LETTER FROM THE PRESIDENT & CHAIR

Communicating the Importance of Supporting Medical Research

The Lasker Foundation celebrates the power of medical research, from fundamental science to initiatives expanding access to clinical advances.

This year’s awards — serendipitously, all in the field of immunology — highlight this range. Max D. Cooper and Jacques Miller received the Albert Lasker Basic Medical Research Award for delineating the organizing principle of the adaptive immune system and launching the course of modern immunology. H. Michael Shepard, Dennis J. Slamon, and Axel Ullrich were awarded the Lasker-DeBakey Clinical Medical Research Award for their invention of Herceptin® (trastuzumab), the first monoclonal antibody that blocks a cancer-causing protein, and for its development as a life-saving cancer therapy. The Lasker-Bloomberg Public Service Award was given to Gavi, the Vaccine Alliance, for providing sustained access to childhood vaccines around the globe, saving millions of lives, and highlighting the power of vaccination to prevent disease.

By shining a light on important advances, the Lasker Awards help us communicate to an international audience how scientific breakthroughs benefit us all. To accelerate support for science, we must ensure our message reaches all constituencies, including the public, scientists, policymakers, and donors.

Lasker’s partnerships and programs also help achieve this goal. For example, our annual Public Lecture series connects accomplished scientists to the public to promote the understanding and the promise of biomedical science. Our partnership with iBiology engages trainees in the process of scientific discovery, while the Young Scientist Seminars competition encourages early-career researchers to improve their communication skills.

Our advocacy work further amplifies our message. As a member of the Science Philanthropy Alliance, we engage with other foundations and individual philanthropists committed to investing in basic science. For example, our work at the Alliance this year led to a report, co-sponsored by the Lasker, Rita Allen, and John Templeton Foundations, that defined best practices in communication for science philanthropies. Our collaboration with Research!America connects us with national policymakers. Within our organization, we continue to refine our communication methods and output to more effectively achieve our mission.

As we look to the new year, we urge you to join our efforts to advocate for and communicate the wonders of science. By sharing the importance of scientific advances within your own circles, you can help accelerate support for medical research to advance the understanding, treatment, and prevention of disease.

Thank you,

Anthony Evnin
Chair, Board of Directors

Claire Pomeroy
President

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.
Please join us in congratulating our 2019 Lasker winners whose research breakthroughs have had a profound impact on human health.

Albert Lasker Basic Medical Research Award
For their discovery of the two distinct classes of lymphocytes, B and T cells—a monumental achievement that provided the organizing principle of the adaptive immune system and launched the course of modern immunology.

Max D. Cooper: Emory University School of Medicine
Jacques Miller: The Walter and Eliza Hall Institute of Medical Research

Lasker–DeBakey Clinical Medical Research Award
For their invention of Herceptin, the first monoclonal antibody that blocks a cancer-causing protein, and for its development as a life-saving therapy for women with breast cancer.

H. Michael Shepard: Genentech
Dennis J. Slamon: University of California, Los Angeles
Axel Ullrich: Max Planck Institute of Biochemistry

Gavi board chair Ngozi Okonjo-Iweala accepting the Lasker–Bloomberg Public Service Award on behalf of Gavi

The 2019 Lasker Award winners were announced on September 11, and the Awards were presented on September 20 at the Pierre Hotel in New York City.

From left to right: Anthony Evnin, Ngozi Okonjo-Iweala, Gavi CEO Seth Berkley, and Claire Pomeroy

From left to right: Anthony Evnin, Michael Shepard, Claire Pomeroy, Dennis Slamon, and Axel Ullrich (Lasker–DeBakey Clinical Medical Research Award)

Max Cooper (left) and Jacques Miller (right) (Albert Lasker Basic Medical Research Award) flank Joseph Goldstein (Lasker Research Award Jury Chair)

From left to right: Dennis Slamon, Axel Ullrich, and Michael Shepard (Lasker–DeBakey Clinical Medical Research Award)
Lectures

LASKER PUBLIC LECTURE IN HONOR OF AL SOMMER
At the Lasker Public Lecture, cell biologist Elaine Fuchs, the Rebecca C. Lancefield Professor of Mammalian Cell Biology and Development at The Rockefeller University, shared her work about skin stem cells with an enthusiastic crowd at the Bell House in Brooklyn. Her talk, “Adult (Tissue) Stem Cells: The Good, the Bad, and the Promise for Regenerative Medicine,” guided the audience through the history of stem cell science. She discussed the discovery in the 1970s that adult skin stem cells could be cultured in vitro indefinitely, which provided the foundation for later advances in stem cell culture, including Fuchs’ own research into the ways that stem cells are activated in vivo. She also spoke about the potential of regenerative medicine to treat human diseases such as certain cancers, macular degeneration, Parkinson’s and other degenerative diseases, and took questions from the audience.

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

APSA LECTURE
Lasker Laureate Douglas Lowy delivered the 2019 Lasker-APSA Lecture at the annual meeting of the American Physician Scientists Association (APSA) on April 5. Lowy, who is acting director of the National Cancer Institute (NCI) and chief of the NCI Laboratory of Cellular Oncology, spoke about the winding road that led to the development of the HPV vaccine. He shared insights about his career including the surprising anecdote that he and his colleagues knew little about vaccines for cancer when they began to investigate how to create a vaccine against HPV. This lecture was produced in partnership with APSA, with the goal of providing mentorship and inspiration for the next generation of clinical researchers.

UNIVERSITY LECTURE
On October 31, the Lasker Foundation concluded the University Lecture series with a talk at Emory University from David Allis, Lasker Laureate and Joy and Jack Fishman Professor at The Rockefeller University. The event was organized in collaboration with Vikas Sukhatme, dean of medicine and Ighouwerha Ofootukun, professor of medicine at Emory University School of Medicine.

The talk, entitled “When Genetics and Epigenetics Collide: Insights Gained Into Human Cancer,” presented recent data on the molecular analysis of histones—the proteins that package DNA within chromosomes. Allis emphasized how the identification of specific mutations in histone protein subdomains provides a foundation for developing novel therapies for pediatric cancers and other conditions.
Education

BREAKFAST AT LASKER
Before the Lasker Luncheon, we welcomed Lasker Clinical Research Scholars, NIH Oxford-Cambridge Scholars, Lasker Essay Contest co-winners, and a local New York City high school teacher and his student to meet this year’s Lasker Awards winners over breakfast. Lasker board member Jordan Gutterman moderated the question-and-answer discussion, where topics ranged from the rapidly developing field of immunology to the interplay between hard work and luck in making groundbreaking discoveries. Max Cooper encouraged students to let their curiosity guide their work, even if it is not clear if a research question has the potential for medical impact. Michael Shepard and Dennis Slamon advised students to “follow the data” in their work, even if their discoveries may not be initially accepted. Seth Berkley emphasized the importance of advocating for science in today’s politicized climate.
**Education**

**LASER ESSAY CONTEST**

The Lasker Essay Contest engages young scientists and clinicians in discussions about big questions in biomedical research and policy. The contest is open to students around the world and aims to build skills in communicating important medical and scientific issues to broad audiences.

This year, applicants were asked to outline an educational strategy that will increase interest in biomedical sciences among young men and women.

The three co-winners received monetary prizes for educational expenses and met the 2019 Lasker Award winners at the Awards Ceremony in New York City on September 20.

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**“The Lasker Foundation is a storied organization that I feel privileged to be associated with through this prize. Meeting the Lasker Laureates in New York is a once in a lifetime opportunity.”**

— Derek W. Paul, Jr.

**Peter John**

is a sixth-year MD-PhD student at Albert Einstein College of Medicine. After immigrating to the United States from Kuwait at the age of 12, he subsequently grew up in Queens, New York. His work centers on cancer immunology, studying how tumors evade the immune system and exploring how to use immunotherapy to treat cancer.

In his essay, "Pathways: A National Mentorship Program for High School Students Underrepresented in Science and Medicine," he proposed a national mentorship program, following a ‘Big Brothers, Big Sisters’ model, that would advance our mission in 2019. Gregory Pustorino began his internship in November 2018 and continued through the spring, assisting with Lasker’s newsletter, social media, essay contest, and additional projects. Jamie Clauson-Wolf and John Pavlides joined us in late May 2019 for our summer internship. They both contributed to Lasker’s social media efforts, including filming videos for Lasker’s #SupportMedicalResearch campaign.

We wish them luck in their future endeavors!

**Grace Beggs**

is a PhD candidate in the Department of Biochemistry at Duke University School of Medicine. Her dissertation research in Richard Brennan’s lab focuses on structurally and functionally characterizing multi-drug binding proteins that play a role in antibiotic resistance in Neisseria gonorrhoeae and Escherichia coli. Beggs focused on creating a science-based smartphone application for her essay entitled, “Game On: Smartphone Technology for Science Education.” She suggested an app with an augmented reality function — inspired by the popular smartphone app “Pokémon Go” — so that users could ‘interact’ with the molecular world around them.

**“Making it All Fun and Games in the Biomedical World”**

— Dereck W. Paul, Jr.

**INTERNSHIP PROGRAM**

The Lasker Foundation thanks three interns who helped advance our mission in 2019. Gregory Pustorino began his internship in November 2018 and continued through the spring, assisting with Lasker’s newsletter, social media, essay contest, and additional projects. Jamie Clauson-Wolf and John Pavlides joined us in late May 2019 for our summer internship. They both contributed to Lasker’s social media efforts, including filming videos for Lasker’s #SupportMedicalResearch campaign.

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**“Making it All Fun and Games in the Biomedical World”**

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**Education**

**IBIOLOGY**

In partnership with iBiology, the Lasker studio produced five videos by scientists from various disciplines, including geneticist Jeannie Lee and neuroscientist Uri Hasson. We also contributed footage to an online course on bioimage analysis.

In addition, the Foundation supported video production for iBiology’s new free online textbook, *The Explorer’s Guide to Biology (XBio)*. Written by Lasker Laureates and other distinguished scientists, XBio deploys narrative prose, instructive illustrations, engaging animations, and professionally produced videos to reimagine the content and look of the biology textbook for the 21st century.

The Foundation also continued to support iBiology’s annual Young Scientist Seminars (YSS) competition in collaboration with the Alan Alda Center for Communicating Science. This year’s winners, Maite Ghazaleh Bucher, Sven Truckenbrodt, Katie Murphy, and Karina Mondragon-Shem, attended a weeklong science communication workshop led by the Alan Alda Center for Communicating Science at iBiology’s headquarters at the University of California, San Francisco. The workshop culminated in the four winners recording 30-minute talks in iBiology’s green-screen studio. The videos, “Maite Ghazaleh Bucher: Health and Disease Signatures of the Coral Microbiome,” “Sven Truckenbrodt: X10 Expansion Microscopy,” “Katie Murphy: How Corn Fights Crop Stress,” and “Karina Mondragon-Shem: Tick and Other Arthropod Saliva,” are available on Lasker’s website.

**LASER LESSONS IN LEADERSHIP**

In collaboration with the International Biomedical Research Alliance and the NIH, the Lasker Lessons in Leadership program welcomed an engaged group of NIH Oxford-Cambridge Scholars to hear lectures from inspiring role models. The March 12 event featured an interview with Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases and 2007 Lasker Public Service Laureate. Fauci spoke with David Rubenstein, co-founder and co-executive chairman of the Carlyle Group, about health topics ranging from yearly flu vaccinations to ending the HIV epidemic. During the question and answer session, Fauci encouraged students to follow their interests. “The only way you are going to be happy and productive in science is if you are passionate about [your work],” he said.

At the second event on November 7, Wendy Chung, the Kennedy Family Professor of Pediatrics in Medicine at Columbia University, spoke about her career path as a clinical and molecular geneticist. In her talk, “My Life as a Zebra Hunter,” she emphasized the importance of mentorship and how personal events resulted in a dramatic turn in her research interests. Many students noted that they found her honest discussion of her scientific journey very inspiring.
The Lasker Foundation advocates for increased support for medical research. This year, we partnered with Research!America to develop a series of fact sheets that highlight the benefits of research to improve health. Each page focuses on one or a set of health conditions and presents current statistics and examples of the cost- and life-saving benefits of research. Our website features over 20 fact sheets on health topics such as osteoporosis, depression, stroke, vaccines, and breast cancer. In addition, Claire Pomeroy spread the Foundation’s message through op-eds, public speaking, and meeting with members of Congress throughout the year. Pomeroy authored two opinion pieces in 2019: “Loneliness Is Harmful for Our Nation’s Health,” published in Scientific American on March 20, and “Race Shouldn’t Be a Factor in Cancer Care,” published in Fox News on August 14. She also gave talks addressing the social determinants of health, achieving health equity, and supporting medical research through advocacy and philanthropy at the following meetings:

- CHIME/HIMSS CIO Forum on February 11
- University of California, Davis on February 21
- AAP Induction Banquet on April 6
- AAHC 2019 Global Issues Forum on May 7
- Cooper Medical School of Rowan University on May 16
- Oregon Health Authority Innovation Café on June 5
- IU School of Public Health – Bloomington on October 4
- University of Central Florida Grand Rounds on November 6
- Movement Is Life Caucus on November 15

This summer, the Foundation launched the social media campaign #SupportMedicalResearch. Using the hashtag, individuals and organizations share what disease or area of research they believe needs more research support. NIH Oxford-Cambridge Scholars and several advocacy organizations, including the Leukemia & Lymphoma Society, the Child Mind Institute, and the PKD Foundation, participated in the campaign. With the help of our two summer interns, we also filmed short ‘people-on-the-street’ videos for the campaign in Bryant Park, NYC.
AWARDS
The 2019 Lasker Awards received wide coverage in national and international media, including the New York Times, Associated Press, Los Angeles Times, Frankfurter Allgemeine Zeitung, Melbourne Herald Sun, and Yomiuri Shimbun. The Laureates discussed their scientific journeys in essays and interviews published in Cell, JAMA, and Scientific American. Cell and NEJM also featured articles written by prominent scientists commenting on the award-winning research. The awards announcement, which included videos produced by Flora Lichtman, received nearly 40,000 views on Twitter, Facebook, and YouTube.

NEWSLETTERS
Lasker’s newsletters provide monthly updates about the Foundation’s activities and discuss current issues in biology and medicine. This year, we explored the ongoing challenges of women in STEM careers, how to make science education more engaging for the next generation, and the rising importance of convergence science in research. We also covered stories about current and previous Essay Contest winners. Our newsletter has over 2,000 subscribers from around the world.

SOCIAL MEDIA
Lasker uses social media to share exciting stories about medical research and promote events and programs organized by the Foundation and our partners. Our social media audience continues to grow, reaching over 4,600 followers on Twitter and 5,200 followers on Facebook.

In the Spotlight: Barbara Barrett
Barbara Barrett is an accomplished businesswoman, trained astronaut, international aviation attorney, diplomat, and successful rancher.

She recently added a new title: in October, she was sworn in as the 25th Secretary of the Air Force, the fourth woman to hold this position. In addition to overseeing the affairs of the Air Force, she will be responsible for establishing the United States Space Force. “Every day, space plays a bigger role in our daily lives,” she says. “It’s a historic time in the Air Force as America turns a new focus on Space Force.”

Barrett’s passions extend throughout all areas of science, which led her to join the Lasker Board in 2012. Former board member Robert Tjian introduced Barrett to the Foundation, and “quickly I was hooked,” she says. During her tenure on the Lasker Board, Barrett served on the Communication and Audit Committees, as well as the Public Service Award Jury. Due to her commitments in the Air Force, she is stepping down from the Board at the end of 2019. “It was a joy to be a part of a small team that achieves giant accomplishments,” she says.

For Barrett, the most important impact of the Foundation is how the awards continue to inspire not just scientists but also the general public by recognizing “the selfless and groundbreaking work of researchers and engineers.” As a society, she says, we need to continue supporting science to encourage further progress in biomedicine. “Lasker has long demonstrated that investment in medical research is money well spent,” she said. “The tag line ‘If you think research is expensive, try disease’ says it all.”
## Leadership

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Anthony B. Evnin

**President**  
Claire Pomeroy

**Secretary & Treasurer**  
George Roche

**Board Members**  
Ambassador Barbara Barrett  
(thru November 2019)  
Christopher W. Brody  
Marshall W. Fordyce

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**LASKER MEDICAL RESEARCH AWARDS JURY**

**Seated, left to right:** James Rothman, Yale University • Xiaowei Zhuang, Harvard University • Joseph Goldstein, Chair of the Jury, University of Texas Southwestern Medical Center • Lucy Shapiro, Stanford University • J. Michael Bishop, University of California, San Francisco • Erin O'Shea, Howard Hughes Medical Institute

**Standing, left to right:** Richard Locksley, University of California, San Francisco • Jeremy Nafzgans, Johns Hopkins School of Medicine • Michael Brown, University of Texas Southwestern Medical Center • K. Christopher Garcia, Stanford University • Christopher Walsh, Harvard University • Marc Tessier-Lavigne, Stanford University • Robert Lefkowitz, Duke University School of Medicine • Craig Thompson, Memorial Sloan-Kettering Cancer Center • Richard Lifton, Rockefeller University • Harold Varmus, Weill Cornell Medical College • Laurie Glimcher, Dana-Farber Cancer Institute • Jeffrey Friedman, Rockefeller University • Charles Sawyers, Memorial Sloan-Kettering Cancer Center

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**Left to right:** Christopher Jones, James Fordyce (Chair Emeritus), Marshall Fordyce, Christopher Brody, Claire Pomeroy, Russell Steenberg, Tony Evnin, Elias Zerhouni, Solomon Snyder, Willard Overlock

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| Chair | Anthony B. Evnin |
| President | Claire Pomeroy |
| Secretary & Treasurer | George Roche |
| Board Members | Ambassador Barbara Barrett (thru November 2019) Christopher W. Brody Marshall W. Fordyce |

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**2019 LASKER-BLOOMBERG PUBLIC SERVICE AWARD JURY**

**Left to right:** Anthony Evnin • Claire Pomeroy • Chris Jones • Alfred Sommer, Chair of the Jury • Barbara Barrett • Elias Zerhouni

**Not pictured:** Sherry Lansing • Erin O’Shea
LASKER LAUREATES

Lasker Laureates at the 2019 Luncheon. Left to right: Michael Shepard, Robert Roeder, Joan Steitz, James Watson, Alfred Sommer, Nancy Wexler, Michael Sofia, Marc Feldmann, Solomon Snyder, Joseph Goldstein, Dennis Slamon, Max Cooper, Axel Ullrich, Jeffrey Friedman, David Allis, Charles Sawyers, Gary Ruvkun and Charles Rice
Looking Ahead:

**LASER AWARDS**
The 2020 Lasker Award Luncheon will take place on Friday, September 25, at the Pierre Hotel in New York City.

**ESSAY CONTEST**
The 2020 Essay Contest will open in February. Winners will be announced in the July newsletter.

**APSA LECTURE**
The 2020 Lasker–APSA Lecture will be presented by Max Cooper at the American Physician Scientists Association annual meeting in Chicago on April 3. Cooper is a recipient of the 2019 Albert Lasker Basic Medical Research Award.

**75TH ANNIVERSARY**
2020 marks the 75th Anniversary of the Lasker Foundation! Look on our website throughout the year for videos, articles, and profiles that highlight the achievements of the Foundation and our Laureates.

Donors

In grateful appreciation to the following donors in 2019:

ACT for NIH: Advancing Cures Today
Anonymous
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O’Donnell Foundation
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Kazuo and Yoko Komuro
Sherry Lansing
Erik K. O’Shea
Trina and Mike Overlock
Mrs. Frank Perdue
Claire Pomeroy and
William Preston Robertson
George A. Roche
Solomon H. Snyder
Alfred and Jill Sommer
Russell W. Steinberg and
Patricia M. Colbert
Elias and Nadia Zerhouni
The Lasker Foundation thanks the Howard Hughes Medical Institute for in-kind contributions.

Lasker Society Members
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The Lasker Society accepts deferred gifts through estate planning.

To make a donation, please visit our website at www.laskerfoundation.org/donations.