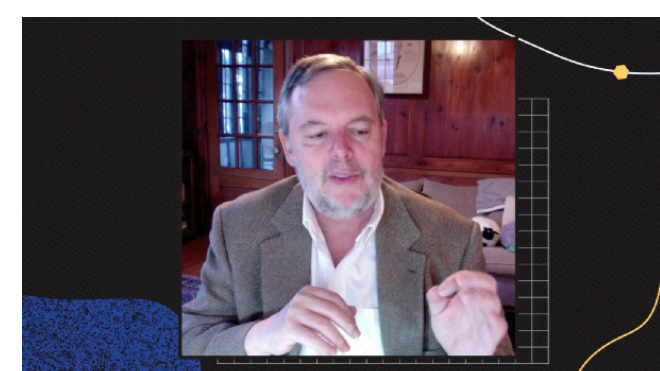
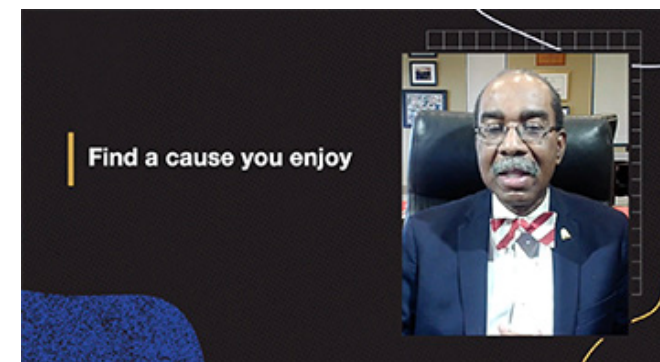
## Social Media

The Lasker Foundation uses its social media channels to bring the latest biomedical research, facts about our Laureates, and updates on Lasker programming to scientists all over the world. We have over 6,000 followers, and our engagement has remained strong.



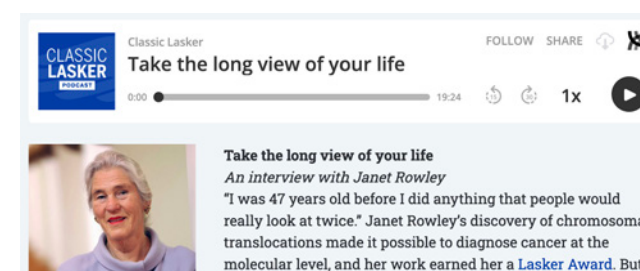
## Ask a Scientist Video Series

We partnered with several scientists of all career stages—from graduate students to Lasker Laureates—to create a series of 30 videos for our social media channels. The videos addressed key issues in science, including how to increase diversity in STEM fields, how to encourage scientists to better communicate their research, and how clinical trials are regulated.



## Podcast

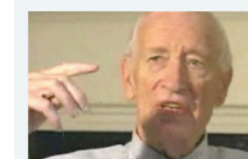
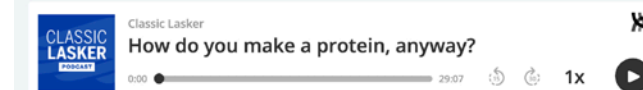
In March 2022, we released the first episode of the “Classic Lasker” podcast, interviews from the archives of the Lasker Foundation. The episodes feature Laureates telling the stories of their discoveries, giving advice to younger scientists, and sharing the personal journeys that allowed them to achieve their goals. We released six episodes this year as part of our monthly newsletters and will continue the series in 2023.



## Classic Lasker: Paul Zamecnik

What was life like for Lasker Laureates while they were doing their Award-winning work?

Listen in as Award Winners share their personal stories. You will hear about starting off in research during a World War, learn how Laureates navigated family and career, and find out how their discoveries, now heralded as groundbreaking, were met by their peers. Whether you're a history buff, a science enthusiast, or a history of science nerd, this podcast from the archives of the Lasker Foundation is for you.



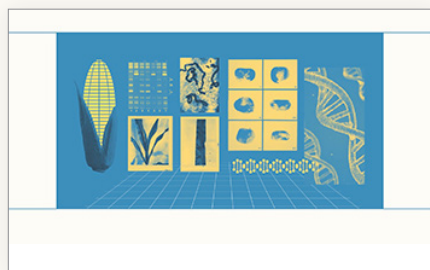
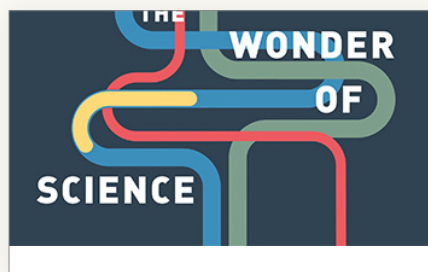
How do you make a protein, anyway? An interview with Paul Zamecnik

Paul Zamecnik was recognized with a Lasker Award for six decades of brilliant and original science. Hear how it all began and what it felt like when a key experiment finally worked.

# 75th Anniversary

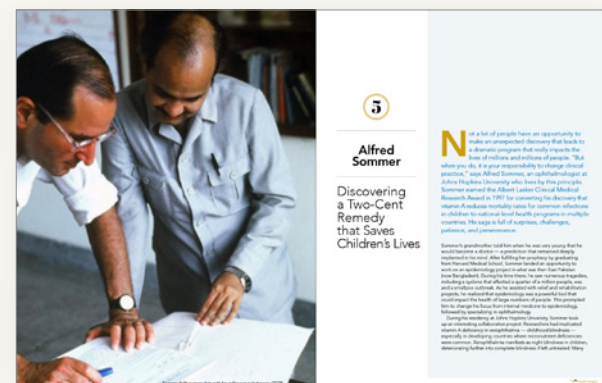
## Video

To celebrate the Lasker Foundation's 75th anniversary, we commissioned a three-minute video that honors Mary Lasker and explains the mission of the Foundation.



## Book

We are excited to announce the completion of our 75th anniversary book, several years in the making. The more than 150-page book features 24 stories of medical advances and celebrates the Lasker Laureates behind them.



# Advocacy



Ethics in Philanthropy Conference, November 2022

## President's Initiatives

The Lasker Foundation partnered with the Rita Allen and John Templeton Foundations to sponsor the Ethics in Philanthropy Conference in November. Experts representing diverse fields, including science philanthropy, academia, and communications, gathered at the Banbury Center (Cold Spring Harbor Laboratory) to discuss challenges and best practices in accepting donations, awarding grants, bestowing honors, and creating partnerships at science foundations. The group plans to pursue additional research, disseminate findings to raise awareness and encourage proactive planning, and explore creating educational materials.

Lasker Foundation President Claire Pomeroy spoke at the conference. It was one of many public speaking engagements in which she spread the Foundation's message.

## 2022 PRESIDENT'S TALKS

**February 3**

"Empowered Women Empower Women," GEMS Alliance Launch Event

**April 21**

"Research to Create a Healthier World—Researchers, Research Questions, and Advocacy," NIDDK Network of Minority Health Research Investigators Meeting

**May 6**

Commencement Address, University of South Florida Morsani College of Medicine, Tampa, FL

**October 7**

"Advancing Women Leaders in Academic Medicine," LEADERS Summit 2022, Katz Institute for Women's Health, Northwell Health, New York

**October 19**

"Language and Inclusion: Opportunities to Optimize Quality in Healthcare," Quality Day, Tufts Medical Center, Boston

**November 7**

"Ethical Issues in Bestowing Awards," Ethics in Philanthropy Conference, Banbury Center, CSHL, New York



## Science Philanthropy Alliance

The Lasker Foundation is a proud member of the Science Philanthropy Alliance and is honored to have Claire Pomeroy serving on its Advisory Board. The Alliance is a group of organizations dedicated to increasing philanthropic support for basic scientific research. This year, the Alliance finalized a strategic plan to

guide its work through 2027. The Lasker Foundation was privileged to be a part of the roundtable that developed the plan, which focuses on how the organization can help realize the promise and power of science philanthropy.

## LIFE SCI NYC

### HONORED

Claire Pomeroy was chosen to co-chair the Life Sciences Advisory Council along with Lasker Laureate Harold Varmus. The council is part of New York City Mayor Eric Adams' effort to grow the city's life sciences sector. The initiative, called LifeSci NYC, aims to create an estimated 40,000 jobs in the next 10 to 15 years and establish New York City as a global leader in the life sciences.



# Leadership



(left to right ) Robert Bazell, Saraleah Fordyce, Nancy Wexler, and Marshall Fordyce

## In the Spotlight: Marshall Fordyce

Marshall Fordyce has been to every Lasker Awards Luncheon since he was 10 years old. Yet when asked who most influenced his career aspirations, he names not a Lasker Laureate, but his parents and his great-aunt, Mary Lasker.

Fordyce, the founder and CEO of the biotech company Vera Therapeutics, Inc., and Lasker Board member, says that his father and his great-aunt modeled for him the power of mission-driven work and of having high expectations of oneself. “I think ambition is a real gift,” he says, “and my great-aunt Mary was ambitious.” Her objective was to increase federal funding for medical research in the United States, with the goal of preventing death and disability caused by disease. Following Mary’s example, Fordyce’s every career decision was made with the goal of achieving the biggest dream possible.

Fordyce trained in internal medicine at New York University/Bellevue Hospital, where he was chief resident, a role he enjoyed immensely, as he loves to teach. He completed an infectious disease fellowship at Columbia Presbyterian Hospital, where he focused on novel therapeutics for acute HIV infection. From there, Fordyce

moved into commercial biotherapeutics. Although it was a difficult decision to leave full-time clinical practice (he still volunteers as a physician at a local free clinic), Fordyce felt that the biopharmaceutical industry was where he could make the biggest impact for the most patients. He has seen firsthand what patients need, which helps him bring an urgency to drug development.

“When you spend time with patients, or you’re a patient yourself, you don’t want delays. You want to put major resources behind getting something done for the problem that is robbing you of your autonomy,” Fordyce explains.

What is Fordyce’s big dream? To put the power of American entrepreneurship—a money-making juggernaut—to use, bringing the fruits of science to the public. “Money is frozen energy,” he says, an outlook that he learned from Mary Lasker. “The important thing is deciding how we want to use that energy.”

Fordyce wants to use that energy to improve patient care. He sees his business as a “sacred practice” and is dedicated to following the science that will improve people’s lives. He emphasizes the importance of basic research, saying, “Curiosity-driven basic research often powers medical innovation and ultimately public health. The development of mRNA vaccines for COVID-19 is a great example.”

Acknowledging the link between fundamental research and a healthier population is also what he loves about the Lasker Awards, which have always honored three elements of medical advances: basic research, clinical research, and improvements in public health.

Like Mary Lasker herself, Fordyce is a strong believer in the power of government-funded research. “Let’s make biomedical research a great career path, where young scientists are well funded and are able to do curiosity-driven research just for the sake of knowing—with the hope that ‘knowing’ will yield major improvements in human health.”

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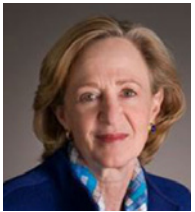
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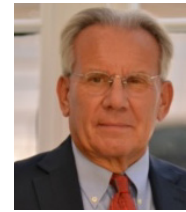
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Anthony and Judith Evnin

The Lasker Foundation thanks the Howard Hughes Medical Institute for in-kind contributions.

James W. Fordyce – in memory of Anne B. Fordyce  
Saraleah and Marshall W. Fordyce  
Joseph L. Goldstein  
Margaret A. Hamburg  
William H. Hammond, Jr.  
Susan Hockfield  
Christopher Jones  
Kazuo and Yoko Komuro – in memory of Anne B. Fordyce  
Sherry Lansing  
Elizabeth and Gary Nabel  
Claire Pomeroy and William Preston Robertson – in memory of Susan Lasker Brody & Anne B. Fordyce  
E. Albert Reece  
Solomon H. Snyder  
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The Lasker Society accepts deferred gifts through estate planning.

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*\*Deceased*

To make a donation, please visit our website at [www.laskerfoundation.org/about-us/donate](http://www.laskerfoundation.org/about-us/donate)

## Looking Ahead:

### LASKER AWARDS

The 2023 Lasker Award winners will be celebrated in September 2023.

### ESSAY CONTEST

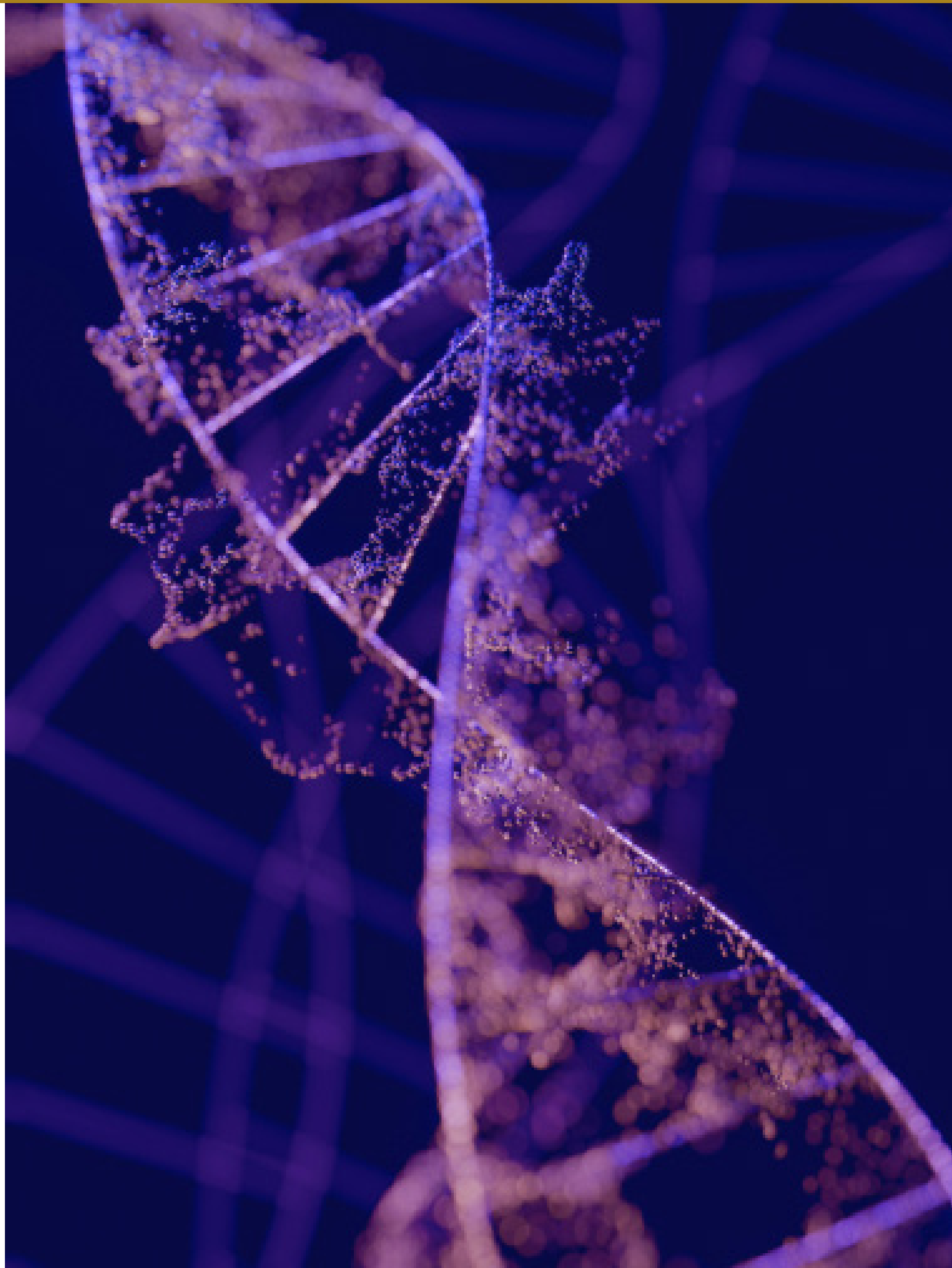
The 2023 Lasker Essay Contest will open on February 8 and will close on March 31.

### APSA

The 2023 Lasker~APSA lecture will be given by 2022 Lasker Laureate Lauren Gardner on April 22.

### LESSONS IN LEADERSHIP

Harvey Alter, 2000 Lasker Laureate, will give a virtual lecture in early Spring.





# **LASKER FOUNDATION**

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