



Press Release, September 10, 2019

dr. christiane menzfeld

phone: +49 89 8578-2824

pr@biochem.mpg.de

www.biochem.mpg.de/news

 @MPI_Biochem

MPIB-Emeritus Axel Ullrich is awarded with Lasker Award 2019

Axel Ullrich, together with H. Michael Shepard and Dennis J. Slamon, receives the highest biomedical scientific award in the United States for the invention of Herceptin.

Herceptin was the first monoclonal antibody that blocks a cancer causing protein. For the invention of Herceptin and the development of a life-saving therapy for women with breast cancer, three researchers are now receiving the Lasker~DeBakey Clinical Medical Research Award: Axel Ullrich, Emeritus Director at the Max Planck Institute of Biochemistry and former Genentech scientist, H. Michael Shepard, former Genentech scientist and Dennis J. Slamon from the University of California, Los Angeles. The prize is the highest biomedical scientific award in the USA and is awarded with 250,000 US dollars. The award ceremony will take place in New York City on Friday, September 20.

In the mid-1970s, scientists discovered that certain genes, when mutated, can cause cancer; researchers theorized that targeting these oncogenes, or the proteins they code for, could prevent the spread of malignancies. The combined efforts of H. Michael Shepard, Dennis J. Slamon, and Axel Ullrich culminated in the creation of Herceptin, the first monoclonal antibody therapy that targets a protein encoded by an oncogene.

Monoclonal antibodies are proteins that bind to specific invader organisms or abnormal (e.g. cancerous) cells. Herceptin is a humanized monoclonal antibody. Such antibodies are created in mice and then adapted to be tolerated by the human immune system.

Herceptin is used to treat HER2-positive breast cancer, an aggressive type of breast cancer characterized by multiple copies of the gene coding for the protein HER2 (human epidermal growth factor receptor 2). Over 50,000 women in the United States are diagnosed with this type of breast cancer every year.





Shepard and Ullrich, then working at Genentech, and Slamon, at the University of California Los Angeles, conducted complementary research that led to powerful clinical results. Herceptin, when coupled with chemotherapy, stalled HER2-positive breast cancer progression and extended survival compared to chemotherapy treatment alone.

Approved by the FDA in 1998, Herceptin was among the earliest targeted therapies designed to block the growth of cancerous cells. Over 2.3 million individuals have been treated with Herceptin to date.

These researchers provided the first demonstration that monoclonal antibodies were a viable and effective strategy to treat solid tumors, opening a new path to develop and deploy antibodies to treat cancer.

About Axel Ullrich

Axel Ullrich studied biochemistry in Tübingen and went to the University of California, San Francisco, USA in 1975 as a postdoctoral researcher. In 1979, he decided to focus on application-oriented research and moved to the world's first biotechnology company, Genentech in San Francisco, USA. There he established the research programme on the molecular biology of growth factors and their receptors, the key components for cell communication. From 1988 to October 2016, Ullrich was Director and Head of the Research Department "Molecular Biology" at the MPI of Biochemistry. Since November 2016, he has been an emeritus scientific member of the institute.

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!"

About the Lasker Awards

For 74 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, or 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. Lasker~Bloomberg Public Service Award winners are selected by a jury chaired by Alfred Sommer, recipient of the 1997 Lasker Award for Clinical Medical Research. Eighty-eight Lasker laureates have received the Nobel Prize, including 39 in the last three decades. 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. Follow the Awards on [Facebook](#) and [Twitter](#).

About the Max Planck Institute of Biochemistry

The Max Planck Institute of Biochemistry (MPIB) belongs to the Max Planck Society, an independent, non-profit research organization dedicated to top-level basic research. As one of the largest Institutes of the Max Planck Society, about 800 employees from 45 nations work here in the field of life sciences. In currently about 35 departments and research groups, the scientists contribute to the newest findings in the areas of biochemistry, cell biology, structural biology, biophysics and molecular science. The MPIB in Munich-Martinsried is part of the local life-science-campus in close proximity to the Max Planck Institute of Neurobiology, a Helmholtz Center, the Gene-Center, several bio-medical faculties of the Ludwig-Maximilians-Universität München and the Innovation and Founding Center Biotechnology (IZB). <http://www.biochem.mpg.de/en>



Caption:

Axel Ullrich

Photo: Axel Griesch © MPI of Biochemistry

- Find more pictures of Axel Ullrich: <https://www.biochem.mpg.de/en/download-ullrich>
- Find more press releases about Axel Ullrich: <https://www.biochem.mpg.de/en/pm-ullrich>



Contact:

Prof. Dr. Axel Ullrich
Emeritus „Molekular Biologie“
Max Planck Institute of Biochemistry
Am Klopferspitz 18
82152 Martinsried, Germany
E-Mail: ullrich@biochem.mpg.de
<http://www.biochem.mpg.de/en/ullrich>

Dr. Christiane Menzfeld
Public Relations
Max Planck Institute of Biochemistry
Am Klopferspitz 18
82152 Martinsried, Germany
Phone: +49 89 8578-2824
E-Mail: pr@biochem.mpg.de
www.biochem.mpg.de

