DAFTAR PUSTAKA

Akira, S., Uematsu, S., & Takeuchi, O. (2006). *Pathogen Recognition*. *3*, 783–801. https://doi.org/10.1016/j.cell.2006.02.015

Arora, S., Dev, K., Agarwal, B., Das, P., & Syed, M. A. (2018). Macrophages: Their role, activation and polarization in pulmonary diseases. *Immunobiology*, *223*(4–5), 383–396. https://doi.org/10.1016/j.imbio.2017.11.001

Bekkering, S., Arts, R. J. W., Novakovic, B., Kourtzelis, I., van der Heijden, C. D. C. C., Li, Y., Popa, C. D., ter Horst, R., van Tuijl, J., Netea-Maier, R. T., van de Veerdonk, F. L., Chavakis, T., Joosten, L. A. B., van der Meer, J. W. M., Stunnenberg, H., Riksen, N. P., & Netea, M. G. (2018). Metabolic Induction of Trained Immunity through the Mevalonate Pathway. *Cell*, *172*(1–2), 135-146.e9. https://doi.org/10.1016/j.cell.2017.11.025

Bosurgi, L. Y., Cao1, G., Cabeza-Cabrerizo1, M., Tucci1, A., Hughes1, L. D., Yong Kong2, J. S. W., Licona-Limon1, P., & dward T. Schmid1, Facundo Pelorosso3, Nicola Gagliani4, Joseph E. Craft1, 5, Richard A. Flavell1, 6, Sourav Ghosh7, 8,†, and C. V. R. (2017). Macrophage function in tissue repair and remodeling requires IL-4 or IL-13 with apoptotic cells Lidia. *Science.*, *356*(5), 1072–10776. https://doi.org/doi:10.1126/science.aai8132. Macrophage

Camell, C., & Smith, C. W. (2013). *Dietary Oleic Acid Increases M2 Macrophages in the Mesenteric Adipose Tissue*. *8*(9), 1–10. https://doi.org/10.1371/journal.pone.0075147

Cesta, M. C., Zippoli, M., Marsiglia, C., Gavioli, E. M., Mantelli, F., Allegretti, M., & Balk, R. A. (2022). *The Role of Interleukin-8 in Lung In fl ammation and Injury : Implications for the Management of COVID-19 and Hyperin fl ammatory Acute Respiratory Distress Syndrome*. *12*(January), 1–7. https://doi.org/10.3389/fphar.2021.808797

Chan, L. P., Liu, C., Chiang, F. Y., Wang, L. F., Lee, K. W., Chen, W. T., Kuo, P. L., & Liang, C. H. (2017). IL-8 promotes inflammatory mediators and stimulates activation of p38 MAPK/ERK-NF-κB pathway and reduction of JNK in HNSCC. *Oncotarget*, *8*(34), 56375–56388. https://doi.org/10.18632/oncotarget.16914

Croxford, A. L., Kulig, P., & Becher, B. (2014). IL-12-and IL-23 in health and disease. *Cytokine and Growth Factor Reviews*, *25*(4), 415–421. https://doi.org/10.1016/j.cytogfr.2014.07.017

Duque, G. A., & Descoteaux, A. (2014). *Macrophage cytokines : involvement in immunity and infectious diseases*. *5*(October), 1–12. https://doi.org/10.3389/fimmu.2014.00491

El-zayat, S. R., & Sibaii, H. (2019). *Toll-like receptors activation , signaling , and targeting : an overview*. *2*.

Epelman, S., Lavine, K. J., & Randolph, G. J. (2014). Review Origin and Functions of Tissue Macrophages. *Immunity*, *41*(1), 21–35.

https://doi.org/10.1016/j.immuni.2014.06.013

Feng, R., Luo, C., Li, C., Du, S., Okekunle, A. P., Li, Y., Chen, Y., Zi, T., & Niu, Y. (2017). *Free fatty acids profile among lean , overweight and obese non-alcoholic fatty liver disease patients : a case – control study*. 1–9. https://doi.org/10.1186/s12944-017-0551-1

Hasan, A., Akhter, N., Al-roub, A., Thomas, R., & Kochumon, S. (2019). *TNF- α dalam Kombinasi dengan Palmitat Meningkatkan Produksi IL-8 melalui MyD88- Jalur Pensinyalan TLR4 Independen : Potensi Relevansi dengan Peradangan Metabolik*. *6*, 1–22. https://doi.org/10.3390/ijms20174112

Hruby, A., & Hu, F. B. (2015). The Epidemiology of Obesity: A Big Picture. *PharmacoEconomics*, *33*(7), 673–689. https://doi.org/10.1007/s40273-014-0243-x

Hwangbo, H., Ji, S. Y., Kim, M. Y., Kim, S. Y., Lee, H., Kim, G., Kim, S., Cheong, J., & Choi, Y. H. (2021). Anti-Inflammatory Effect of Auranofin on Palmitic Acid and LPS-Induced Inflammatory Response by Modulating TLR4 and NOX4-Mediated NF- κ B Signaling Pathway in. *International Journal of Molecular Sciences ArticleSciences Article*, *22*(5920), 1–17. https://doi.org/https://doi.org/10.3390/ijms22115920

Kagan, J. C. (2012). Perspective Signaling Organelles of the Innate Immune System. *Cell*, *151*(6), 1168–1178. https://doi.org/10.1016/j.cell.2012.11.011

Kawai, T., & Akira, S. (2010). The role of pattern-recognition receptors in innate immunity : update on Toll-like receptors. *Nature Publishing Group*, *11*(5), 373–384. https://doi.org/10.1038/ni.1863

Kim, S. K., Oh, E., Yun, M., Lee, S., & Chae, G. T. (2015). Palmitate induces cisternal ER expansion via the activation of XBP-1 / CCT α -mediated phospholipid accumulation in RAW 264 . 7 cells. *Lipids in Health and Disease*, 1–12. https://doi.org/10.1186/s12944-015-0077-3

Korbecki, J., & Bajdak-Rusinek, K. (2019). The effect of palmitic acid on inflammatory response in macrophages: an overview of molecular mechanisms. *Inflammation Research*, *68*(11), 915–932. https://doi.org/10.1007/s00011-019-01273-5

Kratz, Coats, B. R., Hisert, K. B., Hagman, D., Peris, E., Schoenfelt, K. Q., Kuzma, J. N., Larson, I., Peter, S., Landerholm, R. W., Crouthamel, M., Gozal, D., Hwang, S., Singh, P., & Becker, L. (2015). *Metabolic dysfunction drives a mechanistically distinct pro- inflammatory phenotype in adipose tissue macrophages*. *20*(4), 614–625. https://doi.org/10.1016/j.cmet.2014.08.010.Metabolic

Leifer, C. A., & Medvedev, A. E. (2016). Molecular mechanisms of regulation of Toll-like receptor signaling. *Journal of Leukocyte Biology*, *100*(5), 927–941. https://doi.org/10.1189/jlb.2mr0316-117rr

Li, L., Liu, Y., Chen, H., Li, F., Wu, J., Zhang, H., He, J., Xing, Y., Chen, Y., Wang, W., Tian, X., Li, A., Zhang, Q., Huang, P., Han, J., Lin, T., & Wu, Q. (2015). *reduces LPS-induced inflammation*. *march*.

https://doi.org/10.1038/nchembio.1788

Li, P., & Chang, M. (2021). *Roles of PRR-Mediated Signaling Pathways in the Regulation of Oxidative Stress and Inflammatory Diseases*.

Lu, H., Liu, Z., Zhou, L., Zhou, J., Feng, X., & Wang, B. (2019). *Influence of the TLR4-mediated p38MAPK signaling pathway on chronic intermittent hypoxic-induced rat ' s oxidative stress and inflammatory cytokines in rats*. *Il*, 352–360.

Meem, M., Modak, J. K., Mortuza, R., Morshed, M., Islam, M. S., & Saha, S. K. (2011). Biomarkers for diagnosis of neonatal infections: A systematic analysis of their potential as a point-of-care diagnostics. *Journal of Global Health*, *1*(2), 201–209.

Moreno Velásquez, I., Gajulapuri, A., Leander, K., Berglund, A., De Faire, U., & Gigante, B. (2019). Serum IL8 is not associated with cardiovascular events but with all-cause mortality. *BMC Cardiovascular Disorders*, *19*(1), 1–8. https://doi.org/10.1186/s12872-019-1014-6

Murray, P. J., Allen, J. E., Fisher, E. A., & Lawrence, T. (2015). Experimental Guidelines. *Immunity.*, *41*(1), 14–20. https://doi.org/10.1016/j.immuni.2014.06.008.Macrophage

Netea, M. G., Veerdonk, F. L. Van De, & Meer, J. W. M. Van Der. (2012). *Primary immunodeficiencies of pattern recognition receptors*. 517–527. https://doi.org/10.1111/j.1365-2796.2012.02583.x

Odegaard, J. I., & Chawla, A. (2012). *Alternative Macrophage Activation and Metabolism Justin*. *6*, 275–297. https://doi.org/10.1146/annurev-pathol-011110-130138.Alternative

Piao, W., Ru, L. W., Piepenbrink, K. H., Sundberg, E. J., Vogel, S. N., & Toshchakov, V. Y. (2013). Recruitment of TLR adapter TRIF to TLR4 signaling complex is mediated by the second helical region of TRIF TIR domain. *Proceedings of the National Academy of Sciences of the United States of America*, *110*(47), 19036–19041. https://doi.org/10.1073/pnas.1313575110

Piccinini, A. M., & Midwood, K. S. (2010). *DAMPening Inflammation by Modulating TLR Signalling*. *2010*. https://doi.org/10.1155/2010/672395

Qazi, B. S., Tang, K., & Qazi, A. (2011). Recent Advances in Underlying Pathologies Provide Insight into Interleukin-8 Expression-Mediated Inflammation and Angiogenesis. *International Journal of Inflammation*, *2011*, 1–13. https://doi.org/10.4061/2011/908468

Rogero, M. M., & Calder, P. C. (2018). Obesity, inflammation, toll-like receptor 4 and fatty acids. *Nutrients*, *10*(4), 1–19. https://doi.org/10.3390/nu10040432

Ryszer, T. (2015). *Understanding the Mysterious M2 Macrophage through Activation Markers and Effector Mechanisms*. *2015*, 16–18. https://doi.org/10.1155/2015/816460

Sears, D. D., & Kim, J. J. (2010). TLR4 and insulin resistance. *Gastroenterology Research and Practice*, *2010*. https://doi.org/10.1155/2010/212563

Sieweke, M. H., & Allen, J. E. (2013). Beyond stem cells: Self-renewal of differentiated macrophages. *Science*, *342*(6161).

https://doi.org/10.1126/science.1242974

Sindhu, S., Al-Roub, A., Koshy, M., Thomas, R., & Ahmad, R. (2016). Palmitate-Induced MMP-9 Expression in the Human Monocytic Cells is Mediated through the TLR4-MyD88 Dependent Mechanism. *Cellular Physiology and Biochemistry*, *39*(3), 889–900. https://doi.org/10.1159/000447798

Tashiro, M., Iwata, A., Yamauchi, M., Shimizu, K., Okada, A., Ishiguro, N., & Inoshima, Y. (2017). *The N-terminal region of serum amyloid A3 protein activates NF- κ B and up-regulates MUC2 mucin mRNA expression in mouse colonic epithelial cells*. 1–13.

Toobian, D., Ghosh, P., & Katkar, G. D. (2021). Parsing the Role of PPARs in Macrophage Processes. *Frontiers in Immunology*, *12*(December), 1–17. https://doi.org/10.3389/fimmu.2021.783780

Trevelin, S. C., Shah, A. M., & Lombardi, G. (2020). Beyond bacterial killing : NADPH oxidase 2 is an immunomodulator. *Immunology Letters*, *221*(November 2019), 39–48. https://doi.org/10.1016/j.imlet.2020.02.009

Tu, D., Dou, J., Wang, M., Zhuang, H., & Zhang, X. (2021). M2 macrophages contribute to cell proliferation and migration of breast cancer. *Cell Biology International*, *45*(4), 831–838. https://doi.org/10.1002/cbin.11528

Wang, Chen, Y. G., Qin, W. D., Zhang, W., Wei, S. J., Wang, J., Liu, F. Q., Gong, L., An, F. S., Zhang, Y., Chen, Z. Y., & Zhang, M. X. (2011). Arginase i attenuates inflammatory cytokine secretion induced by lipopolysaccharide in vascular smooth muscle cells. *Arteriosclerosis, Thrombosis, and Vascular Biology*, *31*(8), 1853–1860. https://doi.org/10.1161/ATVBAHA.111.229302

Wang, X., Jiang, X., Deng, B., Xiao, J., Jin, J., & Huang, Z. (2019). *Lipopolysaccharide and palmitic acid synergistically induced MCP-1 production via MAPK-meditated TLR4 signaling pathway in RAW264 . 7 cells*. *4*, 1–9.

West, A. P., Brodsky, I. E., Rahner, C., Woo, D. K., Erdjument-bromage, H., Tempst, P., Walsh, M. C., Choi, Y., Shadel, G. S., & Ghosh, S. (2011). TLR signalling augments macrophage bactericidal activity through mitochondrial ROS. *Nature*, 3–9. https://doi.org/10.1038/nature09973

Wong, S. W., Kwon, M., Choi, A. M. K., Kim, H., Nakahira, K., & Hwang, D. H. (2009). *Fatty Acids Modulate Toll-like Receptor 4 Activation through Regulation of Receptor Dimerization and Recruitment into Lipid Rafts in a Reactive Oxygen Species-dependent Manner *. *284*(40), 27384–27392. https://doi.org/10.1074/jbc.M109.044065

World Health Organization (WHO). (2021). *Indonesia: Obesity rates among adults double over past two decades*.

Wynn, T. A., Chawla, A., & Pollard, J. W. (2013). Macrophage biology in development, homeostasis and disease. *Nature*, *496*(7446), 445–455. https://doi.org/10.1038/nature12034

Xiu, F., Diao, L., Qi, P., Catapano, M., & Jeschke, M. G. (2015). Palmitate differentially regulates the polarization of differentiating and differentiated

macrophages. *Immunology*, *147*(1), 82–96. https://doi.org/10.1111/imm.12543

Yamaguchi, R., Yamamoto, T., Sakamoto, A., Ishimaru, Y., & Narahara, S. (2015). Chemokine pro fi les of human visceral adipocytes from cryopreserved preadipocytes : Neutrophil activation and induction of nuclear factor-kappa B repressing factor. *Life Sciences*, *143*, 225–230. https://doi.org/10.1016/j.lfs.2015.11.010

Yamamoto, M., Sato, S., Mori, K., Hoshino, K., Takeuchi, O., Takeda, K., & Akira, S. (2002). Cutting Edge: A Novel Toll/IL-1 Receptor Domain-Containing Adapter That Preferentially Activates the IFN-. *The Journal of Immunology*, *169*(12), 6668–6672. https://doi.org/doi.org/10.4049/jimmunol.169.12.6668

Yao, L., Kan, E. M., Kaur, C., Dheen, S. T., Hao, A., Lu, J., & Ling, E. (2013). *Notch-1 Signaling Regulates Microglia Activation via NF- k B Pathway after Hypoxic Exposure In Vivo and In Vitro*. *8*(11), 1–15. https://doi.org/10.1371/journal.pone.0078439

Yuk, J.-M., & Jo, E.-K. (2011). Toll-like receptors and innate immunity. *Journal of Bacteriology and Virology*, *41*(4), 225–235. https://doi.org/doi.org/10.4167/jbv.2011.41.4.225

Zhang, D., Tang, Z., Huang, H., Zhou, G., Cui, C., Weng, Y., Liu, W., Kim, S., Lee, S., Perez-neut, M., Ding, J., Czyz, D., Hu, R., Ye, Z., He, M., Zheng, Y. G., Shuman, H. A., & Dai, L. (2019). Metabolic regulation of gene expression by histone lactylation. *Nature*, *574*(October). https://doi.org/10.1038/s41586-019-1678-1

Zhang, J., Shi, Z., Xu, X., Yu, Z., & Mi, J. (2019). *The influence of microenvironment on tumor immunotherapy*. *286*, 4160–4175. https://doi.org/10.1111/febs.15028

Zhang, M., Nakamura, K., Kageyama, S., Lawal, A. O., Gong, K. W., Bhetraratana, M., Fujii, T., Sulaiman, D., Hirao, H., Bolisetty, S., Kupiec-Weglinski, J. W., & Araujo, J. A. (2018). Myeloid HO-1 modulates macrophage polarization and protects against ischemia-reperfusion injury. *JCI Insight*, *3*(19), 1–14. https://doi.org/10.1172/jci.insight.120596

Zhang, Y., Li, Y., Huang, X., & Zhang, F. (2020). Systemic Delivery of siRNA Specific for Silencing TLR4 Gene Expression Reduces Diabetic Cardiomyopathy in a Mouse Model of Streptozotocin-Induced Type 1 Diabetes. *Diabetes Therapy*, *11*(5), 1161–1173. https://doi.org/10.1007/s13300-020-00802-4

Zhang, Yang, M., Chen, C., Liu, L., Wei, X., & Zeng, S. (2020). *Toll-Like Receptor 4 (TLR4)/ Opioid Receptor Pathway Crosstalk and Impact on Opioid Analgesia , Immune Function , and Gastrointestinal Motility*. *11*(July), 1–12. https://doi.org/10.3389/fimmu.2020.01455