

DAFTAR PUSTAKA

- Ağaç, D. K., Onuk, B., Gündemir, O., Kabak, M., Manuta, N., Çakar, B., Janeczek, M., Crampton, D. A., & Szara, T. (2024). Comparative Cranial Geometric Morphometrics among Wistar Albino, Sprague Dawley, and WAG/Rij Rat Strains. *Animals*, *14*(9), 1274. <https://doi.org/10.3390/ani14091274>
- Agung, F. H., Sekartini, R., Sudarsono, N. C., Hendarto, A., Dhamayanti, M., Werdhani, R. A., & Sawyer, S. M. (2022). The barriers of home environments for obesity prevention in Indonesian adolescents. *BMC Public Health*, *22*(1). <https://doi.org/10.1186/s12889-022-14669-6>
- Alberts, A., Moldoveanu, E.-T., Niculescu, A.-G., & Grumezescu, A. M. (2025). Vitamin C: A Comprehensive Review of Its Role in Health, Disease Prevention, and Therapeutic Potential. *Molecules*, *30*(3), 748. <https://doi.org/10.3390/molecules30030748>
- Aragón-Vela, J., Huertas, J. R., & Casuso, R. A. (2025). Effects of Vitamin C and/or E Supplementation on Glycemic Control and Cardiovascular Risk Factors in Type 2 Diabetes: A Systematic Review and Subgroup Meta-analysis. *Nutrition Reviews*, *84*(2), 235–245. <https://doi.org/10.1093/nutrit/nuaf133>
- Berliani, D. D. (2023). *Aktivitas Penurunan Trigliserida Dan Kolesterol Total Ekstrak Etanol Terstandar Biji Moringa oleifera Pada Tikus Yang Diinduksi Diet Tinggi Lemak*.
- Bibi, N., Rahman, N., Ali, M. Q., Ahmad, N., & Sarwar, F. (2023). Nutritional value and therapeutic potential of Moringa oleifera: a short overview of current research. In *Natural Product Research*. Taylor and Francis Ltd. <https://doi.org/10.1080/14786419.2023.2284862>
- Borén, J., & Taskinen, M. R. (2022). Metabolism of Triglyceride-Rich Lipoproteins. In *Handbook of Experimental Pharmacology* (Vol. 270, pp. 133–156). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/164_2021_520
- Canfora, I., & Pierno, S. (2024). Hypertriglyceridemia Therapy: Past, Present and Future Perspectives. In *International Journal of Molecular Sciences* (Vol. 25, Issue 17). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/ijms25179727>
- Cooper, D. K. C., & Pierson, R. N. (2022). The future of cardiac xenotransplantation. *Nature Reviews Cardiology*, *19*(5), 281–282. <https://doi.org/10.1038/s41569-022-00684-y>
- Dahili, K., Krouf, D., Hamedi, L., Bourouina, I., & Dida, N. (2025). Potent lipid-lowering, antioxidant, and cardioprotective effects of combined Moringa oleifera and Curcuma longa extracts in hypercholesterolemic rats. *South African Journal of Botany*, *181*, 458–467. <https://doi.org/10.1016/j.sajb.2025.04.028>

- Decke, J., & Seifert, R. (2025). Market analysis of vitamin C-containing dietary supplements in Germany and the USA: Consumer information and risks and benefits. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 398(11), 15807–15823. <https://doi.org/10.1007/s00210-025-04248-y>
- Dhiman, J. (2023). A Review on Medicinal uses of Moringa oleifera. *Journal of Drug Delivery and Therapeutics*, 13(11), 197–201. <https://doi.org/10.22270/jddt.v13i11.6042>
- Dutta, S., Kar, S., Yasmin, R., & Choubey, R. (2024). Evaluation of Bioactive Compounds and Antioxidant Activity of Various Parts (Pod, Flower and Leaves) of Drumstick (Moringa oleifera). In *Bull. Env. Pharmacol. Life Sci* (Vol. 13).
- Elias, J., Fellner, K., Hofer, P., Oberer, M., Schreiber, R., & Zechner, R. (2022). *The potential roles of transacylation in intracellular lipolysis and related QSSA approximations*. <http://arxiv.org/abs/2209.06667>
- Flieger, J., Flieger, W., Baj, J., & Maciejewski, R. (2021). Antioxidants: Classification, Natural Sources, Activity/Capacity Measurements, and Usefulness for the Synthesis of Nanoparticles. *Materials*, 14(15), 4135. <https://doi.org/10.3390/ma14154135>
- Fu, Z., Chen, Q., Zhang, K., & Zhang, R. (2024). A Comparison Between Canonical and Alternative Pathways in Triglyceride Synthesis. *Journal of Endocrinology and Metabolism*, 14(5), 250–257. <https://doi.org/10.14740/jem1017>
- Gęgotek, A., & Skrzydlewska, E. (2022). Antioxidative and Anti-Inflammatory Activity of Ascorbic Acid. In *Antioxidants* (Vol. 11, Issue 10). MDPI. <https://doi.org/10.3390/antiox11101993>
- Gibran, M. S., & Nurulhuda, U. (2023). Hubungan Obesitas Dengan Kejadian Penyakit Jantung Koroner. *JHCN Journal of Health and Cardiovascular Nursing*, 3(2). <https://doi.org/10.36082/jhcn.v3i2.1092>
- Hasim, H., Faridah, D. N., Afandi, F. A., & Qomaliyah, E. N. (2021). *Evaluation of Indonesian Anti-obesity Traditional Medicinal Plants: A Systematic Review and Meta-analysis on Pancreatic Lipase Inhibition Activity*. <https://doi.org/10.21203/rs.3.rs-885615/v1>
- Himi, H. Z., Rahman, Md. M., Hasan, S. A., Cruze, L. R. M. D., Zaman, T. S., & Chowdhury, Md. M. (2024). An Evaluation of Anti-hyperlipidemic Activity of Ethanolic Extract of Moringa oleifera on High Fat Induced Hyperlipidemic Rat Model. *International Journal of Biochemistry Research & Review*, 33(4), 33–39. <https://doi.org/10.9734/ijbcr/2024/v33i4867>
- Hristov, M. (2025). Leptin Signaling in the Hypothalamus: Cellular Insights and Therapeutic Perspectives in Obesity. *Endocrines*, 6(3), 42. <https://doi.org/10.3390/endocrines6030042>

- Ibrahim, I., Yerizel, E., Endrinaldi, E., & Revilla, G. (2025). The Effect of A High-Fat Diet on Lipid Profile Levels (LDL Cholesterol, HDL Cholesterol, Triglycerides, and Total Cholesterol) in Male *Rattus Novergicus* with Obese. *Indonesian Journal of Global Health Research*, 7(6), 27–34. <https://doi.org/10.37287/ijghr.v7i6.164>
- Isa, A. F. A. (2024). *Uji Aktivitas Antiobesitas Pada Pemberian Biskuit Substitusi Tepung Porang (Amorphophallus oncophyllus)*.
- Islam, Z., Islam, S. M. R., Hossen, F., Mahtab-Ul-Islam, K., Hasan, M. R., & Karim, R. (2021). Moringa oleifera is a Prominent Source of Nutrients with Potential Health Benefits. *International Journal of Food Science*, 2021, 6627265. <https://doi.org/10.1155/2021/6627265>
- Kaye, A. D., Coffman, G. D., Mashaw, S. A., Thomassen, A. S., Broocks, K. M., Anwar, A. I., Ahmadzadeh, S., & Shekoochi, S. (2025). Niacin and Stroke: The Role of Supplementation and Emerging Concepts in Clinical Practice, a Narrative Review. *Current Issues in Molecular Biology*, 47(6), 400. <https://doi.org/10.3390/cimb47060400>
- Kossekov, G. (2025). *Exploring Lipid Metabolism and Its Role in Energy Storage and Cellular Function*. <https://doi.org/10.35841/2471-2663.25.11.248>
- Lalus, F. N., Parera, L. A. M., & Lalang, A. C. (2021). *Analisis-Kandungan-Flavonoid-Total-Pada-Ekstrak-Etanol-Buah-Kelor-Moringga-oleifera-Lamk-Dengan-Menggunakan-Metode-Spektrofotometer-UV-VIS*.
- Lee, J. S., Jin, M. H., & Lee, H. J. (2022). Global relationship between parent and child obesity: a systematic review and meta-analysis. *Clinical and Experimental Pediatrics*, 65(1), 35–46. <https://doi.org/10.3345/cep.2020.01620>
- Martemucci, G., Costagliola, C., Mariano, M., D'andrea, L., Napolitano, P., & D'Alessandro, A. G. (2022). Free Radical Properties, Source and Targets, Antioxidant Consumption and Health. *Oxygen*, 2(2), 48–78. <https://doi.org/10.3390/oxygen2020006>
- Masenga, S. K., Kabwe, L. S., Chakulya, M., & Kirabo, A. (2023). Mechanisms of Oxidative Stress in Metabolic Syndrome. *International Journal of Molecular Sciences*, 24(9), 7898. <https://doi.org/10.3390/ijms24097898>
- McLelland, G. L., Lopez-Osias, M., Verzijl, C. R. C., Ellenbroek, B. D., Oliveira, R. A., Boon, N. J., Dekker, M., van den Hengel, L. G., Ali, R., Janssen, H., Song, J. Y., Krimpenfort, P., van Zutphen, T., Jonker, J. W., & Brummelkamp, T. R. (2023). Identification of an alternative triglyceride biosynthesis pathway. *Nature*, 621(7977), 171–178. <https://doi.org/10.1038/s41586-023-06497-4>
- Młynarska, E., Bojdo, K., Bulicz, A., Frankenstein, H., Gaşior, M., Kustosik, N., Rysz, J., & Franczyk, B. (2025). Obesity as a Multifactorial Chronic

- Disease: Molecular Mechanisms, Systemic Impact, and Emerging Digital Interventions. *Current Issues in Molecular Biology*, 47(10), 787. <https://doi.org/10.3390/cimb47100787>
- Mohammadhasani, K., Fard, M. V., Yadegari, M., Barati, M., Bahari, H., Nattagh-Eshtivani, E., & Rashidmayvan, M. (2024). A Healthy Dietary Pattern May Have a Protective Effect Against Cardiovascular Disease Through Its Interaction With the MC4R Gene Polymorphism. *Clinical Nutrition Research*, 13(3), 214. <https://doi.org/10.7762/cnr.2024.13.3.214>
- Mthiyane, F. T., Dlodla, P. V., Ziqubu, K., Mthembu, S. X. H., Muvhulawa, N., Hlengwa, N., Nkambule, B. B., & Mazibuko-Mbeje, S. E. (2022). A Review on the Antidiabetic Properties of Moringa oleifera Extracts: Focusing on Oxidative Stress and Inflammation as Main Therapeutic Targets. *Frontiers in Pharmacology*, 13. <https://doi.org/10.3389/fphar.2022.940572>
- Nakashima, R., Ikeda, S., Shinohara, K., Matsumoto, S., Yoshida, D., Ono, Y., Nakashima, H., Miyamoto, R., Matsushima, S., Kishimoto, J., Itoh, H., Komuro, I., Tsutsui, H., & Abe, K. (2025). Triglyceride/high density lipoprotein cholesterol index and future cardiovascular events in diabetic patients without known cardiovascular disease. *Scientific Reports*, 15(1). <https://doi.org/10.1038/s41598-025-92933-6>
- Namkhah, Z., Ashtary-Larky, D., Naeini, F., Clark, C. C. T., & Asbaghi, O. (2021). Does vitamin C supplementation exert profitable effects on serum lipid profile in patients with type 2 diabetes? A systematic review and dose-response meta-analysis. *Pharmacological Research*, 169, 105665. <https://doi.org/10.1016/j.phrs.2021.105665>
- Nurmohamed, N. S., Dallinga-Thie, G. M., & Stroes, E. S. G. (2020). Targeting apoC-III and ANGPTL3 in the treatment of hypertriglyceridemia. In *Expert Review of Cardiovascular Therapy* (Vol. 18, Issue 6, pp. 355–361). Taylor and Francis Ltd. <https://doi.org/10.1080/14779072.2020.1768848>
- Pagalla, D. B. (2024). *Buku ISBN Ekstraksi Bahan Alam*. <https://www.researchgate.net/publication/381613640>
- Panova, N., Gerasimova, A., Gentsheva, G., Nikolova, S., Makedonski, L., Velikova, M., Beraich, A., Talhaoui, A., Petkova, N., Batovska, D., & Nikolova, K. (2025). Moringa oleifera Lam.: A Nutritional Powerhouse with Multifaceted Pharmacological and Functional Applications. *Life*, 15(6), 881. <https://doi.org/10.3390/life15060881>
- Pareek, A., Pant, M., Gupta, M. M., Kashania, P., Ratan, Y., Jain, V., Pareek, A., & Chuturgoon, A. A. (2023). Moringa oleifera: An Updated Comprehensive Review of Its Pharmacological Activities, Ethnomedicinal, Phytopharmaceutical Formulation, Clinical, Phytochemical, and Toxicological Aspects. In *International Journal of*

Molecular Sciences (Vol. 24, Issue 3). MDPI.
<https://doi.org/10.3390/ijms24032098>

- Parvin, S., Miah, M., Mondal, S., Das, S., & Chowdhury, D. (2023). Morphological and Nutritional Variation of Moringa Oleifera Lam Grown in Different Districts of Bangladesh. *Annals of Bangladesh Agriculture*, 26(2), 33–49. <https://doi.org/10.3329/aba.v26i2.67865>
- Phimarn, W., Sunthong, B., & Wichaiyo, K. (2021). Efficacy and safety on Moringa oleifera on blood glucose and lipid profile: A meta-analysis. *Pharmacognosy Magazine*, 17(74), 373. https://doi.org/10.4103/pm.pm_49_20
- Prajapati, C., Ankola, M., Upadhyay, T. K., Sharangi, A. B., Alabdallah, N. M., Al-Saeed, F. A., Muzammil, K., & Saeed, M. (2022). Moringa oleifera: Miracle Plant with a Plethora of Medicinal, Therapeutic, and Economic Importance. In *Horticulturae* (Vol. 8, Issue 6). MDPI. <https://doi.org/10.3390/horticulturae8060492>
- Pratama, B. A. (2023). Literature Review: Faktor Risiko Obesitas Pada Remaja Di Indonesia. *Indonesian Journal on Medical Science*, 10(2). <https://doi.org/10.55181/ijms.v10i2.443>
- Pratiwi, C. D., Puspitasari, E., & Hermawati, A. H. (2023). Analysis of cholesterol and triglyceride levels in obese patients. *Edubiotik : Jurnal Pendidikan, Biologi Dan Terapan*, 8(01), 38–43. <https://doi.org/10.33503/ebio.v8i01.2518>
- Putri Sakti, B., & Adelina, E. (n.d.). Morphological and Genetic Identification of Moringa Plants (Moringa Oleifera L.) For Procurement Quality Seeds In Tanambulava District Central Sulawesi. *Print) International Journal of Life Sciences Research*, 12, 19–29. <https://doi.org/10.5281/zenodo.14022733>
- Rozi, F., Nuzul Azhim Ash Siddiq, M., Masyhuri Majiding, C., Kesehatan Masyarakat, F., & Mulawarman, U. (2023). *Analisis Kapasitas Antioksidan Minuman Sumber Vitamin C*.
- Sahiti, H., Bislimi, K., Rexhepi, A., Kovaci, Z., & Dalo, E. (2023). Antioxidant Activity of Vitamin C and E Versus Oxidative Stress Induced by Heavy Metals in Common Carp (Cyprinus carpio). *Malaysian Applied Biology*, 52(2), 33–40. <https://doi.org/10.55230/mabjournal.v52i2.2539>
- Salim, B. R. K., Wihandani, D. M., & Dewi, N. N. A. (2021). Obesitas sebagai faktor risiko terjadinya peningkatan kadar trigliserida dalam darah: tinjauan pustaka. *Intisari Sains Medis*, 12(2), 519–523. <https://doi.org/10.15562/ism.v12i2.1031>
- Saraswati, S. K., Rahmaningrum, F. D., Pahsya, M. N. Z., Paramitha, N., Wulansari, A., Ristantya, A. R., Sinabutar, B. M., Pakpahan, V. E., & Nandini, N. (2021). Literature Review: Faktor Risiko Penyebab

- Obesitas. *Media Kesehatan Masyarakat Indonesia*, 20(1), 70–74. <https://doi.org/10.14710/mkmi.20.1.70-74>
- Sastyalaksmi, P., Artini, I. G., Trapika, I. G., & Widhiartini, I. (2025). Pengaruh kombinasi ekstrak etanol daun kelor dan buah kelor terhadap kadar kolesterol total pada tikus Wistar dengan diet tinggi lemak. *Fakultas Kedokteran Universitas Udayana | Medicina*, 56(1), 18–24. <https://doi.org/10.15562/medicina.v56i1.1363>
- Setyani, W., Murwanti, R., Sulaiman, T. N. S., & Hertiani, T. (2023). Flavonoid from Moringa oleifera leaves revisited: A review article on in vitro, in vivo, and in silico studies of antidiabetic insulin-resistant activity. *Journal of Advanced Pharmaceutical Technology & Research*, 14(4), 283–288. https://doi.org/10.4103/JAPTR.JAPTR_290_23
- Setyawati, T., Adawiyah, R., Walanda, R. M., Riski, & Chandra, R. (2022). Effectiveness of moringa oleifera on triglyceride levels in diabetic wistar rats (*Rattus norvegicus*) induced with streptozotocin (STZ). *IOP Conference Series: Earth and Environmental Science*, 1075(1). <https://doi.org/10.1088/1755-1315/1075/1/012020>
- SKI. (2023). *Dalam Angka Tim Penyusun SKI 2023 Dalam Angka Kementerian Kesehatan Republik Indonesia*.
- SURAHMAT. (2024). *Tesis Potensi Antiobesitas Moringa Oleifera Pada Tikus Obesitas Yang Diinduksi Diet Tinggi Lemak Antiobesity Potential Of Moringa Oleifera In High-Fat Diet-Induced Obese Rats*.
- Susanti, A., & Nurman, M. (2022). *Manfaat Kelor (Moringa Oleifera) Bagi Kesehatan*. 3(3).
- Tasnim, N., Khan, N., Gupta, A., Neupane, P., Mehta, A., Shah, S. A., & Dey, R. C. (2023). Exploring the effects of adiponectin and leptin in correlating obesity with cognitive decline: a systematic review. *Annals of Medicine & Surgery*, 85(6), 2906–2915. <https://doi.org/10.1097/MS9.0000000000000766>
- Thadeus, M. S., Susantiningsih, T., Muktamiroh, H., Fauziah, C., Citrawati, M., Irmarahayu, A., Wahyuningsih, S., Harjono Hadiwardjo, Y., Yusmaini, H., Bahar, M., Zulfa, F., Agustini, D., & Chairani, A. (2023). Moringa oleifera fruit extract as a potential antioxidant against liver injury by 2-Nitropropane induction in obese male mice model: pre-clinical study. *F1000Research*, 12, 300. <https://doi.org/10.12688/f1000research.121695.1>
- Tjong, A., Assa, Y. A., & Purwanto, D. S. (2021). *Kandungan Antioksidan Pada Daun Kelor (Moringa Oleifera) dan Potensi Sebagai Penurun Kadar Kolesterol Darah*. <https://doi.org/10.35790/ebm.9.2.2021.33452>
- Uchiyama, L. F., & Tontonoz, P. (2023). DIET fuels a DGAT-independent triglyceride synthesis pathway. *Life Metabolism*, 2(6). <https://doi.org/10.1093/lifemeta/load039>

- Usman, A., Kawu, M. U., Shittu, M., Saleh, A., & Bilbonga, G. (2022). Comparative effects of Moringa oleifera and ascorbic acid on biochemical changes induced by subchronic lead toxicity in male Wistar rats. *Pharmacological Research - Modern Chinese Medicine*, 4, 100140. <https://doi.org/10.1016/j.prmcm.2022.100140>
- Vanasco, A., & vanSonnenberg, E. (2023). Fibrates and Fibrate-induced Liver Injury in Primary Biliary Cholangitis. In *Gene Expression The Journal of Liver Research* (Vol. 22, Issue 4, pp. 321–328). Xia and He Publishing Inc. <https://doi.org/10.14218/GE.2023.00015>
- Wati, D., Midoen, Y., & Ilyas, S. (2024). *Prinsip Dasar Tikus sebagai Model Penelitian*. <https://www.researchgate.net/publication/378012784>
- Yadav, P. K., Imran, S., & Netam, R. K. (2025). High-Fat Diet-Induced Metabolic and Cardiovascular Alterations: Role of Vitamin C and E Supplementation in Modulating Lipid Profile and Blood Pressure. In *Journal of Neonatal Surgery ISSN* (Vol. 14). <https://www.jneonatsurg.compg.368>
- Zhan, J., Wang, J., Jiang, L., Li, J., Li, J., Cao, J., Du, Y., Yan, T., Jia, Y., & He, B. (2025). Moringa oleifera leaves water extract as a novel therapeutic agent for hyperlipidemia prevention: Integrated analysis of bioactive components and metabolic regulatory pathways. *Food Research International*, 225, 118101. <https://doi.org/10.1016/j.foodres.2025.118101>
- World Health Organization. (2024, March 1). *Obesity and overweight*. World Health Organization. Retrieved July 22, 2025, from <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>