

BIOGRAPHICAL SKETCH

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NAME Wolfgang Bernhard Liedtke		POSITION TITLE Assistant Professor and Head of Laboratory	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Immanuel-Kant-Gymnasium, Dortmund, Germany	Abitur	1984	High-school diploma
University of Cologne, Germany	M.D.	1989	Medicine
University of Bochum, Germany	Ph.D.	1990	Medical Virology
University Medical Center, Tuebingen, Germany		1989-1991	Neurology (Residency)
University Medical Center, Essen, Germany		1991-1994	Neurology, Psychiatry
Albert Einstein College of Medicine, Yeshiva University, The Bronx, NY		1994-1997	Neuropathology (Fellow)
The Rockefeller University, New York, NY		1997-2004	Molecular Genetics
State Board of Physicians, Westphalia, Germany	Boards	2002	Neurology
North Carolina Medical Board, Raleigh, NC	NC Med. Lic.	2004	Medicine

Employment History:

1989-1991 Neurology Department of the University of Tuebingen, Germany (Resident)
 1991-1993 Neurology Department of the University of Essen, Germany (Resident & Senior Res.)
 1993-1994 Psychiatry Department of the University of Essen, Germany (Resident & Senior Res.)
 1994 -1997 Department of Pathology, Division of Neuropathology,
 Albert Einstein College of Medicine, Bronx, NY (Neuropathology Fellow w/ Dr. C.S. Raine)
 1997 - 2004 Laboratory of Molecular Genetics, The Rockefeller University, New York, NY
 (Research Associate, then Assistant Professor in Dr. Jeffrey M. Friedman's lab)
 March 2004 - : Duke University Medical Center, Center for Translational Neuroscience, Durham, NC
 Assistant Professor (tenure-track) and Head of Laboratory; Attending Physician, Duke Pain Clinics

Honors:

- **Scholarship of the German National Merit Foundation**, Bonn, Germany, during Medical School Education (supporting <0.25% of the German student population).
- Ph.D. thesis "Immune response to rotavirus infection" awarded degree **magna cum laude**; University of Bochum, Germany, 1990
- **Scholarship of the Alexander von Humboldt-Foundation**, Bonn, Germany, Feodor Lynen Program for German Research Fellows abroad, supporting the Neuropathology Fellowship.
- **Member of the Alexander von Humboldt - Association of America**, Washington, DC.
- **Henry L. Moses Award of Yeshiva University, New York, First Prize in the Basic Science Category**, March 1998
- **Mentored Clinical Scientist Development Award (K08)** of the National Institutes of Mental Health ("Molecular Studies of Osmotic Neural Sensing"), start date 1/2002
- **Klingenstein Fellowship in the Neurosciences, Robert H. Ebert Clinical Scholar**, The Esther A. & Joseph Klingenstein Fund, Inc., New York, NY, USA; 2004

Publications (selection):

1. **Liedtke W**, Limmroth V. Validity of brain magnetic resonance imaging as the primary outcome criterion in multiple sclerosis phase II clinical trials. *Ann Neurol*, 1996, 39, 276
2. **Liedtke W**, Edelmann W, Bierri PL, Chiu FC, Cowan N, Kucherlapati R, Raine CS. GFAP is necessary for the integrity of CNS white matter architecture and the long-term maintenance of myelination. *Neuron*, 1996, 17, 607-615
3. **Liedtke W**, Meyer G, Faustmann PM, Warnatz H, Raine CS. Clonal expansion and decreased occurrence of peripheral $\gamma\delta$ -T cells of the V δ 2J δ 3 lineage in multiple sclerosis patients. *Int Immunol* 1996, 9, 1031-1041
4. **Liedtke W**, Edelmann W, Chiu FC, Kucherlapati R, Raine CS. Experimental autoimmune encephalomyelitis in mice lacking glial fibrillary acidic protein is characterized by a more severe clinical course and an infiltrative central nervous system lesion. *Am J Pathol* 1998, 152, 251-259
5. **Liedtke W**, Cannella B, Mazzaccaro RJ, Clements JM, Miller KM, Wucherpfennig KW, Gearing AJH, Raine CS. Effective treatment of models of multiple sclerosis by matrix metalloproteinase inhibitors. *Ann Neurol* 1998, 44, 35-46
6. **Liedtke W**, Choe Y, Marti-Renom MA, Bell AM, Denis CS, Sali A, Hudspeth AJ, Friedman JM, Heller S. Vanilloid receptor-related osmotically activated channel (VR-OAC), a candidate vertebrate osmoreceptor. *Cell* 2000, 103, 525-535
7. **Liedtke W**, Leman EE, Fyffe REW, Raine CS, Schubart UK. Stathmin-deficient mice develop an age-dependent axonopathy of the central and peripheral nervous systems. *Am J Pathol* 2002, 160, 469-480
8. Cohen P, Miyazaki M, Socci ND, Hagge-Greenberg A, **Liedtke W**, Soukas AA, Sharma R, Ludgins LC, Ntambi JM, Friedman JM. Role for stearyl-CoA desaturase in leptin-mediated weight loss. *Science* 2002, 297, 240-244
9. **Liedtke W**, Friedman JM. Abnormal osmotic regulation in *trpv4*^{-/-} mice. *PNAS* 2003, 100, 13698-13703
10. **Liedtke W**, Tobin DM, Bargmann CI, Friedman JM. Mammalian TRPV4 (VR-OAC) directs behavioral responses to osmotic and mechanical stimuli in *C. elegans*. *PNAS* 2003, 100, 14531-14536
11. **Liedtke W**, Simon SA. A possible role for TRPV4 receptors in asthma. *Am J Physiol Lung* 2004, 287, L269-271
12. **Liedtke W**. TRPV4 as osmosensor: a transgenic approach. *Pfluegers Archiv - Eur J Physiol* 2005, 451, 176-180
13. **Liedtke W**. TRPV4 plays an evolutionary conserved role in the transduction of osmotic and mechanical stimuli in live animals. *J Physiol* 2005, 576, 53-58
14. Alessandri-Haber N, Joseph E, Olayinka AD, **Liedtke W**, Levine JD. TRPV4 mediates pain-related behavior induced by mild hypertonic stimuli in the presence of inflammatory mediator. *Pain* 2005, 118, 70-79
15. **Liedtke W**, Kim C. Functionality of the TRPV subfamily of TRP ion channels: add mechano-TRP and osmo-TRP to the lexicon ! *Cell Mol Life Sci* 2005, 62 2985-3001
16. Liu L, Yang TM, **Liedtke W**, Simon SA. Chronic IL-1 β signaling potentiates voltage-dependent sodium currents in trigeminal nociceptive neurons. *J Neurophys* 2006, 95, 1478-1490
17. Liu X, Bandyopadhyay BB, Makamoto T, Singh BB, **Liedtke W**, Melvin JE, Ambudkar IS. A role for AQP5 in activation of TRPV4 by hypotonicity: concerted involvement of AQP5 and TRPV4 in regulation of volume recovery. *J Biol Chem* 2006, 281, 15485-15495
18. **Liedtke W**. TRPV channels functioning in transduction of osmotic stimuli. *J Endocrinol* 2006, *in press*