

LOCATION

Fraunhofer-Forschungscampus
Fraunhofer-Platz 1, 91344 Waischenfeld



For the transfer to and from Fraunhofer Forschungscampus a rented coach is available for registered participants:

Departure on **October 10, 2024 at 8:00 a.m.**
at Cauerstraße, Erlangen

Departure on **October 11, 2024 at 4:45 p.m.**
at Fraunhofer-Forschungscampus, Waischenfeld



Please register online at:
www.ebm.fau.eu/?p=11898
by **July 15, 2024**, at the latest.

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Collaborative Research Center
CRC 1540

Exploring Brain Mechanics

2nd EBM Retreat

October 10 - 11, 2024

Fraunhofer-Forschungscampus
Waischenfeld



Thursday, October 10, 2024

from 9:00 **Arrival and Check-In**

- 9:30 – 9:40** **Jan Hinrichsen (A01)**
In silico modelling of brain malformations
- 9:40 – 10:00** **Lucas Hoffmann, Sophia Auer, Stefan Rampp (A02)**
Quantitative characterisation of brain malformations
- 10:00 – 10:10** **Clara Froidevaux (A03)**
In vitro model for the mechanics of early brain development
- 10:10 – 10:20** **Michael Tranchina (A04)**
The role of mechanics in orchestrating neural lineage decisions
- 10:20 – 10:30** **Sebastián Ignacio Vásquez Sepúlveda (A05)**
In vivo model for the mechanics of brain development

10:30 – 11:00 **COFFEE BREAK**

- 11:00 – 11:20** **Oskar Neumann, Stephen Melly (B01)**
In silico modelling of spinal cord regeneration
- 11:20 – 11:30** **Maria Tarczewska (B02)**
Pre and post metamorphosis spinal cord regeneration in frogs

11:30 – 12:30 **EBM Executive Meeting || Brainstorming Collaborations**

12:30 – 13:30 **LUNCH BREAK**

Thursday, October 10, 2024

13:30 – 16:30 **Teambuilding Activity:**
Speed Mentoring Hike to Rabenstein
Castle Beer Garden

16:40 – 16:50 **Jana Bachir (B03)**
The determinants of spinal cord mechanics in homeostasis

16:50 – 17:00 **Maik Hintze (B04)**
Spinal cord mechanics in a mouse model of multiple sclerosis

17:10 – 17:10 **Olga Lyraki (B05)**
In vivo mechanical manipulation of spinal cord regeneration

17:10 – 17:30 **Soheil Firooz, Pritha Dolai (C01)**
In silico modelling of mechanical cell-matrix interactions

17:30 – 17:40 **Bartomeu Perelló Amorós (C02)**
The role of mechanics for neuronal 'plasticity'

17:40 – 17:50 **Kristina Karandasheva (C03)**
The role of mechanics in synchronised neuronal activity

18:00 – 19:30 **DINNER**

from 19:30 **After Dinner Talk:**
"Collective Behavior of Penguins"
(Ben Fabry)

Friday, October 11, 2024

8:00 – 9:20 **BREAKFAST || Check-Out**

9:20 – 11:10 **EBM General Assembly**

11:10 – 11:20 **Guillaume Flé (Y)**
Establishing magnetic resonance elastography at FAU

11:20 – 11:50 **COFFEE BREAK**

11:50 – 12:00 **Shanice Heidenreich (C04)**
Cellular differentiation in brain tissue-like matrices

12:00 – 12:10 **Lars Bischof (C05)**
Molecular mechanisms of neuronal mechanotransduction

12:10 – 12:30 **Laura Ruhland, Yashasvi Verma, Jakob Jordan (X01)**
Model-based reconciliation of ex vivo and in vivo test data

12:30 – 13:30 **LUNCH BREAK**

13:40 – 15:40 **Guest Talk:**
"When we know better, we can do better" - different generations and expectations in German academic science"
(Prof. Dr. Heather Hofmeister, Frankfurt)

15:40 – 16:10 **COFFEE BREAK**

16:10 – 16:20 **Frauke Wilm (X02)**
Data analysis and machine learning for heterogeneous, cross-species data

16:20 – 16:30 **Markus Lorke (X03)**
Engineering brain tissue-like matrices

16:45 **DEPARTURE**