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**Press Information** 

## ERC Advanced Grant for Peter Robin Hiesinger

MATH+ member Peter Robin Hiesinger, professor for neurobiology at Freie Universität Berlin, is awarded one of only eight ERC Advanced Grants in the area Neuroscience and Neural Disorders across Europe. The ERC Advanced Grant is considered the most prestigious European award for established researchers working on innovative research projects.

On 22 April 2021, the European Research Council (ERC) announced which innovative research projects will be funded by the ERC Advanced Grant for established researchers. Out of 2678 proposals from across Europe and all scientific disciplines, only 209 projects (8%) were approved; these projects will be funded with in total 507 million euro over a five-year period. One of the eight chosen projects from the research area Neuroscience and Neural Disorders is Peter Robin Hiesinger's project "Synaptic Promiscuity and Brain Development" (*SynPromiscuity*)—the only awarded life science project based in Berlin.

The project *SynPromiscuity* aims to determine where the information originates that wires up the brain. Biologists like to pitch "genes" against "learning"—nature vs. nurture. Genes encode many aspects of the brain prior to learning. But what does "encode" actually mean? Genes do not describe the connections in the brain, but form the basis to grow a brain. But how exactly do two nerve cells find each other to form a connection in the brain? *SynPromiscuity* is devised to investigate the idea that nerve cells are not genetically determined to make specific contact. Instead, connections in the brain grow in a self-assembling process that is partly random, flexible, and robust.











Peter Robin Hiesinger is professor of neurobiology at Freie Universität Berlin. He is a member of the DFG Cluster of Excellence MATH+, where he works with mathematicians on the project EF3-2, Model-Based 4D Reconstruction of Subcellular Structures. Furthermore, Peter Robin Hiesinger is the author of the book The Self-Assembling Brain—How Neural Networks Grow Smarter.

## For additional information, please ask:

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