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Application of a glutamate microsensor to brain tissue

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10.4 List of publications

Papers related to the thesis

- **Oldenziel WH**, Beukema W, Westerink BHC. Improving the reproducibility of hydrogel-coated glutamate microsensors by using an automatic dipcoater. *J Neurosci. Meth.* 2004; 140: 117-126. (*Chapter 2*)
- **Oldenziel WH**, Westerink BHC. Improving glutamate microsensors by optimizing the composition of the redox hydrogel. *Anal. Chem.* 2005; 77: 5520-5528. (*Chapter 3*)
- **Oldenziel WH**, Jong de LAA, Dijkstra G, Cremers TIFH, Westerink BHC. Improving the performance of glutamate microsensors by purification of ascorbate oxidase. *Anal. Chem.* 2006; 78: 2456-60. (*Chapter 4*)
- **Oldenziel WH**, Dijkstra G, Cremers TIFH, Westerink BHC. Evaluation of hydrogel-coated glutamate microsensors. *Anal. Chem.* 2006; 78: 3366-78. (*Chapter 5*)
- **Oldenziel WH**, Zeyden van der M, Dijkstra G, Cremers TIFH, Westerink BHC. Monitoring extracellular glutamate in hippocampal slices with a microsensor. *J. Neurosci. Meth.* 2006, in press. (*Chapter 6*)
- **Oldenziel WH**, Dijkstra G, Cremers TIFH, Westerink BHC. *In vivo* monitoring of extracellular glutamate in the brain with a microsensor. *Brain Res.* 2006; in press. (*Chapter 7*)

Other papers

- Le Masurier M, **Oldenziel WH**, Lehman C, Cowen P, Sharp T. Effect of acute tyrosine depletion in using a branched chain amino-acid mixture on dopamine neurotransmission in the rat brain. *Neuropsychopharm.* 2006; 31: 310-7. (*paper related to a graduate project*)
- Westerink BHC, **Oldenziel WH**. Neuronal regulation of cholinergic interneurons in the striatum. To be submitted. (*paper related to a graduate project*)
- Westerink BHC, Rea K, **Oldenziel WH**, Cremers TIFH. Microdialysis of GABA and glutamate in the brain: analysis and interpretation. *Handbook of Microdialysis*, Eds: Westerink BHC, Cremers TIFH, vol. 16, 2007, in press.

Abstracts and presentations

- Westerink BHC, **Oldenziel WH**. *In vivo* measurements of brain amino acids: end of story? *Monitoring molecules in Neuroscience*, 9th ed, 2001, Dublin (Ireland).
- **Oldenziel WH**, Westerink BHC. Application of a glutamate microsensor. *Conference on microdialysis and sensing, Groningen, The Netherlands, 2001 (oral presentation)*.
- **Oldenziel WH**, Beukema W, Cremers TIFH, Bosker F, Westerink BHC. Methodological considerations in optimizing the construction of hydrogel-coated l-glutamate microsensors. *Monitoring Molecules in Neuroscience*, 10th ed, 2003, Stockholm (Sweden) (oral presentation).
- Sharp T, Le Masurier M, McTavish S, **Oldenziel WH**, Hume S, Grasby P and Cowen PJ. Application of *in vivo* monitoring technologies to develop tyrosine depletion paradigms: a treatment strategy for mood disorder. *Monitoring Molecules in Neuroscience*, 10th ed, 2003, Stockholm (Sweden).
- **Oldenziel WH**, Westerink BHC. *In vitro* and *in vivo* validation of hydrogel-coated l-glutamate microsensors. *Dutch Endo-Neuro meeting*, 3th ed, 2004, Doorwerth (the Netherlands) (oral presentation)
- **Oldenziel WH**, Dijkstra G, Zeyden van der M, Cremers TIFH, Bosker F, Westerink BHC. Monitoring extracellular glutamate *in vitro* and *in vivo*. *Monitoring Molecules in Neuroscience*, 11th ed, 2006, Villasimius (Sardegne, Italy) (oral presentation).
- **Westerink BHC**, Rea K, Oldenziel WH, Zeyden van der M, Cremers TIFH. Microdialysis of extracellular glutamate and GABA: some critical remarks. *Molecules in Neuroscience*, 11th ed, 2006, Villasimius (Sardegne, Italy).
- Zeyden van der M, **Oldenziel WH**, Dijkstra G, Cremers TIFH, Westerink BHC. Monitoring extracellular glutamate *in vitro* and *in vivo* with a hydrogel-coated glutamate microsensor. *Dutch Endo-Neuro meeting*, 5th ed, 2006, Doorwerth (the Netherlands)