

Bio sketch

Pieter R. Roelfsema received his MD degree in 1991 and his PhD degree in 1995. He moved to the Netherlands Institute for Neuroscience in Amsterdam in 2002 and was director between 2007 and 2023. He is professor at the Free University of Amsterdam and at the AUMC in Amsterdam. He received a NWO-VICI award (2008) and two ERC-Advanced grants (2014 and 2022). Roelfsema studies visual perception, plasticity, memory and consciousness in the visual system of experimental animals, humans, and with neural networks. His main question is how neurons in different brain areas work together during seeing and thinking. Roelfsema studies how networks of neurons work together to perceive and solve cognitive tasks and how they configure themselves during learning. He develops the neurotechnology for high-bandwidth visual prostheses for blind people, aiming to restore a rudimentary form of sight. Roelfsema coordinates the Dutch neurotechnology initiative NeuroTech-NL. In 2019 he co-founded the start-up company Phosphoenix that aims to develop a visual brain prosthesis.