



Prof. Dr. Bernhard A. Sabel, PhD

- Professor of Medical Psychology, University of Magdeburg (Germany)
- Editor-in-Chief “RESTORATIVE NEUROLOGY AND NEUROSCIENCE”

Areas of interest

Vision restoration technologies for visual field defects after glaucoma, optic neuropathy and hemianopia using vision restoration training and non-invasive brain current stimulation; eye movements in vision disease; brain plasticity and functional brain network reorganization; neuropsychology and nanotechnology; clinical and pre-clinical research.

Biography:

- PhD in psychobiology, **Clark University**, Worcester, USA, 1984;
- Post-doc, **Massachusetts Institute of Technology** (M.I.T.), USA 1984-1986
- Research scientist at the **University of Munich** (Germany) 1987-1992;
- Visiting neuroscientist, Mass. General Hospital, **Harvard Medical School** 1991;
- Professor of Med. Psychology, **University of Magdeburg**, Germany, 1992-now
- Research Fellow, Dept Psychology, **Princeton University**, 1998-1999
- Senior Visiting Professor, Inst. Automation, **Chinese Acad. Sciences**, 2011-2012
- Visiting Professor, **Beijing Tongren Hospital**, Capital Med. Univ., 2012-2016

Awards (selected):

- *Cinquegrani-Award*, for best innovation in information and communication technologies, awarded by Innovation Relay Center Pisa of the European Union (Florenz 2000)
- *Leonardo DaVinci-Award*, World Org. Achiev. Human Potential, Philadelphia (USA), 2005
- *High-tech start-up award*, German National Minister of Economics (2011)
- "Hai-ju" Award, Beijing Overseas Talents Program, Beijing 2012

Publication and activities:

Published over 200 peer-reviewed papers, including:

1. Sabel, B.A. et al. (1984) GM1-ganglioside treatment facilitates recovery from brain damage. **Science** 225: 340-342.
2. Sabel, B.A. & Stein, D.G. (1986) Pharmacological treatment of central nervous system injury. **Nature** 323: 493.
3. Sabel, B.A., et al. (1997) In vivo confocal neuroimaging of CNS neurons (ICON). **Nature med** 3: 244-247.
4. Kasten et al. (1998) Computer-based training for the treatment of partial blindness. **Nature med** 4: 1083-87.
5. Gothe et al. (2002) Changes in visual cortex excitability in blind subjects by TMS. **Brain** 125, 479-490
6. Poggel et al. (2004) Attentional cueing improves vision restoration therapy. **Neurology**, 63,2069
7. Sabel et al. (2011) Vision loss and the “Residual Vision Activation Theory”. **Progr Brain Res**, 192, 199
8. Gall, C., et al. (2011). Noninvasive transorbital alternating current stimulation improves subjective visual functioning and vision-related quality of life in optic neuropathy. **Brain Stimulation** 4: 175-188.
9. Sabel, B.A., et al. (2011). Non-invasive alternating current stimulation improves vision in optic neuropathy. **Restorative Neurology and Neuroscience** 29, 497-510.
10. Bola, M., et al. (2014). Brain functional connectivity network breakdown and restoration in blindness. **Neurology** 83: 542-551
11. Bola M, Sabel BA (2015) Dynamic reorganization of brain functional networks during cognition. **Neuroimage** 114: 398
12. Bola M, Gall C, Sabel BA (2015) Disturbed temporal dynamics of brain synchronization in vision loss. **Cortex** 67: 134