

**Session Program**

12-17 Jul 2026



**European Conference on Mathematical and Theoretical  
Biology (ECMTB 2026)**

***Mechanisms of Brain Development, Structure, and Metabolic  
Impacts***

University of Graz

# Tuesday 14 July

10:40

## Mechanisms of Brain Development, Structure, and Metabolic Impacts

Session | Location: University of Graz, 15.12 - HS

10:40–11:00

### Sub-diffusion Compartmental Model for Diffusion MRI to Probe Brain Microstructural Information: Insights from a Simulation Study of White Matter

Speaker

S M Erfanul Kabir Chowdhury

11:00–11:20

### Energy Constraints and Neural Strategy Transitions in Alzheimer's: A Game-Theoretic Model

Speaker

Dr Irina Kareva

11:20–11:40

### Biomechanical Forces and Tensions that Contribute to Cortical Folding in the Brain

Speaker

Julianna Capece

11:40–12:00

### A Biomchemical Model of Cortical Folding via Turing Patterns

Speaker

Dr Monica Hurdal

12:00