BRIAN KENT KOBILKA

Brian Kent Kobilka is an American physiologist and a recipient of the 2012 Nobel Prize in Chemistry for discoveries that reveal the workings of G protein-coupled receptors. He is currently a professor in the department of Molecular and Cellular Physiology at Stanford University School of Medicine.

ACADEMIC AND PROFESSIONAL CAREER

Kobilka is best known for his research on the structure and activity of G protein-coupled receptors (GPCRs); in particular, work from Kobilka's laboratory determined the molecular structure of the β2-adrenergic receptor. This work has been highly cited by other scientists because GPCRs are important targets for pharmaceutical therapeutics, but notoriously difficult to work with in X-ray crystallography. Before, rhodopsin was the only G-protein coupled receptor where the structure had been determined at high resolution. The β2-adrenergic receptor structure was soon followed by the determination of the molecular structure of several other G-protein coupled receptors.

Kobilka is the 1994 recipient of the American Society for Pharmacology and Experimental Therapeutics John J. Abel Award in Pharmacology. His GPCR structure work was named "runner-up" for the 2007 "Breakthrough of the Year" award from Science. The work was, in part, supported by Kobilka's 2004 Javits Neuroscience Investigator Award from the National Institute of Neurological Disorders and Stroke. He received the 2012 Nobel Prize in Chemistry with Robert Lefkowitz for his work on G protein-coupled receptors. In 2017, Kobilka received the Golden Plate Award of the American Academy of Achievement.

As part of Shenzhen's 13th Five-Year Plan funding research in emerging technologies and opening "Nobel laureate research labs", in 2017 he opened the Kobilka Institute of Innovative Drug Discovery at the CUHK Shenzhen campus in Southern China.

AWARDS AND HONORS

1994   John J. Abel Award
2010   Julius Axelrod Award
2012   Nobel Prize
2015   Mendel Medal
2016   The Louis and Artur Lucian Award in Cardiovascular Diseases