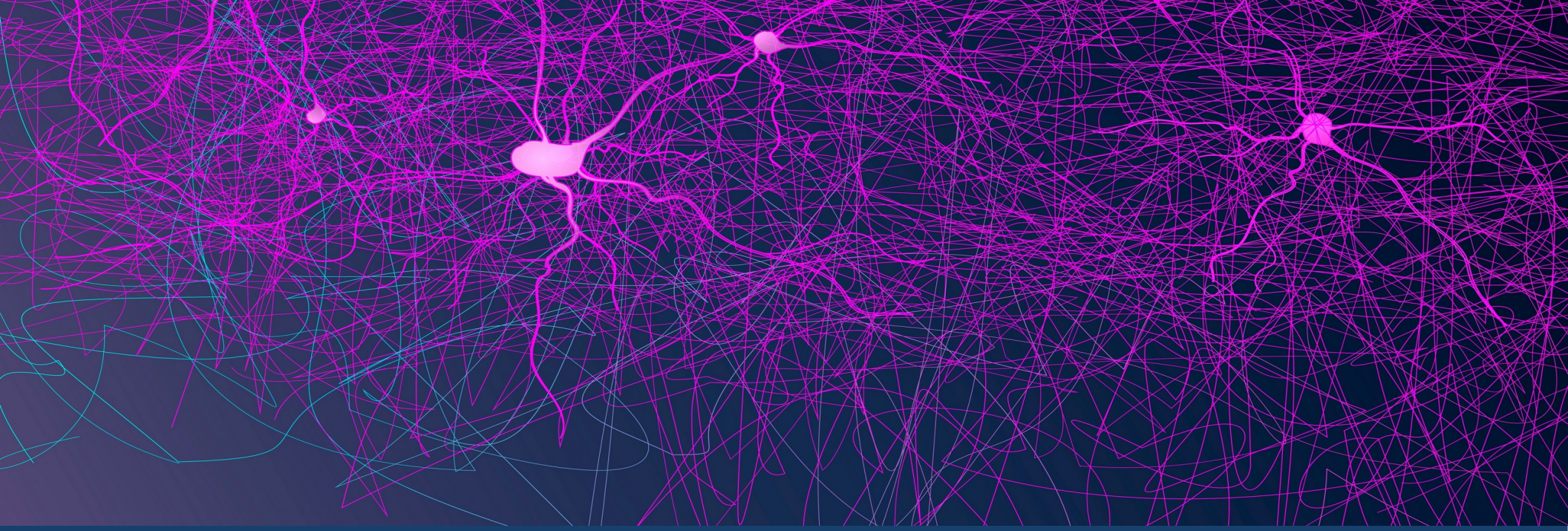

Our Mission

The mission of the Carl Correns Foundation is to support basic research resulting in improvements in human health and medical science. Individual scholarships are provided to support theoretical projects in a flexible manner. Funded projects may involve collaborations with biomedical labs within universities and research institutions. The Foundation provides expertise to link mathematical research in biology to advances in the treatment and prevention of specific diseases with an initial focus on brain research and cancer biology.

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Carl Correns Foundation for Mathematical Biology

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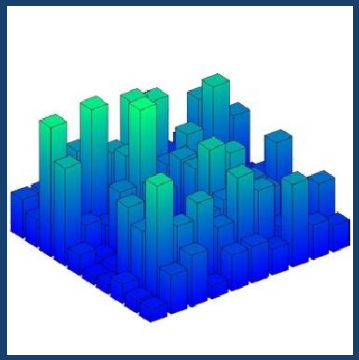
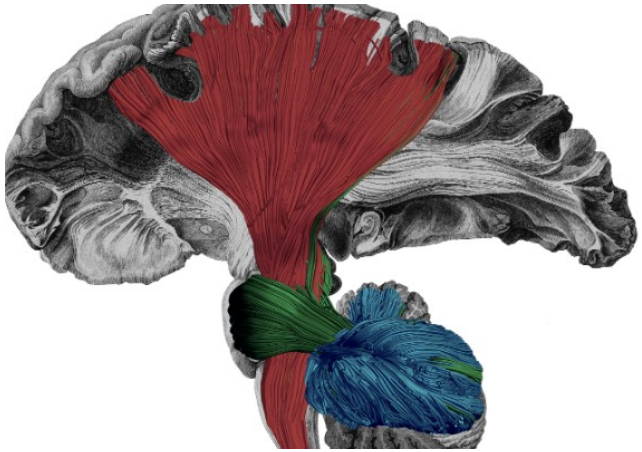


Carl Correns Foundation for Mathematical Biology

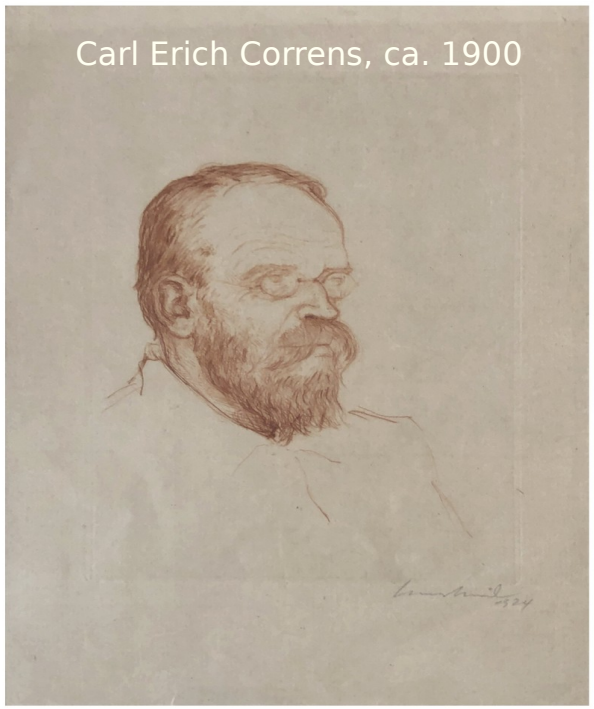
Research Area: Neuroplasticity



Neuroplasticity and the issue of synaptic plasticity are among the most important problems in theoretical neuroscience today. Neuronal cells, which organize memory at the membrane, the cytoplasm and the nucleus, are of critical importance. Other types of cells, notably microglia, astrocytes or oligodendrocytes, the vasculature, and the glymphatic system, interact with neuronal cells and provide comprehensive insight into memory and learning. We develop modern models of neuronal cells to support this research.

Research Area: Bioinformatics – Cancer Biology

Our theoretical work is centered on the OMICS approach, i.e., the exploitation of large databases for the purpose of extracting specific information. We are actively building an endowment to cover research in topics such as RNA biology, lipidomics, drug resistance, pharmacodynamics and related topics. Please contact us for further information.



Research Area: Cortical Microcolumns (CMs)

Conventional neural networks are huge and energy-intensive. The brain has found compact solutions by the use of repeatable blocks of neural structures in the cortex (Cms). Their function and use for neuroAI applications is of great interest and will inform neurological (dementia) and psychiatric (psychosis, depression) diseases.

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