

## Simone Mayer

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### Cellular specificity in human brain development and disease

Development is shaped by both genetics and environmental conditions (“nature and nurture”). However, how these ubiquitous conditions that affect the organism as a whole cause specific effects in different tissues is a major open question. How does a certain genetic variation present in all cells of the body lead to a specific phenotype predominantly in one organ or even within that organ in just specific cell types? How does an environmental impact target specific cell types? Why do different individuals react differently to the same external condition?

These questions are particularly relevant for the human brain, which has significantly evolved recently and develops over a protracted period of time rendering it particularly sensitive to perturbations. Human brain organoids provide a system to study the influence of human genetics and environmental stimuli on early human development, paving the way for understanding the human brain in health and disease.

Tuesday, 21.03.2023, 10:00 a.m.  
Manfred Eigen Lecture Hall  
(Fassberg Campus)

Host: Nils Brose

