



# JOACHIM FRANK

NOBELOVA NAGRADA ZA KEMIJU  
NOBEL PRIZE IN CHEMISTRY

**Joachim Frank** rođen je u Siegenu, u Njemačkoj. Nakon studija na Sveučilištu u Freiburgu i Münchenu, doktorirao je na Tehničkom sveučilištu u Münchenu 1970.

Između 1975. i 1986., razvio je metodu analize i integriranja mutne dvodimenzionalne slike na elektronskom mikroskopu u oštru trodimenzionalnu sliku. Važnost toga leži u činjenici da su temeljni procesi u organizmu određeni komplikiranim molekulama, a elektronski mikroskop proširuje mogućnost promatranja tih molekula. Slike dobivene elektronskim mikroskopom omogućuju znanje

**Joachim Frank** was born in Siegen, Germany. After studying at the universities in Freiburg and Munich, he received his doctor's degree at the Technical University of Munich in 1970.

Between 1975 and 1986, he developed a method for analyzing and merging blurry two-dimensional images of the electron microscope into a sharp three-dimensional image. Importance of it lies in fact that fundamental processes of life are governed by a number of complicated molecules and the electron microscope expands the possibilities to observe these molecules. Electron microscope images provide knowledge that is

koje je, između ostalog, važno za razvoj lijekova. 2017. godine, Frank je dobio Nobelovu nagradu za kemiju za svoj rad na tehnici procesuiranja slike koji je bio temelj za razvoj krio-elektronske mikroskopije. Nagradu je podijelio sa švicarskim biofizičarom Jacquesom Dubochetom i britanskim molekularnim biologom Richardom Hendersonom.

Frank je radio u nekoliko institucija u SAD-u i Europi. Od 2008. radi na Sveučilištu u Columbiji u SAD-u kao profesor biokemije i molekularne biofizike i kao profesor prirodnih znanosti.

important for the development of pharmaceuticals, among other things. In 2017, he won the Nobel Prize in Chemistry for his work on image-processing techniques that proved essential to the development of cryo-electron microscopy. He shared the prize with Swiss biophysicist Jacques Dubochet and British molecular biologist Richard Henderson.

Frank has worked at several institutions in the U.S. and Europe. In 2008, he joined Columbia University as Professor of Biochemistry and Molecular Biophysics and Professor of Biological Sciences.

