Leopoldina
Nationale Akademie
der Wissenschaften

Curriculum Vitae Professor Dr Sabine Kastner

Image: Markus Scholz | Leopoldina

Name: **Sabine Kastner**
Date of birth: **21 January 1964**

Research Priorities: Cognitive neuroscience, visual cognition, primate electrophysiology, functional medical imaging, attention and visual systems

Sabine Kastner is a German-American neuroscientist. She teaches neuroscience and psychology at Princeton University in the USA. The main focus of her research is the neural basis of visual and attention processes in primate brains as a basis of understanding healthy and pathological brain functions.

Academic and Professional Career

since 2012	Visiting Scholar, Helen Wills Neuroscience Institute (HWNI), University of California, Berkeley, USA
since 2009	Professor of Psychology and Neurosciences, Princeton University, Princeton, USA
since 2005	Scientific Director, The Regina and John Scully ’66 Center for the Neuroscience of Mind and Behavior, Princeton University, Princeton, USA
2005 - 2009	Associate Professor for Psychology and Neurosciences, Princeton University, Princeton, USA
2000 - 2005	Assistant Professor for Psychology, Princeton University, Princeton, USA
1996 - 2000	Visiting Scholar, National Institute of Mental Health (NIMH), USA
1996	Lecturer, Department of Psychiatry and Psychotherapy, University Medical Center Göttingen, the University of Göttingen, Göttingen, Germany
1994 - 1996	Postdoctoral Fellow, Research Fellow, Max PIanck Institute for Biophysical Chemistry, Göttingen, Germany
1994	Completed doctorate to become Dr. med.

1993 State Examination for Medicine

Functions in Scientific Societies and Committees

since 2021 Chairperson, Scientific Advisory Board, Center for Biomedical Imaging (CIBM), École Polytechnique Fédèrale de Lausanne (EPFL), Lausanne, Switzerland

since 2020 Member, Scientific Commission, German Science and Humanities Council, Federal Ministry of Education and Research (BMBF) and German Research Foundation (DFG), Germany

since 2020 Member, Scientific Advisory Board, Paris Brain Institute, Pitié-Salpêtrière University Hospital, Paris, France

since 2019 Member, Finance Committee, Society for Neuroscience (SfN), Washington D.C., USA

since 2019 Member, Editorial Board, BrainFacts.org, SfN, Washington D.C., USA

since 2019 Member, Intermediate and Senior Fellowship Selection Committee, DBT/Wellcome Trust IndiaAlliance, India

since 2019 Member, International Steering Committee, Edmond and Lily Safra Center for Brain Sciences (ELSC), The Hebrew University of Jerusalem, Jerusalem, Israel

since 2019 Member, Executive Committee, PRIMatE Data and Resource Exchange (PRIME-DRE), International Neuroimaging Data-Sharing Initiative, Child Mind Institute, New York City, USA

2015 - 2018 Member, Publications Committee, SfN, Washington D.C., USA

Project Coordination, Membership in Collaborative Research Projects

2018 - 2021 Project “Educational Neuroscience of Visual Attention”, Princeton Neuroscience Institute, Princeton University, Princeton, Overdeck Family Foundation, New York City, USA

2017 - 2022 Project “Dynamic thalamocortical gating of corticocortical communication in visual active sensing”, Silvio O. Conte Center for Schizophrenia Research, Johns Hopkins School of Medicine, Johns Hopkins University, Baltimore, National Institute of Health (NIH), USA

2016 - 2021 Project “Brain oscillations consortium”, J.S. McDonnell Foundation, Saint Louis, USA

since 2012 Project “Functions of the thalamus in perception and cognition”, Princeton University, Princeton, NIH, USA

since 2002 Project “Neural basis of visual attention”, Princeton University, Princeton, NIH, USA

Honours and Awarded Memberships

2021	Member, German National Academy of Sciences Leopoldina, Germany
2020	Fellow, Society for Experimental Psychologists (SEP), USA
2019	Award for Education in Neuroscience, SfN
2016	Member, International Neuropsychology Symposium
2010	Fellow, American Psychological Society (APA), USA
2005	Young Investigator Award, Cognitive Neuroscience Society (CNS), Davis, USA

Research priorities

Sabine Kastner is a German-American neuroscientist. She teaches neuroscience and psychology at Princeton University in the USA. The main focus of her research is the neural basis of visual and attention processes in primate brains as a basis of understanding healthy and pathological brain functions.

She uses a translational approach that combines the medical imaging of the human brain with physiological knowledge about patients with brain injuries or damage. Comparable studies on catarrhine monkeys show the part attributable to evolution. Sabine Kastner's work focuses on gaining a better understanding of how large networks interact during different cognition processes, particularly concentrating on the interplay between the thalamus and the cerebral cortex. In studies of humans and macaques, Kastner's team, in collaboration with other neuroscientists and researchers, discovered that attention is subject to a fast rhythmic process between concentration and distraction. As a result Sabine Kastner provided key contributions to a range of research questions, for example on the selection of behaviourally relevant information and the neural processes behind this, on the functional organisation of the human visual system on the level of the thalamus and the cortex, on the representation of object information in the temporal and parietal cortex, and on the development of cognitive performance and the associated neural networks in children.

Her studies on attention have provided more in-depth insights into the structure, function and dynamics of the underlying networks and are therefore extremely pertinent. These insights also shed new light on attention deficits in childhood.

Furthermore, Sabine Kastner is the Editor in Chief of the international journal "Progress in Neurobiology" and the open access journal "Frontiers for young minds/understanding neuroscience" and edited the "Handbook of Attention" (2014). She promotes and supports the scientific education of children as well as students, postdoctoral students and junior scientists.