

Jürgen Sandkühler. M.D., Ph.D.

# Résumé

## University education

1977 - 1983 1982 - 1983	Medical School, Heidelberg University, Germany Visiting scholar, University of Iowa, IA, USA (with Prof. G.F. Gebhart)
1983 - 1984	Medical School, Freiburg University, Germany
1984	Diploma: Graduation M.D.
1988	Diploma: State Doctorate, Ph.D. (in Physiology)

# **Professional Development**

1984 - 1985	Basic military service Military Surgeon, Ma	nnheim, Germany
1985 - 1995	Institute of Physiology	, Heidelberg University, Germany
	1985 - 1988	Postdoctoral Fellow
	1988 - 1989	Lecturer of Physiology
	1989 - 1995	Assistant Professor
	1995 - 2000	Heisenberg-Award (Professorship) from the Deutsche Forschungsgemeinschaft (DFG)
1995	Institute of Physiology U.S.A., Visiting Profe	and Pharmacology, Iowa State University, essor with Prof. Mirjana Randić
1996 - 2001	Institute of Physiology Assistant Professor	, Heidelberg University, Germany
1996 - 1997	Institute of Physiology Visiting Professor wi	r, Freiburg University, Germany ith Prof. Peter Jonas
1999 - 2001	Speaker, Multidiscip Medical Faculty, Heide	<b>linary Research Programme <i>"Pain"</i></b> elberg University, Germany

Since 2001	Full Professor of Neurophysiology, Department of Neurophysiology, Center for Brain Research, Medical University of Vienna, Austria
2004-2007	Deputy Director, Center for Brain Research, Medical University of Vienna
Since 2007	Director, Center for Brain Research, Medical University of Vienna

#### **Scientific Activities:**

Editorial Board Member:	Science; The Journal of Neuroscience; Pain; The Journal of Pain, Molecular Pain
Executive Board:	Austrian Chapter of the IASP
Memberships:	<ul> <li>IASP</li> <li>German and Austrian chapters of the IASP</li> <li>Society for Neuroscience</li> <li>German Neuroscience Association</li> <li>German Physiological Society</li> </ul>
Referee:	for all major Neuroscience and Pain journals including Science, Nature, Neuron, Cell, Pain, The Journal of Neuroscience
Major Current Funding:	WWTF grant LS07-040; FWF grant P22306-B19
Major Recent Funding:	Anniversary Fund of the Oesterreichische Nationalbank grant # 10494; FWF grant #P18129-B02; FWF grant #P15542-B02; FWF grant #P19637- B02
Select. Recent Lectures:	Key note lectures at the IASP-World Congress on Pain, 2010 in Montreal, Canada; at the IASP Satellite Symposia 2011 in Shanghai, China and 2013 in Netherlands; EFIC Pain in Europe Conference 2013 in Florence, Italy.
Publications:	List and download of full-length articles: http://cbr.meduniwien.ac.at/research/publications/by-department/id/all/7

#### **Present Address and Position:**

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Handhicht

## Ten most relevant publications

### Original articles

- Draxler P, Honsek SD, Forsthuber L, Hadschieff V, Sandkühler J. (2014) VGluT3<sup>+</sup> primary afferents play distinct roles in mechanical and cold hypersensitivity depending on pain etiology J Neurosci, 34: 12015-12018.
- Clark A, Gruber-Schoffnegger D, Drdla-Schutting R, Gerhold K, Malcangio M, Sandkühler J (2015) Selective activation of microglia facilitates synaptic strength J. Neurosci., 35: 4552-4570.
- 3. Drdla-Schutting R, Benrath J, Wunderbaldinger G, Sandkühler J (2012) Erasure of a spinal memory trace of pain by a brief, high-dose opioid administration **Science**, 335: 235-238.
- 4. Heinl C, Drdla-Schutting R, Xanthos D, Sandkühler J (2011) Distinct mechanisms underlying pronociceptive effects of opioids **J Neurosci**, 31: 16748–16756.
- 5. Drdla R., Gassner M., Gingl E., Sandkühler J. (2009) Induction of synaptic long-term potentiation after opioid withdrawal **Science**, 325: 207-210.
- 6. Ikeda H., Stark J., Fischer H., Wagner M., Drdla R., Jäger T., Sandkühler J. (2006) Synaptic amplifier of inflammatory pain in the spinal dorsal horn. **Science**, 312: 1659-1662.
- 7. Ikeda H., Heinke B., Ruscheweyh R., Sandkühler J. (2003) Synaptic plasticity in spinal lamina I projection neurons that mediate hyperalgesia **Science**, 299: 1237-1240.

#### **Review articles**

- 8. Xanthos DN, Sandkühler J (2014) Neurogenic neuroinflammation: inflammatory CNS reactions in response to neuronal activity **Nat Rev Neurosci**, 15: 43-53.
- 9. Sandkühler J, Lee J (2013) How to erase memory traces of pain and fear **Trends Neurosci**, 36: 343-352.
- 10. Sandkühler, J. (2009) Models and mechanisms of hyperalgesia and allodynia. **Physiol Rev**, 89: 707-758.