

FOCAL RESEARCH AREA A: CEREBRAL MECHANICS			
A01	<i>In silico</i> modelling of brain malformations	S. Budday	
A02	Quantitative characterisation of brain malformations	I. Blümcke, A. Dörfler, F. Paulsen	
A03	<i>In vitro</i> model for the mechanics of early brain development	A. Schambony	
A04	The role of mechanics in orchestrating neural lineage decisions	M. Karow, S. Falk	
A05	<i>In vivo</i> model for the mechanics of brain development	K. Franze	
FOCAL RESEARCH AREA B: SPINAL MECHANICS			
B01	<i>In silico</i> modelling of spinal cord regeneration	P. Steinmann S. Budday	
B02	Pre and post metamorphosis spinal cord regeneration in frogs	K. Franze	
B03	The determinants of spinal cord mechanics in homeostasis	J. Guck, S. Möllmert	
B04	Spinal cord mechanics in a mouse model of multiple sclerosis	S. Kürten	
B05	<i>In vivo</i> mechanical manipulation of spinal cord regeneration	D. Wehner	
FOCAL RESEARCH AREA C: CELLULAR MECHANICS			
C01	<i>In silico</i> modelling of mechanical cell-matrix interactions	V. Zaburdaev, P. Steinmann	
C02	The role of mechanics for neuronal 'plasticity'	R. Frischknecht	
C03	The role of matrix mechanics in synchronised neuronal activity	K. Kobow	
C04	Cellular differentiation in brain tissue-like matrices	A. Bosserhoff	
C05	Molecular mechanisms of neuronal mechanotransduction	B. Fabry	
CROSS-SECTIONAL RESEARCH AREA X: CROSS-SECTIONAL PROJECTS			
X01	Model-based reconciliation of <i>ex vivo</i> and <i>in vivo</i> test data	J. Guo, I. Sack P. Steinmann, K. Willner	
X02	Data analysis and machine learning for heterogeneous, cross-species data	A. Maier, K. Breininger	
X03	Engineering brain tissue-like matrices	A.R. Boccaccini	
Y	Establishing magnetic resonance elastography at FAU	A. Dörfler, F. Laun, J. Guo, I. Sack	
Z	Scientific coordination and fiscal administration	P. Steinmann, S. Budday	
iRTG	Integrated Research Training Group on EBM	F. Paulsen	