

Lenk K, Satuvuori E, Lallouette J, Ladrón-de-Guevara A, Berry H, Hyttinen JAK. 2020. A Computational Model of Interactions Between Neuronal and Astrocytic Networks: The Role of Astrocytes in the Stability of the Neuronal Firing Rate. *Frontiers in Computational Neuroscience*. 13. <https://doi.org/10.3389/fncom.2019.00092>

Teppola H, Aćimović J, Linne ML. 2019. Unique Features of Network Bursts Emerge From the Complex Interplay of Excitatory and Inhibitory Receptors in Rat Neocortical Networks. *FRONTIERS IN CELLULAR NEUROSCIENCE*. 13. <https://doi.org/10.3389/fncel.2019.00377>

Javanainen M, Enkavi G, Guixà-González R, Kulig W, Martinez-Seara H, Levental I, Vattulainen I. 2019. Reduced level of docosahexaenoic acid shifts GPCR neuroreceptors to less ordered membrane regions. *PLoS Computational Biology*. 15(5). <https://doi.org/10.1371/journal.pcbi.1007033>

Alarautalahti V, Ragauskas S, Hakkarainen JJ, Uusitalo-Järvinen H, Uusitalo H, Hyttinen J, Kalesnykas G, Nymark S. 2019. Viability of Mouse Retinal Explant Cultures Assessed by Preservation of Functionality and Morphology. *Investigative ophthalmology & visual science*. 60(6):1914-1927. <https://doi.org/10.1167/iovs.18-25156>

Ylä-Outinen L, Tanskanen JMA, Kapucu FE, Hyysalo A, Hyttinen JAK, Narkilahti S. 2019. Advances in Human Stem Cell-Derived Neuronal Cell Culturing and Analysis. In *In Vitro Neuronal Networks: From Culturing Methods to Neuro-Technological Applications*. Springer New York LLC. pp. 299-329. (Advances in Neurobiology). https://doi.org/10.1007/978-3-030-11135-9_13

Klapper SD, Garg P, Dagar S, Lenk K, Gottmann K, Nieweg K. 2019. Astrocyte lineage cells are essential for functional neuronal differentiation and synapse maturation in human iPSC-derived neural networks. *Glia*. 67(10):1893-1909. <https://doi.org/10.1002/glia.23666>

Acimovic J, Teppola H, Mäki-Marttunen TM, Linne M-L. 2018. Data-driven study of synchronous population activity in generic spiking neuronal networks: How much do we capture using the minimal model for the considered phenomena?. Paper presented at Brain and Mind Symposium 2018, Helsinki, Finland.

Pantsar T, Rissanen S, Dauch D, Laitinen T, Vattulainen I, Poso A. 2018. Assessment of mutation probabilities of KRAS G12 missense mutants and their long-timescale dynamics by atomistic molecular simulations and Markov state modeling. *PLoS Computational Biology*. 14(9). <https://doi.org/10.1371/journal.pcbi.1006458>

Enkavi G, Mikkolainen H, Güngör B, Ikonen E, Vattulainen I. 2017. Concerted regulation of npc2 binding to endosomal/lysosomal membranes by bis(monoacylglycerol)phosphate and sphingomyelin. *PLoS Computational Biology*. 13(10). <https://doi.org/10.1371/journal.pcbi.1005831>

Vuorio J, Vattulainen I, Martinez-Seara H. 2017. Atomistic fingerprint of hyaluronan-CD44 binding. *PLoS Computational Biology*. 13(7). <https://doi.org/10.1371/journal.pcbi.1005663>

Välkki IA, Lenk K, Mikkonen JE, Kapucu FE, Hyttinen JAK. 2017. Network-wide adaptive burst detection depicts neuronal activity with improved accuracy. *Frontiers in Computational Neuroscience*. 11. <https://doi.org/10.3389/fncom.2017.00040>

Teppola H, Sarkanen JR, Jalonen TO, Linne M-L. 2016. Morphological Differentiation Towards Neuronal Phenotype of SH-SY5Y Neuroblastoma Cells by Estradiol, Retinoic Acid and Cholesterol. *Neurochemical Research*. 41(4):731-747. <https://doi.org/10.1007/s11064-015-1743-6>

Acimovic J, Mäki-Marttunen T, Linne M-L. 2015. The effects of neuron morphology on graph theoretic measures of network connectivity: The analysis of a two-level statistical model. *Frontiers in Neuroanatomy*. 9(June). <https://doi.org/10.3389/fnana.2015.00076>

Saurus P, Kuusela S, Lehtonen E, Hyvönen ME, Ristola M, Fogarty CL, Tienari J, Lassenius MI, Forsblom C, Lehto M, Saleem MA, Groop PH, Holthöfer H, Lehtonen S. 2015. Podocyte apoptosis is prevented by blocking the Toll-like receptor pathway. *CELL DEATH AND DISEASE*. 6(5). <https://doi.org/10.1038/cddis.2015.125>

Juuti-Uusitalo K, Nieminen M, Treumer F, Ampuja M, Kallioniemi A, Klettner A, Skottman H. 2015. Effects of cytokine activation and oxidative stress on the function of the human embryonic stem cell-derived retinal pigment epithelial cells. *Investigative Ophthalmology and Visual Science*. 56(11):6265-6274. <https://doi.org/10.1167/iavs.15-17333>

Polinati PP, Ilmarinen T, Trokovic R, Hyotylainen T, Otonkoski T, Suomalainen A, Skottman H, Tynitiina T. 2015. Patient-specific induced pluripotent stem cell—derived RPE cells: Understanding the pathogenesis of retinopathy in long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency. *Investigative Ophthalmology and Visual Science*. 56(5):3371-3382. <https://doi.org/10.1167/iavs.14-14007>

Mäki-Marttunen TM, Acimovic J, Ruohonen KP, Linne M-L. 2012. In silico study on structure and dynamics in bursting neuronal networks. In *Neuroscience 2012; 42nd Annual Meeting, New Orleans, USA, October 14-18, 2012*. Society for Neuroscience (SfN).

Mäki-Marttunen TM, Acimovic J, Ruohonen KP, Linne M-L. 2012. Significance of graph theoretic measures in predicting neuronal network activity. In *Proceedings of The 9th annual Computational and Systems Neuroscience meeting (COSYNE 2012)*. Salt Lake City. pp. 55-55.

Dixit D, Sharma V, Ghosh S, Mehta VS, Sen E. 2012. Inhibition of Casein kinase-2 induces p53-dependent cell cycle arrest and sensitizes glioblastoma cells to tumor necrosis factor (TNF α)-induced apoptosis through SIRT1 inhibition. *CELL DEATH AND DISEASE*. 3(2). <https://doi.org/10.1038/cddis.2012.10>

Pelkonen A, Yavich L. 2012. Cortical spreading depression in alpha-synuclein knockout mice. *SYNAPSE*. 66(1):81-84. <https://doi.org/10.1002/syn.20980>

Sharma V, Dixit D, Ghosh S, Sen E. 2011. COX-2 regulates the proliferation of glioma stem like cells. *NEUROCHEMISTRY INTERNATIONAL*. 59(5):567-571. <https://doi.org/10.1016/j.neuint.2011.06.018>

Mäki-Marttunen TM, Acimovic J, Ruohonen KP, Linne M-L. 2011. Effects of local structure of neuronal networks on spiking activity in silico. Fellous J-M, Prinz A, editors. In *Twentieth Annual Computational Neuroscience Meeting: CNS*2011*. Stockholm: BioMed Central. pp. P202.

Acimovic J. 2011. Emergence of global and local structural features during development of neuronal networks. In *Proceedings of the Eighth International Workshop on Computational Systems Biology, WCSB 2011, June 6-8, 2011, Zürich, Switzerland*. Tampere: TICSP. (TICSP Series).

Emmert-Streib F, Glazko GV. 2011. Pathway analysis of expression data: Deciphering functional building blocks of complex diseases. *PLoS Computational Biology*. 7(5). <https://doi.org/10.1371/journal.pcbi.1002053>

Mäki-Marttunen T, Acimovic J, Ruohonen K, Linne M-L. 2011. Effects of structure on spontaneous activity in simulated neuronal networks. In *Proceedings of Mathematical Neuroscience (ICMS 2011), April 11-13, 2011, Edinburgh, Scotland*.

Acimovic J. 2009. Neural networks, cell cultures and some older work on data analysis. Paper presented at Okinawa Computational Neuroscience Course 2009, Japan.

Emmert-Streib F. 2006. Influence of the neural network topology on the learning dynamics. *Neurocomputing*. 69(10-12):1179-1182. <https://doi.org/10.1016/j.neucom.2005.12.070>

Otterpohl JR, Emmert-Streib F, Pawelzik K. 2001. A constrained HMM-based approach to the estimation of perceptual switching dynamics in pigeons. *Neurocomputing*. 38-40:1495-1501. [https://doi.org/10.1016/S0925-2312\(01\)00511-2](https://doi.org/10.1016/S0925-2312(01)00511-2)