

Prof. Dr. h. c. mult. **Karl Friston**, University College London, UK

Karl Friston is Professor at Queen Square Institute of Neurology, University College London, Scientific Director of the Wellcome Centre for Human Neuroimaging, and Honorary Consultant at The National Hospital for Neurology and Neurosurgery. He is a theoretical neuroscientist and authority on brain imaging. He invented statistical parametric mapping (SPM), voxel-based morphometry (VBM), and dynamic causal modeling (DCM). These contributions were motivated by schizophrenia research and theoretical studies of value-learning—formulated as the disconnection hypothesis of schizophrenia. Mathematical contributions include variational Laplacian procedures and generalized filtering for hierarchical Bayesian model inversion. Friston currently works on models of functional integration in the human brain and the principles that underlie neuronal interactions. His main contribution to theoretical neurobiology is a free-energy principle for action and perception (active inference). Friston received the first Young Investigators Award in Human Brain Mapping (1996) and was elected a Fellow of the Academy of Medical Sciences (1999). In 2000 he was President of the International Organization of Human Brain Mapping. In 2003 he was awarded the Minerva Golden Brain Award and was elected a Fellow of the Royal Society in 2006. In 2008 he received a Medal, Collège de France, and an Honorary Doctorate from the University of York in 2011. He became a Fellow of the Royal Society of Biology in 2012, received the Weldon Memorial prize and Medal in 2013 for contributions to mathematical biology, and was elected as a member of EMBO (excellence in the life sciences) in 2014 and the Academia Europaea in (2015). He was the 2016 recipient of the Charles Branch Award for unparalleled breakthroughs in Brain Research and the Glass Brain Award—a lifetime achievement award in the field of human brain mapping. He holds Honorary Doctorates from the universities of Zurich, Liège, and Radboud University.