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 Dr. Yu-Chao Liu, Postdoc

 Tatjana Beutel, cand. med.

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 Dipl. Biol. Falko Fuhrmann, Ph.D. Student


 Christian Hannes, M.Sc., Ph.D. Student (FZJ-DZNE Kooperation)


 Dennis Dalügge, Ph.D. Student

 Detlef Friedrichs, Technical Assistant

 Yvonne Schleeuber, Technical Assistant


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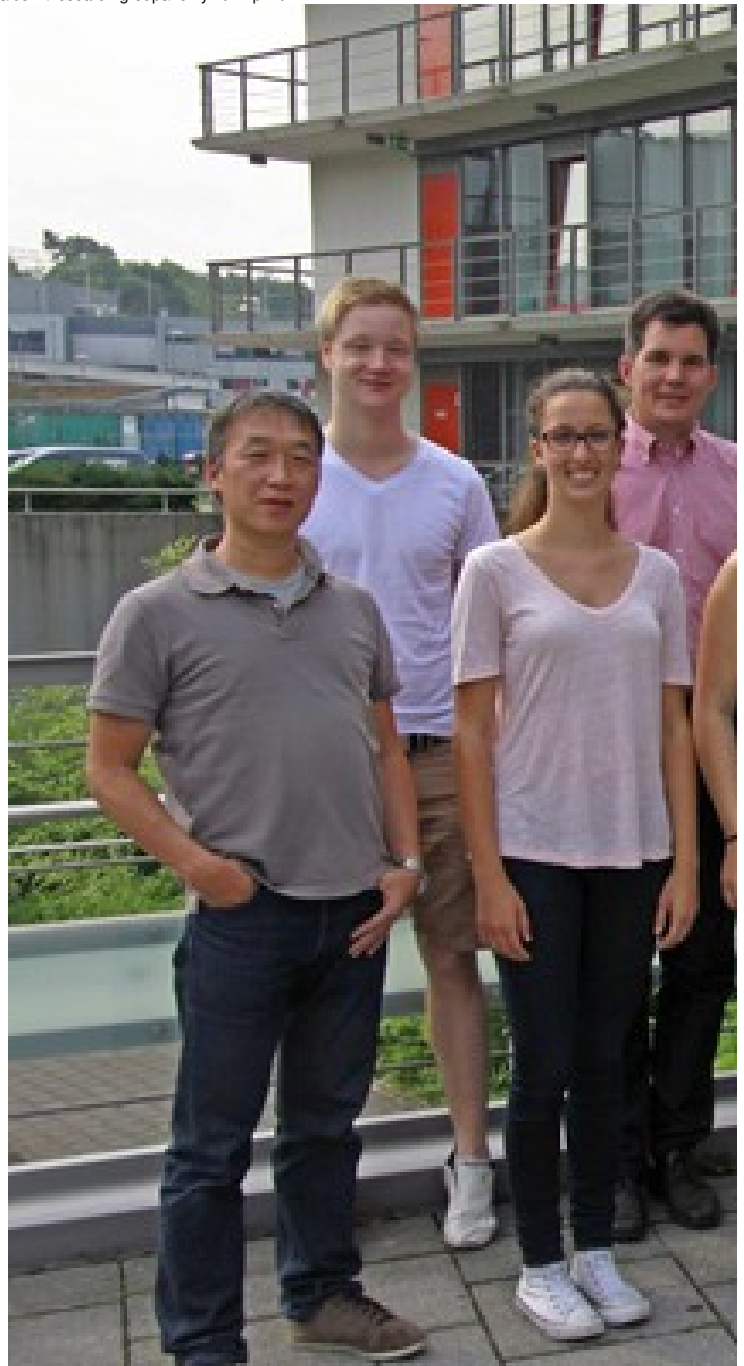
 Meltem Eryilmaz, Student Assistant

 Petra Mocellin, Student Assistant

Further group members (DFG-SFB 1089)

 Dr. Liudmila Sosulina, Postdoc

 Felix Ludwig M.Sc., Ph.D. Student



f.l.t.r.: Hiroshi Kaneko, Christian Hannes, Tatjana Sosulina, Daniel Justus, Dennis Dalügge, Rüdige

Publications

Glutamatergic synaptic integration of locomotion sp
Justus D, Dalügge D, Bothe S, Fuhrmann F, Hannes C, Kaneko H, Frie
Neuroscience (in press, scheduled for Jan 2017 issue with News and V

Dysfunction of somatostatin positive interneurons as

Schmid LC, Mittag M, Poll S, Steffen J, Geis HR, Schwarz I, Schmidt E

Slowly building excitement.

Müller C., Remy S. (2016) Cell. 2016 Jun 16;165(7):1568-9.

Reducing tau aggregates with anle138b delays disease

Wagner J, Krauss S, Shi S, Ryazanov S, Steffen J, Miklitz C, Leonov A, Remy S, Kretzschmar HA, Griesinger C, Giese A, Fuhrmann M. (2015)

Locomotion, theta oscillations and the speed-correlation septal circuit.

Fuhrmann F, Justus D, Sosulina L, Kaneko H, Beutel T, Friedrichs D, S

Video-Abstract

Dendritic structural degeneration is functionally linked

Šišková, Z., Justus, D., Kaneko, H., Friedrichs, D., Henneberg, N., Beutel T, (IF: 15.8)

Inhibitory control of linear and supralinear dendritic

Müller, C., Beck, H., Coulter, D., Remy, S. Neuron, 2012 (IF: 15.8)

Dendritic integration in hippocampal granule cells.

Krüppel, R., Remy, S., Beck, H. Neuron, 2011 (IF: 15.8)

A post-burst afterdepolarization is mediated by group I Type calcium channels in CA1 pyramidal neurons.

Park, J., Remy, S., Varela, J., Cooper D., Chung, S., Spruston N. PLoS

Activity-dependent control of neuronal output by loc

Remy, S., Csicsvari, J., Beck, H. Neuron, 2009 (IF: 15.8)

Dendritic spikes induce single-burst long-term poter

Remy, S. and Spruston, N. Proceedings of the National Academy of Sc

A novel mechanism underlying drug resistance in ch

Remy S, Gabriel S, Urban BW, Dietrich D, Lehmann TN, Elger CE, Hei

The complete list of publications is found [here](#).

Curriculum Vitae

[Actual CV of Prof. Remy](#)

Areas of investigation/research focus

Dendritic integration of synaptic signals

Neurons form branched extensions, so called dendrites, which receive and structure of these small-caliber dendrites. Changes in the way in w the central role of dendrites in signal integration and synaptic plasticity even the finest dendrites by modern two-photon and STED imaging tech 2009, Müller et al, 2012, Siskova et al, 2014).



Neural circuits underlying cognitive map formation

The hippocampal formation is an important part of our memory systems uses this information to form and retrieve memories. We study the neur operations that lead to memory formation and retrieval. The brain uses recordings, to coordinate the information flow during processing of spat maintained during behavior (see Fuhrmann et al. 2015). We use two-ph and fiberoptometry during behavior to address these questions.

Dysfunction of neurons and neural circuits in neurodegenerative disease

Alzheimer's disease is the most common form of dementia, the risk for the present time no satisfying therapeutic approach exists to prevent the understanding of the underlying molecular and structural disease-related dendrites. Even the smallest changes in the processing of synaptic signals entire neuronal network (see Siskova et al, 2014). On the network level information flow through our memory systems and to form and retrieve neuromodulatory afferents in Alzheimer's disease and other neurodegenerative the structural and functional neural circuit remodeling that leads to cognitive

Links

-  BIGS Neuroscience Bonn International Graduate School
-  IMPRS Brain&Behavior