

## DAFTAR PUSTAKA

- Agarwal, A., Sharma, R., Gupta, S., & Harley, A. (2017). *Oxidative Stress in Human Reproduction*.
- Agarwal, A., Virk, G., Ong, C., & du Plessis, S. S. (2014). *Effect of Oxidative Stress on Male Reproduction*.
- Akor, S. T., Wampana, B., & Sodipo, O. A. (2015). Antinociceptive and Anti-Inflammatory Activities of the Aqueous Leaf Extract of *Tamarindus indica* L. in Albino Rats. *Journal of Plant Studies*, 4(2). <https://doi.org/10.5539/jps.v4n2p44>
- Alahmar, A. (2019). Role of oxidative stress in male infertility: An updated review. In *Journal of Human Reproductive Sciences* (Vol. 12, Issue 1, pp. 4–18). Wolters Kluwer Medknow Publications. [https://doi.org/10.4103/jhrs.JHRS\\_150\\_18](https://doi.org/10.4103/jhrs.JHRS_150_18)
- Amado, J. R. R., Prada, A. L., Arranz, J. C. E., Rosés, R. P., Quevedo, H. M., Keita, H., Zapata, E. P., Fernandes, C. P., & Carvalho, J. C. T. (2016). Antioxidant and Hepatoprotective Activity of a New Tablets Formulation from *Tamarindus indica* L. *Evidence-Based Complementary and Alternative Medicine*, 2016. <https://doi.org/10.1155/2016/3918219>
- 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>
- Azad, S. (2018). Tamarindo—*Tamarindus indica*. *Exotic Fruits Reference Guide*, 403–412. <https://doi.org/10.1016/B978-0-12-803138-4.00055-1>
- Cepas, V., Collino, M., Mayo, J. C., & Sainz, R. M. (2020). Redox signaling and advanced glycation endproducts (AGEs) in diet-related diseases. In *Antioxidants* (Vol. 9, Issue 2). MDPI. <https://doi.org/10.3390/antiox9020142>
- Costanzo, L. S. (2018). *Physiology* (Vol. 6).
- Dcunha, R., Hussein, R. S., Ananda, H., Kumari, S., Kumar Adiga, S., Kannan, N., Zhao, Y., & Kalthur, G. (2020). *Current Insights and Latest Updates in Sperm Motility and Associated Applications in Assisted Reproduction*. [https://doi.org/10.1007/s43032-020-00408-y/Published](https://doi.org/10.1007/s43032-020-00408-y)
- Delfita, R., Yunus Batusangkar, M., Sudirman, J., 137, N., Lima, K., & Batusangkar, K. (2024). Sainstek: Jurnal Sains Dan Teknologi Optimization of Glucose Loading Time and Alloxan Dosage for Inducing Stable Diabetes Article History. In *Sainstek: Jurnal Sains dan Teknologi* (Vol. 16, Issue 1).
- Ding, G. L., 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. In *Asian Journal of Andrology* (Vol. 17, Issue 6, pp. 948–953). Wolters Kluwer Medknow Publications. <https://doi.org/10.4103/1008-682X.150844>
- Dutta, S., Majzoub, A., & Agarwal, A. (2019). *Oxidative stress and sperm function A systematic review on evaluation and management*.

- Elgazar, A. F. (2019). *Potential Protective Roles of Tamarind Fruit Pulp Aqueous Extract Against Hyperglycemic and Testicular Toxicity in Alloxan Induced-Diabetic Male Rats*.
- Emma R., J., Douglas T., C., & Kenneth I., A. (2020). *The Role of the Epididymis and the Contribution of Epididymosomes to Mammalian Reproduction*.
- Gatimel, N., Moreau, J., Parinaud, J., & Léandri, R. D. (2017). Sperm morphology: assessment, pathophysiology, clinical relevance, and state of the art in 2017. In *Andrology* (Vol. 5, Issue 5, pp. 845–862). Blackwell Publishing Ltd. <https://doi.org/10.1111/andr.12389>
- Gervasi, M. G., & Visconti, P. E. (2017). *Molecular changes and signaling events occurring in sperm during epididymal maturation*.
- Ghasemi, A., Khalifi, S., & Jedi, S. (2014). Streptozotocin-nicotinamide-induced rat model of type 2 diabetes (review). *Acta Physiologica Hungarica*, 101(4), 408–420. <https://doi.org/10.1556/APhysiol.101.2014.4.2>
- Hall, J. E., & Guyton, A. C. (2016). *Guyton and Hall Textbook of Medical Physiology*.
- Harreiter, J., & Roden, M. (2023). Diabetes mellitus: definition, classification, diagnosis, screening and prevention (Update 2023). *Wiener Klinische Wochenschrift*, 135, 7–17. <https://doi.org/10.1007/s00508-022-02122-y>
- Hasan, A. A., Tatarskiy, V., & Kalinina, E. (2022). Synthetic Pathways and the Therapeutic Potential of Quercetin and Curcumin. *International Journal of Molecular Sciences*, 23(22), 14413. <https://doi.org/10.3390/ijms232214413>
- Hasim, H., Faridah, D. N., Safithri, M., Husnawati, H., Setiyono, A., & Manshur, H. A. (2020). Aktivitas Penurunan Kadar Glukosa pada Tikus yang Diinduksi Aloksan dari Ekstrak Air Angkak, Bekatul dan Kombinasinya. *Warta Industri Hasil Pertanian*, 37(2), 172. <https://doi.org/10.32765/wartaihp.v37i2.5460>
- Hassanpour, S. H., & Doroudi, A. (2023). Review of the antioxidant potential of flavonoids as a subgroup of polyphenols and partial substitute for synthetic antioxidants. In *Avicenna Journal of Phytomedicine* (Vol. 13, Issue 4, pp. 354–376). Mashhad University of Medical Sciences. <https://doi.org/10.22038/AJP.2023.21774>
- Krishnaveni, M., Silambarasan, V., Kumar, R. S., Sabari, M., Eswari, V., & Silpavathi, G. (2015). In Vitro Antioxidant Status of Plants Studied Near Omalur Bus Stand. *Research Journal of Pharmacy and Technology*, 8(6), 697. <https://doi.org/10.5958/0974-360X.2015.00110.9>
- Kuddus, S. A., Bhuiyan, M. I., Subhan, N., Shohag, M. H., Rahman, A., Hossain, M. M., Alam, M. A., & Khan, F. (2020a). Antioxidant-rich *Tamarindus indica* L. leaf extract reduced high-fat diet-induced obesity in rat through modulation of gene expression. *Clinical Phytoscience*, 6(1). <https://doi.org/10.1186/s40816-020-00213-9>
- Kuddus, S. A., Bhuiyan, M. I., Subhan, N., Shohag, M. H., Rahman, A., Hossain, M. M., Alam, M. A., & Khan, F. (2020b). Antioxidant-rich *Tamarindus indica* L. leaf extract reduced high-fat diet-induced obesity in rat through modulation of gene expression. *Clinical Phytoscience*, 6(1). <https://doi.org/10.1186/s40816-020-00213-9>

- Kumar, D., Sanghi, A., Arora, S., Chandra, R., & Thakur, N. (2017). *Individual and combined effects of extracts of Leaves and Bark of Tamarindus indica on invitro membrane stabilizing and antioxidant activities.* <https://ssrn.com/abstract=3955593>
- Lahamado, O. T., Sabang, S. M., & Mustapa, K. (2017). \*Olfiana T. Lahamado, Sri Mulyani Sabang dan Kasmudin Mustapa.
- Li, Y. R., & Trush, M. (2016). Defining ROS in Biology and Medicine. *Reactive Oxygen Species*, 1(1). <https://doi.org/10.20455/ros.2016.803>
- Maiti, R., Karak, P., Misra, D. S., & Ghosh, D. (2017). Diabetes-induced testicular dysfunction correction by hydromethanolic extract of Tamarindus indica Linn. seed in male albino rat. In *International Journal of Green Pharmacy* (Vol. 11, Issue 4).
- Martinsons, C., Boulenguez, P., & Jaadane, I. (2015). *Photobiology-Presentation Of A Blue Light Hazard In Vivo Experiment On THE RAT.* <https://www.researchgate.net/publication/342702678>
- Mbunde, M., Mdegela, R. H., Laswai, H. S., & Mabiki, F. P. (2018). Quantification of phenolics, flavonoids and antioxidant activity of Tamarindus indica from selected areas in Tanzania. *Biofarmasi Journal of Natural Product Biochemistry*, 16(1), 22–28. <https://doi.org/10.13057/biofar/f160103>
- Mishra, A. K., Kumar, A., & Swain, D. K. (2018). *Insights into pH regulatory mechanisms in mediating spermatozoa.*
- Murta, D., Batista, M., Silva, E., Trindade, A., Henrique, D., Duarte, A., & Lopes-da-Costa, L. (2016). Notch signaling in the epididymal epithelium regulates sperm motility and is transferred at a distance within epididymosomes. *Andrology*, 4(2), 314–327. <https://doi.org/10.1111/andr.12144>
- Opuwari, C. S., & Henkel, R. R. (2016). *An Update on Oxidative Damage to Spermatozoa and Oocytes.*
- Ouédraogo, R. J., Somda, M. B., Ouattara, L., Kagambega, W., Ouoba, P., & Ouédraogo, G. A. (2020). Evaluation Of The Antioxidant And A-Amylase Inhibitory Activities Of Mitragyna Inermis (Willd) O. Kuntze And Tamarindus Indica Linn. *Journal of Experimental Biology and Agricultural Sciences*, 8(5), 676–682. [https://doi.org/10.18006/2020.8\(5\).676.682](https://doi.org/10.18006/2020.8(5).676.682)
- Patil, A. S., Mahajan, U. B., Agrawal, Y. O., Patil, K. R., Patil, C. R., Ojha, S., Sharma, C., & Goyal, S. N. (2020). Plant-derived natural therapeutics targeting cannabinoid receptors in metabolic syndrome and its complications: A review. *Biomedicine & Pharmacotherapy*, 132, 110889. <https://doi.org/10.1016/J.BIOPHA.2020.110889>
- Paunescu, T. G., Shum, W. W. C., & Huynh, C. (2014). *High-resolution helium ion microscopy of epididymal epithelial cells and their interaction with spermatozoa.*
- Phaniendra, A., Jestadi, D. B., & Periyasamy, L. (2015). Free Radicals: Properties, Sources, Targets, and Their Implication in Various Diseases. In *Indian Journal of Clinical Biochemistry* (Vol. 30, Issue 1, pp. 11–26). Springer India. <https://doi.org/10.1007/s12291-014-0446-0>

- Prambudi, D. T. A., Meles, D. K., & Widiyatno, T. V. (2022). Aktivitas Antihiperglikemia Fraksi Etil Asetat Daun Salam (*Syzygium Polyanthum*) Terhadap Tikus Putih Yang Diinduksi Aloksan Monohidrat. *Jurnal Kajian Veteriner*, 10(1), 20–28. <https://doi.org/10.35508/jkv.v10i1.6469>
- Prastyo Wati, D., Ilyas, S., & Hanafi Midoen, Y. (2024). *Prinsip Dasar Tikus sebagai Model Penelitian*. <https://www.researchgate.net/publication/378012784>
- Puslitbangnak. (2016). Penggunaan dan Penanganan Hewan Coba Rodensia Dalam Penelitian Sesuai dengan Kesejahteraan Hewan. *Badan Penelitian Dan Pengembangan Pertanian Kementerian Pertanian 2016*.
- Razali, N., Aziz, A. A., Lim, C. Y., & Junit, S. M. (2015). Investigation into the effects of antioxidant-rich extract of *Tamarindus indica* leaf on antioxidant enzyme activities, oxidative stress and gene expression profiles in HepG2 cells. *PeerJ*, 2015(10). <https://doi.org/10.7717/peerj.1292>
- Sabeti, P., Pourmasumi PhDCandidate, S., Rahiminia PhDCandidate, T., Akyash PhDCandidate, F., & Reza Talebi, A. (2016). Etiologies of sperm oxidative stress. In *Int J Reprod Biomed* (Vol. 14, Issue 4).
- Sadeer, N. B., Montesano, D., Albrizio, S., Zengin, G., & Mahomoodally, M. F. (2020). The Versatility of Antioxidant Assays in Food Science and Safety—Chemistry, Applications, Strengths, and Limitations. *Antioxidants*, 9(8), 709. <https://doi.org/10.3390/antiox9080709>
- Santos, A. L., Sinha, S., & Lindner, A. B. (2018). The good, the bad, and the ugly of ROS: New insights on aging and aging-related diseases from eukaryotic and prokaryotic model organisms. In *Oxidative Medicine and Cellular Longevity* (Vol. 2018). Hindawi Limited. <https://doi.org/10.1155/2018/1941285>
- Sherwood, L. (2016). *Human physiology from cells to systems* (Vol. 9).
- Sindi, C., Fitriyasti, B., Mahatma, G., & Salmi, S. (2022). Penurunan Kadar Glukosa Darah Mencit (*Mus Musculus*) yang Diinduksi Hiperglikemia oleh Ekstrak Etanol Daun Sirsak (*Annona muricata* L.). *EKOTONIA: Jurnal Penelitian Biologi, Botani, Zoologi Dan Mikrobiologi*, 7(1), 23–30. <https://doi.org/10.33019/ekotonia.v7i1.3140>
- Singh, V. P., Bali, A., Singh, N., & Jaggi, A. S. (2014). Advanced glycation end products and diabetic complications. In *Korean Journal of Physiology and Pharmacology* (Vol. 18, Issue 1, pp. 1–14). Korean Physiological Soc. and Korean Soc. of Pharmacology. <https://doi.org/10.4196/kjpp.2014.18.1.1>
- Sookying, S., Duangjai, A., Saokaew, S., & Phisalprapa, P. (2022). *Botanical aspects, phytochemicals, and toxicity of *Tamarindus indica* leaf and a systematic review of antioxidant capacities of *T. indica* leaf extracts*.
- Sullivan, R., & Miesusset, R. (2016). *The human epididymis: its function in sperm maturation*.
- Tortora, G. J., & Derrickson, B. (2014). *Principles of anatomy and physiology* (Vol. 14).

- Ulusoy, H. G., & Sanlier, N. (2020). A minireview of quercetin: from its metabolism to possible mechanisms of its biological activities. *Critical Reviews in Food Science and Nutrition*, 60(19), 3290–3303. <https://doi.org/10.1080/10408398.2019.1683810>
- World Health Organization. (2021). *WHO laboratory manual for the examination and processing of human semen Sixth Edition*.
- Zulaikhah, S. T. (2017). The Role of Antioxidant to Prevent Free Radicals in The Body. In *Sains Medika* (Vol. 8, Issue 1). <http://jurnal.unissula.ac.id/index.php/sainsmedika>