

Press Release
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A Humboldt Universität scientist received one of the 2021 Lasker Awards

America's top biomedical research prize honors the discovery of light-sensitive microbial proteins that can activate or dampen individual brain cells - and their use in the development of optogenetics

The Lasker Foundation today announced the winners of its 2021 Lasker Awards: Dieter Oesterhelt (Max Planck Institute of Biochemistry), Peter Hegemann (Humboldt-Universität zu Berlin) and Karl Deisseroth (Stanford University).

The 2021 Lasker Basic Medical Research Award honours the three scientists for the discovery of light-sensitive microbial rhodopsins and for harnessing their properties to develop a technology that enables researchers to control brain-cell activity by using light beams to trigger ion flow into and out of neurons.

The work of Dieter Oesterhelt, Peter Hegemann, and Karl Deisseroth has advanced technologies for probing brain function and opened pathways for the better understanding of neurodegenerative disease and mental illnesses.

Scientists can now study neurons and their circuitry with stunning clarity and probe their functional underpinnings with unprecedented resolution. Hundreds of laboratories around the world are applying optogenetics to tease apart adaptive and maladaptive behaviours, such as hunger, thirst, anxiety, and social behaviour including parenting.

About the Lasker Awards

For 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, or prevention of human diseases. 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 and Medicine. Ninety-five Lasker laureates have also received the Nobel Prize, including six in the last two years. The awards are presented in three different categories. Each of the awards is endowed with 250,000 US dollars. 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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