

## DAFTAR PUSTAKA

Aguilar-herna, A., Espinosa-garcía, C., Cervantes, M., & Morali, G. (2014). Effects of progesterone on neurite growth inhibitors in the hippocampus following global cerebral ischemia. *Brain Research*, *1545*, 23–34. <http://doi.org/10.1016/j.brainres.2013.11.030>

Alex, A. O. (2015). *Potential neuroprotective effects of fermented rooibos herbal tea in a rat model of ischemic brain injury*. University of The Western Cape.

Andero, R., Choi, D. C., & Ressler, K. J. (2014). BDNF-TrkB receptor regulation of distributed adult neural plasticity, Memory formation, and psychiatric disorders. In *Progress in Molecular Biology and Translational Science* (Vol. 122, pp. 169–192). Atlanta, Georgia. <http://doi.org/10.1016/B978-0-12-420170-5.00006-4>

Andersen, P., Morris, R., Amaral, D., Bliss, T., & O’Keefe, J. (2007). *The Hippocampus Book*. (P. Andersen, R. Morris, D. Amaral, T. Bliss, & J. O’Keefe, Eds.). New York: Oxford University Press.

Ando, T., Takagi, N., Takagi, K., Kago, T., & Takeo, S. (2005). Effects of nefiracetam on the levels of brain-derived neurotrophic factor and synapsin I mRNA and protein in the hippocampus of microsphere-embolized rats. *European Journal of Pharmacology*, *507*, 49–56. <http://doi.org/10.1016/j.ejphar.2004.11.033>

Arumugam, T. V, Magnus, T., Woodruff, T. M., Proctor, L. M., Shiels, I. A., & Taylor, S. M. (2006). Complement mediators in ischemia – reperfusion injury. *Clinica Chimica Acta*, *374*, 33–45. <http://doi.org/10.1016/j.cca.2006.06.010>

Assmann, T. S., Brondani, L. A., Boucas, A. P., Rheinheimer, J., de Souza, B. M., Canani, L. H., ... Crispim, D. (2016). Nitric oxide levels in patients with diabetes mellitus: A systematic review and meta-analysis. *Nitric Oxide - Biology and Chemistry*, *61*, 1–9. <http://doi.org/10.1016/j.niox.2016.09.009>

Bacigaluppi, M., Comi, G., & Hermann, D. M. (2010). Animal models of ischemic stroke. Part two: modeling cerebral ischemia. *The Open Neurology Journal*, *4*, 34–38. <http://doi.org/10.2174/1874205X01004020034>

Bannerman, D. M., Sprengel, R., Sanderson, D. J., Mchugh, S. B., Rawlins, J. N. P., Monyer, H., & Seeburg, P. H. (2014). spatial memory and anxiety. *Nature Publishing Group*, *15*(3), 181–192. <http://doi.org/10.1038/nrn3677>

Barbhuiya, A. M., Rahman, H., & Bardalai, D. (2015). Comparative Evaluation of

Various Models of Ischemic Stroke in Rats. *Scholars Bulletin*, 1(2), 38–47.

Baron, J., Yamauchi, H., Fujioka, M., & Endres, M. (2013). Selective neuronal loss in ischemic stroke and cerebrovascular disease. *Journal of Cerebral Blood Flow & Metabolism*, 34(1), 2–18. <http://doi.org/10.1038/jcbfm.2013.188>

Bejot, Y., Mossiat, C., Giroud, M., Prigent-tessier, A., & Marie, C. (2011). Circulating and Brain BDNF Levels in Stroke Rats . Relevance to Clinical Studies. *PLoS ONE*, 6(12), 6–11. <http://doi.org/10.1371/journal.pone.0029405>

Bekinschtein, P., Cammarota, M., & Medina, J. H. (2014). BDNF and memory processing. *Neuropharmacology*, 76(PART C), 677–683. <http://doi.org/10.1016/j.neuropharm.2013.04.024>

Beltrán, F. A., & Acuña, A. I. (2012). Brain Energy Metabolism in Health and Disease. In Dr. Carlos M. Contreras (Ed.) (Ed.), *Neuroscience - Dealing With Frontiers* (pp. 331–362). rijeka, croatia: InTech.

Bemeur, C., Ste-marie, L., & Montgomery, J. (2007). Increased oxidative stress during hyperglycemic cerebral ischemia. *Neurochemistry International*, 50, 890–904. <http://doi.org/10.1016/j.neuint.2007.03.002>

Bevers, M. B., Vaishnav, N. H., Pham, L., Battey, T. W., & Kimberly, W. T. (2016). Hyperglycemia is associated with more severe cytotoxic injury after stroke. *Journal of Cerebral Blood Flow and Metabolism: Official Journal of the International Society of Cerebral Blood Flow and Metabolism*, [Epub ahead of print]. <http://doi.org/10.1177/0271678X16671730>

Broadbent, N. J., Squire, L. R., & Clark, R. E. (2004). Spatial memory , recognition memory , and the hippocampus. *PNAS*, 101(40), 1–6.

Bustamante, A., Garcia-Berrocso, T., Rodriguez, N., Llombart, V., Ribo, M., Molina, C., & Montaner, J. (2016). Ischemic stroke outcome: A review of the influence of post-stroke complications within the different scenarios of stroke care. *European Journal of Internal Medicine*, 29, 9–21. <http://doi.org/10.1016/j.ejim.2015.11.030>

Cai, L., Stevenson, J., Peng, C., Xin, R., Rastogi, R., Liu, K., ... Ding, Y. (2016). Adjuvant therapies using normobaric oxygen with hypothermia or ethanol for reducing hyperglycolysis in thromboembolic cerebral ischemia. *Neuroscience*, 318, 45–57. <http://doi.org/10.1016/j.neuroscience.2016.01.010>

Cai, Y., Zhang, Y., Zhang, P., Zhen, L., Sun, X., Wang, Z., ... Xue, R. (2016). Neuroprotective effect of Shenqi Fuzheng injection pretreatment in aged rats with cerebral ischemia / reperfusion injury. *Neural Regeneration Research*, 11(1), 94–100.

<http://doi.org/10.4103/1673-5374.175052>

Caletti, G., Borges, F., Agnes, G., Schüler, M., Maria, H., Barros, T., & Gomez, R. (2015). Antidepressant dose of taurine increases mRNA expression of GABA A receptor  $\alpha 2$  subunit and BDNF in the hippocampus of diabetic rats. *Behavioural Brain Research*, 283, 11–15. <http://doi.org/10.1016/j.bbr.2015.01.018>

Cao, G., Jiang, N., Hu, Y., Zhang, Y., Wang, G., Yin, M., ... Kou, J. (2016). Ruscogenin Attenuates Cerebral Ischemia-Induced Blood-Brain Barrier Dysfunction by Suppressing TXNIP / NLRP3 Inflammasome Activation and the MAPK Pathway. *International Journal of Molecular Sciences*, 1–17. <http://doi.org/10.3390/ijms17091418>

Cao, Y., Gou, Z., Du, Y., Fan, Y., Liang, L., Yan, Y., ... Du, Y. (2016). Glutamatergic and central cholinergic dysfunction in the CA1, CA2 and CA3 fields on spatial learning and memory in chronic cerebral ischemia — Induced vascular dementia of rats. *Neuroscience Letters*, 620, 169–176. <http://doi.org/10.1016/j.neulet.2016.03.039>

Cechetti, F., Pagnussat, A. S., Worm, P. V., Elsner, V. R., Ben, J., da Costa, M. S., ... Netto, C. A. (2012). Chronic brain hypoperfusion causes early glial activation and neuronal death, and subsequent long-term memory impairment. *Brain Research Bulletin*, 87(1), 109–116. <http://doi.org/10.1016/j.brainresbull.2011.10.006>

Cechetti, F., Worm, P. V., Pereira, L. O., Siqueira, I. R., & Netto, C. A. (2010). The modified 2VO ischemia protocol causes cognitive impairment similar to that induced by the standard method, but with a better survival rate. *Brazilian Journal of Medical and Biological Research*, 43(12), 1178–1183. <http://doi.org/10.1590/S0100-879X2010007500124>

Charan, J., & Kantharia, N. D. (2013). How to calculate sample size in animal studies? *Journal of Pharmacology & Pharmacotherapeutics*, 4(4), 303–6. <http://doi.org/10.4103/0976-500X.119726>

Chen, A. I., Xiong, L., Tong, Y. U., & Mao, M. (2013). The neuroprotective roles of BDNF in hypoxic ischemic brain injury (Review). *Biomedical Reports*, 1, 167–176. <http://doi.org/10.3892/br.2012.48>

Chen, R.-L., Balami, J. S., Esiri, M. M., Chen, L.-K., & Buchan, A. M. (2010). Ischemic stroke in the elderly: an overview of evidence. *Nature Reviews. Neurology*, 6(5), 256–265. <http://doi.org/10.1038/nrneurol.2010.36>

Chen, X., Zhou, L., Zhang, Y., Yi, D. D., Liu, L., Rao, W., ... Yi, D. D. (2014). Risk Factors of Stroke in Western and Asian Countries: A Systematic Review and Meta-analysis of Prospective Cohort Studies. *BMC Public Health*, 14(1), 776.

<http://doi.org/10.1186/1471-2458-14-776>

Cheng, O., Li, Z., Han, Y., Jiang, Q., Yan, Y., & Cheng, K. (2012). Baicalin improved the spatial learning ability of global ischemia / reperfusion rats by reducing hippocampal apoptosis. *Brain Research*, *1470*, 111–118. <http://doi.org/10.1016/j.brainres.2012.06.026>

Clark, R. E., & Squire, L. R. (2013). Similarity in form and function of the hippocampus in rodents , monkeys , and humans. *PNAS*, *110*, 10365–10370. <http://doi.org/10.1073/pnas.1301225110>

Correia, C., Godinho, J., Maria, R., Oliveira, W. De, Matsushita, M., Kirie, A., ... Milani, H. (2016). Postischemic fish oil treatment restores long-term retrograde memory and dendritic density: An analysis of the time window of efficacy. *Behavioural Brain Research*, *311*, 425–439. <http://doi.org/10.1016/j.bbr.2016.05.047>

Cruz, P. L., Moraes-Silva, I. C., Ribeiro, A. A., Machi, J. F., Melo, M. D. T., Dos Santos, F., ... Irigoyen, M. C. C. (2017). *Nicotinamide Attenuates Streptozotocin-Induced Diabetes Complications and Increases Survival Rate in Rats: Role of Autonomic Nervous System*. Sao Paulo.

Damodaran, T., Hassan, Z., & Navaratnam, V. (2014). Time course of motor and cognitive functions after chronic cerebral ischemia in rats. *Behavioural Brain Research*, *275*, 252–258. <http://doi.org/10.1016/j.bbr.2014.09.014>

Darsalia, V., Hua, S., Larsson, M., Mallard, C., Nathanson, D., Nystrom, T., ... Patrone, C. (2014). Exendin-4 reduces ischemic brain injury in normal and aged type 2 diabetic mice and promotes microglial M2 polarization. *PLoS ONE*, *9*(8), 2–8. <http://doi.org/10.1371/journal.pone.0103114>

Darsalia, V., Mansouri, S., Ortsäter, H., Olverling, A., Nozadze, N., Kappe, C., ... Patrone, C. (2012). Glucagon-like peptide-1 receptor activation reduces ischaemic brain damage following stroke in Type 2 diabetic rats. *Clinical Science (London, England : 1979)*, *122*(10), 473–83. <http://doi.org/10.1042/CS20110374>

Davanlou, M., & Smith, D. F. (2004). Unbiased Stereological Estimation of Different Cell Types in Rat Cerebral Cortex. *Image Analysis & Stereology*, *23*(1), 1–11. <http://doi.org/10.5566/ias.v23.p1-11>

Deb, P., Sharma, S., & Hassan, K. M. (2010). Pathophysiologic mechanisms of acute ischemic stroke: An overview with emphasis on therapeutic significance beyond thrombolysis. *Pathophysiology*, *17*(3), 197–218. <http://doi.org/10.1016/j.pathophys.2009.12.001>

Del Zoppo, G. J. (2009). Inflammation and The Neurovascular Unit in The Setting of

Focal Cerebral Ischemia. *NSC*, 158(3), 972–982.  
<http://doi.org/10.1016/j.neuroscience.2008.08.028>

Domingueti, C. P., Dusse, L. M. S. A., Carvalho, M. D. G., De Sousa, L. P., Gomes, K. B., & Fernandes, A. P. (2016). Diabetes mellitus: The linkage between oxidative stress, inflammation, hypercoagulability and vascular complications. *Journal of Diabetes and Its Complications*, 30(4), 738–745.  
<http://doi.org/10.1016/j.jdiacomp.2015.12.018>

Doyle, K. P., Simon, R. P., & Stenzel-Poore, M. P. (2008). *Mechanisms of ischemic brain damage. Neuropharmacology*.

El-Aziz, E. R. A. (2008). *Effect Of Certain Antioxidant On Cerebral Ischemia Induced In Irradiated Rats*. Cairo University.

Emberson, J., Lees, K. R., Lyden, P., Blackwell, L., Albers, G., Bluhmki, E., ... Hacke, W. (2014). Effect of treatment delay, age, and stroke severity on the effects of intravenous thrombolysis with alteplase for acute ischaemic stroke: A meta-analysis of individual patient data from randomised trials. *The Lancet*, 384(9958), 1929–1935.  
[http://doi.org/10.1016/S0140-6736\(14\)60584-5](http://doi.org/10.1016/S0140-6736(14)60584-5)

Ergul, A., Li, W., Elgebaly, M. M., Bruno, A., & Fagan, S. C. (2009). Hyperglycemia, diabetes and stroke: Focus on the cerebrovasculature. *Vascular Pharmacology*, 51(1), 44–49. <http://doi.org/10.1016/j.vph.2009.02.004>

Erickson, K. I., Miller, D. L., & Roecklein, K. A. (2012). The Aging Hippocampus : Interactions between Exercise , Depression , and BDNF. *The Neuroscientist*, 18(1), 82–97. <http://doi.org/10.1177/1073858410397054>

Euler, M. Von, Bendel, O., Bueters, T., Sandin, J., & Euler, G. Von. (2006). Profound but transient deficits in learning and memory after global ischemia using a novel water maze test. *Behavioural Brain Research*, 166, 204–210.  
<http://doi.org/10.1016/j.bbr.2005.07.016>

Fairbanks, S. L., Young, J. M., Nelson, J. W., Davis, C. M., Koerner, I. P., & Alkayed, N. J. (2012). Mechanism of the sex difference in neuronal ischemic cell death. *Neuroscience*, 219, 183–91. <http://doi.org/10.1016/j.neuroscience.2012.05.048>

Fann, D. Y., Lee, S., Manzanero, S., Chunduri, P., Sobey, C. G., & Arumugam, T. V. (2013). Pathogenesis of acute stroke and the role of inflammasomes. *Ageing Research Reviews*, 12(4), 941–966. <http://doi.org/10.1016/j.arr.2013.09.004>

Fluri, F., Schuhmann, M. K., & Kleinschnitz, C. (2015). Animal models of ischemic stroke and their application in clinical research. *Drug Design, Development and Therapy*, 9(December), 3445–54. <http://doi.org/10.2147/DDDT.S56071>

Foghi, K., & Ahmadpour, S. (2013). Role of Neuronal Apoptosis in Volumetric Change of Hippocampus in Diabetes Mellitus Type 1 : A Predictive Model. *ISRN Anatomy*, 2013, 1–6. <http://doi.org/http://dx.doi.org/10.5402/2013/958461>

Ghanbarabadi, M., Iranshahi, M., Amoueian, S., & Mehri, S. (2016). Neuroprotective and memory enhancing effects of auraptene in a rat model of vascular dementia : Experimental study and histopathological evaluation. *Neuroscience Letters*, 623, 13–21. <http://doi.org/10.1016/j.neulet.2016.04.047>

Ghasemi, A., Khalifi, S., & Jedi, S. (2014). Streptozotocin-nicotinamide-induced rat model of type 2 diabetes. *Acta Physiologica Hungarica*, 101(April 2015), 408–420. <http://doi.org/10.1556/APhysiol.101.2014.4.2>

Gladden, L. B. (2004). Lactate metabolism : a new paradigm for the third millennium. *J Physiol*, 558(1), 5–30. <http://doi.org/10.1113/jphysiol.2003.058701>

Golub, V. M., Brewer, J., Wu, X., Kuruba, R., & Short, J. (2015). Neurostereology protocol for unbiased quantification of neuronal injury and neurodegeneration. *Protocols*, 7(October), 1–14. <http://doi.org/10.3389/fnagi.2015.00196>

Gomez-de Frutos, M. C., Garcia-Suarez, I., Laso-garcía, F., G, M. C., Díez-tejedor, E., Diekhorst, L., ... Ruiz-ares, G. (2020). Identification of brain structures and blood vessels by conventional ultrasound in rats ´ n García-Su a. *Journal of Neuroscience Methods*, 346. <http://doi.org/10.1016/j.jneumeth.2020.108935>

Gonçalves, G., Zaghi, D., Godinho, J., Dias, E., Ferreira, F., Henrique, M., ... Milani, H. (2016). Robust and enduring atorvastatin-mediated memory recovery following the 4-vessel occlusion / internal carotid artery model of chronic cerebral hypoperfusion in middle-aged rats. *Progress in Neuropsychopharmacology & Biological Psychiatry*, 65, 179–187. <http://doi.org/10.1016/j.pnpbp.2015.10.004>

Han, H., Wu, L., Han, M., Yang, W., & Wang, Y. (2016). Diabetes impairs spatial learning and memory and hippocampal neurogenesis via BDNF in rats with transient global ischemia. *Brain Research Bulletin*, 124, 269–277. <http://doi.org/10.1016/j.brainresbull.2016.05.011>

Han, X., Shi, Z., & Xia, L. (2016). Changes in Synaptic Plasticity and Expression of Glutamate Receptor Subunits in The CA1 and CA3 Areas of The Hippocampus After Transient Global Ischemia. *Neuroscience*, 327, 64–78. <http://doi.org/10.1016/j.neuroscience.2016.04.011>

Handayani, E. S., Nugraha, Z. S., Nurmasitoh, T., Ahsani, D. N., & Nanda, A. G. (2016). Black sugarcane decoction reduces rat brain ischemia. *Universa Medicina*, 35(1), 40–45.

Handayani, E. S., Umami, M., Hidayah, N., & Sholeh, A. (2019). *The Relationship Between Ischemia with Blood Glucose Levels in Rats*. Yogyakarta.

Harada, S., Matsuura, W., Liu, K., Nishibori, M., & Tokuyama, S. (2016). Possible involvement of the HMGB1/RAGE signaling mechanism in the induction of central post-stroke pain induced by acute global cerebral ischemia. *Brain Research*, 1646, 433–440. <http://doi.org/10.1016/j.brainres.2016.06.028>

Haraguchi, T., Iwasaki, K., Takasaki, K., & Uchida, K. (2010). Telmisartan, a partial agonist of peroxisome proliferator-activated receptor  $\gamma$ , improves impairment of spatial memory and hippocampal apoptosis in rats treated with repeated cerebral ischemia. *Brain Research*, 1353, 125–132. <http://doi.org/10.1016/j.brainres.2010.07.017>

Hartman, R. E., Lee, J. M., Zipfel, G. J., & Wozniak, D. F. (2005). Characterizing learning deficits and hippocampal neuron loss following transient global cerebral ischemia in rats. *Brain Research*, 1043, 48–56. <http://doi.org/10.1016/j.brainres.2005.02.030>

Herson, P. S., & Traystman, R. J. (2014). Animal models of stroke: translational potential at present and in 2050. *Future Neurology*, 9(5), 541–551. <http://doi.org/10.2217/fnl.14.44>

Holm, L. (2011). *Focal ischemic reperfusion stroke model in rats and the role of galanin*. Linköping University.

Hossmann, K. (1998). Experimental models for the investigation of brain ischemia. *Cardiovascular Research*, 39, 106–120.

Hu, J., Liu, B., Zhao, Q., Jin, P., Hua, F., Zhang, Z., ... Ye, X. (2016). Bone marrow stromal cells inhibits HMGB1-mediated inflammation after stroke in type 2 diabetic rats. *Neuroscience*, 324, 11–19. <http://doi.org/10.1016/j.neuroscience.2016.02.058>

Hu, X., Zhang, Y., Li, W., Liu, J., & Li, Y. (2013). Preconditioning with sevoflurane ameliorates spatial learning and memory deficit after focal cerebral ischemia – reperfusion in rats. *International Journal of Developmental Neuroscience*, 31(5), 328–333. <http://doi.org/10.1016/j.ijdevneu.2013.04.004>

Huang, J., Fu, S., Jiang, Y., & Cao, Y. (2007). Protective effects of Nicotiflorin on reducing memory dysfunction, energy metabolism failure and oxidative stress in multi-infarct dementia model rats. *Pharmacology, Biochemistry and Behavior*, 86, 741–748. <http://doi.org/10.1016/j.pbb.2007.03.003>

Huang, S. S., Lu, Y. J., Huang, J. P., Wu, Y. T., Day, Y. J., & Hung, L. M. (2014). The essential role of endothelial nitric oxide synthase activation in insulin-mediated

neuroprotection against ischemic stroke in diabetes. *J Vasc Surg*, 59(2), 483–491. <http://doi.org/10.1016/j.jvs.2013.03.023>

Hussein, A. H., & Shaheed, D. K. (2015). Histopathological Effects of L-Methionine in Rat Cerebral Ischemia Reperfusion I/R Injury. *British Journal of Medical and Health Research*, 2(July).

Iqbal, S. (2013). A Comprehensive Study of the Anatomical Variations of the Circle of Willis in Adult Human Brains. *Journal of Clinical and Diagnostic Research*, 7(11), 2423–2427. <http://doi.org/10.7860/JCDR/2013/6580.3563>

Isayama, K., Pitts, L. H., & Nishimura, M. C. (1991). Evaluation of 2,3,5-triphenyltetrazolium chloride staining to delineate rat brain infarcts. *Stroke; a Journal of Cerebral Circulation*, 22, 1394–1398. <http://doi.org/10.1161/01.STR.22.11.1394>

Isfer, M., Oliveira, A., Souza, E. M. De, Picheth, G., Gomes, F., & Rego, D. M. (2013). RAGE receptor and its soluble isoforms in diabetes mellitus complications. *J Bras Patol Med Lab*, 49(2), 97–108.

Iwasaki, H., Ohmachi, Y., Kume, E., & Krieglstein, J. (1995). Strain differences in vulnerability of hippocampal neurons to transient cerebral ischaemia in the rat. *Int J Exp Pathol*, 76(3), 171–178. Retrieved from [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=7547427](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=7547427)

Iwasaki, K., Egashira, N., & Hatip-al-khatib, I. (2006). Cerebral ischemia combined with  $\beta$ -amyloid impairs spatial memory in the eight-arm radial maze task in rats. *B R AIN R E SEAR C H*, 7, 3–10. <http://doi.org/10.1016/j.brainres.2006.04.073>

Iwata, N., Okazaki, M., Kamiuchi, S., Xuan, M., Matsuzaki, H., Sakamoto, T., & Hibino, Y. (2015). Diabetes and Clinical Research Early Release of HMGB1 may Aggravate Neuronal Damage after ClinMed. *Int J Diabetes Clin Res*, 2(1).

Jeon, S. J., Sung, J. H., & Koh, P. O. (2016). Hyperglycemia decreases expression of 14-3-3 proteins in an animal model of stroke. *Neuroscience Letters*, 626, 13–18. <http://doi.org/10.1016/j.neulet.2016.05.016>

Judas, M., & Capanec, M. (2012). Brodmann's Map of The Human Cerebral Cortex – or Brodmann's Maps? *Translational Neuroscience*, 3(1), 67–74. <http://doi.org/10.2478/s13380-012-0009-x>

Jung, Y. S., Lee, S., Park, J. H., Seo, H. B., Choi, B. T., & Shin, H. K. (2016). Electroacupuncture preconditioning reduces ROS generation with NOX4 down-regulation and ameliorates blood-brain barrier disruption after ischemic stroke. *Journal of Biomedical Science*, 1–11. <http://doi.org/10.1186/s12929-016-0249-0>

Kade, I. J., Nogueira, C. W., & Rocha, J. B. T. (2009). Diphenyl diselenide and streptozotocin did not alter cerebral glutamatergic and cholinergic systems but modulate antioxidant status and sodium pump in diabetic rats. *Brain Research*, 1284, 202–211. <http://doi.org/10.1016/j.brainres.2009.04.003>

Kalogeris, T., Bao, Y., & Korthuis, R. J. (2014). Mitochondrial reactive oxygen species: A double edged sword in ischemia / reperfusion vs preconditioning. *Redox Biology*, 2, 702–714. <http://doi.org/10.1016/j.redox.2014.05.006>

Kamide, T., Kitao, Y., Takeichi, T., Okada, A., Mohri, H., Schmidt, A. M., ... Hori, O. (2011). RAGE mediates vascular injury and inflammation after global cerebral ischemia. *Neurochemistry International*, (December). <http://doi.org/10.1016/j.neuint.2011.12.008>

Kanyal, N. (2016). Role of Rauwolfia serpentina in stroke induced experimental dementia. *Indian Journal of Pharmaceutical and Biological Research (IJPBR)*, 4(1), 19–30.

Kareem, K. J. (2015). Valsartan modulates the inflammatory response and apoptosis and protects from cerebral ischemia Reperfusion injury. *J. Adv. Pharm. Edu. & Res.*, 5(1).

Kaur, H., Prakash, A., & Medhi, B. (2013). Drug therapy in stroke: from preclinical to clinical studies. *Pharmacology*, 92(5-6), 324–34. <http://doi.org/10.1159/000356320>

Kawai, H., Deguchi, S., Deguchi, K., Yamashita, T., Ohta, Y., Shang, J., ... Abe, K. (2011). Synergistic benefit of combined amlodipine plus atorvastatin on neuronal damage after stroke in Zucker metabolic rat. *Brain Research*, 1368, 317–323. <http://doi.org/10.1016/j.brainres.2010.10.046>

Kaya, A. H., Erdogan, H., & Tasdemiroglu, E. (2016). Searching Evidences of Stroke in Animal Models: A Review of Discrepancies. *Turkish Neurosurgery, mei*, 1–7. <http://doi.org/10.5137/1019-5149.JTN.15373-15.2>

Khallout, K. (2013). *Cerebral hypoperfusion in the rat*. The University of Edinburgh.

Khan, S., & Charron, C. (2008). Cerebral ischemic preconditioning induces lasting effects on CA1 neuronal survival, prevents memory impairments but not ischemia-induced hyperactivity eve Davignon, Samir Khan, Charlaïne Charron. *Behavioural Brain Research*, 189, 145–151. <http://doi.org/10.1016/j.bbr.2007.12.027>

Kheradpezhoh, E., Miri, R., Noorafshan, A., Panjehshahin, M. R., & Mehrabani, D. (2008). A New Method of Brain Staining with Triphenyltetrazolium Chloride to Determine the Infarct Size in Rats. *Journal of Applied Animal Research*, 33(2), 149–152. <http://doi.org/10.1080/09712119.2008.9706917>

Kim, J. Y., Park, J., Chang, J. Y., Kim, S.-H., & Lee, J. E. (2016). Inflammation after Ischemic Stroke: The Role of Leukocytes and Glial Cells. *Experimental Neurobiology*, 25(5), 241. <http://doi.org/10.5607/en.2016.25.5.241>

Kim, S., Cho, K., & Kim, S. Y. (2008). White Matter Damage and Hippocampal Neurodegeneration Induced by Permanent Bilateral Occlusion of Common Carotid Artery in the Rat : Comparison between Wistar and Sprague-Dawley Strain. *Korean J Physiol Pharmacol*, 12(80), 89–94.

Kim, S., Cho, K., & Kim, S. Y. (2009). The plasticity of posterior communicating artery influences on the outcome of white matter injury induced by chronic cerebral hypoperfusion in rats. *Neurological Research*, 31(April), 245–250. <http://doi.org/10.1179/174313209X382278>

Knight, A. (2008). Systematic Reviews of Animal Experiments Demonstrate Poor Contributions to Human Healthcare. *Animal Studies Repository*, 3, 89–96.

Kristián, T. (2004). Metabolic stages , mitochondria and calcium in hypoxic / ischemic brain damage. *Cell Calcium*, 36, 221–233. <http://doi.org/10.1016/j.ceca.2004.02.016>

Kuang, X., Du, J., Liu, Y., Zhang, G., & Peng, H. (2008). Postischemic administration of Z-Ligustilide ameliorates cognitive dysfunction and brain damage induced by permanent forebrain ischemia in rats. *Pharmacology, Biochemistry and Behavior*, 88, 213–221. <http://doi.org/10.1016/j.pbb.2007.08.006>

Kumar, K. ., & Sastry, V. G. (2012). Protective Effect of Trewia Nudiflora Against Ischemic Stroke In Experimental Rats. *International Journal of Pharmacotherapy*, 2(1), 7–12.

Kurihara, J., Katsura, K. I., Siesjo, B. K., & Wieloch, T. (2004). Hyperglycemia and hypercapnia differently affect post-ischemic changes in protein kinases and protein phosphorylation in the rat cingulate cortex. *Brain Research*, 995(2), 218–225. <http://doi.org/10.1016/j.brainres.2003.10.005>

Kuznetsov, A. V., Amberger, A., Fuchs, A., Stadlmann, S., & Eberl, T. (2000). Mitochondrial defects by intracellular calcium overload versus endothelial cold ischemidreperfusion injury. *Transpl Int*, 13(1), 555–557.

Kwon, K., Lee, E., Kim, M., Kim, S., Kim, J., Kim, J., ... Han, S. (2015). Diabetes augments cognitive dysfunction in chronic cerebral hypoperfusion by increasing neuronal cell death: implication of cilostazol for diabetes mellitus-induced dementia. *Neurobiol Dis*, 73, 12–23.

Lai, Z., Zhang, L., Su, J., & Cai, D. (2016). Sevo fl urane postconditioning improves

long-term learning and memory of neonatal hypoxia-ischemia brain damage rats via the PI3K / Akt-mPTP pathway. *Brain Research*, 1630, 25–37. <http://doi.org/10.1016/j.brainres.2015.10.050>

Lapi, D., Vagnani, S., Pignataro, G., Esposito, E., Paterni, M., & Colantuoni, A. (2012). Protective effects of quercetin on rat pial microvascular changes during transient bilateral common carotid artery occlusion and reperfusion. *Frontiers in Physiology*, 3 MAR(March), 1–12. <http://doi.org/10.3389/fphys.2012.00032>

Lasek-bal, A., Duława, J., & Lewin-kowalik, J. (2015). Low Concentration of BDNF in the Acute Phase of Ischemic Stroke as a Factor in Poor Prognosis in Terms of Functional Status of Patients. *Med Sci Monit*, 21, 3900–3905. <http://doi.org/10.12659/MSM.895358>

Leal, G., Afonso, P. M., Salazar, I. L., & Duarte, C. B. (2015). Regulation of hippocampal synaptic plasticity by BDNF. *Brain Research*, 1621, 82–101. <http://doi.org/10.1016/j.brainres.2014.10.019>

Lee, H. J., Kang, J. S., & Kim, Y. I. (2009). Citicoline Protects Against Cognitive Impairment in a Rat Model of Chronic Cerebral Hypoperfusion. *J Clin Neurol*, 33–38.

Lee, K., Cho, K., Choi, Y., & Kim, S. Y. (2016). The neuroprotective mechanism of ampicillin in a mouse model of transient forebrain ischemia. *Korean J Physiol Pharmacol*, 20(2), 185–192.

Li, C., Li, P.-A., He, Q.-P., Ouyang, Y.-B., & Siesjö, B. K. (1998). Effects of Streptozotocin-Induced Hyperglycemia on Brain Damage Following Transient Ischemia. *Neurobiology of Disease*, 5(2), 117–128. <http://doi.org/10.1006/nbdi.1998.0189>

Li, F., Chen, H., Wang, Y., Yang, Y., Li, C., & Dong, Z. (2011). A new prognostic model and score to predict short term outcome after intracerebral hemorrhage. *Scientific Research and Essays*, 6(10), 2063–2068. <http://doi.org/10.5897/SRE10.711>

Li, L., & Sary, C. M. (2016). Targeting Glial Mitochondrial Function for Protection from Cerebral Ischemia: Relevance, Mechanisms, and the Role of MicroRNAs. *Oxidative Medicine and Cellular Longevity*, 2016(1).

Li, L., Tian, X., & Hu, Z. (2015). The key target of neuroprotection after the onset of ischemic stroke: secretory pathway Ca<sup>2+</sup> -ATPase 1. *Neural Regeneration Research*, 10(8), 1271–1278. <http://doi.org/10.4103/1673-5374.162760>

Li, S., He, Z., Guo, L., Huang, L., Wang, J., & He, W. (2010). Behavioral Alterations Associated with a down Regulation of HCN1 mRNA in Hippocampal Cornus

Ammon 1 Region and Neocortex After Chronic Incomplete Global Cerebral Ischemia in rats. *NSC*, 165(3), 654–661. <http://doi.org/10.1016/j.neuroscience.2009.10.053>

Li, S., Pan, J., Hua, X., Liu, H., Shen, S., Liu, J., ... Wang, X. (2014). Endothelial Nitric Oxide Synthase Protects Neurons against Ischemic Injury through Regulation of Brain-Derived Neurotrophic Factor Expression. *CNS Neuroscience & Therapeutics*, 20, 154–164. <http://doi.org/10.1111/cns.12182>

Li, W., Huang, R., Shetty, R. A., Thangthaeng, N., Liu, R., Chen, Z., ... Yang, S. (2013). Transient focal cerebral ischemia induces long-term cognitive function deficit in an experimental ischemic stroke model. *Neurobiology of Disease*, 59, 18–25. <http://doi.org/10.1016/j.nbd.2013.06.014>

Li, Z., Fang, F., Wang, Y., & Wang, L. (2016). Resveratrol protects CA1 neurons against focal cerebral ischemic reperfusion-induced damage via the ERK-CREB signaling pathway in rats. *Pharmacology, Biochemistry and Behavior*, 146-147, 21–27. <http://doi.org/10.1016/j.pbb.2016.04.007>

Liang, W., Chuan-Zhen, L., Qiang, D., Jian, Q., Hui-Min, R., & Bao-Guo, X. (2004). Reductions in mRNA of the neuroprotective agent, neuroserpin, after cerebral ischemia/reperfusion in diabetic rats. *Brain Research*, 1015(1-2), 175–180. <http://doi.org/10.1016/j.brainres.2004.04.053>

Licata, G., Tuttolomondo, A., Corrao, S., Raimondo, D. D. I., Fernandez, P., Carusoi, C., ... Pinto, A. (2006). Immunoinflammatory Activation During The Acute Phase Of Lacunar And Non-Lacunar Ischemic Stroke : Association With Time Of Onset And Diabetic State. *International Journal of Immunopathology and Pharmacology*, 19(3), 639–646.

Lieber, B. A., Taylor, B., Appelboom, G., Prasad, K., Bruce, S., Yang, A., ... Connolly, E. S. (2015). Meta-analysis of telemonitoring to improve HbA1c levels: Promise for stroke survivors. *Journal of Clinical Neuroscience*, 22(5), 807–811. <http://doi.org/10.1016/j.jocn.2014.11.009>

Lin, C., Wang, C., Hsu, S., Liao, L., & Lin, T. (2016). Molecular Mechanisms Responsible for Neuron-Derived Conditioned Medium ( NCM ) - Mediated Protection of Ischemic Brain. *PLoS One*, 1–26. <http://doi.org/10.1371/journal.pone.0146692>

Liu, F., Schafer, D. P., & McCullough, L. D. (2010). TTC, Fluoro-Jade B and NeuN staining confirm evolving phases of infarction induced by Middle Cerebral Artery Occlusion. *J Neurosci Methods*, 179(1), 1–8. <http://doi.org/10.1016/j.jneumeth.2008.12.028>.TTC

Liu, H., Ou, S., Xiao, X., Zhu, Y., & Zhou, S. (2015). Diabetes Worsens Ischemia-

Reperfusion Brain Injury in Rats Through GSK-3 $\beta$ . *The American Journal of the Medical Sciences*, 350(3), 204–11. <http://doi.org/10.1097/MAJ.0000000000000540>

Liu, H., Wei, X., Kong, L., Liu, X., Cheng, L., Yan, S., & Zhang, X. (2015). NOD2 is Involved in the Inflammatory Response after Cerebral Ischemia-Reperfusion Injury and Triggers NADPH Oxidase 2-Derived Reactive Oxygen Species. *International Journal of Biological Sciences*, 11. <http://doi.org/10.7150/ijbs.10927>

Liu, H., Zhang, J., Zheng, P., & Zhang, Y. (2005). Altered expression of MAP-2 , GAP-43 , and synaptophysin in the hippocampus of rats with chronic cerebral hypoperfusion correlates with cognitive impairment. *Molecular Brain Research*, 139, 169–177. <http://doi.org/10.1016/j.molbrainres.2005.05.014>

Liu, S., Sun, J., & Li, Y. (2015). The neuroprotective effects of resveratrol preconditioning in transient global cerebral ischemia-reperfusion in mice. *Turkish Neurosurgery*, 26(4), 1–6. <http://doi.org/10.5137/1019-5149.JTN.14195-15.3>

Liu, Y., Wang, S., Luo, S., Li, Z., Liang, F., & Zhu, Y. (2016). Intravenous PEP-1-GDNF is protective after focal cerebral ischemia in rats. *Neuroscience Letters*, 617, 150–155. <http://doi.org/10.1016/j.neulet.2016.02.017>

Lo, R. (2013). Complex Tissue-Specific Patterns and Distribution of Multiple. *Genome Biol. Evol.*, 5(12), 2420–2435. <http://doi.org/10.1093/gbe/evt188>

Long, C., & Li, M. (2015). Age and Stroke Severity: Hazards for Intravenous Thrombolysis? *Medical Principles and Practice*, 25(1), 99–100. <http://doi.org/10.1159/000439383>

Lourbopoulos, A., Mamrak, U., Roth, S., Balbi, M., Shrouder, J., Liesz, A., ... Plesnila, N. (2017). Inadequate food and water intake determine mortality following stroke in mice. *Journal of Cerebral Blood Flow & Metabolism*, 37(6), 2084–2097. <http://doi.org/10.1177/0271678X16660986>

Lu, H., Zou, Q., Gu, H., Raichle, M. E., Stein, E. A., & Yang, Y. (2012). Rat brains also have a default mode network. *PNAS*, 1–6. <http://doi.org/10.1073/pnas.1200506109>

Luitse, M. J., Velthuis, B. K., Kappelle, L. J., van der Graaf, Y., & Biessels, G. J. (2016). Chronic hyperglycemia is related to poor functional outcome after acute ischemic stroke. *International Journal of Stroke*, 0(0), 1–7. <http://doi.org/10.1177/1747493016676619>

Ma, M., Hasegawa, Y., Koibuchi, N., Toyama, K., Uekawa, K., Nakagawa, T., ... Kim-Mitsuyama, S. (2015). DPP-4 inhibition with linagliptin ameliorates cognitive impairment and brain atrophy induced by transient cerebral ischemia in type 2

diabetic mice. *Cardiovascular Diabetology*, 14, 54. <http://doi.org/10.1186/s12933-015-0218-z>

Maier, C. M., & Chan, P. A. K. H. (2016). Role of Superoxide Dismutases in Oxidative Damage and Neurodegenerative Disorders. *The Neuroscientist*, 8(4), 323–334.

Manigrasso, M. B., Pan, J., Rai, V., Zhang, J., Reverdatto, S., Quadri, N., ... Schmidt, A. M. (2016). Small Molecule Inhibition of Signal Transduction. *Nature Publishing Group*, (November 2015), 1–13. <http://doi.org/10.1038/srep22450>

Martini, S. R., & Kent, T. A. (2007). Hyperglycemia in acute ischemic stroke: a vascular perspective. *J.Cereb.Blood Flow Metab*, 27(3), 435–451. <http://doi.org/10.1038/sj.jcbfm.9600355>

Mathis, D. M., Furman, J. L., & Norris, C. M. (2011). Preparation of acute hippocampal slices from rats and transgenic mice for the study of synaptic alterations during aging and amyloid pathology. *Journal of Visualized Experiments : JoVE*, (49), 1–9. <http://doi.org/10.3791/2330>

Maya, S. (2016). *Spatial Navigation and Memory: The Role of the Hippocampus and Neocortical Structures*. University of California. Retrieved from <https://escholarship.org/uc/item/9q9634s7>

Mehta, S. L., Manhas, N., & Raghubir, R. (2007). Molecular targets in cerebral ischemia for developing novel therapeutics. *Brain Research Reviews*, 54(2007), 34–66. <http://doi.org/10.1016/j.brainresrev.2006.11.003>

Mendez, M., Mendez-Lopez, M., Lopez, L., & Arias, J. (2007). Comparison between stereology methods for cell volume assessment: exemplified by estimation of neuronal nuclear volume in cirrhotic rats. Marta Méndez 1 , Magdalena Méndez-López, Laudino López, Jorge Luis Arias Laboratory of Psychobiology. Faculty of Psych. *Revista Electronica de Metodologia Aplicada*, 12, 16–24.

Mergenthaler, P., & Meisel, A. (2012). Do stroke models model stroke? *Disease Models & Mechanisms*, 5, 718–725. <http://doi.org/10.1242/dmm.010033>

Min, T. S., & Park, S. H. (2010). Therapy of diabetes mellitus using experimental animal models. *Asian-Australasian Journal of Animal Sciences*, 23(5), 672–679.

Minutoli, L., Puzzolo, D., Rinaldi, M., Irrera, N., Marini, H., Arcoraci, V., ... Altavilla, D. (2016). ROS-Mediated NLRP3 Inflammasome Activation in Brain , Heart , Kidney , and Testis Ischemia / Reperfusion Injury. *Oxidative Medicine and Cellular Longevity*. <http://doi.org/10.1155/2016/2183026>

Mochizuki, N., Takagi, N., Kurokawa, K., Onozato, C., Moriyama, Y., Tanonaka, K.,

& Takeo, S. (2008). Injection of neural progenitor cells improved learning and memory dysfunction after cerebral ischemia. *Experimental Neurology*, *211*, 194–202. <http://doi.org/10.1016/j.expneurol.2008.01.027>

Muranyi, M., & Lacza, Z. (2006). *Influence of diabetes mellitus on cerebral ischemia and reperfusion injury*. *ResearchGate*. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/17111650>

Nacu, A., Fromm, A., Sand, K. M., Waje-Andreassen, U., Thomassen, L., & Naess, H. (2016). Age dependency of ischaemic stroke subtypes and vascular risk factors in western Norway: The Bergen Norwegian Stroke Cooperation Study. *Acta Neurologica Scandinavica*, *133*(3), 202–207. <http://doi.org/10.1111/ane.12446>

Nacu, A., Thomassen, L., Fromm, A., Bjerkreim, A. T., Andreassen, W., & Naess, H. (2015). Impact of Diabetes Mellitus on 1867 Acute Ischemic Stroke Patients . A Bergen NORSTROKE Study. *Journal of Research in Diabetes*. <http://doi.org/10.5171/2015.112104>

Nandagopal, M., Muralidharan, P., Thirumurugan, G., & Nagar, C. (2010). Behavioral assessment studies in Cerebral ischemia induced by Bilateral carotid artery occlusion in Rats. *Annals of Biological Research*, *1*(1), 208–223.

Narasinh, C., Kumar, S., Sri, P., & Murthy, R. (2004). An optimized triphenyltetrazolium chloride method for identification of cerebral infarcts. *Brain Research Protocol*, *13*, 11–17. <http://doi.org/10.1016/j.brainresprot.2003.12.001>

Natalia, M. (2010). Rac1 activity changes are associated with neuronal pathology and spatial memory long-term recovery after global cerebral ischemia. *Neurochemistry International Journal*, *57*, 762–773. <http://doi.org/10.1016/j.neuint.2010.08.014>

Nikonenko, A. G., Radenovic, L., & Andjus, P. R. (2009). Structural Features of Ischemic Damage in the Hippocampus. *The Anatomical Record*, *1921*(June), 1914–1921. <http://doi.org/10.1002/ar.20969>

Ning, R., Chopp, M., Yan, T., Zacharek, A., Zhang, C., Roberts, C., ... Chen, J. (2012). Tissue plasminogen activator treatment of stroke in type-1 diabetes rats. *Neuroscience*, *222*, 326–332. <http://doi.org/10.1016/j.neuroscience.2012.07.018>

Ning, R., Chopp, M., Zacharek, A., Yan, T., Zhang, C., Roberts, C., ... Chen, J. (2014). Neamine induces neuroprotection after acute ischemic stroke in type one diabetic rats. *Neuroscience*, *257*, 76–85. <http://doi.org/10.1016/j.neuroscience.2013.10.071>

Nitta, A., Murai, R., Suzuki, N., Ito, H., Nomoto, H., Katoh, G., ... Furukawa, S. (2002). Diabetic neuropathies in brain are induced by deficiency of BDNF.

*Neurotoxicology and Teratology*, 24(5), 695–701. [http://doi.org/10.1016/S0892-0362\(02\)00220-9](http://doi.org/10.1016/S0892-0362(02)00220-9)

Nourae, C., Fisher, M., Napoli, M. Di, Salazar, P., Farr, T. D., & Jafarli, A. (2019). A Brief Review of Edema-Adjusted Infarct Volume Measurement Techniques for Rodent Focal Cerebral Ischemia Models with Practical Recommendations. *Journal of Vascular and Interventional Neurology*, 10(3), 38–45.

Onken, M., Berger, S., & Kristian, T. (2012). Simple model of forebrain ischemia in mouse. *Journal of Neuroscience Methods*, 204(2), 254–261. <http://doi.org/10.1016/j.jneumeth.2011.11.022>

Paganelli, R. A., Benetoli, A., & Milani, H. (2006). Sustained neuroprotection and facilitation of behavioral recovery by the Ginkgo biloba extract , EGb 761 , after transient forebrain ischemia in rats. *Behavioural Brain Research*, 174, 70–77. <http://doi.org/10.1016/j.bbr.2006.07.005>

Pan, R., Timmins, G. S., Liu, W., & Liu, K. J. (2016). Autophagy mediates astrocyte death during zinc potentiated ischemia reperfusion injury. *Biol Trace Elem Res*, 166(1), 89–95. <http://doi.org/10.1007/s12011-015-0287-6>.Autophagy

Parakh, N., Gupta, H. L., & Jain, A. (2002). Evaluation of enzymes in serum and cerebrospinal fluid in cases of stroke. *Neurol India*, 50(4), 518–519.

Partadiredja, G. (2016a). Stereologi dan aplikasinya pada penelitian miomedis:konsep konsep dasar. *Medika*, 5, 265–269.

Partadiredja, G. (2016b). Stereologi dan aplikasinya pada penelitian-penelitian biomedis:pengukuran parameter tiga dimensi. *Medika*, 06, 324–331.

Ping, P., Xiao, Y., Changchun, H., Yvonne, M., Jianguo, N., SunTao, & Li, P. A. (2016). Rapamycin Reduced Ischemic Brain Damage in Diabetic Animals Is Associated with Suppressions of mTOR and ERK1/2 Signaling. *International Journal of Biological Sciences*, 12(8), 1032–1040. <http://doi.org/10.7150/ijbs.15624>

Prasad, S., Sajja, R. K., Naik, P., & Cucullo, L. (2014). Diabetes Mellitus and Blood-Brain Barrier Dysfunction: An Overview. *Journal of Pharmacovigilance*, 2(2), 125. <http://doi.org/10.4172/2329-6887.1000125>

Prosser-loose, E. (2010). *Effects Of Protein-Energy Malnutrition On Outcome From Global Cerebral Ischemia*. University of Saskatchewan.

Qi, D., Tao, J., Zhang, L., Qu, R., Zhang, L., Liu, P., ... Mei, X. (2016). Neuroprotection of Cilostazol against ischemia/reperfusion-induced cognitive deficits through inhibiting JNK3/caspase-3 by enhancing Akt1 Authors. *Brain Research*. <http://doi.org/10.1016/j.brainres.2016.10.017>

Quartu, M., Serra, M. P., Boi, M., Pillolla, G., Melis, T., Poddighe, L., ... Banni, S. (2012). Effect of acute administration of *Pistacia lentiscus* L. essential oil on rat cerebral cortex following transient bilateral common carotid artery occlusion. *Lipids in Health and Disease*, 1–11.

Raghavendra, M., Maiti, R., Kumar, S., Trigunayat, A., Mitra, S., & Acharya, S. (2009). Role of *Centella asiatica* on cerebral post-ischemic reperfusion and long-term hypoperfusion in rats. *International Journal of Green Pharmacy*, 3(2), 88–96. <http://doi.org/10.4103/0973-8258.54893>

Raz, L., Zhang, Q., Zhou, C., Han, D., Gulati, P., Yang, L., ... Brann, D. W. (2010). Role of Rac1 GTPase in NADPH Oxidase Activation and Cognitive Impairment Following Cerebral Ischemia in the Rat. *Plos One*, 5(9). <http://doi.org/10.1371/journal.pone.0012606>

Rizk, N. N., Rafols, J. A., & Dunbar, J. C. (2006). Cerebral ischemia-induced apoptosis and necrosis in normal and diabetic rats: Effects of insulin and C-peptide. *Brain Research*, 1096(1), 204–212. <http://doi.org/10.1016/j.brainres.2006.04.060>

Saad, M. A., Salam, R. M. A., Kenawy, S. A., & Attia, A. S. (2015). Pharmacological Reports Pinocembrin attenuates hippocampal inflammation, oxidative perturbations and apoptosis in a rat model of global cerebral ischemia reperfusion. *Pharmacological Reports*, 67(1), 115–122. <http://doi.org/10.1016/j.pharep.2014.08.014>

Sanches, E. F., Arteni, N. S., Scherer, E. B., Kolling, J., Nicola, F., Willborn, S., ... Netto, C. a. (2013). Are the consequences of neonatal hypoxia-ischemia dependent on animals' sex and brain lateralization? *Brain Research*, 1507, 105–114. <http://doi.org/10.1016/j.brainres.2013.02.040>

Sanderson, T. H., & Wider, J. M. (2013). 2-Vessel Occlusion / Hypotension : A Rat Model of Global Brain Ischemia. *Journal of Visualized Experiments*, 76(50173), 1–8. <http://doi.org/10.3791/50173>

Sandoval, K. E., & Witt, K. A. (2008). Blood-brain barrier tight junction permeability and ischemic stroke. *Neurobiology of Disease*, 32(2), 200–219. <http://doi.org/10.1016/j.nbd.2008.08.005>

Saver, J. L. (2006). Time is brain - Quantified. *Stroke*, 37(1), 263–266. <http://doi.org/10.1161/01.STR.0000196957.55928.ab>

Schiliching, C. L. R., Lima, K. C. M., Cestari, L. a, Sekiyama, J. Y., Silva, F. M., & Milani, H. (2004). Validation of a simple and inexpensive method for the quantitation of infarct in the rat brain. *Brazilian Journal of Medical and Biological Research = Revista Brasileira*, 37(4), 511–21. <http://doi.org/S0100-879X2004000400008> [pii]

Schmidt-Kastner, R. (2015). Genomic approach to selective vulnerability of the hippocampus in brain ischemia-hypoxia. *Neuroscience*, 309, 259–279. <http://doi.org/10.1016/j.neuroscience.2015.08.034>

Schmidt-Kastner, R., Zhang, B.-T., Webster, K., Kietzmann, T., Zhao, W., Busto, R., & Ginsberg, M. D. (2002). Hypoxia-Inducible Factor-1 (Hif-1) in Experimental Brain Ischemia. *The Scientific World JOURNAL*, 2, 123–124. <http://doi.org/10.1100/tsw.2002.58>

Schmitz, C., & Hof, P. R. (2005). Design-Based Stereology in Neuroscience. *Neuros*, 130, 813–831. <http://doi.org/10.1016/j.neuroscience.2004.08.050>

Selvarajah, D., Hughes, T., Reeves, J., Boland, E., Marques, J., Gandhi, R., ... Wilkinson, I. D. (2016). A preliminary study of brain macrovascular reactivity in impaired glucose tolerance and type-2 diabetes: Quantitative internal carotid artery blood flow using magnetic resonance phase contrast angiography. *Diabetes & Vascular Disease Research*, 13(5), 367–72. <http://doi.org/10.1177/1479164116644404>

Sena, C. M., Pereira, A. M., & Seica, R. (2013). Endothelial dysfunction - A major mediator of diabetic vascular disease. *Biochimica et Biophysica Acta - Molecular Basis of Disease*, 1832(12), 2216–2231. <http://doi.org/10.1016/j.bbadis.2013.08.006>

Sena, E., van der Worp, H. B., Howells, D., & Macleod, M. (2007). How Can We Improve the Pre-clinical Development of Drugs For Stroke? *Trends in Neurosciences*, 30(9), 433–439. <http://doi.org/10.1016/j.tins.2007.06.009>

Shang, Y., Cheng, J., Qi, J., & Miao, H. (2005). Scutellaria flavonoid reduced memory dysfunction and neuronal injury caused by permanent global ischemia in rats B. *Pharmacology, Biochemistry and Behavior*, 82, 67–73. <http://doi.org/10.1016/j.pbb.2005.06.018>

Shcherbak, N. S., Galagudza, M. M., Ovchinnikov, D. A., Kuz'menkov, A. N., Iukina, G. I., Barantsevich, E. R., ... Shliakhto, E. V. (2012). Activity of lactate dehydrogenase in the brain cortex and hippocampus of Mongolian gerbils after global ischemia and reperfusion injuries. *Neuroscience & Behavioral Physiology*, 98(2), 186–193. Retrieved from <http://www.scopus.com/inward/record.url?eid=2-s2.0-84864393209&partnerID=tZOtx3y1>

Shou, J., Zhou, L., Zhu, S., & Zhang, X. (2015). Diabetes is an Independent Risk Factor for Stroke Recurrence in Stroke Patients: A Meta-analysis. *Journal of Stroke and Cerebrovascular Diseases*, 24(9), 1961–1968. <http://doi.org/10.1016/j.jstrokecerebrovasdis.2015.04.004>

Sieber, F. E., Martin, L. J., Brown, R., & Traystman, R. J. (1996). Diabetic Chronic

Hyperglycemia and Neurologic Outcome Following Global Ischemia in Dogs. *Journal of Cerebral Blood Flow and Metabolism*, 16, 1230–1235.

Simats, A., Garcia-Berrococo, T., & Montaner, J. (2016). Neuroinflammatory biomarkers: From stroke diagnosis and prognosis to therapy. *Biochimica et Biophysica Acta*, 1862(3), 411–424. <http://doi.org/10.1016/j.bbadis.2015.10.025>

Singh, R. K., Mitra, S., Goel, R. K., & Acharya, S. B. (2007). Effect of ethanolic extract of root of *Pongamia pinnata* ( L ) pierre on oxidative stress , behavioral and histopathological alterations induced by cerebral ischemia – reperfusion and long-term hypoperfusion in rats. *Indian Journal of Experimental Biology*, 45(October), 868–876.

Sobrado, M., Ramirez, B. G., Neria, F., Lizasoain, I., Arbones, M. L., Minami, T., ... Cano, E. (2012). Regulator of calcineurin 1 ( Rcan1 ) has a protective role in brain ischemia / reperfusion injury. *Journal of Neuroinflammation*, 9(1), 48. <http://doi.org/10.1186/1742-2094-9-48>

Sohrabji, F., Bake, S., & Lewis, D. K. (2013). Age-related changes in brain support cells: Implications for stroke severity. *Neurochemistry International*, 63(4), 291–301. <http://doi.org/10.1016/j.neuint.2013.06.013>

Song, J., Park, J., Oh, Y., & Lee, J. E. (2015). Glutathione Suppresses Cerebral Infarct Volume and Cell Death after Ischemic Injury: Involvement of FOXO3 Inactivation and Bcl2 Expression. *Medicine and Cellular Longevity*. <http://doi.org/10.1155/2015/426069>

Song, M. D., Kim, D. H., Kim, J. M., Lee, H. E., Park, S. J., Ryu, J. H., & Lew, J. H. (2013). Danggui-Jakyak-San ameliorates memory impairment and increase neurogenesis induced by transient forebrain ischemia in mice. *BMC Complementary and Alternative Medicine*, 13, -. <http://doi.org/10.1186/1472-6882-13-324>

Sonneville, R., Hertog, H. M. Den, Gu, F., Gunst, J., Derese, I., Wouters, P. J., ... Polito, A. (2012). Impact of Hyperglycemia on Neuropathological Alterations during Critical Illness. *Endocrine Research Impact*, 97(June), 2113–2123. <http://doi.org/10.1210/jc.2011-2971>

Srinivasan, V., Spinella, P. C., Drott, H. R., Roth, C. L., Helfaer, M. A., & Nadkarni, V. (2004). Association of timing, duration, and intensity of hyperglycemia with intensive care unit mortality in critically ill children. *Pediatr Crit Care Med*, 5(4), 329–336. <http://doi.org/10.1097/01.PCC.0000128607.68261.7C>

Sturzenegger, M., Fischer, U., & Baumgartner, R. W. (2005). Ischaemic stroke in young adults. *Journal of Neurology, Neuroscience and Psychiatry*. <http://doi.org/10.1136/jnnp.2004.040543>

Suda, S., Ueda, M., Nito, C., Nishiyama, Y., Okubo, S., Abe, A., ... Kimura, K. (2015). Valproic acid ameliorates ischemic brain injury in hyperglycemic rats with permanent middle cerebral occlusion. *Brain Research*, 1606, 1–8. <http://doi.org/10.1016/j.brainres.2015.02.013>

Sugawara, T., Lewén, A., Noshita, N., Gasche, Y., & Chan, P. H. (2002). Effects of global ischemia duration on neuronal, astroglial, oligodendroglial, and microglial reactions in the vulnerable hippocampal CA1 subregion in rats. *Journal of Neurotrauma*, 19(1), 85–98. <http://doi.org/10.1089/089771502753460268>

Sun, G. Y., & Korthuis, R. J. (2008). Ethanol preconditioning protects against ischemia/reperfusion- induced brain damage: Role of NADPH oxidase-derived ROS. *Free Radic Biol Med*, 43(7), 1048–1060.

Sun, X., Budas, G. R., Xu, L., Barreto, G. E., Mochly-Rosen, D., & Giffard, R. (2014). Selective activation of PKC epsilon in mitochondria is neuroprotective in vitro and reduces focal ischemic brain injury in mice. *J Neurosci Res*, 91(6), 799–807. <http://doi.org/10.1002/jnr.23186>. Selective

Sung, J. H., Shah, F. A., Gim, S. A., & Koh, P. O. (2015a). Identification of proteins in hyperglycemia and stroke animal models. *Journal of Surgical Research*, 200(1), 365–373. <http://doi.org/10.1016/j.jss.2015.07.020>

Sung, J. H., Shah, F. A., Gim, S. A., & Koh, P. O. (2015b). Identification of proteins in hyperglycemia and stroke animal models. *Journal of Surgical Research*, 200(1), 365–373. <http://doi.org/10.1016/j.jss.2015.07.020>

Sweetnam, D., Holmes, A., Tennant, K. a., Zamani, A., Walle, M., Jones, P., ... Brown, C. E. (2012). Diabetes Impairs Cortical Plasticity and Functional Recovery Following Ischemic Stroke. *Journal of Neuroscience*, 32(15), 5132–5143. <http://doi.org/10.1523/JNEUROSCI.5075-11.2012>

Tajiri, S., Oyadomari, S., Yano, S., Morioka, M., Gotoh, T., Hamada, J. I., ... Mori, M. (2004). Ischemia-induced neuronal cell death is mediated by the endoplasmic reticulum stress pathway involving CHOP. *Cell Death and Differentiation*, 11(4), 403–15. <http://doi.org/10.1038/sj.cdd.4401365>

Takizawa, S., Izuhara, Y., Kitao, Y., Hori, O., Ogawa, S., Morita, Y., ... Miyata, T. (2007). A novel inhibitor of advanced glycation and endoplasmic reticulum stress reduces infarct volume in rat focal cerebral ischemia. *Brain Research*, 1183(1), 124–137. <http://doi.org/10.1016/j.brainres.2007.07.006>

Tejeda, G. S., & Díaz-Guerra, M. (2017). Integral Characterization of Defective BDNF/TrkB Signalling in Neurological and Psychiatric Disorders Leads the Way to New Therapies. *International Journal of Molecular Sciences*, 18(2), 268.

<http://doi.org/10.3390/ijms18020268>

Traystman, R. (2003). Animal Models of Focal and Global Cerebral Ischemia. *Ilarjournal*, 44(2), 85–95.

Tripathi, V., & Verma, J. (2014). Different models used to induce diabetes: A comprehensive review. *International Journal of Pharmacy and Pharmaceutical Sciences*, 6(6), 29–32.

Tsai, M. J., Lin, M. W., Huang, Y. Bin, Kuo, Y. M., & Tsai, Y. H. (2016). The influence of acute hyperglycemia in an animal model of lacunar stroke that is induced by artificial particle embolization. *International Journal of Medical Sciences*, 13(5), 347–356. <http://doi.org/10.7150/ijms.14393>

Tsuchiya, D., Hong, S., Suh, S. W., Kayama, T., Panter, S. S., & Weinstein, P. R. (2002). Mild Hypothermia Reduces Zinc Translocation, Neuronal Cell Death, and Mortality After Transient Global Ischemia in Mice. *Journal of Cerebral Blood Flow & Metabolism*, 22, 1231–1238. <http://doi.org/10.1097/01.wcb.0000037995.34930.F5>

Tsuruta, R., Fujita, M., Ono, T., Koda, Y., Koga, Y., Yamamoto, T., ... Maekawa, T. (2010). Hyperglycemia enhances excessive superoxide anion radical generation, oxidative stress, early inflammation, and endothelial injury in forebrain ischemia/reperfusion rats. *Brain Research*, 1309, 155–163. <http://doi.org/10.1016/j.brainres.2009.10.065>

Tuttolomondo, A., Maida, C., Maugeri, R., Iacopino, G., & Pinto, A. (2015). Diabetes & Metabolism Relationship between Diabetes and Ischemic Stroke: Analysis of Diabetes-Related Risk Factors for Stroke and of Specific Patterns of Stroke Associated with Diabetes Mellitus. *J Diabetes Metab*, 6(5). <http://doi.org/10.4172/2155-6156.1000544>

Uchino, H., Lindvall, O., Siesjo, B. K., & Kokaia, Z. (1997). Hyperglycemia and hypercapnia suppress BDNF gene expression in vulnerable regions after transient forebrain ischemia in the rat. *J Cereb Blood Flow Metab*, 17(12), 1303–1308. <http://doi.org/10.1097/00004647-199712000-00005>

Uchino, H., Siesjo, B. K., & Kokaia, Z. (1997). Hyperglycemia and Hypercapnia Suppress BDNF Gene Expression in Vulnerable Regions After Transient Forebrain Ischemia in the Rat. *Journal of Cerebral Blood Flow and Metabolism*, 17, 1303–1308.

Undale, V., Sangamnerkar, S., Desai, S., & Upasani, C. (2012). Neuroprotective effect of cow colostrum and tetramethylpyrazine against global cerebral ischemia reperfusion injury. *International Journal of Nutrition, Pharmacology, Neurological Diseases*, 2(2), 111. <http://doi.org/10.4103/2231-0738.95947>

van der Spuy, W. J., Goosen, D. J., & Bosman, M. C. (2015). Hyperglycemic Modification to Classical Two-Vessel Occlusion for Inducing Transient Cerebral Ischemia in Sprague-Dawley Rats. *Journal of Neurophysiology and Neurological Disorders*, 2(1), 1–5. <http://doi.org/10.17303/jnnd.2015.101>

Waagepetersen, H. S., Sonnewald, U., & Schousboe, A. (2009). Energy and Amino Acid Neurotransmitter Metabolism in Astrocytes. In V. P. and P. G. Haydon (Ed.), *Astrocytes in (Patho)Physiology of the Nervous System* (pp. 177–200). Copenhagen: Springer Science + Business Media. <http://doi.org/10.1007/978-0-387-79492-1>

Walberer, M., Stolz, E., Blaes, F., Muller, C., Friederich, C., Rottger, C., ... Gerriets, T. (2006). Experimental stroke: Ischaemic lesion volume and oedema formation differ among rat strains (a comparison between Wistar and Sprague-Dawley rats using MRI). *Laboratory Animals*, 40(1), 1–8. <http://doi.org/10.1258/002367706775404426>

WallÅe, S., Pakkenberg, B., & Fabricius, K. (2014). Stereological estimation of total cell numbers in the human cerebral and cerebellar cortex. *Frontiers in Human Neuroscience*, 8(July), 1–9. <http://doi.org/10.3389/fnhum.2014.00508>

Wang, J., Chen, S., Ma, X., Cheng, C., Xiao, X., Chen, J., ... Chen, Y. (2013). Effects of Endothelial Progenitor Cell-Derived Microvesicles on Hypoxia / Reoxygenation-Induced Endothelial Dysfunction and Apoptosis. *Oxidative Medicine and Cellular Longevity*, 2013.

Wang, J., Shen, J., Gao, Q., Ye, Z., Yang, S., Liang, H., ... Xia, Q. (2008). Ischemia / Reperfusion-Induced Injury in Rats. *Stroke*, 39, 983–990. <http://doi.org/10.1161/STROKEAHA.107.499079>

Wang, Q. M., Stalker, T. J., Gong, Y., Scalia, R., & Liao, J. K. (2012). Inhibition of Rho-kinase attenuates endothelial – leukocyte interaction during ischemia – reperfusion injury. *Vascular Medicine*, 17(6), 376–385. <http://doi.org/10.1177/1358863X12459790>

Wang, Xie, Feng, Long, Ai, & BF., W. (2014). Causes of death in STZ-induced rat models of diabetes mellitus. *Sichuan Da Xue Xue Bao Yi Xue Ban*, 45(4), 691–695.

Wang, Y., Liu, G., Hong, D., Chen, F., Ji, X., & Cao, G. (2016). White matter injury in ischemic stroke. *Progress in Neurobiology*, 141, 45–60. <http://doi.org/10.1016/j.pneurobio.2016.04.005>

Wei, J. N., Wang, Q. C., Liu, G. F., Ezell, E. L., & Quast, M. J. (2004). Reduction of brain injury by antithrombotic agent acutobin after middle cerebral artery ischemia/reperfusion in the hyperglycemic rat. *Brain Research*, 1022(1-2), 234–243. <http://doi.org/10.1016/j.brainres.2004.07.019>

Weil, Z. M. (2012). Ischemia-induced hyperglycemia: Consequences, neuroendocrine regulation, and a role for RAGE. *Hormones and Behavior*, 62(3), 280–285. <http://doi.org/10.1016/j.yhbeh.2012.04.001>

Wen, X., Qi, D., Sun, Y., Huang, X., Zhang, F., Wu, J., & Song, Y. (2014). H 2 S attenuates cognitive deficits through Akt1 / JNK3 signaling pathway in ischemic stroke. *Behavioural Brain Research*, 269, 6–14. <http://doi.org/10.1016/j.bbr.2014.04.027>

Wu, C., Fujihara, H., Yao, J., Qi, S., Li, H., Shimoji, K., & Baba, H. (2003). Different expression patterns of Bcl-2, Bcl-xl, and Bax proteins after sublethal forebrain ischemia in C57Black/Crj6 mouse striatum. *Stroke*, 34(7), 1803–1808. <http://doi.org/10.1161/01.STR.0000077255.15597.69>

Xing, L., Gao Hong, L., Guo Ying, D., Hong Mei, S., & Hui Qin, X. (2016). Food-advanced glycation end products aggravate the diabetic vascular complications via modulating the AGEs/RAGE pathway. *Chinese Journal of Natural Medicines*, 14(11), 844–855. [http://doi.org/10.1016/S1875-5364\(16\)30101-7](http://doi.org/10.1016/S1875-5364(16)30101-7)

Xing, M., Sun, Q., Wang, Y., Cheng, Y., & Zhang, N. (2016). Hydroxysaf fl or yellow A increases BDNF and NMDARs in the hippocampus in a vascular dementia rat model. *Brain Research*, 1642, 419–425. <http://doi.org/10.1016/j.brainres.2016.04.030>

Xiong, B., Li, A., Lou, Y., Chen, S., Long, B., & Peng, J. (2017). Precise Cerebral Vascular Atlas in Stereotaxic Coordinates of Whole Mouse Brain. *Frontier in Neuroscience*, 11(December), 1–17. <http://doi.org/10.3389/fnana.2017.00128>

Xu, R. (2017). *Methods For Survival Analysis In Small Samples*. University of Pennsylvania.

Yamamoto, F. I. (2012). Ischemic stroke in young adults: an overview of etiological aspects. *Arquivos de Neuro-Psiquiatria*, 70(6), 462–466. <http://doi.org/10.1590/S0004-282X2012000600014>

Yan, X., Hou, H., Wu, L., Liu, J., & Zhou, J. (2007). Lithium regulates hippocampal neurogenesis by ERK pathway and facilitates recovery of spatial learning and memory in rats after transient global cerebral ischemia. *Neuropharmacology*, 53. <http://doi.org/10.1016/j.neuropharm.2007.06.020>

Yan, X., Wang, S., Hou, H., Ji, R., & Zhou, J. (2007). Lithium improves the behavioral disorder in rats subjected to transient global cerebral ischemia. *Behavioural Brain Research*, 177, 282–289. <http://doi.org/10.1016/j.bbr.2006.11.021>

Yang, H., Ma, S., Liu, Y., Li, Y., Wu, W., Han, E., ... Wang, C. (2015). Poor

Outcome of Experimental Ischemic Stroke in Type 2 Diabetic Rats: Impaired Circulating Endothelial Progenitor Cells Mobilization. *Journal of Stroke and Cerebrovascular Diseases*, 24(5), 980–987. <http://doi.org/10.1016/j.jstrokecerebrovasdis.2014.12.022>

Yang, J., Pan, Y., Li, X., & Wang, X. (2015). Atorvastatin attenuates cognitive deficits through Akt1 / caspase-3 signaling pathway in ischemic stroke. *Brain Research*, 1629, 231–239. <http://doi.org/10.1016/j.brainres.2015.10.032>

Ye, X., Chopp, M., Liu, X., Zacharek, A., Cui, X., Yan, T., ... Chen, J. (2011). Niaspan reduces high-mobility group box 1/receptor for advanced glycation endproducts after stroke in type-1 diabetic rats. *Neuroscience*, 190, 339–345. <http://doi.org/10.1016/j.neuroscience.2011.06.004>

Yonekura, I., Kawahara, N., Nakatomi, H., Furuya, K., & Kirino, T. (2004). A Model of Global Cerebral Ischemia in C57 BL / 6 Mice. *Journal of Cerebral Blood Flow & Metabolism*, 24, 151–158. <http://doi.org/10.1097/01.WCB.0000096063.84070.C1>

Yonguc, G. N., & Sahiner, M. (2014). Memory Function and Total Pyramidal Neuron Number of Hippocampus in Streptozotocin-induced Diabetic Rats. *Journal of Neurological Sciences*, 31(3), 461–473.

Yu, Q., Lu, Z., Sun, X., Tao, L., Yang, L., Guo, Y., ... Ding, Q. (2015). ROS-Dependent Neuroprotective Effects of NaHS in Ischemia Brain Injury Involves the PARP / AIF Pathway. *Cell Physiol Biochem*, 36, 1539–1551. <http://doi.org/10.1159/000430317>

Yunoki, T., Deguchi, K., Omote, Y., Liu, N., Liu, W., Hishikawa, N., ... Abe, K. (2014). Anti-oxidative nutrient rich diet protects against acute ischemic brain damage in rats. *Brain Research*, 1587(1), 33–39. <http://doi.org/10.1016/j.brainres.2014.08.056>

Zeng, X., Wang, H., Xing, X., Wang, Q., & Li, W. (2016). Dexmedetomidine Protects against Transient Global Cerebral Ischemia / Reperfusion Induced Oxidative Stress and Inflammation in Diabetic Rats. *PLoS ONE*, 11(3), 1–15. <http://doi.org/10.1371/journal.pone.0151620>

Zhang, F., Xie, R., Munoz, F. M., Lau, S. S., & Monks, T. J. (2014). PARP-1 Hyperactivation and Reciprocal Elevations in Intracellular Ca<sup>2+</sup> During ROS-Induced Nonapoptotic Cell Death. *Toxicological Science*, 140(1), 118–134. <http://doi.org/10.1093/toxsci/kfu073>

Zhang, J. Z., Jing, L., Ma, Y., Guo, F. Y., Chang, Y., & Li, P. A. (2010). Monosialotetrahexosyl-1 ganglioside attenuates diabetes-enhanced brain damage after transient forebrain ischemia and suppresses phosphorylation of ERK1/2 in the rat brain. *Brain Research*, 1344, 200–208. <http://doi.org/10.1016/j.brainres.2010.05.044>

Zhang, J.-Z., Jing, L., Ma, A.-L., Wang, F., Yu, X., & Wang, Y.-L. (2006a). Hyperglycemia increased brain ischemia injury through extracellular signal-regulated protein Kinase. *Pathology - Research and Practice*, 202(1), 31–36. <http://doi.org/10.1016/j.prp.2005.10.002>

Zhang, J.-Z., Jing, L., Ma, A.-L., Wang, F., Yu, X., & Wang, Y.-L. (2006b). Hyperglycemia increased brain ischemia injury through extracellular signal-regulated protein Kinase. *Pathology, Research and Practice*, 202(1), 31–36. <http://doi.org/10.1016/j.prp.2005.10.002>

Zhang, J.-Z., Jing, L., Ma, Y., Guo, F.-Y., Chang, Y., & Li, P. A. (2010). Monosialotetrahexosyl-1 ganglioside attenuates diabetes-enhanced brain damage after transient forebrain ischemia and suppresses phosphorylation of ERK1/2 in the rat brain. *Brain Research*, 1344, 200–208. <http://doi.org/10.1016/j.brainres.2010.05.044>

Zhen, Y., Ding, C., Sun, J., Wang, Y., Li, S., & Dong, L. (2016). Activation of the calcium-sensing receptor promotes apoptosis by modulating the JNK / p38 MAPK pathway in focal cerebral ischemia-reperfusion in mice. *Am J Transl Res*, 8(2), 911–921.