

DAFTAR PUSTAKA

- Adelati, S., Juniarto, A. Z., & Miranti, I. P. (2016). Histopatologi Spermatogenesis Testis Tikus Wistar Diabetes Melitus. *Jurnal Kedokteran Diponegoro*, 5(4), 1760–1769.
- Agustin, L., Mulqie, L., & Choesrina, R. (2015). Uji Aktivitas Antihiperqlikemia Ekstrak Etanol Daun Sukun (*Artocarpus altilis* (Parkinson Ex F.A.Zorn) Fosberg) pada Mencit Swiss Webster Jantan dengan Metode Uji Toleransi Glukosa. *Prosiding Penelitian SPeSIA Unisba*, 324–331.
- Agustinus, I'tishom, R., & Pramesti, M. P. B. D. (2018). *Biologi Reproduksi Pria*. Airlangga University Press.
- Aina, N. (2017). Uji Fitokimia Infusa Pekat Buah Pare (*Momordica charantina* L.) dan Pengaruh Lama Terapi dengan Variasi Dosis Terhadap Penurunan Kadar Glukosa Darah Tikus (*Rattus norvegicus*) yang Diinduksi Aloksan. *Skripsi*. Universitas Islam Negeri Maulana Malik Ibrahim Malang.
- Alabi, T. D., de Villiers, C., du Plessis, S. S., Monsees, T. K., Brooks, N. L., & Oguntibeju, O. O. (2020). The beneficial role of anchomanes difformis in stz-induced reproductive dysfunction in male wistar rats. *Diabetes, Metabolic Syndrome and Obesity*, 13, 4553–4560. <https://doi.org/10.2147/DMSO.S270783>
- Alves, M. G., Martins, A. D., Moreira, P. I., Carvalho, R. A., Sousa, M., Barros, A., Silva, J., Pinto, S., Simões, T., & Oliveira, P. F. (2015). Metabolic fingerprints in testicular biopsies from type 1 diabetic patients. *Cell and Tissue Research*, 362(2), 431–440. <https://doi.org/10.1007/s00441-015-2217-5>
- Al-Ishaq, R. K., Abotaleb, M., Kubatka, P., Kajo, K., & Büsselberg, D. (2019). Flavonoids and their anti-diabetic effects: Cellular mechanisms and effects to improve blood sugar levels. *Biomolecules*, 9(9). <https://doi.org/10.3390/biom9090430>
- Arka, G. D. (2019). Aktivitas Antihiperqlikemia Pemberian Produk YACONA ® pada Tikus Wistar Jantan yang Diinduksi Streptozotosin. *Skripsi*. Universitas Islam Indonesia.
- Azzahra, A., Farhani, N., Syahfitri, W., & Pasaribu, S. F. (2022). Potensi Kandungan Flavonoid Dalam Kayu Bajakah Sebagai Antidiabetes. *Jurnal Pendidikan Tambusai*, 6(2), 14345–14350.
- BPOM. (2021). *Peraturan Badan Pengawas Obat dan Makanan Nomor 18 Tahun 2021 Tentang Pedoman Uji Farmakodinamik Praktlinik Obat Tradisional*.

- Cantika, Y. (2018). Pengaruh Pemberian Ekstrak Buah Naga Merah (*Hylocereus polyrhizus*) Terhadap Gambaran Spermatogenesis Tikus Putih (*Rattus norvegicus*) Galur Wistar yang Diinduksi Pakan Tinggi Lemak. *Skripsi*. Fakultas Kedokteran UPN Veteran Jakarta.
- Chaudhury, A., Duvoor, C., Reddy Dendi, V. S., Kraleti, S., Chada, A., Ravilla, R., Marco, A., Shekhawat, N. S., Montales, M. T., Kuriakose, K., Sasapu, A., Beebe, A., Patil, N., Musham, C. K., Lohani, G. P., & Mirza, W. (2017). Clinical Review of Antidiabetic Drugs: Implications for Type 2 Diabetes Mellitus Management. *Frontiers in Endocrinology*, 8. <https://doi.org/10.3389/fendo.2017.00006>
- Condorelli, R. A., La Vignera, S., Mongioi, L. M., Alamo, A., & Calogero, A. E. (2018). Diabetes Mellitus and Infertility: Different Pathophysiological Effects in Type 1 and Type 2 on Sperm Function. *Frontiers in endocrinology*, 9, 268. <https://doi.org/10.3389/fendo.2018.00268>
- Dahlan, M. S. (2014). *Statistik untuk Kedokteran dan Kesehatan*. Jakarta: Salemba Medika.
- Dewi, N. W. O. A. C., Puspawati, N. M., Swantara, I. M. D., Asih, I. A. R. A., & Rita, W. S. (2014). Aktivitas Antioksidan Senyawa Flavonoid Ekstrak Etanol Biji Terong Belanda (*Solanum betaceum, syn*) dalam Menghambat Reaksi Peroksidasi Lemak pada Plasma Darah Tikus Wistar. *Cakra Kimia*, 2(1), 7–16.
- Ding, Liu, Y., Liu, M.-E., Pan, J.-X., Guo, M.-X., Sheng, J.-Z., & Huang, H.-F. (2015). The effects of diabetes on male fertility and epigenetic regulation during spermatogenesis. *Asian Journal of Andrology*, 17(6), 948–953. <https://doi.org/10.4103/1008-682X.150844>
- Dipa, I., Sudatri, N., & Wiratmini, N. (2015). Efektivitas Ekstrak Daun Sukun (*Artocarpus communis* Forst.) dalam Menurunkan Kadar Glukosa Darah dan Mempertahankan Jumlah Sperma pada Tikus (*Rattus norvegicus* L.). *SIMBIOSIS*, 3(2), 317–321.
- Djabir, Y. Y., Hardi, H., Setiawati, H., Lallo, S., Yulianty, R., Cangara, M. H., & Hadju, V. (2021). Artocarpus altilis leaf extract protects pancreatic islets and improves glycemic control in alloxan-induced diabetic rats. *Journal of Reports in Pharmaceutical Sciences*, 10(1), 87–92. https://doi.org/10.4103/jrptps.JRPTPS_57_20
- Drake, R. L., Vogl, A. W., Mitchell, A. W. M., & Gray, H. (2017). *Gray's Basic Anatomy* (2nd ed.). Elsevier.
- Effendy, D. L., Mahatir, M., Denny, S., & Nasri. (2023). Antibacterial and antioxidant activities of ethanol extract of Artocarpus altilis leaves. *Food Research*, 7(3), 148–152. [https://doi.org/10.26656/fr.2017.7\(3\).834](https://doi.org/10.26656/fr.2017.7(3).834)

- Eleazu, C. O., Eleazu, K. C., Chukwuma, S., & Essien, U. N. (2013). Review of the mechanism of cell death resulting from streptozotocin challenge in experimental animals, its practical use and potential risk to humans. *Journal of Diabetes and Metabolic Disorders*, 12(1), 60. <http://www.jdmdonline.com/content/12/1/60>
- Eroschenko, V. P. (2017). *diFiore's Atlas of Histology with Functional Correlations* (13th ed.). Lippincott Williams & Wilkins.
- Facondo, P., Di Lodovico, E., Delbarba, A., Anelli, V., Pezzaioli, L. C., Filippini, E., Cappelli, C., Corona, G., & Ferlin, A. (2022). The impact of diabetes mellitus type 1 on male fertility: Systematic review and meta-analysis. *Andrology*, 10(3), 426–440. <https://doi.org/10.1111/andr.13140>
- Gumantara, M. P. B., & Oktarlina, R. Z. (2017). Perbandingan Monoterapi dan Kombinasi Terapi Sulfonilurea-Metformin terhadap Pasien Diabetes Mellitus Tipe 2. *Majority*, 6(1), 55–59.
- Gunawati, L. S., Berata, I. K., & Setiasih, N. L. E. (2019). Struktur Histopatologi Testis Tikus Wistar dengan Aktivitas Fisik Berlebih yang Diberikan Ekstrak Daun Kelor. *Indonesia Medicus Veterinus*, 8(5), 637–646. <https://doi.org/10.19087/imv.2019.8.5.637>
- Hall, J. E. (2016). *Guyton and Hall Textbook of Medical Physiology* (13th ed.). Elsevier.
- Harijati, N., Samino, S., Indriyani, S., & Soewondo, A. (2017). *Mikroteknik Dasar*. UB Press.
- Husna, F., Suyatna, F. D., Arozal, W., & Purwaningsih, E. H. (2019). Model Hewan Coba pada Penelitian Diabetes. *Pharmaceutical Sciences and Research (PSR)*, 6(3), 131–141.
- Ilmansyah, R., Khairunnisa, U. H., Pangrukti, C. S., Rizaldi, R., Ariani, R. M. D., Hermawati, D., Herlina, E. C., & Juniarto, A. Z. (2023). Effect of Breadfruit Leaf Extract on Sperm Quality in Diabetic Male Wistar Rats. *Jurnal Kedokteran Diponegoro (Diponegoro Medical Journal)*, 12(4), 207–214. <https://doi.org/10.14710/dmj.v12i4.37700>
- Ilmi, T., Mujtahid, B. A. K., & Lestari, B. A. T. (2021). Pengaruh Ekstrak Etanol Daun Sukun (*Artocarpus altilis* P) terhadap Memori Spasial Mencit Putih Jantan (*Mus musculus*) yang Diinduksi Alkohol. *J Agromedicine Unila*, 8(1).
- iNaturalist contributors, iNaturalist (2023). iNaturalist Research-grade Observations. iNaturalist.org. Occurrence dataset <https://doi.org/10.15468/ab3s5x> accessed via GBIF.org on 2023-08-03. <https://www.gbif.org/occurrence/4028897236>
- Irwan, M., Alam, G., & Rante, H. (2019). Skrining Fitokimia dan Uji Aktivitas Penghambatan Enzim A-Glukosidase Daun Sukun (*Artocarpus altilis*

- (Parkinson) Fosberg). *Seminar Nasional Sains, Teknologi, Dan Sosial Humaniora Universitas Indonesia Timur*, 1(1).
- Jang, J. H., Kim, E. A., Park, H. J., Sung, E. G., Song, I. H., Kim, J. Y., Woo, C. H., Doh, K. O., Kim, K. H., & Lee, T. J. (2017). Methylglyoxal-induced apoptosis is dependent on the suppression of c-FLIPL expression via down-regulation of p65 in endothelial cells. *Journal of Cellular and Molecular Medicine*, 21(11), 2720–2731. <https://doi.org/10.1111/jcmm.13188>
- Johnsen, S. G. (1970). Testicular Biopsy Score Count - A Method for registration of Spermatogenesis in Human Testes: Normal Values and Results in 335 Hypogonadal Males. *Hormone Research in Paediatrics*, 1(1), 2–25.
- Kementerian Kesehatan Republik Indonesia. (2020). Infodatin Diabetes Melitus. Pusat Data dan Informasi Kesehatan RI.
- Kementerian Kesehatan RI. (2018). Riset Kesehatan Dasar (Riskesdas) 2018. Jakarta: Badan Penelitian dan Pengembangan Kesehatan.
- Khaki, A., Khaki, A. A., Hajhosseini, L., Golzar, F. S., & Ainehchi, N. (2014). The anti-oxidant effects of ginger and cinnamon on spermatogenesis dys-function of diabetes rats. *African Journal of Traditional, Complementary and Alternative Medicines*, 11(4). <https://doi.org/10.4314/ajtcam.v11i4.1>
- Kumar, V., Abbas, A. K., & Aster, J. C. (2018). *Buku Ajar Patologi Robbins Edisi ke-10*. Jakarta: Elsevier.
- Kurnia, R. (2021). *Mengenal Manfaat Sukun, Manggis, dan Sirsak* (I. Fibrianti, Ed.). Penerbit Nuansa Cendekia.
- Kusumawati, D. (2016). *Bersahabat dengan Hewan Coba* (N. Prajarto, Ed.; Cetakan kedua). Yogyakarta: Gadjah Mada University Press.
- Larasati, D., Nurcahyani, N., Sutyarso, & Busman, H. (2019). Pengaruh Ekstrak Etanol Daun Sukun (*Artocarpus altilis* (Park.) Fosberg) Terhadap Populasi Sel Spermatogenik, Diameter dan Tebal Epitel Tubulus Seminiferus Mencit (*Mus musculus* L.) yang Diinduksi Alokasan. *Prosiding Seminar Nasional Biologi XXV*, 141–154.
- Lestari, Zulkarnain, & Sijid, ST. A. (2021). Diabetes Melitus: Review Etiologi, Patofisiologi, Gejala, Penyebab, Cara Pemeriksaan, Cara Pengobatan dan Cara Pencegahan. *Prosiding Biologi Achieving the Sustainable Development Goals with Biodiversity in Confronting Climate Change*, 237–241. <http://journal.uin-alauddin.ac.id/index.php/psb>
- Long, L., Qiu, H., Cai, B., Chen, N., Lu, X., Zheng, S., Ye, X., & Li, Y. (2018). Hyperglycemia induced testicular damage in type 2 diabetes mellitus rats exhibiting microcirculation impairments associated with vascular endothelial growth factor decreased via PI3K/Akt pathway. *Oncotarget*, 9(4), 5321–5336. www.impactjournals.com/oncotarget

- Maresch, C. C., Stute, D. C., Fleming, T., Lin, J., Hammes, H. P., & Linn, T. (2019). Hyperglycemia induces spermatogenic disruption via major pathways of diabetes pathogenesis. *Scientific Reports*, 9(1). <https://doi.org/10.1038/s41598-019-49600-4>
- Mescher, A. L. (2017). *Histologi Dasar Junqueira* (14th ed.). Penerbit Buku Kedokteran EGC.
- Mostafa, T., & Abdel-Hamid, I. A. (2021). Ejaculatory dysfunction in men with diabetes mellitus. *World Journal of Diabetes*, 12(7), 954–974. <https://doi.org/10.4239/wjd.v12.i7.954>
- Mostafavinia, A., Amini, A., Ghorishi, S. K., Pouriran, R., & Bayat, M. (2016). The effects of dosage and the routes of administrations of streptozotocin and alloxan on induction rate of typel diabetes mellitus and mortality rate in rats. *Laboratory Animal Research*, 32(3), 160–165. <https://doi.org/10.5625/lar.2016.32.3.160>
- Myers, P., R. Espinosa, C. S. Parr, T. Jones, G. S. Hammond, and T. A. Dewey. 2023. The Animal Diversity Web (online). Accessed at <https://animaldiversity.org>
- Pane, M. H., Rahman, A. O., & Ayudia, E. I. (2021). Gambaran Penggunaan Obat Herbal pada Masyarakat Indonesia dan Interaksinya Terhadap Obat Konvensional Tahun 2020. *Journal of Medical Studies*, 1(1), 40–62.
- Paulsen, F., Böckers, T. M., & Waschke, J. (2019). *Buku Ajar Anatomi Sobotta*. Jakarta: Elsevier.
- Perkumpulan Endokrinologi Indonesia. (2021). Pedoman Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 di Indonesia. Jakarta: PB PERKENI.
- Rahayu, Z. S. (2019). Pengaruh Pemberian Ekstrak Kulit Jeruk Nipis (*Citrus aurantifolia*) Terhadap Gambaran Histopatologi Spermatogenesis Tikus (*Rattus norvegicus*) Galur Wistar yang Diberi Paparan Asap Rokok. *Skripsi*. Fakultas Kedokteran UPN Veteran Jakarta.
- Rasyadi, Y. (2018). Formulasi Sediaan Kumur dari Ekstrak Daun Sukun *Artocarpus altilis* (Parkinson ex F.A.Zorn) Fosberg. *Chempublish Journal*, 3(2), 76–84. <https://doi.org/10.22437/chp.v3i2.5767>
- Rejeki, P. S., Putri, E. A. C., & Prasetya, R. E. (2018). *Ovariectomi pada Tikus dan Mencit*. Airlangga University Press.
- Restuti, A. N. S., Yulianti, A., & Nuraini, N. (2018). Intervensi Bubuk Kakao Terhadap Perubahan Kadar Gula Darah Puasa Tikus Sprangue Dawley Diabetes Melitus. *Jurnal Riset Kesehatan*, 7(2), 57–60. <https://doi.org/10.31983/jrk.v7i2.3646>
- Rukmana, H. R. (2014). *Untung Berlipat dari Budi Daya Sukun - Tanaman Multi Manfaat* (FI. S. Suryantoro, Ed.; I). Lily Publisher.

- Sabirosi, B. G., P. Trisunuwati, & D. Winarso. (2014). Ekspresi Tumor Necrosis Factor–alpha (TNF- α) dan Jumlah Sperma Pada Tikus (*Rattus norvegicus*) Model Diabetes Mellitus Tipe 1 Hasil Induksi Streptozotocin yang Diterapi dengan Ekstrak Etanol Rimpang Kunyit (*Curcuma longa* L.). *Student J.* 3(4): 1-9.
- Salah, M., Ismail, K. A., & Khadrawy, S. M. (2022). Nobiletin Protects Against Diabetes-induced Testicular Injury via Hypophysis-gonadal Axis Up-regulation and Amelioration of Oxidative Stress. *Molecular Biology Reports*, 49(1), 189–203. <https://doi.org/10.1007/s11033-021-06858-0>
- Samsuri, D. A., Samsuri, & Kendran, A. A. S. (2020). Kadar Glukosa Darah Tikus Putih (*Rattus norvegicus*) yang Diberikan Ragi Tape. *Indonesia Medicus Veterinus*, 9(4), 531–539. <https://doi.org/10.19087/imv.2020.9.4.531>
- Saputri, K., & Ummami, R. (2017). *Teknik Eutanasi dan Nekropsi Tikus (Rattus norvegicus) di National Laboratory Animal Center (NLAC), Mahidol University, Thailand Periode 20 November-2 Desember 2017*. Universitas Gadjah Mada.
- Sari, D. R. A. P., Ahmad, F. F., Djabir, Y. Y., & Yulianty, R. (2020). Breadfruit leaves extract (*Artocarpus altilis*) effect on pancreatic damage in diabetic type II animal model induced by alloxan–nicotinamide. *Medicina Clinica Practica*, 3. <https://doi.org/10.1016/j.mcpsp.2020.100099>
- Sastroasmoro, S., & Ismael, S. (2016). *Dasar-dasar Metodologi Penelitian Klinis* (5 ed., Vol. 2). Jakarta: Sagung Seto.
- Schoeller, E. L., Albanna, G., Frolova, A. I., & Moley, K. H. (2012). Insulin rescues impaired spermatogenesis via the hypothalamic-pituitary-gonadal axis in Akita diabetic mice and restores male fertility. *Diabetes*, 61(7), 1869–1878. <https://doi.org/10.2337/db11-1527>
- Solihati N, Purwantara B, Supriatna I, & Winarto A. (2013). Perkembangan Sel-Sel Spermatogenik dan Kualitas Sperma Pascapemberian Ekstrak Pegagan (*Centella asiatica*). *Jurnal Ilmu Ternak Dan Veteriner*, 18(3), 192–201. <https://doi.org/10.14334/jitv.v18i3.321>
- Soviana, E., Rachmawati, B., & W, N. S. (2014). Pengaruh suplementasi β -carotene terhadap kadar glukosa darah dan kadar malondialdehida pada tikus sprague dawley yang diinduksi Streptozotocin. *Jurnal Gizi Indonesia*, 2(2), 41–46.
- Sumadji, A. R., Ganjari, L. E., Adhy Nugroho, C., & Purwaningsih, E. (2022). Variasi Morfologi Sukun *Artocarpus altilis* (Park.) Forsberg Di Kota Bekasi. *Jurnal Biologi Dan Pembelajarannya (JB&P)*, 9(2), 76–85. <https://doi.org/10.29407/jbp.v9i2.18875>
- Sundari, E. (2022). *Efektifitas Campuran Umbi Gadung dan Buah Bintaro sebagai Rodentisida Nabati*. Poltekkes Kemenkes Yogyakarta.

- Syahdrajat, T. (2015). *Panduan Menulis Tugas Akhir Kedokteran dan Kesehatan*. Jakarta: Kencana.
- Tandi, J., Rizky, M., Mariani, R., & Alan, F. (2017). Uji Efek Ekstrak Etanol Daun Sukun (*Artocarpus altilis* (Parkinson Ex F.A.Zorn) terhadap Penurunan Kadar Glukosa Darah, Kolesterol Total dan Gambaran Histopatologi Pankreas Tikus Putih Jantan (*Rattus norvegicus*) Hiperkolesterolemia-Diabetes. *Jurnal Sains Dan Kesehatan*, 1(8), 384–396. <https://doi.org/10.25026/jsk.v1i8.73>
- Thanh, T. N., Van, P. D., Cong, T. D., Le Minh, T., & Vu, Q. H. N. (2020). Assessment of testis histopathological changes and spermatogenesis in male mice exposed to chronic scrotal heat stress. *Journal of Animal Behaviour and Biometeorology*, 8, 174–180. <https://doi.org/10.31893/JABB.20023>
- Tortora, G. J., & Derrickson, B. (2017). *Principles of anatomy & physiology* (15th ed.). John Wiley & Sons, Inc.
- Urry, L. A., Cain, M. L., Wasserman, S. A., Minorsky, P. V., & Orr, R. (2021). *Campbell Biology* (12th ed.). Pearson.
- Veeranjaneyulu C, & Subrahmanyam G. (2016). Rediscovered the Induction of Diabetogenic Agents in the Experimental Animal Model: Review. *International Journal of Applied Biology and Pharmaceutical Technology*, 7(3), 95–104. <https://doi.org/10.21276/ijabpt.2016.7.3.12>
- Volpe, C. M. O., Villar-Delfino, P. H., Dos Anjos, P. M. F., & Nogueira-Machado, J. A. (2018). Cellular death, reactive oxygen species (ROS) and diabetic complications review-Article. *Cell Death and Disease*, 9(2). <https://doi.org/10.1038/s41419-017-0135-z>
- Wang, J., Bao, B., Feng, J., Zhao, Q., Dai, H., Meng, F., Deng, S., Wang, B., & Li, H. (2020). Effects of Diabetes Mellitus on Sperm Quality in the Db/Db Mouse Model and the Role of the FoxO1 Pathway. *Medical Science Monitor*, 27. <https://doi.org/10.12659/MSM.928232>
- Waschke, J., Böckers, T. M., & Paulsen, F. (2018). *Buku Ajar Anatomi Sobotta* (1st ed.). Elsevier.
- Yuda, P. E. S. K., Cahyaningsih, E., & Winariyanthi, N. L. P. Y. (2017). Skrining Fitokimia dan Analisis Kromatografi Lapis Tipis Ekstrak Tanaman Patikan Kebo (*Euphorbia hirta* L.). *Jurnal Ilmiah Medicamento*, 3(2), 2356–4814.
- Yufdy, M. P., & Edison, H. S. (2014). *Mari Mengenal Sukun*. Jakarta: Badan Penelitian dan Pengembangan Pertanian.
- Zhang, J., Wang, X., Vikash, V., Ye, Q., Wu, D., Liu, Y., & Dong, W. (2016). ROS and ROS-Mediated Cellular Signaling. *Oxidative Medicine and Cellular Longevity*, 2016. <https://doi.org/10.1155/2016/4350965>