



## Location

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Collaborative Research Centre 1540  
Exploring Brain Mechanics  
(EBM)

# KICK-OFF MEETING

17 March 2023

Hans-Georg-Waeber-Saal  
Schottkystraße 10, Erlangen



## Programme of the CRC 1540 EBM Kick-Off Meeting

	Project	Title	Project leader(s)
9:00 - 9:40	WELCOME and INTRODUCTION by Silvia Budday and Paul Steinmann		
9:40 - 10:00	<b>IRTG</b>	Integrated Research Training Group on EBM	Friedrich Paulsen
10:00 - 10:20	COFFEE BREAK with discussion at posters		
10:20 - 10:30	<b>B01</b>	<i>In silico</i> modelling of spinal cord regeneration	Paul Steinmann, Silvia Budday
10:30 - 10:40	<b>B02</b>	Pre and post metamorphosis spinal cord regeneration in frogs	Kristian Franze
10:40 - 10:50	<b>B03</b>	The determinants of spinal cord mechanics in homeostasis	Jochen Guck, Stephanie Möllmert
10:50 - 11:00	<b>B04</b>	Spinal cord mechanics in a mouse model of multiple sclerosis	Stefanie Kürten
11:00 - 11:10	<b>B05</b>	<i>In vivo</i> mechanical manipulation of spinal cord regeneration	Daniel Wehner
11:10 - 11:30	COFFEE BREAK with discussion at posters		
11:30 - 11:40	<b>C01</b>	<i>In silico</i> modelling of mechanical cell- matrix interactions	Vasily Zaburdaev, Paul Steinmann
11:40 - 11:50	<b>C02</b>	The role of mechanics for neuronal 'plasticity'	Renato Frischknecht
11:50 - 12:00	<b>C03</b>	The role of mechanics in synchronised neuronal activity	Katja Kobow
12:00 - 12:10	<b>C04</b>	Cellular differentiation in brain tissue- like matrices	Anja Bosserhoff
12:10 - 12:20	<b>C05</b>	Molecular mechanisms of neuronal mechanotransduction	Ben Fabry
12:20 - 13:00	LUNCH BREAK with discussion at posters		

	Project	Title	Project leader(s)
13:00 - 13:10	<b>X01</b>	Model-based reconciliation of <i>ex vivo</i> and <i>in vivo</i> test data	Jing Guo, Ingolf Sack, Paul Steinmann, Kai Willner
13:10 - 13:20	<b>X02</b>	Data analysis and machine learning for heterogeneous, cross-species data	Andreas Maier, Katharina Breininger
13:20 - 13:30	<b>X03</b>	Engineering brain tissue-like matrices	Aldo R. Boccaccini
13:30 - 13:40	<b>Y</b>	Establishing magnetic resonance elastography at FAU	Arnd Dörfler, Frederik B. Laun, Jing Guo, Ingolf Sack
13:40 - 14:00	COFFEE BREAK with discussion at posters		
14:00 - 14:10	<b>A01</b>	<i>In silico</i> modelling of brain malformations	Silvia Budday
14:10 - 14:20	<b>A02</b>	Quantitative characterisation of brain malformations	Ingmar Blümcke, Arnd Dörfler, Friedrich Paulsen
14:20 - 14:30	<b>A03</b>	<i>In vitro</i> model for the mechanics of early brain development	Alexandra Schambony
14:30 - 14:40	<b>A04</b>	The role of mechanics in orchestrating neural lineage decisions	Marisa Karow, Sven Falk
14:40 - 14:50	<b>A05</b>	<i>In vivo</i> model for the mechanics of brain development	Kristian Franze
14:50 - 15:30	OPEN DISCUSSION moderated by Silvia Budday and Paul Steinmann		
15:30 - 16:00	ELECTION of the (POST-)DOCTORAL RESEARCHERS' REPRESENTATIVE (all PDRs and DRs)		
15:30 - 17:00	EXECUTIVE BOARD MEETING (Paul Steinmann, Silvia Budday, Andrea Dakkouri-Baldauf, Kristian Franze, Jochen Guck, Ben Fabry, Jing Guo / Ingolf Sack, Friedrich Paulsen, Katharina Breininger, Marisa Karow, DRs' representative, N.N.)		
18:00	JOINT DINNER (Location tba)		