2018 was an exciting year for the Lasker Foundation. Four Lasker Award winners were recognized for their profound contributions in biomedical research, drug development, and mentoring young scientists. Their stories highlighted the power of science to improve human health and inspired other researchers and us all. In their acceptance speeches, each emphasized that collaborators and trainees were essential to their scientific achievement.

Partnerships are also key to the Foundation’s success in increasing support for biomedical research. In these pages, you will read about several of our valued partners and the work we are doing together. For example, as a member of the Science Philanthropy Alliance, we come together with other leading foundations to stimulate and enhance private philanthropic support for basic science. Through a growing partnership with iBiology, we bring the voices of scientists to people around the globe to “democratize science.”

One of the Foundation’s major aims is to nurture the next generation of scientists and partnerships are also key to this goal. We are proud to work with the International Biomedical Research Alliance to offer leadership training for graduate students in the NIH Oxford–Cambridge Scholars Program. Together with the NIH, we help junior faculty pursue clinical research careers in the Lasker Clinical Research Scholars program. Our educational lectures given by prominent researchers at universities, high schools, and public venues share the wonders of science with diverse audiences.

This year, we celebrated the culmination of a very special collaboration with the International Retinal Research Foundation. This decade-long partnership produced high-impact reports that accelerated understanding of retinal diseases and catalyzed several new research collaborations among participating scientists.

Partnering with members of the public is also essential to ensuring that medical research continues to receive the support that is crucial to creating a dynamic and thriving scientific ecosystem in our nation and around the globe. Thanks to all of you for being part of the work we do to inspire support for science.

As we look to the future, we are grateful to all of our partners, past and present. We celebrate their diverse skills and perspectives that magnify our ability to achieve the Lasker vision of a healthier world through medical research.

Thank you,

Anthony Evnin
Chair, Board of Directors
Claire Pomeroy
President
Awards Program

Please join us in congratulating our 2018 Lasker Award winners whose research breakthroughs have had a profound impact on human health.

From left to right: John Glen (Lasker–DeBakey Clinical Medical Research Award), Joan Steitz (Lasker–Koshland Special Achievement Award in Medical Science), Joseph Goldstein (Lasker Jury Chair), and David Allis and Michael Grunstein (Albert Lasker Basic Medical Research Award)

The 2018 Lasker Award winners were announced on September 11, and the Awards were presented on September 21 at the Pierre Hotel in New York City.

John Glen with his family, Alasdair, Wendy, and Fiona

Joan Steitz delivering her acceptance speech

From left to right: Michael Grunstein, Claire Pomeroy, David Allis, and Anthony Evans

Albert Lasker Basic Medical Research Award
For discoveries elucidating how gene expression is influenced by chemical modification of histones—the proteins that package DNA within chromosomes

C. David Allis: Rockefeller University
Michael Grunstein: University of California, Los Angeles

Lasker–Koshland Special Achievement Award in Medical Science
For four decades of leadership in biomedical science—exemplified by pioneering discoveries in RNA biology, generous mentorship of budding scientists, and vigorous and passionate support of women in science

Joan Argetsinger Steitz: Yale University

Lasker–DeBakey Clinical Medical Research Award
For the discovery and development of propofol, a chemical whose rapid action and freedom from residual effects have made it the most widely used agent for induction of anesthesia in patients throughout the world

John B. Glen: AstraZeneca (retired)
Lectures

UNIVERSITY LECTURES

In the first 2018 Lasker University Lecture on April 20, Roderic Pettigrew emphasized the important role that engineering can play in developing diagnostic techniques, spurring innovations in medical treatment, and delivering healthcare to patients. Pettigrew serves as chief executive officer of EnHealth and executive dean of EnMed, an innovative new program at Texas A&M University and Houston Methodist Hospital that recruits students with undergraduate degrees in engineering or computer science to a graduate program where they will simultaneously earn a medical degree and a Master of Science in engineering. In his talk, Pettigrew provided exciting examples of ways in which engineering advances have improved human health. He explained how training students in both medicine and engineering will enable graduates to invent new approaches for tackling healthcare’s greatest challenges.

Jeffrey Friedman, Lasker Laureate and Marilyn M. Simpson professor at The Rockefeller University, delivered the second Lasker University Lecture at the University of Chicago on October 30. His talk, “Insulin, A Discovery Interrupted: What a missed opportunity reveals about scientific progress,” presented the story of Israel Kleiner, the researcher who originally discovered that a pancreatic hormone could treat diabetes in animals. World War I and local and international politics interrupted Kleiner’s research, leaving the world to wait for others to introduce the first treatment option for diabetes—a delay that affected countless families. Kleiner’s history emphasizes the effects of external forces on scientific advancement and underscores the need to support research even during times of social upheaval.

APSA LECTURE

Lasker Laureate Peter Ratcliffe spoke about the important role that physician-scientists play in translating scientific discoveries into clinical applications at the annual meeting of the American Physician Scientists Association (APSA) on April 20. Ratcliffe, who directs the Target Discovery Institute at the University of Oxford, revealed the rewards and challenges of meeting the demands of both the research laboratory and the clinic while conducting his research on cellular oxygen sensing. This lecture was produced in partnership with APSA, with the goal of providing mentorship and inspiration for the next generation of clinical researchers.

LASKER PUBLIC LECTURE IN HONOR OF AL SOMMER

Addressing a standing-room-only crowd at the Bell House in Brooklyn, Ruth Lehmann, director of the Skirball Institute of Biomolecular Medicine at New York University, shared her passion for germ cells. She argued that these cells are immortal because each can join with another germ cell to create new life. Her talk, “Germ Cells Are Forever: A Natural Pursuit of Immortality,” explored germ line development and the latest research on human germ cells with a layperson audience in mind. This event was co-hosted by the Secret Science Club, which shares the Lasker Foundation’s goal of improving public scientific knowledge and understanding. It 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.

“The talk by Sir Peter Ratcliffe was exceptional, inspiring, and honest. As a trainee, I am grateful to gain exposure to leaders and role models in the physician-scientist community.”

— Audra Iness, President, APSA
Partnerships

INTERNATIONAL RETINAL RESEARCH FOUNDATION (IRRF)

We commemorated the end of a 10-year fruitful collaboration with the International Retinal Research Foundation this spring. Over the last decade, this partnership accelerated the discovery of sight-saving treatments and preventive measures for retinal degenerative diseases. Chaired by John Dowling of Harvard University, the initiative produced four reports and several review articles that identified knowledge gaps in research and proposed innovative solutions for retinal diseases. Two special interest group sessions at the Annual Association for Research in Vision and Ophthalmology meeting in Honolulu, Hawaii on April 30 and May 1 helped celebrate the many successes of the partnership.

SCIENCE PHILANTHROPY ALLIANCE

In 2016, the Lasker Foundation embraced the Science Philanthropy Alliance mission to increase private funding for basic science research by providing advice to individual philanthropists and training foundation staff members to execute their roles effectively. This year, we expanded our involvement in the Alliance by becoming a full member. In contribution to this partnership, Claire Pomeroy presented with Elizabeth Christopherson, president and CEO of the Rita Allen Foundation, at this year’s May 15 alliance member meeting held at the Omni Berkshire Place in New York City. Together, they spoke about an ongoing research project designed to identify best practices for science philanthropy communications in a talk titled, “Developing the Pipeline for Science Communicators: Best Practices Landscape Research.”

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iBIOLOGY

The Lasker-iBiology partnership continued to flourish, with 20 new videos featuring seven different speakers posted during 2018. These videos covered a wide variety of topics, from David Baltimore speaking about microRNAs to John Schiller presenting on human papillomavirus vaccines for preventing cancer to Elaine Fuchs discussing stem cell biology.

In addition, we continued the series, “Conversations in Science with Dan Rather,” this year. In these 4 new videos, prominent journalist Dan Rather interviews 1983 Lasker Laureate Eric Kandel, the Dalai Lama, Shirley Tilghman, and Daniel Colón-Ramos about their discoveries, the paths that brought them to scientific research, and the future of scientific training. The videos offer viewers the experience of joining casual conversations between Rather and the scientist, offering a unique opportunity to build familiarity with the scientists and the curiosity that drives their pursuits.

Encouraging early-career scientists to share their research with the public remained a high priority for the Lasker Foundation this year. In partnership with iBiology and the Alan Alda Center for Communicating Science, we supported the 2018 Young Scientist Seminars (YSS) annual competition. The four winners of the competition, Johana Goyes-Vallejos (University of Connecticut), Darienne Myers (University of California, San Francisco), Filipa Rijo-Ferreira (University of Texas Southwestern Medical Center), and Anna Stöckl (Lund University) won the opportunity to attend a workshop at iBiology’s headquarters at the University of California, San Francisco. During this event, the 4 winners further improved their scientific communication skills and recorded their 30-minute research talks, which were published on the Lasker Foundation website and shared on Lasker’s social media channels.

From left to right: Filipa Rijo-Ferreira (UT Southwestern), Anna Stöckl (Lund University), Johana Goyes-Vallejos (University of Connecticut), and Darienne Myers (UCSF)

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Education

**LASKER ESSAY CONTEST**

The Lasker Essay Contest launched in 2014 to engage young scientists and clinicians in a conversation about the big questions in biology and medicine and the role of biomedical research in our society. Submitting an essay helps early-career researcher and clinician participants build skills for communicating important medical and scientific successes and concerns to broad audiences. It is open to domestic and international applicants who bring their diverse experiences and global perspectives to the essay topic.

This year, participants in the essay contest responded to the question, “How can social media help build trust in science and the research enterprise?”

The first, second, and third place winners received monetary prizes for educational expenses and invitations to meet the 2018 Lasker Award winners at the Awards Ceremony in New York City on September 21.

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David Hartmann (first place) is a seventh-year MD/PhD student at the Medical University of South Carolina. He just defended his dissertation on the ability of pericytes to regulate blood flow based on research he conducted in Andy Shih’s laboratory and is now excited to return to the medical school portion of his training. While compiling and publishing the final pieces of his dissertation research, he’s also trying to release an indie rock album. He credits his academic, musical, and global endeavors to his great teachers and the support of family, friends, and his wife, Erica.

*Essay “Cancer Survivors: Outstanding Advocates for Trust in Science”*

“Numerous studies that show a general distrust of science forced me to think about why I trust science. Two big reasons called me on the phone that night: Dad and Grandpa. Their potentially lethal cancers (bladder and melanoma) were erased by the advances of medical research about a decade ago, meaning that their simple phone call was poignant evidence for the merits of research that I think anyone can appreciate.”

— David Hartmann, first-place essay contest winner

Debra Karhson (second place) is a postdoctoral fellow at Stanford University in the Psychiatry and Behavioral Sciences Department. She earned her BS degree in biomedical engineering from Drexel University and her PhD in neuroscience from Tulane University. Broadly, Karhson leverages non-invasive cognitive neuroscience imaging tools, such as electroencephalography and transcranial magnetic stimulation, to investigate information processing in neurotypical and non-neurotypical human populations. Her current research focuses on understanding the role of social neuropeptides and endocannabinoids in information processing in neurotypical and non-neurotypical human populations. Her current research focuses on social neuropeptide interactions and listening to as much live music as possible.

*Essay “Diversity at the Top of the Social Media Signaling Cascade”*

Caroline Vissers (third place) is a PhD candidate in the Biochemistry, Cellular, and Molecular Biology program at Johns Hopkins School of Medicine. She studies neural stem cell regulation in Hongjun Song’s lab and has a passion for understanding how chemical modifications on mRNA regulate stem cell fate. She recently expanded her work to also study how hypoxia regulates breast cancer stem cells through mRNA chemical modifications in Gregg Semenza’s lab. Outside of science, she enjoys competing with her dog, Watson, in agility trials and listening to as much live music as possible.

*Essay “A Verification Vaccine for Social Contagion”*

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**BREAKFAST AT LASKER**

We welcomed the NIH/Lasker Scholars, NIH Oxford-Cambridge Scholars, Lasker Essay Contest winners, and a local New York City high school teacher and her student to meet this year’s Lasker Awards winners at the Pierre Hotel prior to the Awards Ceremony. Over breakfast, Lasker board member Jordan Gutterman moderated a lively question and answer discussion ranging from the role of serendipity in discovery to how to navigate shifting career trajectories. The attendees also considered ways to inspire the next generation of scientists and increase public interest in and understanding of how research influences and improves health.

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**INTERNSHIP PROGRAM**

The Lasker Foundation greatly appreciates the dedication of two interns who worked with us during 2018. Alexandra Ambrico began her internship in June 2017 and continued through the summer by enthusiastically engaging with the Foundation’s social media channels. Jenny Nicolas joined the team in January, where she contributed significantly throughout the year to newsletter production, the essay contest, special research projects, and social media efforts. We congratulate Alexandra and Jenny for moving on to full-time positions this fall and wish them the very best in their future endeavors.

“Numerous studies that show a general distrust of science forced me to think about why I trust science. Two big reasons called me on the phone that night: Dad and Grandpa. Their potentially lethal cancers (bladder and melanoma) were erased by the advances of medical research about a decade ago, meaning that their simple phone call was poignant evidence for the merits of research that I think anyone can appreciate.”

— David Hartmann, first-place essay contest winner

“My experiences with Lasker have given me an in-depth view of how a small foundation can impact research efforts in biomedical science, which is so necessary in our changing world.”

— Jenny Nicolas

Alexandra Ambrico (left) and Jenny Nicolas (right)
Education (cont’d)

LESSONS IN LEADERSHIP

In 2018, we presented two events for the Lasker Lessons in Leadership (LLL) program.

On February 28, Mary Woolley, president and chief executive officer of Research!America, spoke about “Winning Hearts and Minds for Science” for the first Lasker Lessons in Leadership event of the year. She emphasized the importance of public trust in the research community and explored ideas for how different communities might work together to build that trust.

At the second event, George Yancopoulos, president and chief scientific officer of Regeneron, presented “My Scientific Story: From Academia to Starting and Building a Major Biotech Company,” on November 15. He spoke about research inside and outside of academia and encouraged talented young scientists to seek out industry research opportunities.

In previous years, these lectures took place on the US National Institutes of Health (NIH) main campus in Bethesda, Maryland. This year, however, we moved the meetings off campus and served dinner, creating a more intimate and relaxed atmosphere. This facilitated an enthusiastic question-and-answer session after the lectures and greater engagement from attendees. Feedback on the new format has been overwhelmingly positive.

We appreciate our collaboration with the International Biomedical Research Alliance and the NIH Oxford-Cambridge Scholars Program, which makes these lectures possible. Videos of the recorded talks are now publicly available on our website.

NIH Lasker Clinical Research Scholars

The NIH Lasker Clinical Research Scholars program provides talented early-stage researchers the opportunity to carry out independent clinical and translational research for five to seven years at the NIH. The program currently includes 15 scholars: Hans Ackerman (NHLBI), Christine Alewine (NCI), Andrea Apolo (NCI), Rebecca Brown (NIDDK), Courtney Fitzhugh (NHLBI), Jessica Gill (NINR), Christian Hinrichs (NCI), Beth Kozel (NHLBI), Jung-Min Lee (NCI), Frank Lin (NCI), Falk Lohoff (NIAAA), Nehal Mehta (NHLBI), Armin Raznahan (NIMH), Natalie Shaw (NIEHS), and Anish Thomas (NCI).

One of the scholars who joined the program at its launch achieved an important milestone in 2018: Jessica Gill was awarded a tenured position at the NIH.

Eight new scholars have been selected and will be announced in the spring of 2019. These new scholars represent a diversity of research interests, with three appointments anticipated at the NCI, two at the NIE, two at the NHGIR, and one at the NINDS.
Communications

AWARDS
The 2018 Lasker Awards received wide coverage in national and international papers, including The New York Times, The Guardian, and the Los Angeles Times, as well as publications for science-focused audiences such as Cell, The Journal of the American Medical Association, Scientific American, and Science. The awards announcements and the accompanying videos produced by Flora Lichtman also garnered significant attention on social media.

NEWSLETTERS
The five 2018 Lasker newsletters shared stories highlighting how medical research improves human health. Special issues announced the Lasker Awards and Laker Essay contest winners. Other newsletters included stories about the Lasker Lectures and the "Conversations in Science with Dan Rather" series co-produced with iBiology.

SOCIAL MEDIA
Lasker reaches out to audiences around the world to share information about advances in biomedical research and to inform readers about events sponsored by the Foundation. Over the past year, our number of Facebook and Twitter followers more than quadrupled.

Advocacy

RESEARCH FUNDING INITIATIVE

In addition, Pomeroy amplified the foundation’s message through public speaking at the following meetings:
- “The evolving role of philanthropy for medical and biological engineering,” at the American Institute for Medical and Biological Engineering Annual Meeting on April 9
- “Creating a healthier world by addressing social determinants of health,” at the Community Health Network of Connecticut Foundation on April 19
- “Uniting engineering and medical research to advance health for all,” at the Texas A&M Lasker Lecture on April 25
- “Women who lead: the leadership gender gap, core values and changing the culture in healthcare,” at the Women Leaders in Healthcare meeting on August 2
- “A call to action: improving society through medical research,” at the University of Michigan’s Annual Fekety Lecture on October 12

She also participated in a plenary panel, “The extra mile,” at the Association of American Medical Colleges’ annual meeting on November 6.
Leadership

Chair
Anthony B. Evnin
President
Claire Pomeroy
Secretary & Treasurer
George Roche
Board Members
Ambassador Barbara Barrett
Christopher W. Brody
Marshall W. Fordyce

NEW CHAIR: ANTHONY EVNIN

Tony Evnin has watched scientific research lead to dramatic improvements in human health over the course of his career. Trained as a chemist, Evnin joined Venrock in 1974. His insights and investment decisions helped shape today’s biotechnology industry and fund the development of numerous pharmaceutical interventions and diagnostic tools. Observing these innovations and their influence on human lives reinforced for Evnin the importance of the individual scientists and clinicians who made their ideas become reality.

“The Lasker Foundation’s support and highlighting of those breakthrough achievements are a very important chapter in the story,” Evnin said.

Evnin has served on the Lasker Foundation board of directors since 2013, and he approaches his new role as chair with two main goals in mind: achieve even greater visibility of the Lasker Awards and increase support for biomedical research.

In addition to his role as chair of the Lasker Foundation, Evnin currently serves on the board of directors for three public companies, AVEO Pharmaceuticals, Infinity Pharmaceuticals, and Cantel Medical Corporation, and two private boards. He is a member of the boards of overseers and managers of Memorial Sloan Kettering Cancer Center, a trustee of the Jackson Laboratory, a trustee emeritus of the Rockefeller University and Princeton University, and a director of the New York Genome Center.

In the Spotlight: SOLOMON SNYDER

While growing up, Sol Snyder loved playing and performing classical guitar, a hobby that, surprisingly, led him to a career as a scientific researcher. As a Georgetown University undergraduate student preparing to attend medical school, Snyder taught guitar lessons to keep up his skills and to help support himself through school. One of his students happened to be Donald Brown, a young molecular biologist at the US National Institutes of Health (NIH), who offered Snyder a job as a research technician in his laboratory for the summer before medical school.

Snyder hadn’t been interested in laboratory work before that summer, but his experiences in the lab—especially witnessing the creative processes that drive research—drew him in. He completed his MD at Georgetown University School of Medicine in 1962 and then trained as a research associate with Julius Axelrod at the NIH from 1963 to 1965.

Years later at Johns Hopkins University School of Medicine, Snyder co-identified the opiate receptor and developed techniques for mapping opiate receptor distribution in the brain. Subsequently, his team generated important data that helped explain how opiate agonists differ from antagonists. For these findings, he was awarded the 1978 Albert Lasker Basic Medical Research Award. He has also received numerous other professional honors such as the Bristol-Myers Squibb Award for Distinguished Achievement in Neuroscience Research (1996), the Gerzat Prize of the Society for Neuroscience (2000), and the National Medal of Science (2005).

Snyder is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the American Philosophical Society. The author of more than 1000 journal articles and several books, Snyder currently studies the influence of drugs on the brain at a molecular level at Johns Hopkins University School of Medicine. He has served as a member of the board of directors of the Lasker Foundation since 2012.
Looking Ahead:

LASKER AWARDS
The 2019 Lasker Award winners will be announced on September 10, and the awards will be presented on Friday, September 20, at the Pierre Hotel in New York City.

LECTURES
The 2019 Lasker APSA Lecture will be presented by Douglas Lowy at the American Physician Scientists Association annual conference in Chicago on April 5. Lowy won the 2017 Lasker-DeBakey Clinical Medical Research Award for technological advances that enabled development of HPV vaccines for prevention of cervical cancer and other tumors caused by human papillomaviruses. Elaine Fuchs will give the Lasker Public Lecture in Honor of Al Sommer on April 15. The Lasker 2019 University Lecture will be held at Emory University.

LESSONS IN LEADERSHIP
For the 2019 Lasker Lessons in Leadership program, David Rubenstein, co-founder of The Carlyle Group, will interview Anthony Fauci, director of the US National Institute of Allergy and Infectious Diseases, on March 12. Fauci received the 2007 Mary Woodard Lasker Public Service Award for advancements in AIDS relief and biodefense.

ADVOCACY
On April 6, Lasker Foundation president Claire Pomeroy will speak about health equity at the joint Association of American Physicians/American Society for Clinical Investigation/American Physician-Scientists Association meeting in Chicago.

ESSAY CONTEST
The 2019 Lasker Essay Contest will open in early February. The contest winners will be announced in the July newsletter.