

DAFTAR PUSTAKSA

- Abdullah, R. K., Issa, R. A., Abu-Samak, M., Mohammad, B. A., Abbas, M. A., & Awwad, S. H. 2023. Nephroprotective effects of *Equisetum ramosissimum* L. extract in streptozotocin-induced diabetic rats. *Pharmacia*, <https://doi.org/10.1016/j.heliyon.2023.e20234>.
- Agarwal, A., A. Aponte-Mellado, B.J. Premkumar, A. Shaman, S. Gupta. 2012. The effects of oxidative stress on female reproduction: a review. *Reproductive Biology and Endocrinology* 10:1-49.
- Aini, Z. Q., Herdwiani, W., & Wijayanti, T. 2023. Efektivitas rimpang kunyit hitam (*Curcuma caesia* roxb.) Terhadap penurunan glukosa darah dan perbaikan ginjal tikus diabetes nefropati. *Media Ilmu Kesehatan* 12(2):208–216. <https://doi.org/10.30989/mik.v12i2.874>.
- Akhtar, M., N.M. Taha, A. Nauman, I.B. Mujeeb, A.D.M. Al-Nabet. 2020. Diabetic kidney disease: Past and present. *Advances in anatomic pathology* 27 (2): 87–97.
- Alamsjah, Feskaharny., Agustien., Anthoni., Alam, Tri Widia Ningsih. 2023. Uji Antibakteri Ekstrak Rimpang Koenih Rimbo (*Curcuma sumatrana* Miq.) Tumbuhan Endemik Sumatra Barat Terhadap Bakteri Gram Positif. *Bioscientist : Jurnal Ilmiah Biologi* 11(1) :561-570.
- American Diabetes Association [ADA]. 2014. Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care* 34(Suppl 1): S62–S69. doi: 10.2337/dc11-S062 ,PMCID: PMC3006051.
- Annisa, Nurul. 2024. *Efek Curcuma sumatrana Terhadap Histopatologi Dan Kadar Malondialdehid Hati Mencit Putih Yang Diberi Diet Berlemak Tinggi*. Diploma Thesis, Universitas Andalas.
- Antar, S. A., Ashour, N. A., Sharaky, M., Khattab, M., Ashour, N. A., Zaid, R. T., Roh, E. J., Elkamhawy, A., & Al-Karmalawy, A. A. 2023. Diabetes mellitus: Classification, mediators, and complications; A gate to identify potential targets for the development of new effective treatments. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie* 168: 115734. <https://doi.org/10.1016/j.biopha.2023.115734>.
- Arabnozari, H., Shaki, F., Saberi Najjar, A., Sharifianjazi, F., Sarker, S. D., Habibi, E., & Nahar, L. 2024. The effect of Polygonum hyrcanicum Rech. f. hydroalcoholic extract on oxidative stress and nephropathy in alloxan-induced diabetic mice. *Scientific Reports*, 14(1), 18117. <https://doi.org/10.1038/s41598-024-69220-x>.
- Ardiyani, M., Anggara, A., & Leong-Skornickova, J. 2011. Rediscovery of *Curcuma sumatrana* (Zingiberaceae) endemic to West Sumatra. *Blumea: Journal of Plant*

- Argawal, Rajiv. 2024. Pathogenesis of Diabetic Nephropathy. NCBI.
- Arifin H, Alwi TI, Aisyahharma O, Juwita DA. 2018. Kajian Efek Analgetik dan Toksisitas Subakut Dari Ekstrak Etanol Daun Kitolod (*Isotoma longiflora* L.) Pada Mencit Putih Jantan. *Sains Farm dan Klin* 5(2):112–8.
- Avila-Rojas SH, Lira-León A, Aparicio-Trejo OE, Reyes-Fermín LM, Pedraza Chaverri J. 2019. Role of Autophagy on Heavy Metal-Induced Renal Damage and the Protective Effects of Curcumin in Autophagy and Kidney Preservation. *Med* 55(7):14–7.
- Ayala, A., Muñoz, M. F., & Argüelles, S. 2014. Lipid peroxidation: production, metabolism, and signaling mechanisms of malondialdehyde and 4-hydroxy-2-nonenal. *Oxidative medicine and cellular longevity*, 2014, 360438. <https://doi.org/10.1155/2014/360438>.
- Banerjee, A. 2005. Renal physiology. In : Clinical physiology an examination primer. USA : Cambridge University Press:61.
- Bhalla, N. 2024. Measurement of human urine specific gravity using nanoplasmonics: A paradigm shift from scales to biosensors. *Advanced Sustainable Systems*. <https://doi.org/10.1002/adsr.202300115>.
- Catherine, C dan Ferdinal, F. 2018. Pengaruh hipoksia sistemik kronik terhadap kadar Malondialdehid (MDA) pada darah dan jaringan ginjal tikus Sprague Dawley. *Tarumanagara Medical Journal* 1(1): 54-58.
- Ceriana, R., & Rejeki, D. P. 2023. Uji toksisitas makroskopis pada organ ginjal, hati, jantung, dan limpa mencit hiperglikemia yang diberi ekstrak etanol kulit buah rambai (*Baccaurea motleyana*). *Journal of Pharmaceutical and Health Research*, 4(2), 183–189. <https://doi.org/10.47065/jharma.v4i2.3366>.
- Chen, P. S., Li, Y. P., & Ni, H. F. 2019. Morphology and Evaluation of Renal Fibrosis. *Advances in experimental medicine and biology* 1165: 17–36. https://doi.org/10.1007/978-981-13-8871-2_2.
- Den Hartogh, D. J., Gabriel, A., & Tsiani, E. 2019. Antidiabetic Properties of Curcumin II: Evidence from In Vivo Studies. *Nutrients* 12(1): 58. <https://doi.org/10.3390/nu12010058>.
- Dewi, N.d.MA., Wiratmini, N.I., Sudirga, S.K. 2021. Gambaran histologi hati dan ginjal mencit (*Mus musculus* L.) yang diinduksi karbon tetraklorida (CCl₄) setelah pemberian ekstrak daun sirsak (*Annona muricata* L.). *Jurnal Biologi Udayana* 26(1): 21-31.

- Du, L., Liu, C., Teng, M., Meng, Q., Lu, J., Zhou, Y., Liu, Y., Cheng, Y., Wang, D., & Teng, L. 2015. Anti-diabetic activities of *Paecilomyces tenuipes* N45 extract in alloxan-induced diabetic mice. *Molecular Medicine Reports*, 13(1701-1708). <https://doi.org/10.3892/mmr.2015.4736>.
- Ehrmann D, Kulzer B, Roos T, Haak T, Al-Khatib M, Hermanns N. 2020. Risk factors and prevention strategies for diabetic ketoacidosis in people with established type 1 diabetes. *Lancet Diabetes Endocrinol* 8(5):436-446.
- Fahriyansyah, F., Isdadiyanto, S., Mardiaty, S. M., & Sitasiwi, A. J. (2021). Gambaran Histologi Ren Tikus Putih (*Rattus norvegicus* L.) Hiperglikemia Setelah Pemberian Ekstrak Etanol Daun Mimba (*Azadirachta Indica* A. Juss). *Buletin Anatomi dan Fisiologi*, 6(2), 193-202. <https://doi.org/10.14710/baf.6.2.2021.193-202>.
- Federiuk IF, Casey HM, Quinn MJ, Wood MD, Ward KW. 2004. Induction of type-1 diabetes mellitus in laboratory rats by use of alloxan: route of administration, pitfalls, and insulin treatment. *Compar Med* 54(June (3)):252–7.
- Feng, H., Wu, T., Zhou, Q., Li, H., Liu, T., Ma, X., & Yue, R. 2022. Protective Effect and Possible Mechanisms of Artemisinin and Its Derivatives for Diabetic Nephropathy: A Systematic Review and Meta-Analysis in Animal Models. *Oxidative medicine and cellular longevity*, 2022, 5401760. <https://doi.org/10.1155/2022/5401760>
- Forbes, J. M., Coughlan, M. T., & Cooper, M. E. 2008. Oxidative stress as a major culprit in kidney disease in diabetes. *Diabetes* 57(6): 1446–1454. <https://doi.org/10.2337/db08-0057>.
- GBIF. 2023. *Curcuma sumatrana* Miq. <https://doi.org/10.15468/39omei>. Diakses di GBIF.org pada 24 November 2024.
- Genuth, S, K.G.M.M. Alberti, P. Bennett, J. Buse, R. DeFronzo, R. Kahn, J. Kitzmiller, W. C. Knowler, H. Lebovitz, A. Lernmark, D. Nathan. 2003. Follow-up report on the diagnosis of diabetes mellitus. *Diabetes care* 26 (11) : 3160–3167.
- Gil, P. *et al.* 2002. Malondialdehyde: A possible marker of ageing. *Gerontology* 48(4): 209–214. doi: 10.1159/000058352.
- Goodman, M. 2009. *Basic medical endocrinology* (4th ed.). Academic Press.
- Gorus FK, Malaisse WJ, Pipeleers DG. 1982. Selective uptake of alloxan by pancreatic B-cells. *Biochem J* 208(2):513–5.
- Guo, L., Jiang, B., Li, D., & Xiao, X. 2021. Nephroprotective Effect of Adropinin Against Streptozotocin-Induced Diabetic Nephropathy in Rats: Inflammatory Mechanism and YAP/TAZ Factor. *Drug design, development and therapy*, 15, 589–600. <https://doi.org/10.2147/DDDT.S294009>.
- Gupta A, Sharma M, Sharma J. 2015. A Role of insulin in different types of diabetes. *Int J Curr Microbiol App Sci* 4: 58-77.

- Gupta S.C., Patchva S., Aggarwal B.B. 2013. Therapeutic Roles of Curcumin: Lessons Learned from Clinical Trials. *AAPS J* 15:195–218. doi: 10.1208/s12248-012-9432-8.
- Guyton, A. C., dan Hall, J. E. 2007. *Buku ajar fisiologi kedokteran edisi 11*. Jakarta: EGC. Hal 118-125
- Ha, H., & Kim, K. H. 1999. Pathogenesis of diabetic nephropathy: the role of oxidative stress and protein kinase C. *Diabetes research and clinical practice*, 45(2-3), 147–151. [https://doi.org/10.1016/s0168-8227\(99\)00044-3](https://doi.org/10.1016/s0168-8227(99)00044-3).
- Habib S. L. 2018. Kidney atrophy vs hypertrophy in diabetes: which cells are involved? *Cell cycle* (Georgetown, Tex.), 17(14), 1683–1687. <https://doi.org/10.1080/15384101.2018.1496744>.
- Halim, S.Z., Abdullah, N.R., Afzan, A., Abdul Rashid, B.A., Jantan, I. Dan Ismail, Z. 2011. Acute toxicity study of *Carica papaya* leaf extract in Sprague Dawley rats. *Journal of Medicinal Plants Research* 5(20): 1867- 1872.
- Hyacintha, I. P., Putri, N. D., Hsb, S. R., Juliana, L., & Wardhani, F. M. 2025. Pemberian ekstrak kunyit putih pada nefropati diabetikum tikus Wistar yang terdampak diabetes melitus. *Jambura Journal of Health Science and Research*, 7(2). <https://doi.org/10.35971/jjhsr.v7i2.xxxxx>.
- Ighodaro, O. M., Adeosun, A. M., & Akinloye, O. A. 2017. Alloxan-induced diabetes, a common model for evaluating the glycemic-control potential of therapeutic compounds and plants extracts in experimental studies. *Medicina (Kaunas, Lithuania)*, 53(6), 365–374. <https://doi.org/10.1016/j.medici.2018.02.001>.
- International Diabetes Federation (IDF). 2021. IDF diabetes atlas (10th ed.). https://diabetesatlas.org/idfawp/resourcefiles/2021/07/IDF_Atlas_10th_Edition_2021.pdf.
- Jafari, Z., Farzaei, M. H., Morovati, M. R., & Foroughinia, A. (2022). Potential therapeutic effects of *Falearia vulgaris* Bernh: A systematic review. *Journal of Reports in Pharmaceutical Sciences*, 11(1), 18–27. https://doi.org/10.4103/jrptps.jrptps_88_21
- Jain D, Arya R. 2011. Anomalies in alloxan-induced diabetic model: it is better to standardize it first. *Indian J Pharmacol* 43(1):91.
- Jin, Q., Liu, T., Chen, D., Yang, L., Mao, H., Ma, F., Wang, Y., Li, P., & Zhan, Y. 2023. Therapeutic potential of artemisinin and its derivatives in managing kidney diseases. *Frontiers in Pharmacology*, 14, Article 1097206. <https://doi.org/10.3389/fphar.2023.1097206>.
- Kamaliani BR, Setiasih NLE, Winaya IBO. 2019. Histopathological Kidney Overview of Experimental Diabetes Mellitus Wistar Rats Given Ethanol Extract of Moringa Leaf. *Bul Vet Udayana* (21):71.

- Kavitha, S., & Murthy, V. R. 2006. Refractometry as a tool in diabetic studies. *Ancient Science of Life*, 25(3–4), 76–83.
- Kumar, V., Abbas, A.K., and Aster, J.C. 2013. *Robbins Basic Pathology* (9th ed).
- Lenzen S, Panten U. 1988. Signal recognition by pancreatic B-cells. *Biochem Pharmacol* 37(3):371–8.
- Lenzen, S. 2008. The mechanisms of alloxan- and streptozotocin and induced. *Diabetologia* 51(2), 216-226.
- Li, H.-D., You, Y.-K., Shao, B.-Y., Wu, W.-F., Wang, Y.-F., Guo, J.-B., Meng, X.-M., & Chen, H. 2022. Roles and crosstalks of macrophages in diabetic nephropathy. *Frontiers in Immunology*, 13, 1015142. <https://doi.org/10.3389/fimmu.2022.1015142>.
- Li, S., W. Yuan, G. Deng, P. Wang, P. Yang, B.B. Aggarwal. 2011. Chemical composition and product quality control of turmeric (*Curcuma longa* L.). *Pharmaceuti.Crops* (2) :28-54.
- Malini,D.M., Fitriani,N., Laila,A., Ratningsih, N., Setiawati, T. 2021. Struktur morfologis dan histologis ginjal tikus model diabet setelah diberi ekstrak etanol kulit buah jengkol (*Archidendron pauciflorum*). *Jurnal Biologi Udayana* 25(2): 208-217.
- Matough, F. A., Budin, S. B., Hamid, Z. A., Alwahaibi, N., & Mohamed, J. 2012. The role of oxidative stress and antioxidants in diabetic complications. *SultanQaboos University medical journal* 12(1): 5–18. <https://doi.org/10.12816/0003082>.
- Melisa, E., Muhaimin, & Yuliawati. 2022. Uji Toksisitas Akut Ekstrak Etanol Daun Sungkai (*Peronema cenescens* Jack) Terhadap Fungsi Ginjal Mencit Putih Betina (*Mus musculus* Linn.). *Majalah Farmasi dan Farmakologi*. MFF 26(1):32-37.
- Munday R. 1988. Dialuric acid autoxidation: effects of transition metals on the reaction rate and on the generation of “active oxygen” species. *Biochem Pharmacol* 37(3):409–13.
- Nair, A., & Nair, B. J. 2017. Comparative analysis of the oxidative stress and antioxidant status in type II diabetics and nondiabetics: A biochemical study. *Journal of oral and maxillofacial pathology: JOMFP*, 21(3), 394–401. https://doi.org/10.4103/jomfp.JOMFP_56_16.
- Nakagami, T, M. Tominaga, R. Nishimura, N. Yoshiike, M. Daimon, T. Oizumi, N.J. Dr Tajima. 2007. Is the measurement of glycated hemoglobin A1c alone an efficient screening test for undiagnosed diabetes?: *Japan National Diabetes Survey. Diabetes Research and Clinical Practice* 76 (2) : 251-256/.

- Nawawi, Jihan Aprilia. 2021. Efek Pemberian Ekstrak Etanol Rimpang Kunyit Liar Endemik Sumatera (*Curcuma sumatrana*, Zingiberaceae) Terhadap Tingkat Kecerdasan, Struktur Histologi Otak Dan Konsentrasi Malondialdehid Mencit Yang Diinduksi Monosodium Glutamat. Diploma thesis. Universitas Andalas.
- OECD.2025. *Test No. 407: Repeated Dose 28-day Oral Toxicity Study in Rodents*, OECD Guidelines for the Testing of Chemicals, Section 4, OECD Publishing, Paris, <https://doi.org/10.1787/9789264070684-en>.
- Patschan, D, G.J.Ijon Müller. 2016. Ginjal Akut. Diabetes Mellit. <https://doi.org/10.1155/2016/6232909>.
- Petrovsky, Ivan. 2025. *In Vitro And In Silico Study On Antioxidant Activity Of Sumatra Wild Turmeric (Curcuma sumatrana, Zingiberaceae)*. Diploma Thesis. Universitas Andalas.
- Piero N,M., Kimuni, N. S., Ngeranwa, N. J., Orinda, O. G., Njagi, M. J., Maina, D., Agyirifo, S. D., Gathumbi, K., King'e, W. S., & Njagi, E. N. 2015. Antidiabetic and safety of *Lantana rhodesiensis* in alloxan induced diabetic rats. *Journal of Diabetes and Metabolism* 4(1). <https://doi.org/10.4172/2329-6631.1000129>
- Pourghasem, M., Shafi, H., & Babazadeh, Z. 2015. Histological changes of kidney in diabetic nephropathy. *Caspian Journal of Internal Medicine*, 6(3), 120–127.
- Poznyak, A, A.V. Grechko, P. Poggio, V.A. Myasoedova, V. Alfieri, A.N. Orekho.2020. The diabetes mellitus–atherosclerosis connection: The role of lipid and glucose metabolism and chronic inflammation, *Int. J. Mol. Sci.* 21 (5) (2020) 1835, <https://doi.org/10.3390/ijms21051835>.
- Rahman, A. T., Rafia, Jethro, A., Santoso, P., Kharisma, V. D., Murtadlo, A. A. A., Purnamasari, D., Soekamto, N. H., Ansori, A. N. M., Kuswati, Mandeli, R. S., Aledresi, K. A. M. S., Yusof, N. F. M., Jakhmola, V., Rebezov, M., Zainul, R., Dobhal, K., Parashar, T., Ghifari, M. A., & Sari, D. A. P.2022. In Silico Study of the Potential of Endemic Sumatra Wild Turmeric Rhizomes (*Curcuma sumatrana*: Zingiberaceae) As Anti-Cancer. *Pharmacognosy Journal* 14(6): 806-812.<https://doi.org/10.5530/pj.2022.14.171>
- Ramadhani,Vivian. 2023. *Efek Sediaan Umbi Talas Mentawai (Colocasia esculenta L., Araceae) Terhadap Struktur Dan Fungsi Ginjal Pada Mencit Putih Diabetes Melitus*. Diploma thesis. Universitas Andalas.
- Rangasamy, K., & Namasivayam, E. (2014). *In vitro antioxidant and free radical scavenging activity of isolongifolene*. *Asian Journal of Biological Sciences*, 7(1), 13–23. <https://doi.org/10.3923/ajbs.2014.13.23>.
- Rees,DA & Alcolado, JC. 2005. Animal models of diabetes mellitus. *Diabetic Medicine* 22: 359-370.
- Rolo, A. P., & Palmeira, C. M. 2006. Diabetes and mitochondrial function: role of hyperglycemia and oxidative stress. *Toxicology and applied pharmacology* 212(2), 167–178. <https://doi.org/10.1016/j.taap.2006.01.003>.

- Sahartika dan Rahardiantini. 2022. Pengaruh Glimepirid terhadap Penurunan Glukosa Darah pada Mencit Diabetes-Disfungsi Ginjal. *Jurnal Ilmiah Medicamento* 8(2):104-109. <https://doi.org/10.36733/medicamento.v8i2.3517>.
- Santoso, P. 2021. *Serat Bengkuang sebagai Anti Penyakit Metabolik*. Padang : Andalas University Press.
- Santoso, P., Maliza, R., Rahayu, R., & Amelia, A. 2020. Pancreoprotective Effect of Jicama (*Pachyrhizus erosus*, Fabaceae) Fiber against High-Sugar Diet in Mice. *Open Access Macedonian Journal of Medical Sciences* 8(A): 326–332. <https://doi.org/10.3889/oamjms.2020.4528>.
- Santoso, P., Raniyah, N., Octavian, R. Maliza, R. 2024. Dietary fiber of jicama (*Pachyrhizus erosus* L., Fabaceae) tuber ameliorates kidney structure and function in mice fed with high-sucrose drink. *Food Research* 8 (4): 370 – 376.
- Sellers RS, Morton D, Michael B, Roome N, Johnson JK, Yano BL, Perry R, Schafer K. 2007. Society of Toxicologic Pathology position paper: organ weight recommendations for toxicology studies. *Toxicol. Pathol.* 35(5): 751-755.
- Shahin D. H., H., Sultana, R., Farooq, J., Taj, T., Khaizer, U. F., Alanazi, N. S. A., Alshammari, M. K., Alshammari, M. N., Alsubaie, F. H., Asdaq, S. M. B., Alotaibi, A. A., Alamir, A. a., Imran, M., & Jomah, S. 2022. Insights into the Uses of Traditional Plants for Diabetes Nephropathy: A Review. *Current Issues in Molecular Biology*, 44(7), 2887-2902. <https://doi.org/10.3390/cimb44070199>.
- Sink CA, Weinstein NM. 2012. Routine urinalysis: physical properties. In: Practical Veterinary Urinalysis. *Wiley Blackwell*:19-25.
- Slatter, D. A., Bolton, C. H., & Bailey, A. J. 2000. The importance of lipid-derived malondialdehyde in diabetes mellitus. *Diabetologia*, 43(5):550–557. <https://doi.org/10.1007/s001250051342>.
- Suhita, N.L.P.T.R., Sudira, I.W., Winaya, I.B.O. 2013. Histopatologi Ginjal Tikus Putih Akibat Pemberian Ekstrak Pegagan (*Centella asiatica*) Peroral. *Buletin Veteriner Udayana* 5(1) ; 63-69.
- Suratman, L. S. 2003. Sifat Fisik dan Kandungan NaCl Urin Tikus Putih (*Rattus norvegicus* L.) Jantan setelah Pemberian Ekstrak Rimpang Alang-alang (*Imperata cylindrica* L.) secara Oral." *Biofarmasi* 1.1: 7-12.
- Suryati, S., Dillasamola, D., & Rahadiant, F. 2016. Pengaruh Ekstrak Etanol Daun *Vernonia amygdalina*, Del terhadap Kadar Kreatinin Serum Mencit Putih Jantan. *Jurnal Sains Farmasi & Klinis*. 3(1): 79-83. <https://doi.org/10.29208/jsfk.2016.3.1.103>.

- Tirado-Ballestas, I. P., Alvarez-Ortega, N., Maldonado-Rojas, W., Olivero-Verbel, J., & Caballero-Gallardo, K. 2022. Oxidative stress and alterations in the expression of genes related to inflammation, DNA damage, and metal exposure in lung cells exposed to a hydroethanolic coal dust extract. *Molecular biology reports* 49(6): 4861–4871. <https://doi.org/10.1007/s11033-022-07341-0>.
- Tortora, G, J., Derrickson, B. 2011. Principles of Anatomy and Physiology Maintenance and Continuity of The Human Body 13 th Edition. USA : John Willey & Sons Inc.
- Trujillo J., Chirino Y.I., Molina-Jijón E., Andérica-Romero A.C., Tapia E., Pedraza-Chaverri J. 2013. Renoprotective effect of the antioxidant curcumin: Recent findings. *Redox Biol* 1:448–456. doi: 10.1016/j.redox.2013.09.003.
- Ueki, M, M. Ueno, J. Morishita, N. Maekawa. 2013. Curcumin ameliorates cisplatin-induced nephrotoxicity by inhibiting renal inflammation in mice. *Journal of Bioscience and Bioengineering*, 115: 547.
- Wang J, et al. 2020. Protective effect of curzerene from *Curcuma zedoaria* against oxidative stress in diabetic rats. *Journal of Ethnopharmacology*, 259:112922. <https://doi.org/10.1016/j.jep.2020.112922>.
- WHO. World Health Statistic Report. 2015. Geneva: World Health Organization.
- Wibowo, M., Suharto, G., & Margawati, A. 2012. *Pengaruh formalin peroral dosis bertingkat selama 12 minggu terhadap gambaran histopatologis ginjal tikus Wistar*. Doctoral dissertation, Fakultas Kedokteran.
- Wulandari, V., Nilapsari, R., & Devi, S. A. 2021. SGLT-2 Inhibitor Efektif dalam Menurunkan Albuminuria pada Pasien Diabetes Melitus Tipe 2. *Jurnal Ilmu Kesehatan*, 3 (1): 65-71. <https://doi.org/10.29313/jiks.v3i1.7478>.
- Xia, X G. Cheng, Y. Pan, Z. H. Xia, and L. D. Kong. 2007. Behavioral, neurochemical and neuroendocrine effects of the ethanolic extract from *Curcuma longa* L. in the mouse forced swimming test. *J. Ethnopharmacol* 110(2) : 356–363. doi:10.1016/j.jep.2006.09.042.
- Yabe, T., Tsuruyama, Y., Nomura, K. et al. 2025. Exploring the subtle and novel renal pathological changes in diabetic nephropathy using clustering analysis with deep learning. *Sci Rep* 15, 2025. <https://doi.org/10.1038/s41598-024-84588-6>.
- Zahra, Revalina. 2024. *Pengaruh Ekstrak Etanol Rimpang Kunyit Sumatra (Curcuma sumatrana) Terhadap Gula Darah Dan Histopatologi Pankreas Pada Mencit Putih Yang Diinduksi Alloxan*. Diploma thesis. Universitas Andalas.
- Zelniker, T.A.E. Braunwald. 2020. Mechanisms of cardiorenal effects of sodium-glucose cotransporter 2 inhibitors: JACC state-of-the-art review. *J. Am. Coll. Cardiol* 75(4) : 422–434. <https://doi.org/10.1016/j.jacc.2019.11.031>.

- Zhang, H., Qi, S., Song, Y., & Ling, C. 2020. Artemisinin attenuates early renal damage on diabetic nephropathy rats through suppressing TGF- β 1 regulator and activating the Nrf2 signaling pathway. *Life sciences*, 256, 117966. <https://doi.org/10.1016/j.lfs.2020.117966>.
- Zhao, J., Zhang, J.-s., Yang, B., Lv, G.-P., & Li, S.-P. 2010. Free Radical Scavenging Activity and Characterization of Sesquiterpenoids in Four Species of *Curcuma* Using a TLC Bioautography Assay and GC-MS Analysis. *Molecules*, 15(11), 7547-7557. <https://doi.org/10.3390/molecules15117547>.

