

Ass. Prof. Costas Papatheodoropoulos – Full list of publications

1. Kouvaros, S. and C. Papatheodoropoulos, *Major dorsoventral differences in the modulation of the local CA1 hippocampal network by NMDA, mGlu5, adenosine A2A and cannabinoid CB1 receptors*. Neuroscience, 2016. **317**: p. 47-64.
2. Papatheodoropoulos, C., *Higher intrinsic network excitability in ventral compared with the dorsal hippocampus is controlled less effectively by GABAB receptors*. BMC Neurosci, 2015. **16**(75): p. 015-0213.
3. Moschovos, C. and C. Papatheodoropoulos, *The L-type voltage-dependent calcium channel long-term potentiation is higher in the dorsal compared with the ventral associational/commissural CA3 hippocampal synapses*. Neurosci Res, 2015. **2**(15): p. 008.
4. Sarantis, K., et al., *Adenosine A(2)A receptors permit mGluR5-evoked tyrosine phosphorylation of NR2B (Tyr1472) in rat hippocampus: a possible key mechanism in NMDA receptor modulation*. J Neurochem, 2015. **135**(4): p. 714-26.
5. Papatheodoropoulos, C., *Striking differences in synaptic facilitation along the dorsoventral axis of the hippocampus*. Neuroscience, 2015. **301**: p. 454-70.
6. Kouvaros, S., D. Kotzadimitriou, and C. Papatheodoropoulos, *Hippocampal sharp waves and ripples: Effects of aging and modulation by NMDA receptors and L-type Ca²⁺ channels*. Neuroscience, 2015. **298**: p. 26-41.
7. Pofantis, H., et al., *Differences in paired-pulse inhibition and facilitation in the dentate gyrus and CA3 field between dorsal and ventral rat hippocampus*. Brain Res, 2015. **22**: p. 21-30.
8. Pofantis, H. and C. Papatheodoropoulos, *The alpha5GABAA receptor modulates the induction of long-term potentiation at ventral but not dorsal CA1 hippocampal synapses*. Synapse, 2014. **68**(9): p. 394-401.
9. Giannopoulos, P. and C. Papatheodoropoulos, *Effects of mu-opioid receptor modulation on the hippocampal network activity of sharp wave and ripples*. Br J Pharmacol, 2013. **168**(5): p. 1146-64.
10. Moschovos, C., G. Kostopoulos, and C. Papatheodoropoulos, *Endogenous adenosine induces NMDA receptor-independent persistent epileptiform discharges in dorsal and ventral hippocampus via activation of A2 receptors*. Epilepsy Res, 2012. **100**(1-2): p. 157-67.
11. Fragkouli, A., et al., *Enhanced neuronal plasticity and elevated endogenous sAPPalpha levels in mice over-expressing MMP9*. J Neurochem, 2012. **121**(2): p. 239-51.
12. Papatheodoropoulos, C. and E. Koniaris, *alpha5GABAA receptors regulate hippocampal sharp wave-ripple activity in vitro*. Neuropharmacology, 2011. **60**(4): p. 662-73.
13. Koniaris, E., et al., *Different effects of zolpidem and diazepam on hippocampal sharp wave-ripple activity in vitro*. Neuroscience, 2011. **175**: p. 224-34.
14. Papatheodoropoulos, C., *Patterned activation of hippocampal network (approximately 10 Hz) during in vitro sharp wave-ripples*. Neuroscience, 2010. **168**(2): p. 429-42.

15. Papatheodoropoulos, C., *A possible role of ectopic action potentials in the in vitro hippocampal sharp wave-ripple complexes*. Neuroscience, 2008. **157**(3): p. 495-501.
16. Kouvaras, E., et al., *Fentanyl treatment reduces GABAergic inhibition in the CA1 area of the hippocampus 24 h after acute exposure to the drug*. Neuropharmacology, 2008. **55**(7): p. 1172-82.
17. Georgopoulos, P., et al., *Varying magnitude of GABAergic recurrent inhibition enhancement by different sedative/anesthetic agents in dorsal and ventral hippocampus*. Brain Res, 2008. **1**: p. 43-59.
18. Sarantis, K., et al., *Differential pharmacological properties of GABAA/benzodiazepine receptor complex in dorsal compared to ventral rat hippocampus*. Neurochem Int, 2008. **52**(6): p. 1019-29.
19. Moschovos, C., G. Kostopoulos, and C. Papatheodoropoulos, *Long-term potentiation of high-frequency oscillation and synaptic transmission characterize in vitro NMDA receptor-dependent epileptogenesis in the hippocampus*. Neurobiol Dis, 2008. **29**(2): p. 368-80.
20. Papatheodoropoulos, C., et al., *At clinically relevant concentrations the anaesthetic/amnesic thiopental but not the anticonvulsant phenobarbital interferes with hippocampal sharp wave-ripple complexes*. BMC Neurosci, 2007. **8**: p. 60.
21. Papatheodoropoulos, C., *NMDA receptor-dependent high-frequency network oscillations (100-300 Hz) in rat hippocampal slices*. Neurosci Lett, 2007. **414**(3): p. 197-202.
22. Petrides, T., et al., *The GABAA receptor-mediated recurrent inhibition in ventral compared with dorsal CA1 hippocampal region is weaker, decays faster and lasts less*. Exp Brain Res, 2007. **177**(3): p. 370-83.
23. Pandis, C., et al., *Differential expression of NMDA and AMPA receptor subunits in rat dorsal and ventral hippocampus*. Neuroscience, 2006. **140**(1): p. 163-75.
24. Sotiriou, E., C. Papatheodoropoulos, and F. Angelatou, *Differential expression of gamma-aminobutyric acid--a receptor subunits in rat dorsal and ventral hippocampus*. J Neurosci Res, 2005. **82**(5): p. 690-700.
25. Papatheodoropoulos, C., C. Moschovos, and G. Kostopoulos, *Greater contribution of N-methyl-D-aspartic acid receptors in ventral compared to dorsal hippocampal slices in the expression and long-term maintenance of epileptiform activity*. Neuroscience, 2005. **135**(3): p. 765-79.
26. Sargsyan, A., et al., *A computer model of field potential responses for the study of short-term plasticity in hippocampus*. J Neurosci Methods, 2004. **135**(1-2): p. 175-91.
27. Sargsyan, A.R., et al., *A model synapse that incorporates the properties of short- and long-term synaptic plasticity*. Neural Netw, 2003. **16**(8): p. 1161-77.
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29. Papatheodoropoulos, C., et al., *Weaker synaptic inhibition in CA1 region of ventral compared to dorsal rat hippocampal slices*. Brain Research, 2002. **948**(1-2): p. 117-121.

30. Papatheodoropoulos, C. and G. Kostopoulos, *Spontaneous, low frequency (approximately 2-3 Hz) field activity generated in rat ventral hippocampal slices perfused with normal medium*. Brain Res Bull, 2002. **57**(2): p. 187-93.
31. Papatheodoropoulos, C. and G. Kostopoulos, *Spontaneous GABA(A)-dependent synchronous periodic activity in adult rat ventral hippocampal slices*. Neurosci Lett, 2002. **319**(1): p. 17-20.
32. Louvel, J., et al., *GABA-mediated synchronization in the human neocortex: elevations in extracellular potassium and presynaptic mechanisms*. Neuroscience, 2001. **105**(4): p. 803-13.
33. Sargsyan, A.R., C. Papatheodoropoulos, and G.K. Kostopoulos, *Modeling of evoked field potentials in hippocampal CA1 area describes their dependence on NMDA and GABA receptors*. J Neurosci Methods, 2001. **104**(2): p. 143-53.
34. Papatheodoropoulos, C. and G. Kostopoulos, *Dorsal-ventral differentiation of short-term synaptic plasticity in rat CA1 hippocampal region*. Neurosci Lett, 2000. **286**(1): p. 57-60.
35. Papatheodoropoulos, C. and G. Kostopoulos, *Decreased ability of rat temporal hippocampal CA1 region to produce long-term potentiation*. Neurosci Lett, 2000. **279**(3): p. 177-80.
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37. Papatheodoropoulos, C. and G. Kostopoulos, *Age-related changes in excitability and recurrent inhibition in the rat CA1 hippocampal region*. Eur J Neurosci, 1996. **8**(3): p. 510-20.