

## DAFTAR PUSTAKA

- Adebo, O.A., dan Medina-Meza, I.G. (2020). Impact of Fermentation on the Phenolic Compounds and Antioxidant Activity of Whole Cereal Grains: A Mini Review. *Molecules*, 25(4), pp. 1–19. doi: 10.3390/molecules25040927
- Afonso, M.S., Machado, R.M., Lavrador, M.S., Quintao, E.C.R., Moore, K.J., Lottenberg, A.M. (2018). Molecular Pathways Underlying Cholesterol Homeostasis. *Nutrients*. 10(6): 760.
- Ahmad, A., Yang, W., Chen, G., Shafiq, M., Javed, S., Zaidi, S.S.A.,...Bokhari, H. (2019). Analysis of gut microbiota of obese individuals with type 2 diabetes and healthy individuals. *PLoS ONE*, 14(12), p. e0226372. doi: 10.1371/journal.pone.0226372.
- Alauddin, M.D., Shirakawa, H., Koseki T., Kijima N., Ardiasyah., Budijanto, S.,...Michio, K. (2016). Fermented Rice Bran Supplementation Mitigates Metabolic Syndrome in Stroke-prone Spontaneously Hypertensive Rats. *BMC Complementary and Alternative Medicine*. 16(422).
- Alves-Bezerra, M., Cohen, E.D. (2019). Triglyceride Metabolism in the Liver. *Comprehensive Physiology*. (8)1: 1-8.
- Arifin, W.N., dan Zahiruddin, W.M. (2017). Sample Size Calculation in Animal Studies using Resource Equation Approach. *Malaysian Journal of Medical Sciences*. Penerbit Universiti Sains Malaysia, 24(5), pp. 101–105. doi: 10.21315/mjms2017.24.5.11.
- Association, A.D. (2010). Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care*. American Diabetes Association, p. S62. doi: 10.2337/dc10-S062.
- Astawan, M., dan Febrinda, E. (2010). Potensi Dedak dan Bekatul Beras Sebagai Ingredient Pangan dan Produk Pangan Lokal. *Pangan*. 19(1): 14-21.
- Basito. (2012). Kajian Substitusi Bekatul Beras Merah dan Beras Hitam terhadap Sifat Sensoris dan Fisikokimia pada Pembuatan Roti Tawar. *Jurnal Teknologi Hasil Pertanian*. 5(2): 24-31.
- Baynest, H.W. (2015). Classification, Pathophysiology, Diagnosis and Management of Diabetes Mellitus. *Journal of Diabetes and Metabolism*. 6(5): 1-9.
- Beer K. (2018). The Gut Microbiome in Type 2 Diabetes. *Clinician Reviews*. 28(2): 13-14,16.
- Belizário, J.E., dan Faintuch, J. (2018). Microbiome and Gut Dysbiosis. *Metabolic Interaction in Infection*. 459-476.

- Belizário, J.E., dan Napolitano, M. (2015). Human Microbiomes and Their Roles in Dysbiosis, Common Disease, and Novel Therapeutic Approaches. *Frontiers in Microbiology*. 6: 1050.
- Belizário, J.E., Faintuch, J., Garay-Malpartida, M. (2018). Gut Microbiome Dysbiosis and Immunometabolism: New Frontiers for Treatment of Metabolic Diseases. *Mediators of Inflammation*. 1-12.
- Boulangé, C.L., Naves, A.L., Chilloux, J., Nicholson, J.K., Dumas, M.E. (2016). Impact of the Gut Microbiota on Inflammation, Obesity, and Metabolic Disease. *Genome Medicine*. 8(42).
- Capozzi, V., Fragasso, M., Romaniello, R., Berbegal, C., Russo, P., Spano, G. (2017). Spontaneous food fermentations and potential risks for human health. *Fermentation*. MDPI AG, 3(4), p. 49. doi: 10.3390/fermentation3040049.
- Chambers, E.S., Preston, T., Frost, G., Morrison, D.J. (2018). Role of Gut Microbiota-Generated Short Chain Fatty Acids in Metabolic and Cardiovascular Health. *Current Nutrition Report*. 7(4): 198-206.
- Demirci T., Aktas K., Sozeri, D., Ozturk, H.I., dan Akin, N. (2017). Rice Bran Improve Probiotic Viability in Yoghurt and Provide Added Antioxidative Benefits. *Journal of Fuctional Foods*. 36: 396-403.
- Dubourg, G., Lagier, J.C., Armougom, F., Robert, C., Audoly, G., Papazian, L., Raoult, D. (2013). High-Level Colonization of the Human Gut by Verrumicrobia Following Broad-Spectrum Antibiotic Treatment. *International Journal of Antimicrobial Agents*. 41(2): 149-155.
- Dyasis. (2015). Triglycerides FS. 1-2.
- Dyasis. (2016). Cholesterol FS. 1-2.
- Elbere, I., Kalnina, I., Silamikelis, I., Konrade, I., Zaharenko, L., Sekace, K.,...Klovins, J. (2018). Association of Metformin Administration with Gut Microbiome Dysbiosis in Healthy Volunteers. *PLoS ONE*. Public Library of Science, 13(9). doi: 10.1371/journal.pone.0204317.
- Erlinawati, N. D., Oetoro, S. dan Gunarti, D. R. (2017). Effect of Rice Bran Oil on the Lipid Profile of Mild-Moderate Hypercholesterolemic Male Aged 19-55 year. *World Nutrition Journal*, 1(1), p. 51. doi: 10.25220/wnj.v01i1.0010.
- Festi, D., Schiumerini, R., Eusebi, L.H., Marasco, G., Taddia, M., Colecchia. A. (2014). Gut Microbia and Metabolic Syndrome. 20(43): 16079-16094.
- Filho, A. C. V. A., Guedes, M.I.F., Duarte, L.S.F., Lima-neto., A.B.M., Cameron, L.C., Bassini, A.,...Queiroz, M.G.R. (2014). Gamma-oryzanol has an equivalent

- efficacy as a lipid-lowering agent compared to fibrate and statin in two dyslipidemia mice models. *International Journal of Pharmacy and Pharmaceutical Sciences*, 6(11), pp. 61–64.
- Gurung, M., Li, Z., You, H., Rodrigues, R., Jump, D.B., Morgun, A., Shulzhenko, N. (2020). Role of Gut Microbiota in Type 2 Diabetes Pathophysiology. *EBioMedicine*. Elsevier B.V., 51. doi: 10.1016/j.ebiom.2019.11.051.
- Han, S., Jiao, J., Zhang, W., Xu, J., Wan, Z., Zhang, W., Qin, L. (2015). Dietary fiber prevents obesity-related liver lipotoxicity by modulating sterol-regulatory element binding protein pathway in C57BL/6J mice fed a high-fat/cholesterol diet. *Scientific Reports*, 5(1), pp. 1–10. doi: 10.1038/srep15256.
- Hannon, B. A., Thompson, S.V., Edwards, C.G., Skinner, S.K., Niemi, G.M., Burd, N.A., Khan, N.A. (2019). Dietary fiber is independently related to blood triglycerides among adults with overweight and obesity. *Current Developments in Nutrition*, 3(2). doi: 10.1093/cdn/nzy094.
- Hirano, T. (2018). Pathophysiology of Diabetic Dyslipidemia. *Journal of Atherosclerosis and Thrombosis*. Japan Atherosclerosis Society, pp. 771–782. doi: 10.5551/jat.RV17023.
- Ihedioha, J.I., Noel-Uneke, O.A. and Ihedioha, T.E. (2013). Reference Values for the Serum Lipid Profile of Albino Rats (*Rattus norvegicus*) of Varied Ages and Sexes. *Comparative Clinical Pathology*. Springer, 22(1), pp. 93–99. doi: 10.1007/s00580-011-1372-7.
- Jayasekara, S. dan Ratnayake, R. (2019). Microbial Cellulases: An Overview and Applications. in *Cellulose*. IntechOpen. doi: 10.5772/intechopen.84531.
- Kelly, B.R. (2010). Diet and Exercise in the Management of Hiperlipidemia. *American Family Physician*, 81(9), pp. 1097-1102.
- Kementerian Kesehatan RI. (2018). Infodatin. Jakarta: Kementerian Kesehatan RI.
- Kementerian Kesehatan RI. (2014). Situasi dan Analisis Diabetes. Jakarta: Kementerian Kesehatan RI.
- Kriaa, A., Bourgin, M., Potiron, A., Mkaouar, H., Jablaoui, A., Gérard, P.,... Rhimi, M. (2019). Microbial Impact on Cholesterol and Bile Acid Metabolism: Current Status and Future Prospects. *Journal of Lipid Research*. American Society for Biochemistry and Molecular Biology Inc., pp. 323–332. doi: 10.1194/jlr.R088989.
- Lau, K., Srivatsav, V., Rizwan, A., Nashed, A., Liu, R., Shen, R., Akhtar, M. (2017). Bridging the Gap Between Gut Microbial Dysbiosis and Cardiovascular Diseases. *Nutrients*. MDPI AG. doi: 10.3390/nu9080859.

- Li, Xuan., Watanabe, K., Kimura, I. (2017). Gut Microbiota Dysbiosis Drives and Implies Novel Therapeutic Strategies for Diabetes Mellitus and Related Metabolic Diseases. *Frontiers in Immunology*. 8: 1882.
- Mahdi, C., Citrawati, P., Fitri Hendrawan, V. (2020). The Effect of Rice Bran on Triglyceride Levels and Histopathologic Aorta in Rat (*Rattus norvegicus*) of High Cholesterol Dietary Model. doi: 10.1088/1757-899X/833/1/012022.
- McRae, M.P. (2018). Dietary Fiber Intake and Type 2 Diabetes Mellitus: An Umbrella Review of Meta-analyses. 17(1): 44-53.
- Minatel, I.O., Francisqueti, F.V., Correa, C.R., Lima, G.P.P. (2016). Antioxidant activity of Y-oryzanol: A complex network of interactions', *International Journal of Molecular Sciences*. MDPI AG. doi: 10.3390/ijms17081107.
- Nair, A. dan Jacob, S. (2016). A simple practice guide for dose conversion between animals and human. *Journal of Basic and Clinical Pharmacy*, 7(2), p. 27. doi: 10.4103/0976-0105.177703.
- Nandave, M., Ojha, S.K, Arya, D.S. (2005). Protective Role of Flavonoids in Cardiovascular Disease. *Natural Product Radiance*. 4(3): 166-176.
- Nasri, H., Rafieian-Kopaei, M. (2014). Metformin: Current Knowledge. *Journal of Research in Medical Sciences*. 19(7): 658-664.
- Nurrahma, B.A., Suryajayanti, M.F., Dewi, A.L., Khairia, Z., Kusuma, R.J., Suyoto, P.S.T. (2018). Fermented rice bran extract improves dyslipidemia in rodents. *Nutrition and Food Science*, 48(2), pp. 375–383. doi: 10.1108/NFS-08-2017-0167.
- Omarini, A.B., Labuckas, D., Zunino, M.P., Pizzolitto, R., Fernández-Lahore M., Barrionuevo, D., Zygadlo, J.A. (2019). Upgrading the Nutritional Value of Rice Bran by Solid-State Fermentation with *Pleurotus sapidus*. *Fermentation*. 5(44).
- Ozder, A. (2014). Lipid Profile Abnormalities Seen in T2DM Patients in Primary Healthcare in Turkey: a Cross-sectional Study. *Lipids in Health and Disease*. 13(183).
- Pandey, K.R., Naik, S.R., dan Vakil, B.V. (2015). Probiotics, Prebiotics and Synbiotics-a Review. *Journal of Food Science and Technology*. 52(12): 7577-7587.
- Pengkumsri, N., Chaiyasut, C., Saenjum, S., Sirilun, S., Peerajan, S., Suwannalert, P.,...Sivamaruthi, B.S. (2015). Physicochemical and Antioxidative Properties of Black, Brown, and Red Rice Varieties of Northern Thailand. *Food Science and Technology*. 35(2): 331-338.

- Petersen, C., dan Round, J.L. (2014). Defining Dysbiosis and Its Influence on Host Immunity and Disease. *Cellular Microbiology*. 16(7): 1024-1033.
- Ridaura, V.K., Faith, J.J., Cheng, J., Duncan, A.E., Kau, A.L., Lombard, V.,...Gordon, J.I. (2013). Gut microbiota from twins discordant for obesity modulate metabolism in mice. *Science*, 341(6150). doi: 10.1126/science.1241214.
- Rivellese, A.A., Vaccaro, O., Patti, L. (2004). The Pathophysiology of Lipid Metabolism and Diabetes. *International Journal of Clinical Practice*. 58: 32-35.
- Röhl, C., dan Stang, H. (2018). Cholesterol Metabolism-physiological Regulation and Pathophysiological Deregulation by the Endoplasmic Reticulum. *Wiener Medizinische Wochenschrift*. 168(11): 280-285.
- Salazar, J., Angarita, L., Morillo, V., Navarro, C., Martinez, M.S., Chacin, M.,...Bermudez, V.(2020). Microbiota and diabetes mellitus: Role of lipid mediators. *Nutrients*. MDPI AG, pp. 1–22. doi: 10.3390/nu12103039.
- Schmidt, C.G., Goncalves, L.M., Prietto, L., Hackbart, H.S., Fulong, E.B. (2016). Antioxidant Activity and Enzyme Inhibition of Phenolic Acids from Fermented Rice Bran with Fungus *Rhizopus Oryzae*. *Food Chemistry*. 146: 371-377.
- Sedgwick, P. (2012). Proportional Quota Sampling. *The BMJ*. 1-2.
- Sender, R., Fuchs, S., Milo, R. (2016). Revised Estimates for The Number of Human and Bacteria Cells in the Body. *Plos Biology*. 14(8).
- Shahidi, F., Yeo, J. (2016). Insoluble-bound Phenolic in Food. *Molecules*. 21(1216): 1-22.
- Shibata, A., Yuki, K., Toshiyuki, K., Teruo, M., Kiyotaka, N. (2016).  $\alpha$ -tocopherol attenuates the triglyceride- and cholesterol-lowering effects of rice bran tocotrienol in rats fed a western diet. *Journal of Agricultural and Food Chemistry*, 64(26), pp. 5361–5366. doi: 10.1021/acs.jafc.6b02228.
- Singh, P., Saxena, R., Srinivas, G., Chattopadhyay, A. (2013). Cholesterol Biosynthesis and Homeostasis in Regulation of the Cell Cycle. *PLOS One*. 8(3): e58833.
- Soliman, G. A. (2019). Dietary fiber, atherosclerosis, and cardiovascular disease. *Nutrients*, 11(5). doi: 10.3390/nu11051155.
- Sousa, T., Castro, R.E., Pinto, S.N., Coutinho, A., Lucas, S.D., Moreira, R.,...Fernandes, F. (2015). Deoxycholic acid modulates cell death signaling through changes in mitochondrial membrane properties. *Journal of Lipid Research*, 56(11), pp. 2158–2171. doi: 10.1194/jlr.M062653.
- Subramaniyam, R., dan Vimala R. (2012). Solid state and submerged fermentation for the production of bioactive substances: a comparative study. *International Journal of Science and Nature*, 3(3), pp. 480–486.

- Sun, L., Ma, L., Ma, Yubo., Zhang, F., Zhao, Changhai., Nie, Y. (2018). Insights into the Role of Gut Microbiota in Obesity: Pathogenesis, Mechanism, and Therapeutic Perspectives. *Protein Cell*. 9(5): 397-403.
- Tomkin, G. H. dan Owens, D. (2016). Obesity diabetes and the role of bile acids in metabolism. *Journal of Translational Internal Medicine*, 4(2), pp. 73–80. doi: 10.1515/jtim-2016-0018.
- Tuarita, M.Z., Sadek, N.F., Sukarno., Yuliana, ND., Slamet, B. (2017). Pengembangan Bekatul sebagai Pangan Fungsional: Peluang, Hambatan, dan Tantangan. *Jurnal Pangan*.
- Ullrich, I.H. (1987). Evaluation of a High-fiber Diet in Hyperlipidemia: A Review. *Journal of the American Collage of Nutrition*. 6(1): 19-25.
- Upadhyaya, S., dan Benerjee, G. (2015). Type 2 Diabetes and Gut Microbiome: at the Intersestion of Known and Unknown. *Gut Microbes*. 6(2): 85-92.
- Vergès, B. (2015). Pathophysiology of Diabetic Dyslipidaemia: Where Are We?. *Diabetologia*. Springer Verlag, pp. 886–899. doi: 10.1007/s00125-015-3525-8.
- Wang, C., Zhu, C., Shao, L., Ye, J., Shen, Y., Ren, Y. (2019). Role of Bile Acids in Dysbiosis and Treatment of Nonalcoholic Fatty Liver Disease. *Mediators of Inflammation*. Hindawi Limited. doi: 10.1155/2019/7659509.
- Wang, Z. Q., Zuberi, A., Zhang, B.S., Macgowan, J., Qin, J., Ye, X.,...Cefalu, W.T. (2007) . Effects of dietary fibers on weight gain, carbohydrate metabolism, and gastric ghrelin gene expression in mice fed a high-fat diet. *Metabolism: Clinical and Experimental*, 56(12), pp. 1635–1642. doi: 10.1016/j.metabol.2007.07.004.
- Werner, A., Kuipers, F. dan Verkade, H. J. (2013). Fat Absorption and Lipid Metabolism in Cholestasis. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK6420/> (Accessed: 15 June 2021).
- World Health Organization. (2018). Diabetes. <https://www.who.int/news-room/fact-sheets/detail/diabetes>
- Wrzosek, L., Ciocan, D., Borentain, P., Spatz, M., Puchois, V., Hugot, C.,...Cassard, A.M. (2018). Transplantation of human microbiota into conventional mice durably reshapes the gut microbiota. *Scientific Reports*, 8(1), p. 6854. doi: 10.1038/s41598-018-25300-3.
- Wu, Y., Ding, Y., Tanaka, Y., dan Zhang, W. (2014). Risk Factors Contributing to Type 2 Diabetes and RECENT Advances in the Treatment and Prevention. *International Journal of Medical Sciences*. 11(11): 1185-1200.

- Yang, Y.Y., Ma, S., Wang, X.X., Zheng, X.L. (2017). Modification and Application of Dietary Fiber in Foods. *Journal of Chemistry*. Hindawi Limited, 2017. doi: 10.1155/2017/9340427.
- Yau, M., Maclaren, N.K. dan Sperling, M. (2000). Etiology and Pathogenesis of Diabetes Mellitus in Children and Adolescents. *Endotext*. MDText.com, Inc. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/29714936>
- Zhang, H., Temel, R.E., dan Martel, C. (2014). Cholesterol and Lipoprotein Metabolism. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 34: 1791-1794.
- Zhou, Z., Chen, J., Hu, Hai. (2018). Fusobacterium and Colorectal Cancer. *Frontiers in Oncology*. 8: 371.