# The Science Club

A platform for exchanging scientific vision welcomes all audiences interested in science across campus

## June 2<sup>nd</sup> 2025 4:00 p.m.

## Jürgen Knoblich

#### Modelling epileptogenesis in cerebral organoids

"In Epilepsy patients, hyperexcitability of neural networks causes hypersynchronous network discharges resulting in epileptic seizures. Transformation of healthy neural networks into this hyperexcitable state is called epileptogenesis. In the presentation, I will describe how we can model epileptogenesis in a cerebral organoid model for Tuberous sclerosis and show, how these models can be used to discover and test potential new therapeutic approaches."

### Gregor Kasprian

#### Neuroradiology - the missing link between bench and bedside

"Novel technical developments in clinical neuroimaging provide imaging data that help bridge the gap between bench and bedside. Quantitative atlas-based neuroimaging approaches enable assessment of the phenome of neurodevelopmental disorders, offering new insights into their etiology and supporting a multi-level, network medicine-based understanding of their complexity and potential effects of novel therapeutic approaches."

## Johannes Gojo

#### Precision medicine for pediatric brain tumors

"Pediatric brain tumors are a complex group of diseases that account for the highest number of cancer-related deaths and significant morbidity among children and adolescents. Molecular analyses and innovative disease modeling are driving the development of novel therapeutic concepts and diagnostic methods. This presentation will demonstrate how cutting-edge science is being translated into tangible benefits for patients in clinical settings."

Location: Jugendstilhörsaal (Rektoratsgebäude, BT88)

