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LASKER FOUNDATION ANNOUNCES 2022 LASKER AWARD WINNERS

The 2022 Albert Lasker Basic Medical Research Award

Richard O. Hynes, Erkki Ruoslahti, and Timothy A. Springer for discoveries concerning integrins – key mediators of cell-matrix and cell-cell interactions in physiology and disease

The 2022 Lasker~DeBakey Clinical Medical Research Award

Yuk Ming Dennis Lo for the discovery of fetal DNA in maternal blood, leading to noninvasive prenatal testing for Down syndrome

The 2022 Lasker~Bloomberg Public Service Award

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

(New York, September 28, 2022) The [Lasker Foundation](http://www.laskerfoundation.org) today announced the winners of its 2022 Lasker Awards: **Richard O. Hynes** (Massachusetts Institute of Technology), **Erkki Ruoslahti** (Sanford Burnham Prebys) and **Timothy A. Springer** (Boston Children's Hospital/Harvard Medical School) will receive the Albert Lasker Basic Medical Research Award; **Yuk Ming Dennis Lo** (The Chinese University of Hong Kong) will receive the Lasker~DeBakey Clinical Medical Research Award; and **Lauren Gardner** (Johns Hopkins University) will receive the Lasker~Bloomberg Public Service Award.

Widely regarded as America's top biomedical research prize since its creation more than 75 years ago by Mary and Albert Lasker, the Lasker Awards carry an honorarium of \$250,000 for each category. The award presentation, [featuring short videos](#) on this year's winners and their work, occurred today at a celebratory online event, viewable at [laskerfoundation.org](http://www.laskerfoundation.org).

The 2022 Albert Lasker Basic Medical Research Award

The 2022 **Albert Lasker Basic Medical Research Award** honors three scientists for discoveries concerning integrins, key mediators of cell-matrix and cell-cell adhesion in physiology and disease.

In their respective labs, **Richard O. Hynes** and **Erkki Ruoslahti** identified a cell-surface-associated protein that helps affix cells to the surrounding material, called the extracellular matrix; later, they identified a receptor to which this protein binds. Separately, **Timothy A.**

Springer detected transmembrane proteins that underlie the ability of immune cells to interact with their targets. These initially disparate discoveries converged and their significance mushroomed after the investigators realized that these proteins—later dubbed “integrins”—belong to the same molecular family.

The work of Springer, Ruoslahti, and Hynes launched the field of integrin research, which explores the essential roles these proteins play in physiology and health. They provided a greater understanding of the diseases that can result when integrin function is perturbed. Their discoveries laid the foundation for novel therapeutic strategies to treat a variety of autoimmune disorders, such as ulcerative colitis, Crohn’s disease, and certain clotting conditions.

>> [Read the full citation](#)

>> [Watch video](#)

The 2022 Lasker~DeBakey Clinical Medical Research Award

The **2022 Lasker~DeBakey Clinical Medical Research Award** honors **Yuk Ming Dennis Lo**, who discovered cell-free fetal DNA in maternal blood and developed noninvasive prenatal testing for Down syndrome, which occurs in 1 in 800 births globally. Lo spurred a revolution in clinical practice that has saved millions of women from undergoing invasive testing procedures that increase miscarriage risk.

Lo embarked on his medical studies with a vision for finding non-invasive methodologies to detect fetal genetic aberrations without disrupting pregnancies. He demonstrated that cell-free fetal DNA is present in the mother’s blood and went on to devise analytics that detect genetic markers for Down syndrome, creating a non-invasive test that is greater than 99% accurate for ruling out the condition. Following the commercial launch of the test in 2011, healthcare centers around the world quickly embraced non-invasive prenatal testing (NIPT) technology as a safe alternative to amniocentesis and chorionic villus sampling. NIPT is now available in 60 countries and is widely used by clinicians.

Lo and others are currently expanding these insights to exploit cell-free DNA in cancer detection and management, transplantation biology, and more.

>> [Read the full citation](#)

>> [Watch video](#)

The 2022 Lasker~Bloomberg Public Service Award

The **2022 Lasker~Bloomberg Public Service Award** honors **Lauren Gardner** for creating the Covid-19 Dashboard, which set a new standard for disseminating authoritative public health data in real time. Gardner’s dashboard provides accessible and reliable information about the spread of an emerging infectious disease. In the early days of the pandemic, it filled a void in the international public health system and established a model to emulate.

In January 2020, the appearance of a novel coronavirus prompted Gardner and graduate student Ensheng Dong to track an outbreak from its onset. Gardner and her team developed an intuitive and interactive interface that displayed the number of cases and deaths as the epidemic expanded. After she shared the dashboard via Twitter, the public took notice.

Operational since before the outbreak became a global pandemic, Gardner's Covid-19 Dashboard has expanded and become part of the Coronavirus Resource Center, which compiles and synthesizes data, such as vaccination rates, from more than 3,500 locations. It has become an authoritative and trusted data source for Covid-19 modeling, policymaking, and personal decision-making. The Covid-19 Dashboard enabled the world to watch, for the first time, a pandemic's trajectory as it unfolded, ultimately creating a new standard for public health data science.

>> [Read the full citation](#)

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About the Lasker Foundation: The Lasker Foundation seeks to increase support for biomedical research by celebrating the power of biomedical science to save and improve human lives. Through its internationally renowned Lasker Awards, educational initiatives, and public advocacy, the Foundation recognizes the most important achievements in science and public service, supports and encourages the scientific leaders of tomorrow, and raises awareness of the ever-present need for research funding. Established in 1942 by Albert and Mary Lasker, the Foundation is committed to inspiring robust and sustained support for biomedical research, fueled by Mary Lasker's call to action: "If you think research is expensive, try disease!" More information at laskerfoundation.org.

About the Lasker Awards: For more than 75 years, the Lasker Awards, America's most prestigious biomedical research awards, have recognized the contributions of leaders who made major advances in the understanding, diagnosis, treatment, cure, and prevention of human disease. Recipients of the Lasker Medical Research Awards are selected by a distinguished international jury chaired by Joseph L. Goldstein, recipient of the 1985 Lasker Award for Basic Medical Research and the Nobel Prize in Physiology or Medicine. Public Service Awardees are selected by a jury chaired by Alfred Sommer, recipient of the 1997 Lasker Award for Clinical Medical Research. Ninety-five Lasker Laureates have received the Nobel Prize, including seven in the last four years. More details on the Lasker Award recipients, the full citations for each award category, video interviews and photos of the awardees, and additional information on the Foundation are available at www.laskerfoundation.org.

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