Prof. Dr. Emre YAKSİ

Prof. Dr. Emre Yaksi is an internationally renowned neuroscience expert recognized for his innovative research aimed at understanding the functioning of the nervous system. In his work, he integrates microscopy, optogenetics, electrophysiology, molecular biology, bioinformatics, and spatial transcriptomics to investigate how brain circuits operate, how sensory information is represented in the brain, and how these processes interact with internal states and behavioural outputs. His research specifically focuses on understanding how brain circuits are altered in neurological disorders such as epilepsy. Conducting studies on small vertebrate models like zebrafish as well as research on human brain samples, Prof. Yaksi aims to contribute to the translation of basic science findings into clinical applications. Neural circuits and behaviour, sensory processing, optical brain imaging, big data analysis, astrocyte biology, and evolutionary neuroscience constitute the core components of his research portfolio. To date, he has published over 49 scientific articles with an h-index of 33, and his numerous works have appeared in esteemed journals such as Nature Communications, Science Advances, Neuron, Epilepsia, and Cell Reports. After completing his undergraduate education at the Middle East Technical University, Department of Molecular Biology and Genetics in 2001, Prof. Yaksi earned his Master's degree from Heidelberg University in 2003 and his PhD from the Max Planck Institute for Medical Research in 2007 with the distinction of summa cum laude. Between 2007 and 2010, he served as a postdoctoral researcher at Harvard Medical School, where he specialized in advanced neuroscience techniques. From 2010 to 2015, he worked as an assistant professor and group leader at Neuroelectronics Research Flanders (NERF), affiliated with KU Leuven in Belgium, developing high-resolution experimental models for the functioning of neural circuits. Since 2015, he has been a Professor at the Kavli Institute for Systems Neuroscience at the Norwegian University of Science and Technology (NTNU); additionally, since 2022, he has been conducting academic activities in Türkiye as a Visiting Professor at the Koç University School of Medicine and the KUTTAM Research Centre. An active member of the scientific community, Prof. Yaksi is a member of the Executive Committee of the Federation of European Neuroscience Societies (FENS), an elected member of EMBO, and a member

of the Royal Norwegian Society of Sciences and Letters. He has served as a principal investigator or researcher in numerous projects supported by the European Research Council (ERC) Starting Grant, Marie Skłodowska-Curie fellowships, the Research Council of Norway, and the MidNorway healthcare authorities. Furthermore, he has been honoured with prestigious awards such as the FENS/Kavli Network of Excellence membership, the Association for Chemoreception Sciences (AChemS) Young Investigator Award, and the Federation of European Neuroscience Young Investigator Prize. Today, Prof. Yaksi's laboratory utilizes advanced technologies to understand the mechanisms of epilepsy and other neurological diseases, decipher the functional integrity of brain circuits, and develop therapeutic strategies. Standing out in the international neuroscience community for his productivity, innovative approach, and multidisciplinary research vision, Prof. Dr. Emre Yaksi continues his work as a pioneering scientist in the field of experimental and computational neuroscience.