

DAFTAR PUSTAKA

- Abeeleh, A. M., Ismail, B. Z., Alzaben, R. K., *et al.* 2009. Induction of diabetes mellitus in rats using intraperitoneal streptozotocin: a comparative between 2 strains of rats. *Eur J Sci Res.* 32(3): p.398-402.
- Afkarian, M., Sachs, M., Kestenbaum, B., Hirsch, I., Tuttle, K., Himmelfarb, J. and de Boer, I., 2013. Kidney Disease and Increased Mortality Risk in Type 2 Diabetes. *Journal of the American Society of Nephrology*, 24(2), pp.302-308.
- Akbarzadeh, A., Norouzian, D., Mehrabi, M. R., *et al.* 2007. Diabetes Induction of by streptozotocin in rats. *Indian J Diabetes.* 22(2): 60-44.
- Badan Penelitian dan Pengembangan Kesehatan. 2018. *Laporan Nasional Riskesdas 2018*. Kementerian Kesehatan Republik Indonesia. Jakarta
- Borrás, C., Gambini, J., Gómez-Cabrera, M., Sastre, J., Pallardó, F., Mann, G. and Viña, J., 2005. 17 β -oestradiol up-regulates longevity-related, antioxidant enzyme expression via the ERK1 and ERK2[MAPK]/NF κ B cascade. *Aging Cell*, 4(3), pp.113-118.
- Brownlee, M., 2005. The Pathobiology of Diabetic Complications: A Unifying Mechanism. *Diabetes*, 54(6), pp.1615-1625.
- Cade, W.T. 2008. Diabetes-related microvascular and macrovascular diseases in the physical therapy setting. *Phys Ther.* 88:1322-1335.
- Centers for Disease Control and Prevention (CDC), 2020. *National Diabetes Statistics Report, 2020 Estimates of Diabetes And Its Burden In The United States*. [online] p.12. Available at: <<https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf>>
- Chen, Y., Ji, LL., Liu, TY., Wang, ZT., 2011. Evaluation of gender-related differences in various oxidative stress enzymes in mice. *The Chinese Journal of Physiology*, 54(6), pp. 385.
- Cheng, H. and Harris, R., 2014. Renal Endothelial Dysfunction in Diabetic Nephropathy. *Cardiovascular & Hematological Disorders-Drug Targets*, 14(1), pp.22-33.
- Coughlan, M. T., Nguyen, T. V., Penfold, S. A., Higgins, G. C., Thallas-Bonke, V., Tan, S. M., Van Bergen, N. J., Sourris, K. C., Harcourt, B. E., Thorburn, D. R., Trounce, I. A., Cooper, M. E., and Forbes, J. M., 2016. Mapping time-course mitochondrial adaptations in the kidney in experimental diabetes. *Clinical science*, 130(9), pp.711–720.
- de Boer, I., Rue, T., Hall, Y., Heagerty, P., Weiss, N. and Himmelfarb, J., 2011. Temporal Trends in the Prevalence of Diabetic Kidney Disease in the United States. *JAMA*, 305(24), p.2532.
- DeRubertis, F., Craven, P. and Melhem, M., 2007. Acceleration of diabetic renal injury in the superoxide dismutase knockout mouse: effects of tempol. *Metabolism*, 56(9), pp.1256-1264.
- Evans, J., Goldfine, I., Maddux, B. and Grodsky, G., 2002. Oxidative Stress and Stress-Activated Signaling Pathways: A Unifying Hypothesis of Type 2 Diabetes. *Endocrine Reviews*, 23(5), pp.599-622.

- Forbes, J. and Thorburn, D., 2018. Mitochondrial dysfunction in diabetic kidney disease. *Nature Reviews Nephrology*, 14(5), pp.291-312.
- Forbes, J., Coughlan, M. and Cooper, M., 2008. Oxidative Stres as a Major Culprit in Kidney Disease in Diabetes. *Diabetes*, 57(6), pp.1446-1454.
- Fridovich, I., 1995. Superoxide Radical and Superoxide Dismutases. *Annual Review of Biochemistry*, 64(1), pp.97-112.
- Fujita, A., Sasaki, H., Ogawa, K., Okamoto, K., Matsuno, S., Matsumoto, E., Furuta, H., Nishi, M., Nakao, T., Tsuno, T., Taniguchi, H. and Nanjo, K., 2005. Increased gene expression of antioxidant enzymes in KKAY diabetic mice but not in STZ diabetic mice. *Diabetes Research and Clinical Practice*, 69(2), pp.113-119.
- Fujita, H., Fujishima, H., Chida, S., Takahashi, K., Qi, Z., Kanetsuna, Y., Breyer, M., Harris, R., Yamada, Y. and Takahashi, T., 2009. Reduction of Renal Superoxide Dismutase in Progressive Diabetic Nephropathy. *Journal of the American Society of Nephrology*, 20(6), pp.1303-1313.
- Fujita, H., Fujishima, H., Takahashi, K., Sato, T., Shimizu, T., Morii, T., Shimizu, T., Shirasawa, T., Qi, Z., Breyer, M., Harris, R., Yamada, Y. and Takahashi, T., 2012. SOD1, but not SOD3, deficiency accelerates diabetic renal injury in C57BL/6-Ins2Akita diabetic mice. *Metabolism*, 61(12), pp.1714-1724.
- Fukai, T. and Ushio-Fukai, M., 2011. Superoxide Dismutases: Role in Redox Signaling, Vascular Function, and Diseases. *Antioxidants & Redox Signaling*, 15(6), pp.1583-1606.
- Giacco, F. and Brownlee, M., 2010. Oxidative Stres and Diabetic Complications. *Circulation Research*, 107(9), pp.1058-1070.
- Guariguata, L., Whiting, D.R., Hambleton, I., Beagley, J., Linnenkamp, U. and Shaw, J.E. (2014). Global estimates of diabetes prevalence for 2013 and projections for 2035. *Diabetes Research and Clinical Practice*, 103(2), pp.137-149.
- Hong, Y., Lim, J., Kim, M., Kim, T., Kim, Y., Yang, K., Park, H., Choi, S., Chung, S., Kim, H., Kim, H., Choi, B., Chang, Y. and Park, C., 2014. Fenofibrate Improves Renal Lipotoxicity through Activation of AMPK-PGC-1 α in db/db Mice. *PLoS ONE*, 9(5), p.e96147.
- International Diabetes Federation, 2017. *IDF Diabetes Atlas 8th Edition*. International Diabetes Federation, pp.44-46.
- Jha, J., Banal, C., Chow, B., Cooper, M. and Jandeleit-Dahm, K., 2016. Diabetes and Kidney Disease: Role of Oxidative Stres. *Antioxidants & Redox Signaling*, 25(12), pp.657-684.
- Kander, M., Cui, Y. and Liu, Z., 2016. Gender difference in oxidative stres: a new look at the mechanisms for cardiovascular diseases. *Journal of Cellular and Molecular Medicine*, 21(5), pp.1024-1032.
- Kim, M., Lim, J., Youn, H., Hong, Y., Yang, K., Park, H., Chung, S., Koh, S., Shin, S., Choi, B., Kim, H., Kim, Y., Lee, J., Chang, Y. and Park, C., 2012. Resveratrol prevents renal lipotoxicity and inhibits mesangial cell glucotoxicity in a manner dependent on the AMPK-SIRT1-PGC1 α axis in db/db mice. *Diabetologia*, 56(1), pp.204-217.

- Kitada, M., Xu, J., Ogura, Y., Monno, I. and Koya, D., 2020. Manganese Superoxide Dismutase Dysfunction and the Pathogenesis of Kidney Disease. *Frontiers in Physiology*, 11.
- Lenzen S. 2008. The mechanism of alloxan and streptozotocin induced diabetes. *Diabetologia*. 51(2): 216-26.
- Li, C., Matavelli, L., Akhtar, S. and Siragy, H., 2019. (Pro)renin receptor contributes to renal mitochondria dysfunction, apoptosis and fibrosis in diabetic mice. *Scientific Reports*, 9(1).
- Lim, A., 2014. Diabetic nephropathy & complications and treatment. *International Journal of Nephrology and Renovascular Disease*, p.361.
- Lu, Q., Zhai, Y., Cheng, Q., Liu, Y., Gao, X., Zhang, T., Wei, Y., Zhang, F. and Yin, X., 2013. The Akt-FoxO3a-manganese superoxide dismutase pathway is involved in the regulation of oxidative stress in diabetic nephropathy. *Experimental Physiology*, 98(4), pp.934-945.
- Ma, Y., Li, W., Yazdizadeh Shotorbani, P., Dubansky, B., Huang, L., Chaudhari, S., Wu, P., Wang, L., Ryou, M., Zhou, Z. and Ma, R., 2019. Comparison of diabetic nephropathy between male and female eNOS^{-/-} db/db mice. *American Journal of Physiology-Renal Physiology*, 316(5), pp.F889-F897.
- Maric, C. and Sullivan, S., 2008. Estrogens and the diabetic kidney. *Gender Medicine*, 5, pp.S103-S113.
- Maric, C., 2009. Sex, diabetes and the kidney. *American Journal of Physiology-Renal Physiology*, 296(4), pp.F680-F688.
- Maric-Bilkan, C., 2020. Sex Differences in Diabetic Kidney Disease. *Mayo Clinic Proceedings*, 95(3), pp.587-599.
- Miranda-Díaz, A., Pazarín-Villaseñor, L., Yanowsky-Escatell, F. and Andrade-Sierra, J., 2016. Oxidative Stress in Diabetic Nephropathy with Early Chronic Kidney Disease. *Journal of Diabetes Research*, 2016, pp.1-7.
- Nakagawa, T., Tanabe, K., Croker, B., Johnson, R., Grant, M., Kosugi, T. and Li, Q., 2010. Endothelial dysfunction as a potential contributor in diabetic nephropathy. *Nature Reviews Nephrology*, 7(1), pp.36-44.
- Nishikawa, T., Edelstein, D., Du, X., Yamagishi, S., Matsumura, T., Kaneda, Y., Yorek, M., Beebe, D., Oates, P., Hammes, H., Giardino, I. and Brownlee, M., 2000. Normalizing mitochondrial superoxide production blocks three pathways of hyperglycaemic damage. *Nature*, 404(6779), pp.787-790.
- Noh, H. and King, G., 2007. The role of protein kinase C activation in diabetic nephropathy. *Kidney International*, 72, pp.S49-S53.
- Pugliese, G., 2014. Updating the natural history of diabetic nephropathy. *Acta Diabetologica*, 51(6), pp.905-915.
- Rao, A., Dietrich, A., Ziegler, Y. and Nardulli, A., 2011. 17 β -Estradiol-mediated increase in Cu/Zn superoxide dismutase expression in the brain: A mechanism to protect neurons from ischemia. *The Journal of Steroid Biochemistry and Molecular Biology*, 127(3-5), pp.382-389.
- Rao, A., Ziegler, Y., McLeod, I., Yates, J. and Nardulli, A., 2008. Effects of Cu/Zn Superoxide Dismutase on Estrogen Responsiveness and Oxidative Stress in

- Human Breast Cancer Cells. *Molecular Endocrinology*, 22(5), pp.1113-1124.
- Ridwan, E. 2013. Etika hewan percobaan dalam penelitian kesehatan. *J Indon Med Assoc*. 63(3): p.112-116.
- Spencer, N., Yang, Z., Sullivan, J., Klein, T. and Stanton, R., 2018. Linagliptin unmasks specific antioxidant pathways protective against albuminuria and kidney hypertrophy in a mouse model of diabetes. *PLOS ONE*, 13(7), p.e0200249.
- Szkudelski, T. 2001. The mechanism of alloxan and streptozotocin action in B cell of rats pancreas. *Physiol Res*. 50: p.536-546.
- Wang, W., Jiang, S., Tang, X., Cai, L., Epstein, P., Cheng, Y., Sun, W., Xu, Z. and Tan, Y., 2020. Sex differences in progression of diabetic nephropathy in OVE26 type 1 diabetic mice. *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease*, 1866(1), p.165589.
- Yanes, L., Sartori-Valinotti, J. and Reckelhoff, J., 2008. Sex Steroids and Renal Disease. *Hypertension*, 51(4), pp.976-981.
- Zimmet, P.Z., Magliano, D.J., Herman, W.H., Shaw J.E. 2014. Diabetes: a 21st challenge. *Lancet Diabetes Endocrinol*. 2, p.56-64