Berlin | Sep 13 - 15, 2015

The Role of Glial Cells in Physiology and Patholoy

German-Chinese Glia Meeting

Chinesisch-Deutsches Zentrum für Wissenschaftsförderung
中德科学中心

MDC MAX-DELBRÜCK-CENTRUM FÜR MOLEKULARE MEDIZIN IN DER HELMHOLTZ-GEMEINSCHAFT

SFB TRR 43

glial heterogeneity
SPP1757

Venue: **NH Collection Hotel**

Friedrichstrasse 96, 10117 Berlin

Phone +49 30 2062660

Room Verdi (first floor)

http://www.nh-hotels.de/hotel/nh-collection-berlin-friedrichstrasse

Scientific Program

Sunday, September 13, 2015

14:00 – 16:00	Registration
16:00 – 18:00	**Session I** **Chair: Tian-Ming Gao**
16:00 – 16:10	**Helmut Kettenmann** Opening
16:10 – 16:30	**Melitta Schachner** *University of Hamburg, Germany* Cell adhesion molecules in glial cell functions
16:30 – 16:50	**Mengsheng Qiu** *University of Louisville, USA* Wnt signaling and gliogenesis
16:50 – 17:10	**Andreas Faissner** *Ruhr University Bochum, Germany* The extracellular matrix environment of neural stem and glial progenitor cells
17:10 – 17:30	**Quanhong Ma** *Soochow University Suzhou, China* Casprs in development of cerebral cortex
17:30 – 17:50	**Patrick Küry** *Heinrich-Heine-University Düsseldorf, Germany* Identification and role of oligodendroglial differentiation inhibitors

	Session II **Chair: Anke Witting**
10:00 – 10:20	**Jacqueline Trotter** *University of Mainz, Germany* Neurons listen to glia: network modulation by oligdendrocyte progenitor cells
10:20 – 10:40	**Liping Wang** *CAS Center for Excellence in Brain Science, Shenzhen Institutes of Advanced Technology, China* Processing of visually-evoked innate fear by a non-canonical thalamic pathway
10:40 – 11:00	**Christian Lohr** *Biocenter Grindel, Germany* Calcium signalling in olfactory bulb astrocytes
11:00 – 11:20	**Zhuan Zhou** *PKU-THU Center for Life Science Peking, China* Mechanisms of gliotransmitter release in astrocytes
11:20 – 11:40	**Christine R. Rose** *Heinrich Heine University Düsseldorf, Germany* The role of glial metabolism in sodium network oscillations
11:40 – 12:00	**Yang Zhan** *CAS Center for Excellence in Brain Science, Shenzhen Institutes of Advanced Technology, China* Prefrontal-hippocampal oscillations in a mouse model
12:00 – 13:30	**Lunch Break**

	Session III **Chair: Albert C. Yu**
13:30 – 13:50	**Helmut Kettenmann** *Max Delbrück Center for Molecular Medicine in the Helmholtz Association Berlin, Germany* Neurotransmitter receptors in microglia
13:50 – 14:10	**Jiawei Zhou** *CAS Center for Excellence in Brain Science Shanghai, China* Balancing the innate immune system in the brain: Interplay between neuronal and glial cells
14:10 – 14:30	**Michael Heneka** *University of Bonn, Germany* Multiple interactions of neuroinflammation and neurodegeneration in Alzheimer's disease
14:30 – 14:50	**Yong Xiang Wang** *Jiao Tong University Shanghai, China* Analgesia, a new role of spinal microglia?
14:50 – 15:10	**Harald Neumann** *University of Bonn, Germany* Microglial pathogen phagocytosis pathway linked to neurodegeneration
15:10 – 16:00	**Coffee Break**

	Session IV Chair: Helmut Kettenmann
16:00 – 16:20	**Wolfgang Brück** *Georg-August-University Göttingen, Germany* Recent developments in the immunopathology of multiple sclerosis
16:20 – 16:40	**Lan Xiao** *Third Military Medical University Chongqing, China* Connexin-mediated glia networking impacts oligodendroglial development
16:40 – 17:00	**Michael Synowitz** *University of Kiel, Germany* Glioma-induced phenotypic changes of tumor-associated microglia
17:00 – 17:20	**Albert C. Yu** *Hong Kong Science Park, China* Cell drinking promotes reactive astrocyte motility
17:20 – 17:40	**Christian Steinhäuser** *University of Bonn, Germany* Uncoupling of astrocytes as a cause of human temporal lobe epilepsy
17:40 – 18:00	**Frank Pfrieger** *University of Strasbourg, France* Neuron-glia Interactions: Models Matter

	Session V Chair: Liping Wang
10:00 - 10:20	**Frank Kirchhoff** *University of Saarland, Homburg, Germany* Potentials of the oligodendrocyte lineage in acute brain injuries
10:20 – 10:40	**Fan Yang** *CAS Center for Excellence in Brain Science, Shenzhen Institutes of Advanced Technology* Optogenetically activated astrocytes promote the brain repair in the mouse model
10:40 – 11:00	**Ingo Bechmann** *University of Leipzig, Germany* Microglia: a dendritic cell?
11:00 – 11:20	**Michael Wegner** *FAU Erlangen-Nürnberg, Germany* Myelination, the glial regulatory network and Sox10
11:20 – 11:40	**Anke Witting** *Ulm University, Germany* Rational approaches to ALS therapy: glia, endocannabinoids and energy metabolism
11:40 – 12:00	**Jie Tu** *CAS Center for Excellence in Brain Science, Shenzhen Institutes of Advanced Technology, China* Light-controlled astrocytes promote human mesenchymal stem cells towards neuronal differentiation and improve the neurological deficit in stroke rats
12:00 – 13:30	**Lunch Break**

	Session VI **Chair: Frank Kirchhoff**
13:30 – 13:50	**Feng Hu** *Tongji Hospital of Huazhong, University of Science and Technology, Wuhan, China* Role of toll-like receptors in glioma initiating cells – microglia crosstalk
13:50 – 14:10	**Rudolf Martini** *University Hospital Würzburg, Germany* Secondary inflammation in inherited disorders of the nervous system: a chance for treatment of non-curable disorders
14:10 – 14:30	**Tian-Ming Gao** *Southern Medical University Guangzhou, China* Glial ATP, a key player in depression and epilepsy co-morbidity
14:30 – 14:50	**Daniela C. Dieterich** *Otto-von-Guericke-University Magdeburg, Germany* Unraveling astroglial proteome dynamics with metabolic proteomic profiling
14:50 – 16:00	**Coffee Break**

	Session VII **Chair: Jiawei Zhou**
16:00 – 16:20	**Knut Biber** *University Hospital Freiburg, Germany* Microglia, protective elements in the brain
16:20 – 16:40	**Honghong Yao** *Nanjing University, China* Role of miR-143 in microglial autophagy and apoptosis
16:40 – 17:00	**Johannes Hirrlinger** *University of Leipzig, Germany* Neurons, glial cells and their team work in energy metabolism
17:00 – 17:20	**Helmut Kettenmann** and **Liping Wang** Final Discussion and Closing Remarks

Chinesisch-Deutsches
Zentrum für
Wissenschaftsförderung

中德科学中心

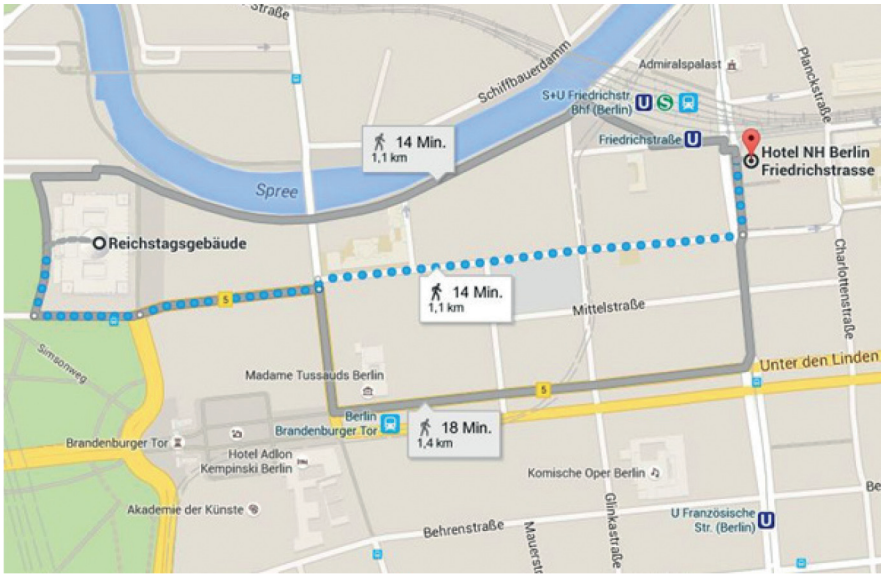
Social Program

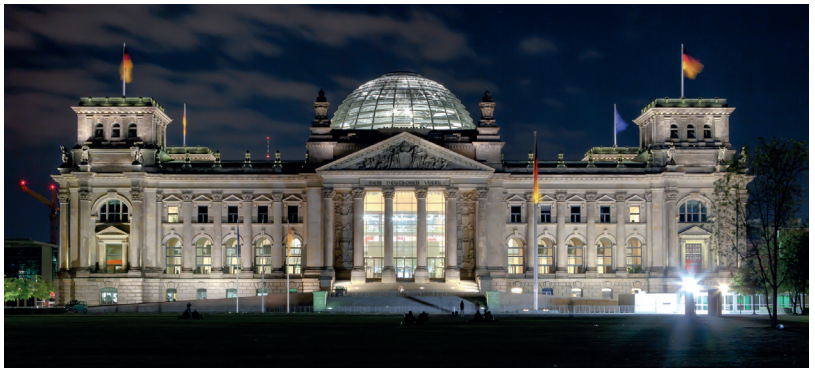
Sunday, September 13, 2015 – MORNING

Guided tour through the German Reichstag (for registered attendees only).

Please take your passport with you.

We meet at 8:00 am in the hotel lobby to walk there together or at 8:30 am at the Guest Entrance, Scheidemannstraße (Western Portal of the Reichstag).





Sunday, September 13, 2015 – EVENING

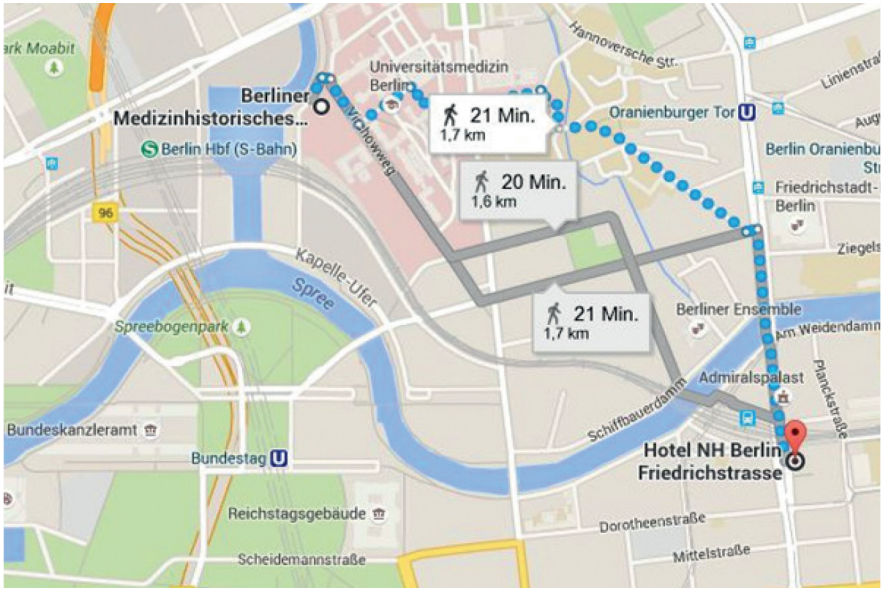
Informal get-together

Virchow Lecture Hall Ruin in the Berlin Museum for Medical History, 7:00 pm

Food and drinks will be served and the museum will open for the participants. A guided museum tour is offered.

We meet at 6:30 pm in the hotel lobby to walk over there together.

Directions



Berliner Medizinhistorisches Museum der Charité
Charitéplatz 1, D-10117 Berlin

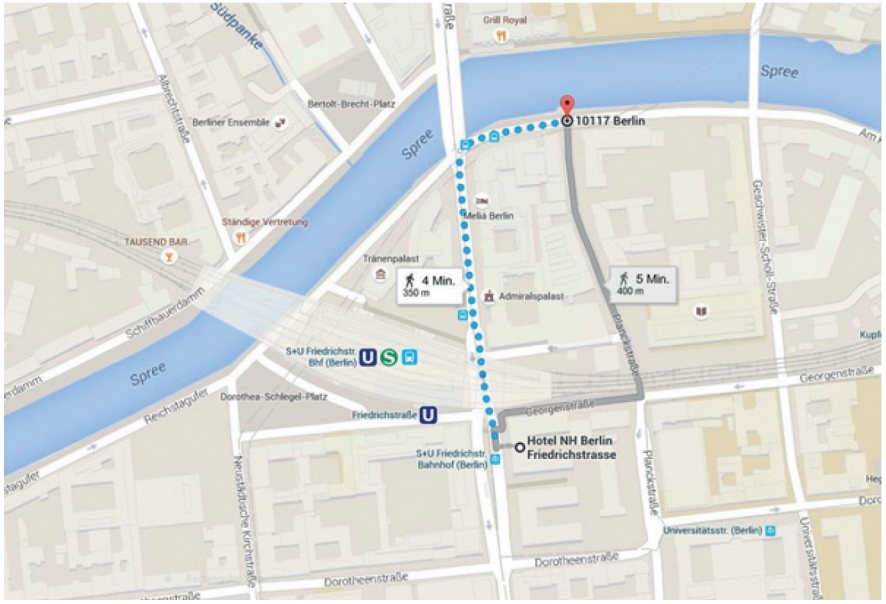
Tel +49 30 450-536156
Fax +49 30 450-536905
bmm@charite.de
www.bmm-charite.de

Monday, September 14, 2015 – EVENING

Guided Spree river Boat Trip – 7:00 pm

Shipping company: Schiffskontor, boat name: Arcona, pier: Weidendamm/ corner Planckstr.) We will have a guided tour on the Spree river through the Berlin city center. Food and drinks will be served.

We meet at 6:30 pm in the hotel lobby to walk over to the pier together. Boarding is between 6:45 and 7:00 pm.




MS ARCONA

Tuesday, September 15, 2015 – EVENING

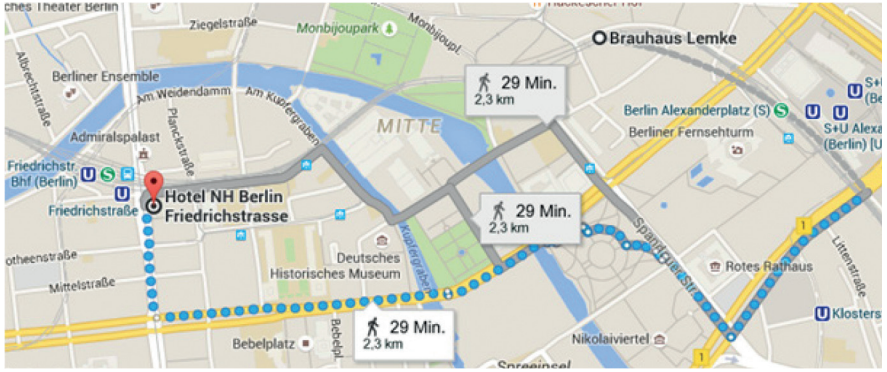
Guided tour through a German brewery, 7:00 pm

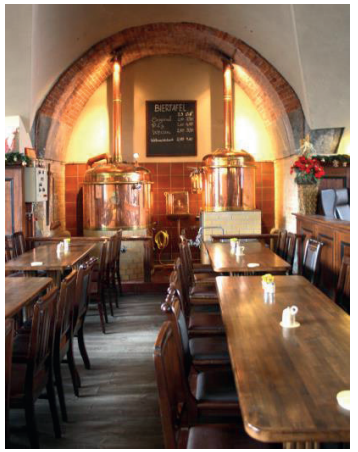
Brauhaus Lemke am Hackeschen Markt, Dircksenstr., S-Bahnbogen 143, 10178 Berlin

http://www.lemke.berlin/hackscher_markt/device.desktop/lang.en/

We meet at 6:30 pm in the hotel lobby to walk there together.

You can also take the S Bahn from S station Friedrichstrasse (S3, S5, S7, S75 directions Erkner, Strausberg, Ahrensfelde, Wartenberg). It is just one stop to S-Bahn station Hackescher Markt or 2 stations to S-Bahn station Alexanderplatz.





German proposer and organizer:

Prof. Helmut Kettenmann

Max Delbrueck Center for Molecular Medicine
in the Helmholtz Association
Cellular Neurosciences
Robert Roessle Str. 10, 13092 Berlin

Tel. +49 30 94 06 33 25
email: kettenmann@mdc-berlin.de

Education 1973 – 1980 Master in Biology at Heidelberg and Miami, 1980 – 1982 PhD at University of Heidelberg, 1987 University of Heidelberg, Habilitation/ Professorial qualification

Positions and Employment 1982 – 1987 Assistant, University of Heidelberg, 1987 – 1992 Heisenberg stipend, 1992 – 1995, Head of the project group Neurobiology in Heidelberg, 1993 – present Research group leader at the Max Delbrueck Center for Molecular Medicine (MDC) Berlin, 1996 – present Professor for Cellular Neurobiology at the Charité

Activities in the scientific community 1988 – present Editor-in-Chief of the Journal GLIA, 1990 – 1997 Coordinator DFG Priority Program Functions of glial cells, 2003 Coordinator DFG Priority Program The role of microglial cells in pathology, 1998 – 2002 Treasurer of the Federation of European Neuroscience Societies (FENS), Speaker of the Research Training School The impact of Inflammation on Nervous System Function, 2007 – 2011 Member of Society for Neuroscience Committee on Committees, 2008 – 2010 President of the Federation of European Neuroscience Societies (FENS), 2013 – present President of the German Neuroscience Society

Honors 1984 Heinz-Maier-Leibnitz-prize, 1991 German University Software-prize, 2000 – present Member of the DANA Alliance, 2003 – present Member of the German National Academy of Sciences, 2005, Future prize of the Helmholtz Association of German Research Centers, 2007 – present Member of Academia Europaea

Publications (selected 2007 – 2014)

Hanisch UK, Kettenmann H (2007) . Microglia: active sensor and versatile effector cells in the normal and pathologic brain. **Nat Neurosci.** 10(11):1387-94.

Stock K, …. Kettenmann H*, Glass R* (2012) Neural precursor cells induce cell-death of high-grade astrocytomas via stimulation of TRPV1. **Nat. Med.**, 18:1232 - 1239, * equal contribution

Kettenmann H., Kirchhoff F., and Verkhratsky A. (2013) Microglia: New roles for the synaptic stripper. **Neuron** 77: 10-18.

German co-organizer:

Prof. Frank Kirchhoff

Dept. Molecular Physiology
University of Saarland
66421 Homburg, Germany

frank.kirchhoff@uks.eu; www.kirchhoff-lab.de

Education 1981-1985 Universities of Hannover and Heidelberg, Diploma in Biochemistry; 1986-1990 University of Heidelberg PhD (Dr. rer. nat.); 1997 Free University of Berlin, Habilitation/Professorial qualification

Positions and Employment 1991-1994 Postdoctoral fellow, Institute of Neurobiology, University of Heidelberg,; 1995-1999 Research Assistant, Cellular Neurosciences, Max Delbrück Center for Molecular Medicine, Berlin; 2000-2009 Research Group Leader, Max Planck Institute of Experimental Medicine, Göttingen; since 2009 Full Professor and Head of the Department of Molecular Physiology, University of Saarland, Homburg

Activities in the scientific community 2009-present Editorial board member of GLIA; 2010-present Editorial board member of Journal of Chemical Neuroanatomy; 2012-present Member of International Scientific Advisory Committee of the Achucarro Basque Center for Neuroscience, Bilbao, Spain; 2013 Coordinator of the DFG Priority Research Programme “Glial Heterogeneity”

Honors 1981-1986 Fellowship of the Studienstiftung des deutschen Volkes; 1987-1989 PhD Fellowship of the Boehringer Ingelheim Fonds; since 2014 „Visiting Professor“ at the University of Medicine and Pharmacy of Craiova, Craiova, Romania, and at the State University of Campinas, Brazil

Publications (selected 2010 – 2014)

Huang W, Zhao N, Bai X, Karram K, Trotter J, Goebbels S, Scheller A, Kirchhoff F (2014) Novel NG2-CreERT2 knock-in mice demonstrate heterogeneous differentiation potential of NG2 glia during development. **Glia** 62, 896-913.

Bai X, Saab AS, Huang W, Hoberg IK, Kirchhoff F, Scheller A (2013) Genetic Background Affects Human Glial Fibrillary Acidic Protein Promoter Activity. **PLoS ONE**. 10.1371/journal.pone.0066873.

Saab AS, Neumeyer A, Jahn HM, Cupido A, Šimek AAM, Boele HJ, Scheller A, Le Meur K, Götz M, Monyer H, Sprengel R, Rubio ME, Deitmer JW, De Zeeuw CI and Kirchhoff F (2012) Bergmann Glial AMPA Receptors are Required for Fine Motor Coordination. **Science** 337, 749-53.

Reichenbach A, Derouiche A, Kirchhoff F (2010) Morphology and dynamics of perisynaptic glia. **Brain Res Rev** 63, 11-25.

Chinese proposer and organizer:

Prof. Liping Wang

CAS Center for Excellence in Brain Science
Shenzhen Institutes of Advanced Technology
Chinese Academy of Sciences
1068 XueYuan Avenue
University Town of Shenzhen
Shenzhen 518055, China.

Phone:0755-8639.2218; Fax:0755-8639.2299
Email: lp.wang@siat.ac.cn

Education

Ph.D. degree in medical neuroscience (2005) from Charité-University Medicine, Berlin, Germany, with Prof. Dr. Helmut Kettenmann at the Department of Cellular Neurosciences, Max-Delbruck-Center for Molecular Medicine (MDC) Berlin.

Postdoctoral training at Department of Bioengineering at Stanford University with Prof. Dr. Karl Deisseroth.

Positions and Employment

Director of Shenzhen Key Lab of Neuropsychiatric Modulation, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences.

Publications (selected 2007 – 2014)

Zhang F#, Wang LP#, Brauner M, Liewald JF, Kay K, Watzke N, Wood PG, Bamberg E, Nagel G, Gottschalk A, Deisseroth K (2007). Multimodal fast optical interrogation of neural circuitry. **Nature**.446:633-U4. (#co-first authors)

Yang F, Yunhui Liu, Jie Tu, Jun Wan, Jie Zhang, Bifeng Wu, Shanping Chen, Jiawei Zhou, Yangling Mu, Wang LP* (2014) Activated astrocytes enhance the dopaminergic differentiation of stem cells and promote brain repair through bFGF. **Nature Communications**. 5:5627

Tu J, Yang F, Wan J, Liu YH, Zhang J, Wu BF, Liu YF, Zeng SQ, Wang LP* (2014). Light-controlled astrocytes promote human mesenchymal stem cells towards neuronal differentiation and improve the neurological deficit in stroke rats. **Glia**. 2014;62:106-21

Other German participants

Prof. Ingo Bechmann

Institute of Anatomy
Liebigstrasse 13
04103 Leipzig

Tel. +49 341 97 22 000
Email: ingo.bechmann@medizin.uni-leipzig.de

Education 1991 – 1998 Medical Schools Frankfurt/Main & Berlin (Charité), 1999 Dissertation (Charité), 2001 Habilitation (Charité)

Positions and Employment 1998 – 2006: Assistant, Junior-Professor, Assistant Professor, Institute of Anatomy, Charité; 2006-2009: Associate Professor, Dr. Senckenbergische Anatomie, Frankfurt/Main, 2009-today: Director, Institute of Anatomy, Universität Leipzig, 2013-today: dean of research, medical faculty, Universität Leipzig

Honors 1999 Robert-Koch Award (Best thesis at Charité), Humboldt-Award (Best thesis at Humboldt University), 2000 Ernst-Bumm Award (Best junior scientist at Charité), 2002 Wolfgang-Bargmann Award of the Anatomical Society (best paper of the year).

Publications (selected 2007 – 2014)

Merz F, Gaunitz F, Dehghani F, Renner C, Meixensberger J, Gutenberg A, Giese A, Schopow K, Hellwig C, Schäfer M, Bauer M, Stöcker H, Taucher-Scholz G, Durante M, Bechmann I. Organotypic slice cultures of human glioblastoma reveal different susceptibilities to treatments. **Neuro Oncol.** 2013 Jun;15(6):670-81.

Ferreira A, Marguti I, Bechmann I, Jeney V, Chora A, Palha NR, Rebelo S, Henri A, Beuzard Y, Soares MP. Sickle hemoglobin confers tolerance to Plasmodium infection. **Cell**. 2011 Apr 29;145(3):398-409.

Streit WJ, Braak H, Xue QS, Bechmann I. Dystrophic (senescent) rather thanactivated microglial cells are associated with tau pathology and likely precede neurodegeneration in Alzheimer's disease. **Acta Neuropathol.** 2009

Bechmann I, Galea I, Perry VH. What is the blood-brain barrier (not)? **Trends Immunol.** 2007 Jan;28(1):5-11.

Prof. Knut Biber

Department of Psychiatry and Psychotherapy
University Hospital Freiburg

Hauptstr. 5
79104 Freiburg i. Br.

Tel. +4976127066580
Email: knut.biber@uniklinik-freiburg.de

Education 1988 – 1993 Master in Biology at Berlin and Freiburg, 1994 – 1997 PhD at University of Freiburg, 2007 University of Groningen (The Netherlands), Professorial qualification

Positions and Employment 1998 – 2003 Assistant Professor, University of Groningen, 2004 – 2007 Associate Professor, University of Groningen, 2007 Guest Professor Kyushu University (Japan), 2007-2009 Adjunct Professor University of Groningen, 2009- present Head of Molecular Psychiatry at the University of Freiburg

Activities in the scientific community 2002-2009 Secretary of the Dutch Glia Club, 2003 Member of Organization Team for the International Glia Meeting in Amsterdam, 2004-2009 Co-Chair of the Committee "Science and Profession" in the Medical Faculty Groningen, 2007- 2009 Member Research Advisory Committee of the University Medical Center Groningen, 2007-2009 Dutch coordinator of the European COST action "Neuroinflammation" (BM0603), 2005 – present Editorial Board Member of the Journal GLIA

Honors 2004 Dutch excellence award (NWO Vidi)

Publications (selected 2007–2014)

Biber K, Owens T, Boddeke E. (2014) What is microglia neurotoxicity (Not)? **Glia**. 62:841-54.
Rolyan H,….., Biber K, Rudolph KL.(2011) Telomere shortening reduces Alzheimer's disease amyloid pathology in mice. **Brain**. 134:2044-56
Biber K, ……Boddeke H, Inoue K. (2011) Neuronal CCL21 up-regulates microglia P2X4 expression and initiates neuropathic pain development. **EMBO J.** 30:1864-73.
Biber K, Neumann H, Inoue K, Boddeke HW. (2007) Neuronal ‚On' and ‚Off' signals control microglia. **Trends Neurosci.** 30:596-602.

Prof. Wolfgang Brück

Department of Neuropathology
University Medical Center Göttingen
Robert-Koch Str. 40, 37075 Göttingen, Germany
Tel: +49 (0)551 39 22700, Fax: +49 (0)551 39 10800
Email: wbrueck@med.uni-goettingen.de

Education
1980 - 1986 Medical degree at the Johannes Gutenberg University, Mainz, Göttingen, 1988 – 1994 Residency and specialty qualification in neuropathology, University Medical Center Göttingen, 1996 Habilitation/Professorial qualification, University Medical Center Göttingen

Positions and Employment
1988 – 1999 Residency and Consultant in Neuropathology, Neurosurgery and University Medical Center Göttingen, 1997 Neurological Institute, University of Vienna, Austria, 1998 Acting director, Department of Neuropathology, Humboldt University, Berlin, 2000 – 2002 Associate professor of Neuropathology, Humboldt University, Charité, Berlin, since 2002 – Director of the Institut of Neuropathology at the University Medical Center Göttingen.

Activities in the scientific community
German Society of Neuropathology and Neuroanatomy, International Society of Neuropathology, Advisory Board of the German MS Society. Editorial board member: Acta neuropathologica, Neuropathology and Applied Neurobiology, Therapeutic advances in Neurological disorders. Reviewer: DFG, Wellcome Trust, ISF, several international MS Societies, ARSEP, MRC UK, Neurological Foundation of New Zealand, European Leukodystrophy Association, FWF Austria, FNR Luxembourg, Dutch MS Research Foundation, Wings for Life, Carl Zeiss Stiftung

Honors 1995 Langheinrich Scholarship for MS Research, 1999 HSFP fellowship, 2000 Langheinrich Award for MS Research, 2002 Hans Heinrich Georg Queckenstedt Award for MS Research, 2008 HG Mertens Award for innovative research in neurology, 2011 Kohn Award of the British Society of Toxicological Pathologists

Publications (selected 2007 – 2014)

Nikić I, ... Brück W, ... Kerschensteiner M. A reversible form of axon damage in experimental autoimmune encephalomyelitis and multiple sclerosis. **Nat Med.**, 17:495-499, 2011
Lucchinetti CF, ..., Brück W, ..., Ransohoff RM. Inflammatory cortical demyelination in early multiple sclerosis. **N Engl J Med.**, 365:2188-2197, 2011
Metz I, ..., Brück W. Pathology of immune reconstitution inflammatory syndrome in multiple sclerosis with natalizumab-associated progressive multifocal leukoencephalopathy. **Acta Neuropathol.**, 123:235-245, 2012
Brück W, et al. Neuromyelitis optica lesions may inform multiple sclerosis heterogeneity debate. **Ann. Neurol.**, 72:385-394, 2012
Singh S, ..., Brück W. Microglial nodules in early multiple sclerosis white matter are associated with degenerating axons. **Acta Neuropathol.**, 125: 595-608, 2013
Metz I, Weigand SD, Popescu BF, Frischer JM, Parisi JE, Guo Y, Lassmann H, Brück W*, Lucchinetti CF*. Pathologic heterogeneity persists in early active multiple sclerosis lesions. **Ann Neurol.**, 75: 728-738, 2014

Prof. Daniela C. Dieterich
Otto-von-Guericke-University Magdeburg
Institute for Pharmacology and Toxicology (IPT)
Leipziger Strasse 44
39120 Magdeburg
Tel. +49 391 67 15875
Email: daniela.dieterich@med.ovgu.de

Education 1994 – 1999 Diploma in Biochemistry in Hannover, 1999 – 2003 PhD at University of Magdeburg / Leibniz Institute for Neurobiology, Magdeburg

Positions and Employment 2008 – 2012, Head of the DFG-funded Emmy Noether research group Neuralomics at the Leibniz Institute for Neurobiology in Magdeburg, 2012 – present Professor for Pharmacology and Toxicology at Medical Faculty, Otto-von-Guericke-University Magdeburg

Activities in the scientific community 2006 – 2010 GAIN (German Academic International Network) Advisory Board Member, 2014 – present Steering Board member DFG Priority Program Role of glial heterogeneity in brain function

Honors 2004 – 2006 German Academy for Natural Scientists Leopoldina Postdoctoral Fellowship, 2008 – 2014 DFG Emmy Noether Program Fellow, 2011 Award for Basic Research of the State of Saxony-Anhalt

Publications (selected 2007 – 2014)

Dieterich DC, Hodas JJ, Gouzer G, Shadrin IY, Ngo JT, Triller A, Tirrell DA, Schuman EM (2010) In situ visualization and dynamics of newly synthesized proteins in rat hippocampal neurons. **Nature neuroscience** 13: 897-905

Dieterich, D. C. (2010). Chemical reporters for the illumination of protein and cell dynamics. **Curr Opin Neurobiol** 20(5): 623-630.

Hodas JJ, Nehring A, Hoche N, Sweredoski MJ, Pielot R, Hess S, Tirrell DA, Dieterich DC, Schuman EM (2012) Dopaminergic modulation of the hippocampal neuropil proteome identified by bioorthogonal noncanonical amino acid tagging (BONCAT). **Proteomics** 12: 2464-2476

Howden AJ, Geoghegan V, Katsch K, Efstathiou G, Bhushan B, Boutureira O, Thomas B, Trudgian DC, Kessler BM, Dieterich DC, Davis BG, Acuto O (2013) QuaNCAT: quantitating proteome dynamics in primary cells. **Nature methods** 10: 343-346

Prof. Andreas Faissner
Department of Cell Morphology
and Molecular Neurobiology
Ruhr-University
Building NDEF 05/594, Universitaetsstr. 150
44801 Bochum
Tel. +49 234 32 23851
Email: andreas.faissner@rub.de

Education 1974–1981 Medical School at Heidelberg and Vienna (1978), 1978-1981 Thesis (MD) at the German Cancer Research Centre Heidelberg, 1990 University of Heidelberg, Habilitation/ Professorial qualification

Positions and Employment 1981–1982 EMBO fellow MRC Neuroimmunology Unit, University College London; 1982-1990 postdoc and group leader University of Heidelberg; 1991–1993 lecturer, 1993–1997 Schilling Professorship for Neuroscience, University of Heidelberg; 1997-2000 professor University Strasbourg and CNRS, Strasbourg, France; since 2000 full professor for Cell Morphology & Molecular Neurobiology at the Ruhr-University, Bochum, Germany.

Activities in the scientific community 1996–present Editorial Board of GLIA, 2007-present Editorial Board and Lead Editor of the journal Stem Cells, 2013-present Faculty of 1000; 2004-2006 Dean of Studies, since 2008 representative of Ruhr-University in the Stem Cell Network NRW, 2008-2012 Vice-Dean, 2012-present Dean of the Faculty of Biology & Biotechnology, 2014-present Chair of the Faculty Conference of Ruhr-University Bochum.

Honors 1974-1981 Studienstiftung des Deutschen Volkes, 1982 EMBO short-term fellowship, 1982-1984 training fellowship of the German Research Foundation (DFG), 1993-1997 Schilling-Professorship for Neuroscience, 1994 Bargmann-Prize of the Anatomical Society, 2005 Inventor Prize of Ruhr-University.

Publications (selected 2007 – 2014)

Sirko S, Neitz A, Mittmann T, Horvat-Brocker A, von Holst A, Eysel UT, Faissner A (2009) Focal laser-lesions activate an endogenous population of neural stem/progenitor cells in the adult visual cortex. **Brain** 132:2252-2264.

Karus M, Denecke B, ffrench-Constant C, Wiese S, Faissner A (2011) The extracellular matrix molecule tenascin-C modifies expression levels and territories of key patterning genes during spinal cord astrocyte specification. **Development** 138: 5321-5331

Geissler M, Gottschling C, Aguado A, Rauch U, Wetzel CH, Hatt H, Faissner A (2013) Primary hippocampal neurons, which lack four crucial extracellular matrix molecules, display abnormalities of synaptic structure and function and severe deficits in perineuronal net formation. **J Neurosci** 33:7742-7755.

Prof. Michael T. Heneka
Prof. of Clinical Neuroscience
Dept. of Neurology, University of Bonn
and
German Center for Neurodegenerative Disease (DZNE)
Sigmund-Freud Str. 25, 53127 Bonn
(e) michael.heneka@ukb.uni-bonn.de
(p)+49 228 28713091

Education 1990 – 1996 Medical Course at the University of Heidelberg, Lausanne and London, 1996 – 2002 Residency in Neurology, University of Tübingen and Bonn, 2003 University of Bonn, Habilitation/Professorial qualification

Positions and Employment 2003 – 2008 Prof. for Molecular Neurology, University of Münster, 2008 – present Professor for Clinical Neuroscience at the University of Bonn, Dept. of Neurology. Head of the Clinical Neurosceince Group, Neurology head of the Clinical Treatment and Research Center for Neurodegenerative Disease of the University of Bonn Medical Center.

Activities in the scientific community 2007 - 2010 Board Member of the BMBF network of competence „Degenerative Demenzen“ (KNDD). Since 2007: member of the expert group S3 guidelines for dementia. Since 2012: Board member of the EFNS working group „dementia“. Since 2013: program committee member of the SFN annual conference, Society for Neuroscience, U.S.A.

Honors 1998 Attempto Award for the best thesis of 1998, University of Tübingen; 2011 Christa Lorenz Award for ALS research; 2013 Hans und Ilse Breuer Award for Alzheimer Research; present Member of Academia Europaea

Publications (selected 2010 – 2015)

Heneka MT, Nadrigny F, Regen T, Dumitrescu-Ozimek L, Terwel D, Jardanhazi-Kurutz D, Walter J, Kirchhoff F, Hanisch U, Kummer MP (2010) Locus ceruleus controls Alzheimer disease pathology by modulating microglial functions through norepinephrine **Proc. Natl. Acad. Sci. USA.**107: 6058-6063.

Kummer MP, Hermes M, Delekarte A, Hammerschmidt T, Kumar S, Terwel D, Walter J, Pape HC, König, S, Roeber S, Jessen F, Klockgether T, Korte M, Heneka MT (2011) Nitration of tyrosine 10 critically enhances amyloid β aggregation and plaque formation. **Neuron** 71: 833-844.

Heneka MT, Kummer MP, Stutz A, Delekate A, Schwartz S, Vieira-Saecker A, Griep A, Axt D, Remus A, Tzeng TC, Gelpi E, Halle A, Korte M, Latz E, Golenbock DT (2013) NLRP3 is activated in Alzheimer‘s disease and contributes to pathology in APP/PS1 mice. **Nature** 493: 674-678.

Prof. Johannes Hirrlinger
Carl-Ludwig-Institute for Physiology
Medical Faculty
University of Leipzig
D-04103 Leipzig
Tel. +49 341 97 15511
Email: johannes.hirrlinger@medizin.uni-leipzig.de

Education 1993 – 1999 Master in Biochemistry at Tübingen, 1999 – 2002 PhD at University of Tübingen, 2011 University of Leipzig, Habilitation/ Professorial qualification

Positions and Employment 2003 – 2006 Postdoctoral research fellow, Max-Planck-Institute for Experimental Medicine, Göttingen, 2006-2011 Head of research group „Neural Plasticity“ at the Interdisciplinary Centre for Clinical Research (IZKF), Medical Faculty, University of Leipzig, 2009 – 2012 Temporary substitution of a Professorship for Physiology, University of Leipzig, 2011-2012 Research group leader Max-Planck-Institute for Experimental Medicine, Göttingen, 2012 – present Permanent guest scientist, Max-Planck-Institute for Experimental Medicine, Göttingen, 2012 – present Professor for Physiology, University of Leipzig

Activities in the scientific community 2009 – 2010 Member of the executive board of the IZKF Leipzig, 2010 Program committee of the „9th International Conference on Brain Energy Metabolism”. Program committee of the „2016 International Conference on Brain Energy Metabolism”

Honors 2011 Young Scientist Lectureship Award of the European Society of Neurochemistry

Publications (selected 2007 – 2014)

Hirrlinger J, ..., Kirchhoff F (2009) Split-Cre Complementation Indicates Coincident Activity of Different Genes In vivo. **PLOS One** 4: e4286.

Requardt RP, ..., Hirrlinger J (2010) The biphasic NAD(P)H fluorescence response of astrocytes to dopamine reflects the metabolic actions of oxidative phosphorylation and glycolysis. **J. Neurochem.** 115: 483-492.

Beckervordersandforth R, ..., Kirchhoff F, Hirrlinger J, ..., Götz M (2010) In vivo fate mapping and expression analysis reveals molecular hallmarks of prospectively isolated adult neural stem cells. **Cell Stem Cell** 7: 744-758.

Requardt RP, Hirrlinger PG, Wilhelm F, Winkler U, Besser S, Hirrlinger J (2012) Ca^{2+} signals of astrocytes are modulated by the NAD^{+}/NADH redox state. **J. Neurochem.** 120: 1014-1025.

Winkler U, ..., Hirrlinger J (2013) Deletion of the cell adhesion adaptor protein vinculin disturbs the localization of GFAP in Bergmann glial cells. **Glia** 61: 1067-1083.

Hirrlinger J, Nave KA (2014) Adapting brain metabolism to myelination and long-range signal transduction. **Glia** 62: 1749-1761.

Prof. Patrick Küry
Heinrich-Heine-University
Department of Neurology

Moorenstrasse 5
40225 Düsseldorf

Tel. +49 211 8117822
Email: kuery@uni-duesseldorf.de

Education 1986 – 1992 Diploma in Biology II at the Biocenter, Basel (Switzerland), 1992 – 1996 PhD (summa cum laude) at the Friedrich Miescher Institute, University of Basel, 2004 Habilitation at Heinrich-Heine-University of Düsseldorf (Germany)

Positions and Employment 1996 – 1998 Postdoctoral fellow at United Medical Dental School, London (United Kingdom), 1999 – 2004 Assistant at the Heinrich-Heine-University, 2004 Research Group Leader the Heinrich-Heine-University: "Translational glial cell research", 2012 Professor (apl) at the Neurology department, Heinrich-Heine-University

Activities in the scientific community 2012 – 2014 Coordinator of a DFG Research Programme initiative, 2014 Inflammatory Neuropathy Consortium Meeting, organizing committee, 2012 – 2016 Head and coordinator of an international collaborative research programme "Monoclonal antibody treatment to prevent inflammatory demyelination and oligodendroglial toxicity: Therapeutic targeting of an endogenous retroviral envelope protein expressed in Multiple Sclerosis Lesions" funded by ARSEP and AFM

Honors 2009 Award of the Christiane und Claudia Hempel Foundation for clinically oriented stem cell research, 2009 Novartis Foundation Award

Publications (selected 2007 – 2015)

Göttle P, Sabo JK, Heinen A, Venables G, Torres KJ,..., Küry P (2015) Oligodendroglial maturation is dependent on intracellular protein shuttling. **J Neurosci** 35(3):906-19.

Kremer D, Schichel T, Förster M, Tzekova N, ..., Küry P (2013) HERV-W envelope protein inhibits oligodendroglial precursor cell differentiation. **Ann Neurol** 74: 721–732.

Jadasz J, Rivera FJ, Taubert A, Kandasamy M, Sandner B, ..., Küry P (2012) p57kip2 regulates glial fate decision in adult neural stem cells. **Development** 19: 3306-3315.

Heinen A, Tzekova N, Graffmann N, ..., Küry P (2012) Histone methyltransferase enhancer of zeste homolog 2 regulates Schwann cell differentiation. **Glia** 60: 1696-1708.

Kremer D, Heinen A, Jadasz J, Göttle P, Zimmermann K, Zickler Ph, ..., Küry P (2009) p57kip2 is dynamically regulated in experimental autoimmune encephalomyelitis and interferes with oligodendroglial maturation. **PNAS** 106: 9087-9092.

Prof. Christian Lohr
Division of Animal Physiology
Biocenter Grindel
University of Hamburg

Martin-Luther-King-Platz 3
D-20146 Hamburg

Phone: +49-(0)40-42838 5924
Fax: +49-(0)40-42838 3937
Email: christian.lohr@uni-hamburg.de

Education 1989 – 1995 Universities of Kaiserslautern, Diploma Biology, 1995 – 1998 University of Kaiserslautern, PhD Biology, 2005 University of Kaiserslautern, Habilitation/ Professorial qualification

Positions and Employment 1998 – 1999 Postdoc at the Department of General Zoology, University of Kaiserslautern, 1999 – 2001 DFG Fellow at the Division of Neurobiology, University of Arizona, Tucson, USA, 2001 – 2005 Postdoc Department of General Zoology, University of Kaiserslautern, 2005 – 2008 Group leader Developmental Neurobiology, University of Kaiserslautern, 2008-2010 Research group leader at the Interdisciplinary Center for Clinical Research, University of Muenster, since 2010 – Professor for Neurophysiology (University of Hamburg)

Activities in the scientific community 2003-2005 Member of the Faculty Board, Faculty of Biology, University of Kaiserslautern, 2011 – present Member of the Faculty Board, MIN Faculty, University of Hamburg, 2013 Founding committee member of the DFG priority program 1757 "Functional specializations of neuroglia as critical determinants of brain function"

Honors 1995-1998 Ph.D. Fellowship of the graduate school of the state Rheinland-Pfalz, 1999-2001 Research Fellowship of the Deutsche Forschungsgemeinschaft

Publications (selected 2009 – 2014)

Doengi M, Hirnet D, Coulon P, Pape HC, Deitmer JW, Lohr C (2009) GABA uptake-dependent Ca2+ signaling in developing olfactory bulb astrocytes. **Proc Natl Acad Sci USA** 106:17570-17575.

Thyssen A, Hirnet D, Wolburg H, Schmalzing G, Deitmer JW, Lohr C (2010) Ectopic vesicular neurotransmitter release along sensory axons mediates neurovascular coupling via glial calcium signaling. **Proc. Natl Acad Sci USA** 107:15258-15263.

Thyssen A, Stavermann M, Buddrus K, Doengi M, Ekberg JA, St John JA, Deitmer JW, Lohr C (2013) Spatial and developmental heterogeneity of calcium signaling in olfactory ensheathing cells. **GLIA** 61:327-337

Lohr C, Grosche A, Reichenbach A, Hirnet D (2014): Purinergic neuron-glia interactions in sensory systems. **Pflügers Arch.** 466:1859–1872.

Prof. Rudolf Martini
University Hospital Würzburg
Department of Neurology
Developmental Neurobiology
Josef-Schneider-Str. 11, 97080 Würzburg
Tel. +49-931-201 23268
email: rudolf.martini@uni-wuerzburg.de

Education 1977-1982 Studies in Biology and Geography (University of Karlsruhe), 1982-1984 PhD thesis at the Department of Zoology, 1994 Habilitation/Professorial qualification at the Swiss Federal Institute of Technology, Zürich, Switzerland

Positions and Employment 1984-1985 Postdoc at the Department of Zoology (University of Heidelberg), 1985-1990 Post doc and Fellow of the German Research Foundation at the Department of Neurobiology (University of Heidelberg), 1991-1996 Senior research assistent at the at the Department of Neurobiology (Swiss Federal Institute of Technology, Zürich), 1996 – present Head of the Section "Developmental Neurobiology" at the Department of Neurology (University Hospital Würzburg), 1998 – present: University Professor of Neurobiology and Head of the Section "Developmental Neurobiology" at the Department of Neurology (University Hospital Würzburg).

Activities in the scientific community Member of Editorial Board of "Glia", Member of scientific board of the NCL Foundation, Hamburg, Germany; Member of scientific board of the German Society for Neuromuscular Disorders (DGM); Member of the scientific advisory board "STAR" of the Charcot-Marie-Tooth-Association, USA.

Honors Post-doctoral-Fellowship of the DFG (1986-1988); Felix-Jerusalem-Preis (1. Prize) for neuromuscular disorders (2005) (German Society for Neuromuscular Disorders (DGM)); Roman, Marga and Mareille Sobek Preis for Multiple Sclerosis Research (2010)

Publications (selected)

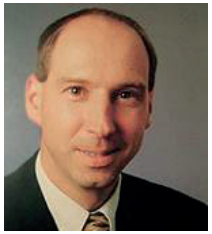
Groh J, Weis J, Zieger H, Stanley ER, Heuer H, Martini R (2012) Colony-stimulating factor-1 mediates macrophage-related neural damage in a model for Charcot-Marie-Tooth disease type 1X. **Brain** 135, 88-104.

Groh J, Kuhl TG, Ip CW, Nelvagal HR, Sri S, Duckett S, Mirza M, Langmann T, Cooper JD, Martini R (2013) Immune cells perturb axons and impair neuronal survival in a mouse model of infantile neuronal ceroid lipofuscinosis. **Brain** 136:1083-1101.

Klein D, Groh J, Wettmarshausen J, Martini R (2014) Nonuniform molecular features of myelinating Schwann cells in models for CMT1: Distinct disease patterns are associated with NCAM and c-Jun upregulation. **Glia** 62:736-750.

Groh J, Klein I, Hollmann C, Wettmarshausen J, Klein D, Martini R (2015) CSF-1-activated macrophages are target-directed and essential mediators of schwann cell dedifferentiation and dysfunction in Cx32-deficient mice. **Glia** Jan 27. doi: 10.1002/glia.22796.

Prof. Harald Neumann
Institute of Reconstructive Neurobiology
University of Bonn
Sigmund-Freud-Str. 25
53127 Bonn
Phone: +49-228-6885-541
fax: +49-228-6885-501
email: hneuman1@uni-bonn.de
http://www.meb.uni-bonn.de/rnb/



Education 1991 Degree in Medicine M.D., Thesis, University of Würzburg, and University of Munich (LMU), Germany; 1998 Habilitation/ Professorial qualification, Neuroimmunology Technical University Munich, Germany; 1994 Master in Business Administration, distance learning University of Hagen, Germany.

Positions and Employment 1990 – 1992 Medical Internship, Department of Neurology, University Ulm, Germany; 1992 – 1994 Research fellow, Department of Neuroimmunology, Max-Planck-Institute of Psychiatry, Martinsried; 1995 – 2001 Group leader Department of Neuroimmunology Max-Planck-Institute of Neurobiology, Martinsried; 2001 – 2004 Head of the Neuroimmunology Group European Neuroscience Institute Göttingen University of Göttingen; 2004 - present Head of the Neural Regeneration Group, University of Bonn, Germany.

Activities in the scientific community 2003 - 2008 Editorial Board member of ‚Stem Cells'; 2002 - 2009 Managing Board member of the Institute of MS Research; 2005 – 2010 Co-coordinator of the EU Integrated Project NeuroproMiSe; 2010 – present Member of the DFG-funded excellence cluster ImmunoSensation

Honors 1992 Research scholarship (German science foundation); 1996 PCR-Award Boehringer Mannheim; 2007 DANA-Foundation-Award, Neuroimmunology-Program

Publications (selected 2007 – 2014)

Claude J, ….. Neumann H. (2013). Microglial CD33-related Siglec-E inhibits neurotoxicity by preventing the phagocytosis associated oxidative burst. **J. Neurosci.** 33:18270-6.

Zhang B*, Gaiteri C*, Bodea LG*, ….. Schadt EE, Neumann H, Zhu J, Emilsson V. (2013). Integrated systems approach identifies genetic nodes and networks in late-onset Alzheimer's disease. **Cell**. 2013 Apr 25;153(3):707-20.

Beutner C, Roy K, Linnartz B, Nappoli I, Neumann H. 2010. Generation of microglial cells from mouse embryonic stem cells. **Nature Protocols**: 5:1481-94.

Prof. Frank W. Pfrieger

Institute of Cellular and Integrative Neurosciences (INCI)
CNRS UPR 3212

Room 4212, 5, rue Blaise Pascal
67084 Strasbourg Cedex, France

Phone +33388456645, Fax +33388601664
frank.pfrieger@unistra.fr
http://pfrieger.gmxhome.de/work/intro.html

Education 1985 – 1989 Master in Biology at University of Konstanz, 1990 – 1994 PhD at Max-Planck Institute for Psychiatry, Martinsried and University of Konstanz. 1994 – 1997 Postdoctoral training (Barres lab), Stanford University, School of Medicine, USA.

Positions and Employment 1993 – 1994 Teaching assistant at University of Konstanz, 1997 – 2000 Research group leader at Max-Delbrueck-Center for Molecular Medicine (MDC) Berlin, 2001 – 2005 Junior Group Leader at Max-Planck Society in cooperation with CNRS, 2005 – present tenured group leader CNRS, Strasbourg.

Activities in the scientific community 2006 – present Editorial board GLIA. 2011 – present scientific review associate EJN. Ad-hoc reviewer for journals (e.g. Cell, Cell Metabolism, Eur J Neurosci, Glia, J Biol Chem, J Cell Physiol, J Comp Neurol, J Neurosci, J Physiol London, Mol Cell Neurosci, Mol Neurobiol, Nature Reviews Neuroscience, Neurobiol Disease, Neuron, Neuroscience) and organisations (e.g. AFM, CHDI Foundation, DFG, ERC, Fondazione Telethon, Alexander von Humboldt Foundation, MRC, NSF, RETT Syndrome Research Trust).

Honors and Grants 1994 – 1996 HFSPO Fellowship, 1998 – 2001 DFG, 2002 Grand Prix Santé de la Fondation Electricité de France, 2002 – 2004 Parseghian Foundation, 2002 – 2005 DFG, 2005 – 2008 Sanofi-Aventis, 2007 – 2008 Merck-Serono, 2006 – 2008 ANR, 2009 – 2012 Laboratoires Fournier/Solvay, 2014 – present ANR.

Publications (selected since 2007)

Barnabé-Heider F, Göritz C, Sabelström H, Takebayashi H, Pfrieger FW, Meletis K, Frisén J (2010) Origin of new glial cells in intact and injured adult spinal cord. **Cell Stem Cell** 7: 470-82.

Pfrieger FW, Slezak M (2012) Genetic approaches to study glial cells in the rodent brain. **Glia** 60: 681-701.

Slezak M, ..., Pfrieger FW (2012) Relevance of exocytotic glutamate release from retinal glia. **Neuron** 74: 504-516.

Otsu Y, Couchman K, Lyons DG, Collot M, Agarwal A, Mallet J, Pfrieger FW, Bergles DE, Charpak S (2014) Calcium dynamics in astrocyte processes during neurovascular coupling. **Nat Neurosci** 18: 210-218.

Prof. Christine R. Rose

Institute of Neurobiology
Heinrich Heine University Duesseldorf

Universitaetsstrasse 1, Building 26.02.00, Room 35
40225 Duesseldorf, Germany

Phone: +49 (0)211 81-13416
Fax: +49 (0)211 81-13415
Email: Rose@uni-duesseldorf.de
Website: http://www.neurobiologie.hhu.de/

Education 1984 – 1990 Diploma in Biology at University of Konstanz, 1990 – 1983 PhD at University of Kaiserslautern, 2002 Ludwig Maximilians University Munich, Habilitation/ Professorial qualification.

Positions and Employment 1994 – 1997 Postdoctoral Assistant, Yale University School of Medicine, USA.; 1998-1999 Postdoctoral Assistant, Physiological Institute Saarland University; 2000-2002: Postdoctoral Assistant, Technical University and Ludwig Maximilians University Munich; 2003-2005: Heisenberg stipend; 2005 – present Professor for Neurobiology at the Heinrich Heine University Duesseldorf.

Activities in the scientific community: 2001-2005: Associate Editor/Deputy Editor of the European Journal of Physiology; 2007-2011 Academic Tutor German Natl. Academic Foundation (Studienstiftung); since 2008: Mentor, Selma-Mayer Program for Young Female Scientists, HHU; since 2012: Elected Member of the Review Board „Cellular Neuroscience“ of the DFG; since 2013: Speaker of iBrain, International Graduate School for Translational Brain Research” at the HHU; since 2014: Coordinator and Speaker of the Priority Programme “Glial Heterogenetity” (SPP 1757) of the DFG (together with Frank Kirchhoff).

Publications (selected 2009 – 2015)

Karus C, Mondragão M, Ziemens D & Rose CR (2015): Astrocytes restrict discharge duration and neuronal sodium loads during recurrent network activity. **Glia**. 2015 Jan 29. doi: 10.1002/glia.22793. [Epub ahead of print]

Karus C & Rose CR (2013) Two sides of the same coin: Sodium Homeostasis and Signaling in Astrocytes under physiological and pathophysiological conditions. **Glia** 61(8): 1191-205.

Langer J, Rose CR (2009). Synaptically-induced sodium signals in hippocampal astrocytes in situ. **J Physiol**, 587: 5859-5877.

Prof. Melitta Schachner

ZMNH - Center for Molecular Neurobiology
University Medical Center Hamburg-Eppendorf

Falkenried 94, 20154 Hamburg

Tel. +49 40 7410 56292
Email: melitta.schachner@zmnh.uni-hamburg.de

Education 1970 PhD in Biochemistry, Max-Planck-Institute for Biochemistry Munich

Positions and Employment: 2004 - Distinguished Professor and Professor II at Rutgers University, Piscataway , 2004 - New Jersey Professor of Spinal Cord Research Rutgers University, 1997 - Professor of Neurobiology, ZMNH - Center for Molecular Neurobiology, University Medical Center Hamburg-Eppendorf; 1988 - 1996 Professor of Neurobiology, Swiss Federal Institute of Technology, Zürich; 1976 - 1988 Professor of Neurobiology, University of Heidelberg

Activities in the scientific community 2004 – Advisor for the Neuroscience Center at the Li Ka-Shing University Shantou, China, 2004 – 2005 Visiting Professor at Dalian University, Dalian, China 2001 – 2008 Member of the Scientific Advisory Board of the Nencki Institute, Warsaw; 2001 – 2008 Member of the Scientific Advisory Board of Excellence in Neuroscience, Helsinki, 1995 – 1996 Visiting Professor at the University of Hong Kong

Honors 2015 Honorary Doctorate, University of Heidelberg; 2012 Member of the German Academy of Sciences Leopoldina; 2011 Honorary Professor, University of Hong Kong; 2004 New Jersey Professor of Spinal Cord Research; 2000 Prize of the German Society for Spinal Cord Regeneration; 1999 Rudolf-von-Virchow Medal; 1997 Warner-Lambert Prize, Society for Neuroscience; 1972 - 1973 Sloan Foundation Fellowship; 1962 - 1963 Fulbright Stipend, University of California, Berkley

Publications

Kataria, H., Lutz, D., Chaudhary, H., Schachner, M., Loers, G. (2015) Small molecule agonists of cell adhesion molecule L1 mimic L1 functions in vivo. Mol. Neurobiol. [Epub]

Sauce, B., Wass, C., Netrakanti, M., Saylor, J., Schachner, M., and Matzel, L.D. (2015) Heterozygous L1-deficient mice express an autism-like phenotype. Behav. Brain Res. [Epub]

Tang, D.Y., Yu, Y., Zhao, X.J., Schachner, M., and Zhao, W.J. (2015) Single chain fragment variable antibodies developed by using as target the 3rd fibronectin type III homologous repeat fragment of human neural cell adhesion molecule L1 promote cell migration and neuritogenesis. Exp. Cell Res. 2, 336-345.

Wang, Y., and Schachner, M. (2015) The intracellular domain of L1CAM binds to casein kinase 2α and is neuroprotective via inhibition of the tumor suppressors PTEN and p53. J. Neurochem. 6, 828-848.

Lutz, D., Kataria, H., Kleene, R., Loers, G., Chaudhary, H., Guseva, D., Wu, B., Jakovcevski, I., and Schachner, M. (2015) Myelin basic protein cleaves cell adhesion molecule L1 and improves regeneration after injury. Mol. Neurobiol. [Epub].

Prof. Christian Steinhäuser

Institute of Cellular Neurosciences
University of Bonn, Medical School

Sigmund-Freud-Str. 25
D-53105 Bonn

Phone: +49-228-287 1 4669
Fax: +49-228-287 1 9121
email: Christian.Steinhaeuser@ukb.uni-bonn.de
http://www.izn.uni-bonn.de

Education 1977 – 1982 University of Jena, Diploma Physics; 1982 – 1987 University of Jena, PhD Biology; 1987 – 1995 University of Jena Medical Faculty, Habilitation in Physiology/ Professorial qualification

Positions and Employment 1982 – 1989 Research assistant, Institute of Neurobiology and Brain Research, Magdeburg, Academy of Sciences; 1990-1995 Research associate, Institute of Physiology, University of Jena; 1995-1997 Temporary chair of the Institute of Physiology, University of Jena; 1997-2005 Professor of Experimental Neurobiology, University of Bonn; 2006 Call for a Chair of Physiology, University of Frankfurt/M, declined; 2007 – present Professor and Director, Institute of Cellular Neurosciences, University of Bonn

Activities in the scientific community 2004-2010 Co-coordinator DFG Priority Program SPP 1172 (DFG-Schwerpunkt); 2004 – 2012 Vice speaker and Speaker DFG Collaborative Research Center TR3 (DFG Sonderforschungsbereich); 2008 – 2012 Coordinator EC Collaborative research project NeuroGLIA (FP7 HEALTH-F2-2007-202167); 2013 – present Secretary General German Neuroscience Society; Member Editorial Boards of Glia and Neuroscience; Reviewer for 24 international funding organizations

Honors Fellow of the SANDOZ Foundation for Therapeutic Research

Publications (selected)

Seifert, G., K. Schilling and C. Steinhäuser (2006) Astrocyte dysfunction in neurological disorders: A molecular perspective. **Nat. Rev. Neurosci.** 7:194-206.

Kunze, A., M.R. Congreso, C. Hartmann, A. Wallraff-Beck, K. Hüttmann, P. Bedner, R. Requardt, G. Seifert, C. Redecker, K. Willecke, A. Hofmann, A. Pfeifer, M. Theis, C. Steinhäuser (2009) Connexin expression by radial glia-like cells is required for neurogenesis in the adult dentate gyrus. **Proc. Natl. Acad. Sci. USA** 106:11336-11341

Bedner B., A. Dupper, K. Hüttmann, J. Müller, M.K. Herde, P. Dublin, T. Deshpande, J. Schramm, U. Häußler, C. Haas, C. Henneberger, M. Theis, C. Steinhäuser (2015) Astrocyte uncoupling as a cause of human temporal lobe epilepsy. **Brain**, in press.

Prof. Michael Synowitz

Universitätsklinikum Schleswig-Holstein
Neurochirurgie an der Medizinischen Fakultät

Arnold-Heller-Str. 3, 24105 Kiel

Tel.: +49 431 597 4800
eMail: Michael.Synowitz@uksh.de

Education 1989 – 1995 Study of Medicine at Humboldt University Berlin, 1994 MD, Humboldt University Berlin, 1998 – 1999 Research fellow, Max Delbrück Center for Molecular Medicine (MDC), 1999 Visiting Fellow, Barrow Neurological Institute, Phoenix, Arizona, 2003 – 2004 Research fellow, MDC, 2009 Habilitation/Professorial qualification in Neurosurgery

Positions and Employment 1995 – 2007 Resident Department of Neurosurgery, Helios Hospital Berlin-Buch, 2007 – 2015 Assistant Medical Director Department of Neurosurgery, Charité University medicine Berlin, since 2015 Chair Department of Neurosurgery, Christian-Albrechts-University Kiel

Activities in the scientific community 1999 Member of American Association of Neurological Surgery (AANS), 2000 Member of European Association of Neurosurgery (EANS), 2001 Member of European Association of Neurooncology (EANO), 2002 Member of Federation of European Neuroscience Societies (FENS)

Honors 1998 Medical scientist training program award (MDC), 1999 Poster award, 1st prize, 11th European Congress of Neurosurgery, Copenhagen, Denmark, 2001 Scholarship of the German Society of Neurosurgery (DGNC), 2002 Poster award, 1st prize, Congress of Neurological Surgeons, San Antonio, USA, 2003 Scholarship, Helios Research Center, Helios Klinikum Berlin, 2005 Helmholtz "Zukunftspreis" (together with Dr. Glass and Prof. Kettenmann), 2005 Young Tumor Investigator Award, Congress of Neurological Surgeons, Chicago, USA, 2006 Honored Mention Aesculap Research Prize, 2006 Scholarship, Helios Research Center, Helios Klinikum Berlin, 2007 Maheley Neurooncolocy Award, AANS, Washington, USA

Publications (selected)

Stock K*; Kumar J*; Synowitz M*; Petrosino S; Imperatore R; Smith EStJ; Wend P; Purfürst B; Nuber UA; Gurok U; Matyash V; Wälzlein JH; Chirasani SR; Dittmar G; Cravatt BF, Momma S, Lewin GR, Ligresti A; De Petrocellis L; Cristino L; Di Marzo V; Kettenmann H*; Glass R* Neural precursor cells induce cell death of high-grade astrocytomas via stimulation of TRPV1. **Nat. Med.** 2012 Aug;18(8):1232-8.

Chirasani SR, Sternjak A, Wend P, Momma S, Campos B, Herrmann IM, Graf D, Mitsiadis T, Herold-Mende C, Besser D, Synowitz M, Kettenmann H, Glass R. (2010) Bone morphogenetic protein-7 release from endogenous neural precursor cells suppresses the tumourigenicity of stem-like glioblastoma cells. **Brain** 133:1961-1972.

Markovic D.S., Vinnakota K., Chirasani S., Synowitz M., Raguet H., Stock K., Sliwa M.,, Lehmann, S., Kälin R., van Rooijen N., Holmbeck K., Heppner F.L., Kiwit J., Matyash V., Lehnardt S., Kaminska B., Glass R., and Kettenmann H. (2009) Glioma induce and exploit microglial MT1-MMP expression for tumour expansion, **PNAS** 106:12530-12535.

Prof. Jacqueline Trotter

Johannes Gutenberg University of Mainz
Dept. of Biology

Bentzelweg 3, 55128 Mainz

Tel. +49 (0) 631 3920263
Email: trotter@uni-mainz.de

Education 1970 – 1973 Biology with Chemistry, B.A. University of York, United Kingdom, 1973-1974 6 month "Stage" with the European Union Health Protection Directorate in Brussels and Luxembourg, 1974- 1978 PhD at University of York, United Kingdom, 1991 University of Heidelberg, Dept. of Biology Habilitation/ Professorial qualification

Positions and Employment 1978 – 1981 Postdoctoral fellow of the Royal Society London Max Planck Institute for Immunobiology Freiburg Germany, 1981 – 1984 Postdoctoral Fellow of the American Multiple Sclerosis Society Stanford University School of Medicine CA USA, 1985 – 1999 Alexander von Humboldt Stipendiat and then Group leader Neurobiology University of Heidelberg Germany, 1999-2000 Hermann and Lily Schilling Stiftungs Professor for Neuroscience Neurobiology University of Heidelberg, 2000 – present Professor for Cell Biology Dept. of Biology Johannes Gutenberg University of Mainz Germany.

Activities in the scientific community 1997-present Member of the editorial board of the Journal GLIA; 2009- present Member of the scientific advisory board of the European Leukodystrophy Foundation; 2007-2013, Vice speaker of the Neurobiology Graduate School in Mainz; 2010-present member of the steering committee of the Focus program Translational Neuroscience Mainz; 2013-present deputy member of the Gutenberg Research College, Mainz.

Publications (selected)

White R, Gonsior C, Krämer-Albers E, Stöhr N, Hüttelmaier S, and Trotter J (2008) Activation of oligodendroglial Fyn kinase enhances translation of mRNAs transported in hnRNP A2- dependent RNA granules. **J. Cell Biol.**, 181 (4), 579-586.

Trotter J, Karram K, Nishiyama A (2010) NG2 cells: Properties, progeny and origin. **Brain Res Rev.** 63(1-2):72-82.

Binamé F, Sakry D, Dimou L, Jolivel V, Trotter J. (2013) NG2 regulates directional migration of oligodendrocyte precursor cells via Rho GTPases and polarity complex proteins. **J Neurosci.** 33(26):10858-74.

Sakry D*, Neitz A*, Singh J, Frischknecht R, Marongiu D, Binamé F, Perera S, Endres K, Lutz B, Radyushkin K, Trotter J**, Mittmann T** (2014) Oligodendrocyte Precursor Cells Modulate the Neuronal Network by Activity-Dependent Ectodomain Cleavage of Glial NG2 **PLoS Biol.** 12(11): e1001993.
*, ** equal contribution.

Prof. Michael Wegner
Institut fuer Biochemie
Emil-Fischer-Zentrum
FAU Erlangen-Nürnberg
Fahrstrasse 17, 91054 Erlangen
Tel: +49 9131 85 24620, FAX: +49 9131 85 22484
email: michael.wegner@fau.de

Education 1983 – 1987 Universities of Münster and Würzburg, Biology (Diplom), 1987 – 1990 University of Würzburg, PhD Biochemistry, 1990 – 1993 University of California at San Diego, La Jolla Postdoctoral Studies, 1997 Habilitation/ Professorial qualification

Positions and Employment 1994 – 2000 Group leader at the Centre for Molecular Neurobiology, Hamburg University , 2000 – present Professor, Chair of Biochemistry & Pathobiochemistry, Director of the Institute of Biochemistry at the Friedrich-Alexander University Erlangen-Nürnberg

Activities in the scientific community 1998 – present Editorial board member of the journal Nucleic Acids Research, 2003 – 2013 member of Committee for promotion of young scientists of the German Cancer Aid, 2010 – present Executive Editor of the journal Nucleic Acids Research, 2010 – present member of the Senate Committee of the German Research Foundation (DFG) for research training groups, 2010 – present Vice Dean of the Medical Faculty at the Friedrich-Alexander-University Erlangen-Nürnberg, 2010 – present Head of the Admissions and Examination Commission of the Molecular Medicine Program at the Friedrich-Alexander-University Erlangen-Nürnberg, 2013 – present Editorial board member of the Journal Glia

Honors 1991, Prize of the Faculty of Chemistry and Medicinal Chemistry for best thesis (University of Würzburg), 1998 Gerhard Hess prize of the German Research Foundation (DFG), 1998 Eppendorf Young Investigator Award, 2001 offers of full professorships in Vienna and Innsbruck, 2006 offer of full professorship in Hamburg

Publications (selected 2007 – 2014)

Finzsch, M., Schreiner, S., Kichko, T., Reeh, R., Tamm, E.R., Bösl, M.R., Meijer, D., Wegner, M. (2010) Sox10 is required for Schwann cell identity and progression beyond the immature Schwann cell stage. **J. Cell. Biol.** 189, 701-712

Weider, M., Küspert, M., Bischof, M., Vogl, M.R., Hornig, J., Loy, K., Kosian, T., Müller, J., Hillgärtner, S., Tamm, E.R., Metzger, D., Wegner, M. (2012) Chromatin remodelling factor Brg1 is required for Schwann cell differentiation and myelination. **Dev. Cell** 23, 193-201

Hornig, J., Fröb, F., Vogl, M., Hermans-Borgmeyer, I., Tamm, E.R., Wegner, M. (2013) The transcription factors Sox10 and Myrf define an essential regulatory network module in differentiating oligodendrocytes. **PLoS Genetics** 9, e1003907.

PD Dr. Anke Witting
Experimental Neurology
Helmholtzstrasse 8/1
ZBF Universität Ulm
Tel: 0731-500-63113
Email: awitting@gmail.com

Education 1991 – 1997 Master in Biology at the Carl-von-Ossietzky University Oldenburg, Germany; 1997 – 2000 Graduate work in the group of Prof. Kettenmann, Max-Delbrück-Centrum (MDC) Berlin, Germany, 2000 PhD in Biology at the Humboldt University Berlin, Germany, 2014 Habilitation/ Professorial qualification at Ulm University, Germany.

Positions and Employment 2001 – 2005 Senior Fellow, University of Washington (Department of Pharmacology, Prof. Nephi Stella). 2005 – 2006 Senior Fellow, University of Washington (Department of Pathology, Prof. Thomas Montine). 2007 – present Research group leader "Neuroinflammation and Metabolism" in the Department of Neurology at Ulm University

Grants, Fellowships and awards 1998 – 1999 Ph.D.-Fellowship by the Ernst-Schering Research Society, 2001-202 Post-doc Fellowship by the German Research Agency (DFG), 2008- 2010 Bausteinprogramm der Medizinischen Fakultät Ulm, 2012-2015 Project "Cannabinoids as anti-inflammatory and neuroprotective principle in neurodegenerative diseases" in the Boehringer Ingelheim Ulm University BioCenter (BIU), 2012 – 2017 Work Package 2 "Effect of RNA-related ALS gene mutations on energy metabolism" of the Helmholtz Virtual-Institute "RNA Dysmetabolism in Amytrophic Lateral Sclerosis and Frontotemporal Dementia"

other qualifications Conference Organization: 2008 "The metabolic system as a therapeutic target in HD", Reisensburg Castle (Co-Organizer), 2011 „Neuro-Retreat" Bad Buchau (Co-Organizer), 2011 FENS/IBRO Summer School, Reisensburg Castle.

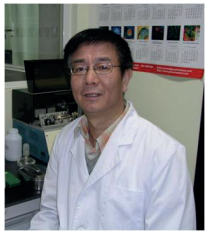
Publications (selected 2010 – 2015)

Pasquarelli N, ... Witting A (2014) Comparative biochemical characterization of the monoacylglycerol lipase inhibitor KML29 in brain, spinal cord, liver, spleen, fat and muscle tissue. **Neuropharmacology** in press

Wiesner D., ... Dupuis L.*, Witting A.* (2013) Fumaric acid esters stimulate astrocytic VEGF expression through HIF-1α and Nrf2. **Plos One**, 8, e76670. *equal contribution

Ferger A.I., ... Witting A. (2010) The effect of mitochondrial dysfunction on the immunological properties of microglia, **J Neuroinflammation** 7:45

Other Chinese Participants



Prof. Tian-Ming Gao

Department of Neurobiology
Southern Medical University
1023S Shatai Road, Guangzhou 510515, China

Tel. +86-20-61648617(O), +86-13538901266(cell)
Email: tgao@smu.edu.cn

Education 1980 - 1985 M.D. in Medicine at The First Military Medical University, 1985-1988 Master in Physiology at The First Military Medical University, 1991-1994 PhD at Sun Yat-Sen University of Medical Sciences, China.

Positions and Employment 1988 -1995 Assistant and Lecturer, The First Military Medical University, 1995-1998 Postdoc, Indiana University School of Medicine, University of Tennessee, Memphis, USA. 1998-2004 Chair and Professor, Dept. of Physiology, The First Military Medical University, 2005 -2014 Chair and Professor, Department of Neurobiology, School of Basic Medical Sciences, Southern Medical University, 2010-2012 Dean, School of Basic Medical Sciences, Southern Medical University, 2012 - present Vice President, Southern Medical University.

Activities in the scientific community 2003 - present Standing Councilor of Chinese Society for Neuroscience, 2005-present Chairman of Synaptic Plasticity Subcommittee, 2012-present Associate editor of Neuroscience Bulletin, 2014-present Standing Councilor of Chinese Association for Physiological Sciences.

Honors 2002 Chair Professor of Cheung Kong Scholars Programme, 2007 Dingying Award for Scientific and Technological Research, 2008 Supervisor of a PhD Thesis of Excellence of China, 2009 First prize of Scientific and Technological Research Awards of Guangdong Province, 2009 Second prize of Scientific and Technological Research Awards of Chinese Medical Association and Educational Ministry of China, 2009 Excellent Scholars of Chinese Neuroscience Society, 2011 Second prize of National Natural Science Research Awards, 2014 Top 100 Outstanding Scholars of Guangdong Province.

Publications (selected 2007 – 2014,* Correspondence author)

Woo RS, ..., Gao TM*, Mei L*. (2007) Neuregulin-1 enhances depolarization-induced GABA release. **Neuron** 54:599-610.

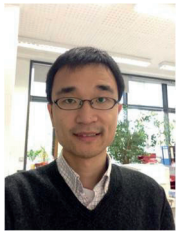
Chen YJ, Zhang M, ..., Wang XM, Lai C, Xiong WC, Mei L*, Gao TM*. (2010) ErbB4 in parvalbumin-positive interneurons is critical for neuregulin 1 regulation of long-term potentiation. **Proc Natl Acad Sci USA**, 107(50):21818-23.

Cao X, Li LP, Wang Q, ..., Zeng YN, Zhu XH*, Gao TM* (2013). Astrocyte-derived ATP modulates depressive-like behaviors. **Nat Med.** 19(6):773-7.

Li B, Jie W, ..., Zhu XH, Gao TM* (2014). Nuclear BK channels regulate gene expression via the control of nuclear calcium signaling. **Nat Neurosci.** 17(8):1055-63.

Lu Y, Sun XD, ..., Liu X, Li BM, Xiong WC, Gao TM*, Mei L* (2014). Maintenance of GABAergic activity by neuregulin 1-ErbB4 in amygdala for fear memory. **Neuron**. 84(4):835-46.

Dr. Feng Hu



Department of Neurosurgery
Tongji Hospital of Tongji medical college
Huazhong University of Science and Technology
Jiefang Avenue 1095, Wuhan, China 430030

Phone 0086-27-83663573, 0086-18871495411
Email hufeng268@qq.com

Education

2011-2014 MD/Ph.D in Medical Neuroscience Program, Charité medical university, Berlin, Germany, Supervisor – Prof. Dr. Helmut Kettenmann

2008-2011 MSc in Clinical Medicine/Neurosurgery, Tongji Medical College of Huazhong University of Science and Technology, Wuhan, China, Supervisor – Prof. Dr. Ting Lei

2002-2008 BSc in Clinical Medicine (German class), Tongji Medical College of Huazhong University of Science and Technology, Wuhan, China, Research and clinical experiences

Research

2011-2014 Max Delbrück Center for Molecular Medicine (MDC), Germany
Thesis: Dissecting the role of Toll-like receptors in microglia-glioma interaction
Investigate the subtype of Toll-like receptors of microglia mediate MT1-MMP expression and glioma expansion; Identify endogenous mediator(s) of Toll-like receptor signaling in glioma-associated microglia; Investigate the mechanisms of glioma induces microglial MMP-9 up-regulation; **2010-2011** Tongji Medical College of Huazhong University of Science and Technology, Wuhan, China
Thesis: ATRA induces glioma stem-like cell differentiation and suppresses its tumorigenesis

Clinical training

01. 2015- present Department of Neurosurgery, Tongji Hospital, Wuhan, China; 01. 2009- 06. 2010 Department of Neurosurgery, Tongji Hospital, Wuhan, China; 08. 2007- 10. 2007 General surgery department of Heidelberg university hospital, Germany; 01. 2006- 08. 2007 Clinical departments of Tongji Hospital (Surgery, internal medicine, paediatrics, etc.)

Honors and awards

2015 Summa cum laude in doctoral thesis evaluation, Charité medical university, Berlin; **2014** Travel grant from German Neuroscience Society for 9th FENS meeting; **2013** Poster prize of Brain tumor meeting, Berlin 2013; **2011** China scholarship Council PhD stipend (2011.01-2014.06); **2008** Excellent student Scholarship of Huazhong University of Science and Technology; **2007** Exchange scholarship from Baden Württemberg, Germany

Prof. Quanhong Ma

Institute of Neuroscience,
Soochow University,
199 Ren-Ai Road, Suzhou, Jiangsu, 215123, China
Cell Phone: +86 18015504376
E-mail: h999.judy@gmail.com

Education

2005-2008 PhD. Zentrum fur Molekulare Neurobiologie, University of Hamburg, Hamburg, Germany (Supervisor: Prof. Melitta Schachner)
2002-2005 Master of Science, Institute of Molecular and Cell Biology, Singapore and Dalian Medical University, P.R China
1997-2002 Medicine Bachelor, Binzhou Medical College, P.R China

Professional experiences

2010.10 -now Principle Investigator, Institute of Neuroscience, Soochow University, China
2009.1-2010.9 Senior Scientist, Glaxosmithkline, R&D China
2004.5-2005.5 Research Officer, Institute of Molecular and Cell Biology, Singapore
2003.10-2004.4 Medical Technologist, Department of Clinical Research, Singapore General Hospital.

Selected Publications:

FT Yin et al., QH Ma* Caspr4 interaction with LNX2 modulates the proliferation and neuronal differentiation of mouse neural progenitor Cells. **Stem Cells and Development**, in press

SM Bai, WM Zhang, Q Lu*, QH Ma*, DL Kaplan and HS Zhu Silk nano fi ber hydrogels with tunable modulus to regulate nerve stem cell fate. **Journal of Materials Chemistry** B 2014 2:6590

MY Zhang, CY Zheng, MM Zou, JW Zhu, Y Zhang, J Wang, CF Liu, QF Li, ZC Xiao, Shao Li*, QH Ma* and RX Xu* Lamotrigine Attenuates Deficits in Synaptic Plasticity and Accumulation of Amyloid Plaques in APP/PS1 Transgenic Mice. **Neurobiol Aging**. 2014 Jun 16. pii: S0197-4580(14)00428-X. doi: 10.1016/j.neurobiolaging.2014.06.009.

Tao S* and Ma QH*. Repairing Neural Injuries Using Human Umbilical Cord Blood. **Mol Neurobiol.** 2013 Jun; 47(3):938-45. doi: 10.1007/s12035-012-8388-0.

Q.H. Ma, T. Futagawa, W.L.Yang, X.D. Jiang, L. Zeng, Y. Takeda, R.X. Xu, D. Bagnard, M. Schachner, A.J. Furley, D. Karagogeos, K. Watanabe, G.S. Dawe, and Z.C. Xiao. (2008) A TAG-1/APP signaling pathway through Fe65 negatively modulates neurogenesis. **Nature Cell Biology.** 10(3), 283-294.

*: corresponding author

Dr Jie Tu

The Brain Cognition and Brain Disease Institute
for Collaboration Research of SIAT at CAS
and the McGovern Institute at MIT
*Shenzhen Institutes of Advanced Tec*hnology,
Chinese Academy of Sciences (CAS) No. 1068
Xueyuan Boulevard, Nanshan, Shenzhen China
Phone: 86-755-26703551,1509909404, Fax: 86 755 86392299
E-mail: jie.tu@siat.ac.cn

Education 1997 – 2001 B. S. in Life Science, Zhejiang University, Hangzhou, PR CHINA; 2001 – 2004 M. S. in Medical Science, Zhejiang University, Hangzhou, PR CHINA Thesis, with Prof. Xia Qiang; 2004 – 2009 Ph. D. in Physiology, Department of Physiology, Faculty of Medicine, University of Hong Kong, Hong Kong.

Research and professional experience

2008.9-2009.12 Research Assistant Investigator: Neural Engineering Research Center, Shenzhen Institutes of Advanced Technology, Chinese Academy of Scinence, Shenzhen, China; 2010.1- present Associate Investigator: The Brain Cognition and Brain Disease Institute for Collaboration Research of SIAT at CAS and the McGovern Institute at MIT, Shenzhen Institutes of Advanced Technology.

Grants National Natural Science Fund-Seeding Fund for Young Investigator; Shenzhen Government Research Grant-Key project

Publications

Yang F#, Liu Y#, Tu J#, Wan J, Zhang J, Wu B, Chen S, Zhou J, Mu Y, Wang L. Activated astrocytes enhance the dopaminergic differentiation of stem cells and promote brain repair through bFGF. **Nat Commun**. 2014 Dec 17;5: 5627.

Tu J, Yang F, Wan J, Liu Y, Zhang J, Wu B, Liu Y, Zeng S, Wang L. Light-controlled astrocytes promote human mesenchymal stem cells toward neuronal differentiation and improve the neurological deficit in stroke rats. **Glia**, 2014; 62:106-21

Yang F#, Tu J#, Pan JQ, Luo HL, Liu YH, Wan J, Zhang J, Wei PF, Jiang T, Chen YH, Wang LP. Light-controlled inhibition of malignant glioma by opsin gene transfer. **Cell Death Dis.** 2013 Oct 31;4:e893

Tu J, Lu L, Cai WS, Ballard HJ. cAMP/Protein kinase A activates cystic fibrosis transmembrane conductance regulator for rat skeletal muscle muscle ATP release during low pH or contractions. **Plos One**, 2012; 7(11): e50517

Sun XQ, Wang YF, Zhang J, Tu J, Wang XJ, Su XD, Wang LP, Zhang Y. Tunneling-nanotube direction determination in neurons and astrocytes. **Cell Death and Disease**, 2012; 3:e438

Yang F, Yang D, Tu J, Zheng Q, Cai L, Wang L. Strontium enhances osteogenic differentiation of mesenchymal stem cells and in vivo bone formation by activating Wnt/catenin signaling. **Stem Cells**, 2011; 29(6):981-91.

Tu J, Le G, Ballard HJ. Involvement of the cystic fibrosis transmembrane conductance regulator in the lactic-acid-induced increase in interstitial ATP in rat EDL muscle. **J Physiol**, 2010; 588 (Pt 22): 4563-78.

Prof. Meng-Sheng Qiu
University of Louisville
Department of Anatomical Sciences and Neurobiology
School of Medicine
500 South Preston Street
Louisville, KY 40202, USA

Tel: 502-852-5248
Fax: 502-852-6228
Email: m0qiu001@louisville.edu

Education

Ph. D. (Biology), University of Iowa, Iowa City 1992; M. Sc. (Dev. Biol.) , Hunan Normal University, Changsha, China 1986; Sc. (Zoology), Lanzhou University, Gansu, China 1983

Research and professional experience

Distinguished University Scholar (03/2006- present); Professor (07/04 – present); Associate Professor (07/01 – 06/04); Assistant Professor (08/97 – 06/01); Department of Anatomical Sciences and Neurobiology, University of Louisville; Postdoctoral Fellow (12/92 - 07/97) Nina Ireland Laboratory of Developmental Neurobiology University of California at San Francisco; Ph. D. Student (8/1987 - 12/92) Department of Biology, University of Iowa

Honors and Awards: 1994-1997 NIH NRSA award; 2000, 2004 First Place, Research Louisville! Basic Science; Amyotrophic Lateral Sclerosis Association Award; National Multiple Sclerosis Society Award; 2006- Distinguished University Scholar

Selective publications

Zheng K, Li H, Zhu Y, Zhu Q and Qiu M (2010). miRNAs are required for the developmental switch from neurogenesis to gliogenesis in the spinal cord. **J. Neurosci.** 30 (24):8245-50

Zhu Q, Zhao X, Zheng K, Li H., Huang H., Zhang Z., Wegner M, Chen Y., Sussel L and Qiu M. (2014). Genetic evidence that Nkx2.2 and PDGFRA are major determinants of the timing of oligodendrocyte differentiation in the developing CNS. **Development** 141(3):548-55

Dai Z., Sun S, Wang C, Hao H, Hu X, Zhang Z, Lu QR, Qiu M. (2014). Stage-specific regulation of oligodendrocyte development by Wnt/β-catenin signaling. **J. Neurosci.** 34(25):8467-73

Prof. Yong Xiang Wang
Shanghai Jiao Tong University School of Pharmacy
The No.6 Biomedicine Building (Suite 106)
800 Dongchuan Road, Shanghai 200240, China

Telephone/Fax: 86-21-3420-4763
Email: yxwang@sjtu.edu.cn
Website: http://kinglab.sjtu.edu.cn

Education: PhD, Pharmacology, 1994, The University of British Columbia, Vancouver, B.C., Canada; MSc, Pharmacology, 1985, Anhui Medical University, Hefei, Anhui, China; BSc, Medicine, 1982, Anhui Medical University, Hefei, Anhui, China.

Positions and Employment: Professor, 2003-present, Shanghai Jiao Tong University, Shanghai 200240, China; Senior Scientist and Group Leade, 1994-2002, Elan Pharmaceuticals, S. San Francisco, California 94080, USA.; Post-Doctoral Research Fellow, 1993-1994, Stanford University, Stanford, California 94305, USA; Lecturer/Teaching Assistant, 1985-1990, Anhui Medical University, Hefei, Anhui, China.

Activities in the scientific community: Associate Editor, Experimental Biology and Medicine; Editorial Board Member, Amino Acids.

Honors: Pharmaceutical Science and Technology Award, Shanghai Pharmaceutical Association, 2014; WuXi PharmaTech Life Science and Chemistry Award, 2011.; Science and Technology Award, Chinese Pharmaceutical Association, 2011; Pharmaceutical Science and Technology Award, Shanghai Pharmaceutical Association, 2009.

Publications (selected from 2013-2014):

Zhu B., Gong N., Fan H., Peng C.-S., Ding X.-J., Jiang Y. & Wang Y.-X. (2014). Lamiophlomis rotata, an orally available Tibetan herbal painkiller, specifically reduces pain hypersensitivity through the activation of the spinal glucagon-like peptide-1 receptors. **Anesthesiology** 121:835-851.

Gong N., Xiao Q., Zhu B., Zhang C.-Y., Wang Y.-C., Han H., Ma A.-N. & Wang Y.-X. (2014). Activation of spinal glucagon-like peptide-1 receptors specifically suppresses pain hypersensitivity. **J. Neurosci.** 34:5322-5334.

Gong N., Li X.-Y., Xiao Q. & Wang Y.-X. (2014). Identification of a novel spinal dorsal horn astroglial D-amino acid oxidase-hydrogen peroxide pathway involved in morphine antinociceptive tolerance. **Anesthesiology** 120:962-975.

Zhang J.-Y., Gong N., Huang J.-L., Guo L.-C. & Wang Y.-X. (2013). Gelsemine, a principle alkaloid from Gelsemium sempervirens Ait., exhibits potent and specific antinociception in chronic pain by acting at spinal α3 glycine receptors. **Pain** 154:2452-2462.

Prof. Lan Xiao

Department of Histology and Embryology
Third Military Medical University (TMMU)
Chongqing, 400038, China

Tel. +86 23 68752218
Email: xiaolan35@hotmail.com

Education 1985 – 1990 MD in TMMU, 1997 – 2000 PhD at TMMU, 2003-2006 Post-Doc, Neuropsychiatry University of Saskatchewan, Canada

Positions and Employment 1990 – 1996 Assistant teacher, TMMU, 1996 – 2002 Lecture, TMMU, 2002–2007 Associate professor, TMMU, 2007 - present, Professor, TMMU, 2007 – present director of Department of Histology and Embryology, TMMU

Activities in the scientific community 2010 – present Vice Chair of Histology and Embryology Branch, Chinese Society for Anatomical Sciences (CSAS); 2012 – present Committee member of Glia Branch, Chinese Society for Neuroscience (CSN); 2012 – 2014 Vice President of Chongqing Society for Anatomical Sciences, China; 2014 – present Associate secretary-general of Chinese Society for CSAS; 2014 – present President of Chongqing Society for Anatomical Sciences, China; 2007 – present Member of Society for Neuroscience (SFN)

Honors 2009 Outstanding teacher in TMMU, 2014 Military Golden reward for education

Publications (selected 2008 – 2013)

Xiao, L., Xu, H., Zhang, Y., Wei, Z., Dyck, L., Devon, R.M., He, J., Jiang, W., and Li, X.-M. (2008) Quetiapine facilitates oligodendrocyte development and prevents mice from cortical demyelination and behavioral changes. **Mol Psychiatry**, Jul;13(7):697-708.

Niu J, Mei F, Wang L, Liu S, Tian Y, Mo W, Li HL, Lu Q. Richard and Xiao L (2012). Phosphorylated Olig1 Localizes to the Cytosol of Oligodendrocytes and Promotes Membrane Expansion and Maturation. **Glia.** 2012 Sep; 60(9):1427-36.

Mei F, Wang H, Liu S, Wang L, Niu J, He Y, Etxeberria A, J Chan JR* and Xiao L* (2013) Stage-specific deletion of Olig2 conveys opposing functions on differentiation and maturation of oligodendrocytes. **J Neurosci.** 33(19):8454–8462
* equal contribution

Prof. Fan Yang

B506 Shenzhen Institutes of Advanced Technology
Chinese Academy of Sciences, Shenzhen, China

Telephone: 86-755-86392220
Mobile phone: 86-15889617034
E-mail: fan.yang@siat.ac.cn

Education

1994 - 1999 B.S. of Medicine, Beijing Medical University, Beijing, PR China.
1999 – 2002 M.S. of Medical Sciences, Peking University, Beijing, PR China.
2003 – 2007 PhD. Faculty of Medicine, University of Hong Kong, Hong Kong

Positions and Employment

2007-2008 Research Associate, University of Hong Kong, Faculty of Medicine
2008-2011 Assistant Professor, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
2011-Now Associate Professor, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

Honors 2007 New Investigator recognition Award, 53rd Annual Meeting of the Orthopaedic Research Society; 2012 Shenzhen Overseas High-Caliber Personnel (Peacock Plan, Level B) 2014 Shenzhen Natural Science Award

Publications

Yang F, Liu YH, Tu J, Wan J, Zhang J, Wu BF, Chen SP, Zhou JW, Mu YL and Wang LP. Activated astrocytes enhance the dopaminergic differentiation of stem cells and promote brain repair through bFGF. **Nature Communications**. 2014 Dec 17;5:5627.

Tu J, Yang F, Wan J, Liu YH, Zhang J, Wu BF, Liu YF, Zeng SQ, Wang LP. Light-controlled astrocytes promote human mesenchymal stem cells toward neuronal differentiation and improve the neurological deficit in stroke rats. **Glia**. 2014 Jan;62(1):106-21.

Yang F, Tu J, Pan JQ, Luo HL, Liu YH, Wan J, Zhang J, Wei PF, Jiang T, Chen YH and Wang LP. Light-Controlled Inhibition of Malignant Glioma by Opsin Gene Transfer. **Cell Death & Disease**. 2013 Oct 31.

Yang F, Yang D, Tu J, Zheng Q, Cai L, Wang LP. Strontium enhances osteogenic differentiation of mesenchymal stem cells and in vivo bone formation by activating Wnt/catenin signaling. **Stem Cells**. 2011 Jun; 29(6):981-91.

Prof. Honghong Yao
Department of Pharmacology
Medical School of Southeast University,Nanjing,China
Add: Dingjiaqiao 87, Nanjing, Jiangsu, China 210009
Tel: +86 25 83272551
E-mail:yaohh@seu.edu.cn

Education
1998 – 2001 Master in Pharmacology at China Pharmaceutical University, Nanjing,China; 2003 – 2006 PhD in Pharmacology at Nanjing Medical University, Nanjing, China

Positions and Employment
2001-2006 Lecture, Nanjing Medical University, Nanjing, China, 2006-2007 Assist Professor, Nanjing Medical University, Nanjing, China, 2007-2009 Postdoctor, University of Kansas Medical School, Kansas City, US, 2009-2011 Instructor, University of Nebraska Medical School, Omaha, US, 2011-2013 Assistant Professor, University of Nebraska Medical School, Omaha, US, 2013-present Professor, Medical school of Southeast University

Activities in the scientific community
2006-present Member of Society of Neuroscience, 2007-present International Society for Neurovirology

Honors 2009 Awarded Young Investigator Travel Award for 16th CROI meeting; 2010 Nicholas B. Badami Research Fellowship, Department of Pharmacology and Experimental Therapeutics, September 2, 2010; 2010 UNMC New Investigator award

Publications (selected 2009 – 2014)

Yao H, Kim K, Duan M, Hayashi T, Guo M, Morgello S, Prat A, Wang J, Su TP, Buch S. (2011) Cocaine hijacks sigma-1 receptor to initiate induction of ALCAM: Implication for increased monocyte adhesion and migration in the central nervous system. **J Neurosci.** 31:5942-5955.

Yao H, Duan M, Hu G and Buch S (2011). Platelet-derived growth factor B chain is a novel target gene of cocaine-mediated Notch1 signaling: Implications for HIV-associated neurological disorders. **J Neurosci.** 31:12449-54.

Yao H*, Duan M, Yang L and Buch S* (2012). Platelet-derived growth factor restores HIV Tat and cocaine-mediated impairment of neurogenesis: Role of TRPC 1 channels. **J Neurosc.** 32:9835-47 (* Co-Corresponding author)

Yao H, Duan M, Yang L, Lu Y, Singh V, Buch S (2013). Nonmuscle myosin light- chain kinase mediates microglial migration induced by HIV Tat: Involvement of β1 integrins. **FASEB J.** 27(4):1532-48.

Yao H, Ma R, Yang L, Hu G, Chen X, Duan M, Kook Y, Niu F, Liao K, Fu M, Hu G, Kolattukudy P, Buch S (2014). MiR-9 promotes microglial activation by targeting MCPIP1. **Nat Commun.** 5:4386

Prof. Albert Cheung-Hoi YU
Units 601 – 605, 6/F, Biotech Centre One
9 Science Park West Avenue
Hong Kong Science Park, Hong Kong
Tel: +852 2111 2123
Email: achy@haikanglife.com; achy@hkbio.org.hk

Education B.Sc. (Biochemistry), M.Sc. (Anatomy), Ph.D. (Pharmacology) University of Saskatchewan (1976, 1980, 1984); Canada

Positions and Employment since 2002 Professor, Neuroscience Research Institute and Department of Neurobiology, Health Science Center, Peking University; 2006-present Vice Director, Key Laboratory for Neuroscience Ministry of Public Health, China; since 2006 Vice Director, Neuroscience Research Institute, Peking University and Department of Neurobiology, Health Science Center and since 2010 Chief, Laboratory of Translational Medicine, Institute of Systems Biomedicine, Peking University; since 2011, Hong Kong Science & Technology Parks Corporation

Activities in the Scientific Community 2011-2013 President, Beijing Society for Neuroscience; 2012-present Organization Committee of The Chinese Neuroscience Society; 2012-present Board of Directors, Asian Fund for Cancer Research (AFCR); 2012-present Committee Member Biochemical and Molecular Pharmacology, Committee of Chinese Pharmacological Society; 2013 Assessor, Beijing Natural Science Foundation; 2014-2017 Member, Peking University Health Science Education Fund Development Committee; 2014-present Distinguished Member, Gordon Research Conferences Advisory Board Hong Kong; 2014 Council Member, for the Promotion of Guangdong-Hong Kong-Macao Cooperation; 2014 Director, Beijing Society for Neuroscience Advisory Board; 2015-2017 Non-Official Member, Commission on Strategic Development, Central Policy Unit, HKSAR

Honors 2009 Asia Pacific Frost & Sullivan Product Differentiation Excellence Award for In-Vitro Diagnostics; 2012 Outstanding Teacher, Peking University Health Science Center; 2014 China Cooperative Innovation Award; 2014 Innovative Student Projects Award of Department of Medicine, Peking University

Publications (selected 2010-2015)

Ying Pang, … Yu AC (2015) Ischemia preconditioning protects astrocytes from ischemic injury through 14-3-3γ. **Journal Neurosci Res**. In press.

Gao K, … Yu AC. (2013) Traumatic scratch injury in astrocytes triggers calcium influx to activate the JNK/c-Jun/AP-1 pathway and switch on GFAP expression. **Glia**. 61:2063-2077

Chai RC, … Yu AC. (2013) AQP5 is differentially regulated in astrocytes during metabolic and traumatic injuries. **Glia**. 61:1748-1765

Yang CZ, Iyer RR, Yu ACH, … Zhuang ZP. (2012) β-catenin signaling initiates the activationof astrocytes and its dysregulation contributes to the pathogenesis of astrocytomas. **Proc Natl Acad Sci**. 109:6963-6968

Prof. Yang Zhan
Shenzhen Institutes of Advanced Technology,
Chinese Academy of Sciences
1068 Xueyuan Avenue, Shenzhen University Town,
Shenzhen, 518055 P.R.China

Tel. +86 755 8639 2218
Email: yang.zhan@siat.ac.cn

Education 1999 – 2003 Bachelor in Electronic and Information Engineering, Dalian University of Technology, 2003 – 2005 Masters in Electronics at University of York, 2006 – 2010 PhD, University of Cambridge

Positions and Employment 2010 – 2013 Postdoc, European Molecular Biology Laboratory, 2014 – present, Principle Investigator/Associate Professor for Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

Activities in the scientific community 2011 – 2003 Postdoc representative at EMBL Monterotondo

Honors 2006 – 2010 Search Foundation USA Studentship, 2010 – 2014 EIPOD fellowship

Publications (selected 2007 – 2013)

Zhan Y, Kendrick KM, and Feng J. (2009) Filtering Noise for Synchronised Activity in Multi-trial Electrophysiology Data using Wiener and Kalman filters. **BioSystems**.96:1-13

Kendrick KM, Zhan Y, Fischer H, Nicol AU, Zhang X Feng J. (2011) Learning alters theta amplitude, theta-gamma coupling and neuronal synchronization in inferotemporal cortex. **BMC Neurosci**.12:55.

Zhan Y, Paolicelli RC, Sforazzini F, Weinhard L, Bolasco G, Pagani F, Vyssotski A, Bifone A, Gozzi A, Ragozzino D, and Gross C. (2014) Deficient neuron-microglia signaling results in impaired functional brain connectivity and social behavior. **Nature Neurosci.** 17(3): 400-406

Amendola E, Zhan Y, Mattucci C, Castroflorio E, Calcagno E, Fuchs C, Lonetti G, Silingardi D, Farley D, Ciani E, Pizzorusso T, Giustetto M, Gross C. (2014) Mapping pathological phenotypes in a mouse model of CDKL5 disorder. **PLoS ONE**, 9(5), e91613

Prof. Jiawei Zhou
Institute of Neuroscience
CAS Center for Excellence in Brain Science
Shanghai Institutes for Biological Sciences
Chinese Academy of Sciences
320 Yueyang Road, Shanghai, 200031

Tel. +86 21 5492 1073
Email: jwzhou@ion.ac.cn

Education 1980 – 1988 Bachelor in Medicine and then Master in Neurobiology at Nantong Medical College, China, 1992 – 1996 PhD at Imperial College, London, UK.

Positions and Employment 1996 – 1998 Postdoc, University of Hahnemann, USA, 1998 – 2001 Principle Investigator, Shanghai Institute of Physiology, Chinese Academy of Sciences; 2001 – 2006, Principle Investigator, IBCB, CAS, 2007 – present, Principle Investigator, Institute of Neuroscience, CAS.

Activities in the scientific community Editorial Boards: Frontiers in Biology (12-), Acta Physiologica Sinica (01- ; Standing editor, 10-), Chinese Journal of Life Science (11-). Steering Committees: Beijing Municipal Key Laboratory of Parkinson's Disease (13-); Parkinson's Disease Institute, Beijing Institute for Brain Disorders (13-). Institute of Neuroscience, Soochow University, China (12-).

Honors 2004 Life Science Award, Meiji Dairies Corp. (Shanghai); 2011 Natural Science Award from the Chinese Ministry of Education; 2013 Science & Technology Progress Award (Shanghai Municipal Government); 2013 The State Council Special Government Allowance; 2013 Sanofi Neuroscience Outstanding Scholarship Award; 2013 Chinese Journal of Cell Biology-Cell Signaling Technology Award for Excellence in Cell Biology Research; 2013 WuXi AppTec Life Chemistry Award; 2013 Mentor of Excellence Award, Chinese Academy of Sciences; 2014 Talent Award (Shanghai Municipal Government)

Publications (selected 2009 –)

Zhu SY#, Zhao CJ#, Wu YY#, ..., Zhou J*. Vav2 regulates dopamine transporter-dependent mesolimbic dopamine homeostasis and behavioral responses to cocaine. **Nat. Neurosci** (Revised). (#co-first author)

Shao W#, Zhang SZ#, ..., Zhou J*. (2013) Suppression of neuroinflammation by astrocytic dopamine D2 receptors via alphaB-crystallin. **Nature**. 494; 90-94. (#co-first author)

Zhu, XD, Liu Y, Shao AY, Yin YQ, Kim S and Zhou J*. (2009) MSC p43 required for axonal development in motor neuron. **Proc Natl Acad Sci USA**, 106: 15944-15949

Zhang XH, Zhou Z, ..., Zhen XC* and Zhou J*. (2009) Activation of PI-linked D1-like receptor modulates FGF-2 expression in astrocytes via IP3-dependent Ca2+ signaling. **J Neurosci.** 29: 7766-7775.

Yin M#, Liu SX#, ..., Zhou J*. (2009) Ventral mesencephalon-enriched genes that regulate the development of dopaminergic neurons in vivo. **J Neurosci**. 29: 5170-5183. (#co-first author)

Prof. Zhuan Zhou
Laboratory of Cellular Biophysics
Institute of Molecular Medicine
Peking University
Yinjie Conference Center, Room 337
5 Yi-He-Yuan Road
Beijing 100871, China

Tel & Fax: ++86-10-6275-3212
email: zzhou@pku.edu.cn
web: http://www.imm.pku.edu.cn/

Education Ph.D. thesis: Patch-clamp system and single channel recording in rat dorsal root ganglion neurons. Postdoctoral fellow, 1990- 1993, Lab of Erwin Neher Max-Planck-Institute for Biophysical Chemistry, Goettingen, Germany.

Postions and Emyployment 1993, Visiting Researcher (Bert Sakmann, Max-Planck-Institute for Medical Research, Heidelberg, Germany). 1993-1995, Research Instructor, Dept. of Physiology, Washington University. St. Louis. 1993-2000, Director, Institute of Biophysics and Biochemistry Huazhong University of Science and Technology, Wuhan, China. 1995-97, Researcher Assistant Professor, Department of Physiology, Loyola University, Chicago. 1997-1999, Head, Department of Neuroscience and Biophysics, University of Science and Technology of China, Hefei. 1999-2004. Principle Investigator, Institute of Neuroscience, Chinese Academy of Sciences, Shanghai. since 2005- Professor, Institute of Molecular Medicine, Peking University, Beijing.

Activities in the scientific community Member of Academic Committee, "Molecular mechanisms of Brain Development" National Basic Research Program of China, Institute of Genetics and Development, Chinese Academy of Sciences;

Honors 1995 NSFC National Excellent Young Investigator Award, 1996 CAS "100 talent scholar Program" award, 1998 The Li Foundation (San Francisco) Heritage Prize. 2002 CAS excellent PH.D. advisor award; 2004 CAS Baojie excellent PH.D. advisor award; 2005 National award for advisor of "100 Best Ph.D. thesis", 2006 Tan-Jia-Zheng (Fudan University) Life Science award, 2010 Special contribution award, Institute of Molecular Medicine, Peking University

Publications

Kang XJ, Xu HD,..., Zhou Z (2014) Rescuing dopamine release and parkinsonian behavior by neural stem cells. **PNAS**, 111:15804-9.

Wang L, ..., Zhou Z (2014) A mechanism of modulating dopamine release in the striatum by smoking-level nicotine. **Nature Communications**. DOI: 10.1038/ncomms4925.

Tao Liu, ..., Zhuan Zhou (2011) Calcium triggers quantal release simultaneously from two types of vesicles in a single astrocyte. **J Neurosci** 31:10593–10601.

Chen XK, Xiong YF, and Zhou Z (2006) "Kiss-and-Run" Exocytosis in Astrocytes. **Neuroscientist**, 12(5): 375–378

NOTES

NOTES

NOTES