

DAFTAR PUSTAKA

- Agrawal, D., & Yin, K. (2014). Vitamin D and inflammatory diseases. *Journal of Inflammation Research*, 69. doi:10.2147/JIR.S63898
- Anand, K. S., & Dhikav, V. (2012). Hippocampus in health and disease: An overview. *Annals of Indian Academy of Neurology*, 15, 239–246. doi:10.4103/0972-2327.104323
- Anrather, J., & Iadecola, C. (2016). Inflammation and Stroke: An Overview. *Neurotherapeutics*, 13, 661–670. doi:10.1007/s13311-016-0483-x
- Ao, T., Kikuta, J., & Ishii, M. (2021). The Effects of Vitamin D on Immune System and Inflammatory Diseases. *Biomolecules*, 11, 1624. doi:10.3390/biom11111624
- Aranow, C. (2011). Vitamin D and the Immune System. *Journal of Investigative Medicine*, 59, 881–886. doi:10.2310/JIM.0b013e31821b8755
- Arfian, N., Muflikhah, K., Soeyono, S. K., Sari, D. C. R., Tranggono, U., Anggorowati, N., *et al.* (2016). Vitamin D Attenuates Kidney Fibrosis via Reducing Fibroblast Expansion, Inflammation, and Epithelial Cell Apoptosis. *The Kobe Journal of Medical Sciences*, 62, E38-44. Diambil dari <https://www.ncbi.nlm.nih.gov/pubmed/27578035>
- Arfian, N., Budiharjo, S., Wibisono, D. P., Setyaningsih, W. A. W., Romi, M. M., Saputri, R., *et al.* (2020). Vitamin D Ameliorates Kidney Ischemia Reperfusion Injury via Reduction of Inflammation and Myofibroblast Expansion. *The Kobe Journal of Medical Sciences*, 65, E138–E143. Diambil dari <https://www.ncbi.nlm.nih.gov/pubmed/32201429>
- Arslan, F., Keogh, B., McGuirk, P., & Parker, A. E. (2010). TLR2 and TLR4 in Ischemia Reperfusion Injury. *Mediators of Inflammation*, 2010, 1–8. doi:10.1155/2010/704202
- Babcock, A. A., Wrenfeldt, M., Holm, T., Nielsen, H. H., Dissing-Olesen, L., Toft-Hansen, H., *et al.* (2006). Toll-Like Receptor 2 Signaling in Response to Brain Injury: An Innate Bridge to Neuroinflammation. *The Journal of Neuroscience*, 26, 12826–12837. doi:10.1523/JNEUROSCI.4937-05.2006
- Bajorat, R., Kurth, J., Stenzel, J., Vollmar, B., Krause, B. J., Reuter, D. A., *et al.* (2022). Early Post-ischemic Brain Glucose Metabolism Is Dependent on Function of TLR2: a Study Using [18F]F-FDG PET-CT in a Mouse Model of Cardiac Arrest and Cardiopulmonary Resuscitation. *Molecular Imaging and Biology*, 24, 466–478. doi:10.1007/s11307-021-01677-y
- Berridge M. J. (2016). Vitamin D, reactive oxygen species and calcium signalling in ageing and disease. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 371(1700), 20150434. <https://doi.org/10.1098/rstb.2015.0434>
- Block, F., & Schwarz, M. (1997). Correlation Between Hippocampal Neuronal Damage and Spatial Learning Deficit Due to Global Ischemia. *Pharmacology Biochemistry and Behavior*, 56, 755–761. doi:10.1016/S0091-3057(96)00484-4

- Bolourani, S., Brenner, M., & Wang, P. (2021). The interplay of DAMPs, TLR4, and proinflammatory cytokines in pulmonary fibrosis. *Journal of Molecular Medicine*, 99, 1373–1384. doi:10.1007/s00109-021-02113-y
- Chen, L., Deng, H., Cui, H., Fang, J., Zuo, Z., Deng, J., *et al.* (2018). Inflammatory responses and inflammation-associated diseases in organs. *Oncotarget*, 9, 7204–7218. doi:10.18632/oncotarget.23208
- Chugh, C. (2019). Acute Ischemic Stroke: Management Approach. *Indian Journal of Critical Care Medicine : Peer-Reviewed, Official Publication of Indian Society of Critical Care Medicine*, 23, S140–S146. doi:10.5005/jp-journals-10071-23192
- Cole, C. J., & Josselyn, S. A. (2008). *Transcription Regulation of Memory: CREB, CaMKIV, Fos/Jun, CBP, and SRF*. doi:10.1016/B978-012370509-9.00030-9
- Coutts, S. B. (2017). Diagnosis and Management of Transient Ischemic Attack. *CONTINUUM: Lifelong Learning in Neurology*, 23, 82–92. doi:10.1212/CON.0000000000000424
- DeSai, C., & Shapshak, A. H. (2023). *Cerebral Ischemia*. StatPearls Publishing, Treasure Island (FL).
- Do, J. E., Kwon, S. Y., Park, S., & Lee, E.-S. (2008). Effects of vitamin D on expression of Toll-like receptors of monocytes from patients with Behcet's disease. *Rheumatology*, 47, 840–848. doi:10.1093/rheumatology/ken109
- Doll, D. N., Barr, T. L., & Simpkins, J. W. (2014). Cytokines: their role in stroke and potential use as biomarkers and therapeutic targets. *Aging and disease*, 5(5), 294–306. <https://doi.org/10.14336/AD.2014.0500294>
- Farokhi-Sisakht, F., Sadigh-Eteghad, S., Mohaddes, G., Ebrahimi-Kalan, A., Karimi, P., & Farhoudi, M. (2020). Physical and cognitive training attenuate hippocampal ischemia-induced memory impairments in rat. *Brain Research Bulletin*, Vol. 155, pp. 202–210. doi:10.1016/j.brainresbull.2019.10.007
- Fogwe, L. A., Reddy, V., & Mesfin, F. B. (2024). *Neuroanatomy, Hippocampus*. Diambil dari <https://www.ncbi.nlm.nih.gov/pubmed/29489273>
- Fortin, N. J., Agster, K. L., & Eichenbaum, H. B. (2002). Critical role of the hippocampus in memory for sequences of events. *Nature Neuroscience*, 5, 458–462. doi:10.1038/nn834
- Ghanavatinejad, A., Rashidi, N., Mirahmadian, M., Rezania, S., Mosalaei, M., Ghasemi, J., *et al.* (2021). Vitamin D3 Controls TLR4- and TLR2-Mediated Inflammatory Responses of Endometrial Cells. *Gynecologic and Obstetric Investigation*, 86, 139–148. doi:10.1159/000513590
- Hatakeyama, T., Matsumoto, M., Brengman, J. M., & Yanagihara, T. (1988). Immunohistochemical investigation of ischemic and postischemic damage after bilateral carotid occlusion in gerbils. *Stroke*, 19, 1526–1534. doi:10.1161/01.str.19.12.1526
- Hermawati, E., Arfian, N., Mustofa, & Partadiredja, G. (2018). Spatial Memory Disturbance Following Transient Brain Ischemia is Associated with Vascular Remodeling in Hippocampus. *The Kobe Journal of Medical*

- Sciences*, 64, E93–E106. Diambil dari <https://www.ncbi.nlm.nih.gov/pubmed/30666039>
- Jacobs, L. F. (2003). *Memory, Spatial*. Aminoff, M. J., & Daroff, R. B. (ed). *Encyclopedia of the Neurological Sciences*. Elsevier Science Inc. doi:10.1016/B0-12-226870-9/01375-7
- Jeong, N., & Singer, A. C. (2022). Learning from inhibition: Functional roles of hippocampal CA1 inhibition in spatial learning and memory. *Current Opinion in Neurobiology*, 76, 102604. doi:10.1016/j.conb.2022.102604
- Jin, R., Yang, G., & Li, G. (2010). Inflammatory mechanisms in ischemic stroke: role of inflammatory cells. *Journal of Leukocyte Biology*, 87, 779–789. doi:10.1189/jlb.1109766
- Kaundal, M., Zameer, S., Najmi, A. K., Parvez, S., & Akhtar, M. (2018). Betulinic acid, a natural PDE inhibitor restores hippocampal cAMP/cGMP and BDNF, improve cerebral blood flow and recover memory deficits in permanent BCCAO induced vascular dementia in rats. *European Journal of Pharmacology*, 832, 56–66. doi:10.1016/j.ejphar.2018.05.015
- Khajei, S., Esmailpour, K., Mirnajafi-Zadeh, J., Sheibani, V., Rezakhani, Sohelia., & Masoumi-Ardakani, Y. (2021). Low-Frequency Stimulation Prevents Kindling-Induced Impairment through the Activation of the Endocannabinoid System. *BioMed Research International*, 1-9. doi:10.1155/2021/5526780
- Kuriakose, D., & Xiao, Z. (2020). Pathophysiology and Treatment of Stroke: Present Status and Future Perspectives. *International Journal of Molecular Sciences*, 21, 7609. doi:10.3390/ijms21207609
- Lasoń, W., Jantas, D., Leśkiewicz, M., Regulska, M., & Basta-Kaim, A. (2022). Vitamin D3 and Ischemic Stroke: A Narrative Review. *Antioxidants (Basel, Switzerland)*, 11(11), 2120. <https://doi.org/10.3390/antiox11112120>
- Lin, L., & Wang, X., & Yu, Z. (2016). Ischemia-reperfusion Injury in the Brain: Mechanisms and Potential Therapeutic Strategies. *Biochemistry & Pharmacology: Open Access*, 5. doi:10.4172/2167-0501.1000213
- Liu, Y. X., Wang, G. D., Wang, X., Zhang, Y. L., & Zhang, T. L. (2017). Effects of TLR-2/NF-κB signaling pathway on the occurrence of degenerative knee osteoarthritis: an in vivo and in vitro study. *Oncotarget*, 8(24), 38602–38617. <https://doi.org/10.18632/oncotarget.16199>
- Lee, J. M., Grabb, M. C., Zipfel, G. J., & Choi, D. W. (2000). Brain tissue responses to ischemia. *The Journal of Clinical Investigation*, 106, 723–731. doi:10.1172/JCI11003
- Lissner, L. J., Wartchow, K. M., Toniazio, A. P., Gonçalves, C.-A., & Rodrigues, L. (2021). Object recognition and Morris water maze to detect cognitive impairment from mild hippocampal damage in rats: A reflection based on the literature and experience. *Pharmacology Biochemistry and Behavior*, 210, 173273. doi:10.1016/j.pbb.2021.173273
- Lynch, G., Kessler, M., Arai, A., & Larson, J. (1990). The nature and causes of hippocampal long-term potentiation. *Progress in Brain Research*, 83, 233–250. doi:10.1016/s0079-6123(08)61253-4

- Mukherjee, S., Karmakar, S., & Babu, S. P. S. (2016). TLR2 and TLR4 mediated host immune responses in major infectious diseases: a review. *The Brazilian Journal of Infectious Diseases*, 20, 193–204. doi:10.1016/j.bjid.2015.10.011
- Neumann, J. T., Cohan, C. H., Dave, K. R., Wright, C. B., & Perez-Pinzon, M. A. (2013). Global cerebral ischemia: synaptic and cognitive dysfunction. *Current Drug Targets*, 14, 20–35. doi:10.2174/138945013804806514
- Nikonenko, A. G., Radenovic, L., Andjus, P. R., & Skibo, G. G. (2009). Structural Features of Ischemic Damage in the Hippocampus. *The Anatomical Record*, 292, 1914–1921. doi:10.1002/ar.20969
- Panuganti, K. K., Tadi, P., & Lui, F. (2023). *Transient Ischemic Attack*. StatPearls Publishing, Treasure Island (FL).
- Panwar, A., Garg, R. K., Malhotra, H. S., Jain, A., Singh, A. K., Prakash, S., ... Sharma, P. K. (2016). 25-Hydroxy Vitamin D, Vitamin D Receptor and Toll-like Receptor 2 Polymorphisms in Spinal Tuberculosis: A Case-Control Study. *Medicine*, 95, e3418. doi:10.1097/MD.00000000000003418
- Parameswaran, N., & Patial, S. (2010). Tumor necrosis factor- α signaling in macrophages. *Critical reviews in eukaryotic gene expression*, 20(2), 87–103. <https://doi.org/10.1615/critreveukargeneexpr.v20.i2.10>
- Pike, J. W., & Christakos, S. (2017). Biology and Mechanisms of Action of the Vitamin D Hormone. *Endocrinology and Metabolism Clinics of North America*, 46, 815–843. doi:10.1016/j.ecl.2017.07.001
- Pluta, R., Januszewski, S., & Czuczwar, S. J. (2021). Post-Ischemic Neurodegeneration of the Hippocampus Resembling Alzheimer's Disease Proteinopathy. *International Journal of Molecular Sciences*, 23, 306. doi:10.3390/ijms23010306
- Pop, T. L., Sirbe, C., Bența, G., Mititelu, A., & Grama, A. (2022). The Role of Vitamin D and Vitamin D Binding Protein in Chronic Liver Diseases. *International Journal of Molecular Sciences*, 23. doi:10.3390/ijms231810705
- Pritchard, D. J. (2019). *Spatial Memory*. doi:10.1016/B978-0-12-809633-8.90082-7
- Ramos-González, E. J., Bitzer-Quintero, O. K., Ortiz, G., Hernández-Cruz, J. J., & Ramírez-Jirano, L. J. (2024). Relationship between inflammation and oxidative stress and its effect on multiple sclerosis. *Neurología*, 39(3), 292–301. <https://doi.org/10.1016/j.nrl.2021.10.003>
- Soares, L. M., Schiavon, A. P., Milani, H., & de Oliveira, R. M. W. (2013). Cognitive impairment and persistent anxiety-related responses following bilateral common carotid artery occlusion in mice. *Behavioural Brain Research*, 249, 28–37. doi:10.1016/j.bbr.2013.04.010
- Tadi, P., & Lui, F. (2023). Acute Stroke. *StatPearls. Treasure Island (FL): StatPearls*.
- Tajalli-Nezhad, S., Karimian, M., Beyer, C., Atlasi, M. A., & Azami Tameh, A. (2019). The regulatory role of Toll-like receptors after ischemic stroke: neurosteroids as TLR modulators with the focus on TLR2/4. *Cellular and*

- molecular life sciences : CMLS*, 76(3), 523–537.
<https://doi.org/10.1007/s00018-018-2953-2>
- Torricco, T. J., & Abdijadid, S. (2024). *Neuroanatomy, Limbic System*. Diambil dari <https://www.ncbi.nlm.nih.gov/pubmed/30860726>
- Vann, S. D., & Albasser, M. M. (2011). Hippocampus and neocortex: recognition and spatial memory. *Current Opinion in Neurobiology*, 21, 440–445. doi:10.1016/j.conb.2011.02.002
- Wang, Y., Ge, P., & Zhu, Y. (2013). TLR2 and TLR4 in the Brain Injury Caused by Cerebral Ischemia and Reperfusion. *Mediators of Inflammation*, 2013, 1–8. doi:10.1155/2013/124614
- Wang, S., Zhang, J., Sheng, T., Lu, W., & Miao, D. (2015). Hippocampal ischemia causes deficits in local field potential and synaptic plasticity. *Journal of Biomedical Research*, 29, 370–379. doi:10.7555/JBR.29.20150010
- Wujcicka, W., Paradowska, E., Studzińska, M., Wilczyński, J., & Nowakowska, D. (2017). TLR2 2258 G>A single nucleotide polymorphism and the risk of congenital infection with human cytomegalovirus. *Virology Journal*, 14, 12. doi:10.1186/s12985-016-0679-z
- Xu, K., Puchowicz, M. A., Sun, X., & LaManna, J. C. (2008). Mitochondrial dysfunction in aging rat brain following transient global ischemia. *Advances in Experimental Medicine and Biology*, 614, 379–386. doi:10.1007/978-0-387-74911-2_42
- Yu, D.-K., Yoo, K.-Y., Shin, B. N., Kim, I. H., Park, J. H., Lee, C. H., ... Won, M.-H. (2012). Neuronal damage in hippocampal subregions induced by various durations of transient cerebral ischemia in gerbils using Fluoro-Jade B histofluorescence. *Brain Research*, 1437, 50–57. doi:10.1016/j.brainres.2011.12.029