

DAFTAR PUSTAKA

- Agarwal, S., & Krishnamurthy, K. (2022). *Histology, Skin*. Treasure Island (FL): StatPearls Publishing.
- Akbari, H., Fatemi, M. J., Iranpour, M., Khodarahmi, A., Baghaee, M., Pedram, M. S., Saleh, S., & Araghi, S. (2015). The Healing Effect of Nettle Extract on Second Degree Burn Wounds. *World Journal of Plastic Surgery*, 4(1), 23–28. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4298861/>
- Al-Jawi, M. S. (2023). Hukum hewan percobaan. *Fissilmi Kaffah*. Tersedia di <https://fissilmi-kaffah.com/frontend/artikel>, diakses pada November 2025.
- Almadani, Y. H., Vorstenbosch, J., Davison, P. G., & Murphy, A. M. (2021). Wound Healing: A Comprehensive Review. *Seminars in Plastic Surgery*, 35(03), 141–144. doi:10.1055/s-0041-1731791
- Anani, K., Adjrah, Y., Améyapoh, Y., Karou, S. D., Agbonon, A., de Souza, C., & Gbeassor, M. (2016). Antimicrobial, Anti-inflammatory and Antioxidant Activities of *Jatropha multifida* L. (Euphorbiaceae). *Pharmacognosy Research*, 8(2), 142–146. doi:10.4103/0974-8490.172657
- Barat, T., Abdollahimajd, F., Dadkhahfar, S., & Moravvej, H. (2020). Evaluation of the efficacy and safety of cow placenta extract lotion versus minoxidil 2% in the treatment of female pattern androgenetic alopecia. *International Journal of Women's Dermatology*, 6(4), 318–321. doi:10.1016/j.ijwd.2020.04.012
- Bednarek, R. S., Nassereddin, A., & Ramsey, M. L. (2023). *Skin Antiseptics*. Treasure Island (FL): StatPearls Publishing.
- British Fatwa Council (2020). Fatwa on the use of animal on medical research. Tersedia di <https://www.britishfatwacouncil.org/fatwa-on-the-use-of-animals-in-medical-research/>, diakses pada November 2025.

- Brower, M., Grace, M., Kotz, C. M., & Koya, V. (2015). Comparative analysis of growth characteristics of Sprague Dawley rats obtained from different sources. *Laboratory Animal Research*, 31(4), 166. doi:10.5625/lar.2015.31.4.166
- Brown, T. M., & Krishnamurthy, K. (2022). *Histology, Dermis*. Treasure Island (FL): StatPearls Publishing.
- Chen, L., Xie, Y., Chen, X., Li, H., Lu, Y., Yu, H., & Zheng, D. (2024). O-carboxymethyl chitosan in biomedicine: A review. *International Journal of Biological Macromolecules*, 275, 133465. doi:10.1016/j.ijbiomac.2024.133465
- Damanik, S., Nirwana, N., & Thahir, M. (2024). Urgensi Menuntut Ilmu Umum dan Agama dalam Kehidupan. *Journal of Educational Research and Humaniora*, 2(4). doi:10.51178/jerh.v2i4.2367
- Darani, N. P. (2021). Kewajiban Menuntut Ilmu dalam Perspektif Hadis. *Jurnal Riset Agama*, 1(1), 133–144. doi:10.15575/jra.v1i1.14345
- Fahrurrosi, L., Siregar, M. T. I., Az-Zuhdy, A. H., & Muzedi, H. (2025). Analisis Kewajiban Menuntut Ilmu dalam Islam Perpspektif Al- Qur'an dan Hadis. *IHSAN : Jurnal Pendidikan Islam*, 3(1). doi:10.61104/ihsan.v3i1.834
- Fernández-Guarino, M., Hernández-Bule, M. L., & Bacci, S. (2023). Cellular and Molecular Processes in Wound Healing. *Biomedicines*, 11(9), 2526. doi:10.3390/biomedicines11092526
- Geng, Y., Xue, H., Zhang, Z., Panayi, A. C., Knoedler, S., Zhou, W., Mi, B., & Liu, G. (2023). Recent advances in carboxymethyl chitosan-based materials for biomedical applications. *Carbohydrate Polymers*, 305, 120555. doi:10.1016/j.carbpol.2023.120555
- Gileta, A. F., Fitzpatrick, C. J., Chitre, A. S., St. Pierre, C. L., Joyce, E. V., Maguire, R. J., McLeod, A. M., Gonzales, N. M., Williams, A. E., Morrow, J. D., Robinson, T. E., Flagel, S. B., & Palmer, A. A. (2022). Genetic characterization of outbred Sprague Dawley rats and utility for genome-wide association studies. *PLOS Genetics*, 18(5), e1010234. doi:10.1371/journal.pgen.1010234

- Grubbs, H., & Manna, B. (2023). *Wound Physiology*. Treasure Island (FL): StatPearls Publishing.
- Gushiken, L. F. S., Beserra, F. P., Bastos, J. K., Jackson, C. J., & Pellizzon, C. H. (2021). Cutaneous Wound Healing: An Update from Physiopathology to Current Therapies. *Life*, 11(7), 665. doi:10.3390/life11070665
- Hao, Y., Zhao, W., Zhang, H., Zheng, W., & Zhou, Q. (2022). Carboxymethyl chitosan-based hydrogels containing fibroblast growth factors for triggering diabetic wound healing. *Carbohydrate Polymers*, 287, 119336. doi:10.1016/j.carbpol.2022.119336
- Hunt, M., Torres, M., Bachar-Wikstrom, E., & Wikstrom, J. D. (2024). Cellular and molecular roles of reactive oxygen species in wound healing. *Communications Biology*, 7(1), 1534. doi:10.1038/s42003-024-07219-w
- Islami, M. L. B. I. (2022). Hadis-hadis tentang Pengobatan Herbal: Studi Takhrij dan Syarah Hadis dengan Tinjauan Kesehatan. *Jurnal Penelitian Ilmu Ushuluddin*, 2(3), 503–526. doi:10.15575/jpiu.v2i3.14453
- Kasim, M., Aprianti, F., Jannah, S., & Rezki, N. (2021). Percobaan Kedokteran terhadap Hewan Hidup dalam Perspektif Hukum Islam. *BUSTANUL FUQAHA: Jurnal Bidang Hukum Islam*, (2). doi:10.36701/bustanul.v2i2.373
- Kementerian Agama Republik Indonesia (2022). Qur'an Kemenag. Tersedia di <https://quran.kemenag.go.id/>, diakses pada November 2025.
- Kim, J. Y., & Dao, H. (2023). *Physiology, Integument*. Treasure Island (FL): StatPearls Publishing.
- König, A., Kat, C.-J., Ganswindt, A., Keough, N., Oberholzer, H. M., van Rensburg, I. J., Mavunganidze, R., & Myburgh, J. (2024). Feasibility of a Sprague–Dawley Rat Model for Investigating the Effects of Seated Whole-body Vibration. *Journal of the American Association for Laboratory Animal Science*, 63(3), 316–324. doi:10.30802/AALAS-JAALAS-23-000105

- Lopez-Ojeda, W., Pandey, A., Alhaji, M., & Oakley, A. M. (2022). *Anatomy, Skin (Integument)*. Treasure Island (FL): StatPearls Publishing.
- Mabela, V. A. P., Santoso, J., & Ardy, H. (2024). Pengaruh Formulasi Sediaan Gel Ekstrak Daun Pegagan (*Centella Asiatica* Linn.) Terhadap Penyembuhan Luka Sayat pada Mencit (*Mus Musculus*) Effect Of The Formulation Of Gotu Gotu Leaf Extract Gel Preparation (*Centella Asiatica* Linn.) *On The Healing Of Cut Wounds In Mice (Mus Musculus)*. doi:doi:10.37089/jofar.vi0.334
- Mahdor, M. M., Suwarno, & Harum, L. Y. (2021). Eksistensi Hewan Herbivora dalam Al-Qur'an (Kajian Tematik Tafsir Al-Munir Karya Wahbah Az-Zuhaili). *Al Muhafidz: Jurnal Ilmu Al-Qur'an Dan Tafsir*, 1(2), 108–120.
- Maryam, H. (2022). Perkembangan Kedokteran dalam Islam. *Al Urwatul Wutsqa: Kajian Pendidikan Islam*, 2(1). <https://journal.unismuh.ac.id/index.php/alurwatul>
- Mescher, A. L. . (2024). *Junqueira's basic histology: Text and atlas (Edisi ke-17)*. New York: McGraw-Hill Education.
- Mutiarahmi, C. N., Hartady, T., & Lesmana, R. (2021). Penggunaan Mencit Sebagai Hewan Coba Di Laboratorium yang Mengacu pada Prinsip Kesejahteraan Hewan. *Indonesia Medicus Veterinus*, 10(1), 134–145. doi:10.19087/imv.2020.10.1.134
- Nagle, S. M., Stevens, K. A., & Wilbraham, S. C. (2023). *Wound Assessment*. Treasure Island (FL): StatPearls Publishing.
- Nurrahmah, A., & Laila. (2023). Pandangan Islam terhadap Pembedahan Hewan dalam Ilmu Biologi. *Journal Islamic Education*, 1(4). <https://maryamsejahtera.com/index.php/Education/index>
- Ozgok Kangal, M. K., & Regan, J.-P. (2023). *Wound Healing*. Treasure Island (FL): StatPearls Publishing.
- Putri, A., Alfiansyah, M., Panjaitan, S. A., Siregar, A. R. P., & Ginting, A. M. B. (2023). Perintah Belajar dan Mengajar dalam Q.S. Al-'Alaq Ayat 1-5 Menurut Tafsir Ath-

- Thabari. *Edu-Riligia: Jurnal Kajian Pendidikan Islam Dan Keagamaan*, 7(3). doi:10.47006/er.v7i3.16141
- Rikesdas (2018). Laporan Nasional Rikesdas 2018. Kementrian Kesehatan RI. Tersedia di <https://repository.badankebijakan.kemkes.go.id/id/eprint/3514>, diakses pada Maret 2025.
- Robi'aqolbi, R. (2020). Peran Islam dalam Perkembangan Ilmu Kedokteran. *Al-I'jaz: Jurnal Studi Al-Qur'an, Falsafah, Dan Keislaman*, 2. doi.org/10.53563/ai.v2i2.43
- Roschke, N. N., Hillebrandt, K. H., Polenz, D., Klein, O., Gassner, J. M. G. V., Pratschke, J., Krenzien, F., Sauer, I. M., Raschzok, N., & Moosburner, S. (2024). Optimizing environmental enrichment for Sprague Dawley rats: Exemplary insights into the liver proteome. *PLOS ONE*, 19(4), e0297497. doi:10.1371/journal.pone.0297497
- Safarsyah, A. I. (2018). Hadits Nabi SAW tentang Obat dalam Tinjauan Ilmu Kedokteran Modern. *AL-DZIKRA: Jurnal Studi Ilmu Al-Qur'an Dan Al-Hadits*, 12(2), 165–188. doi:10.24042/al-dzikra.v12i2.2079
- Saukko, P., & Knight, B. (2015). *Knight's Forensic Pathology (4th edition)*. London: CRC Press. doi:10.1201/b13266
- Shanthi, R. V., & Hidayat, W. N. (2022). Edukasi Tanaman Obat berdasarkan Kajian Etnobotani dan Thibbun Nabawi di MI Nurul Huda Penggung Boyolali. *MODELING: Jurnal Program Studi PGMI*, 9(3). doi:10.69896/modeling.v9i3.1622
- Shariatinia, Z. (2018). Carboxymethyl chitosan: Properties and biomedical applications. In *International Journal of Biological Macromolecules* 120, 1406–1419. Elsevier B.V. doi:10.1016/j.ijbiomac.2018.09.131
- Shen, L.-H., Fan, L., Zhang, Y., Shen, Y., Su, Z.-T., Peng, G.-N., Deng, J.-L., Zhong, Z.-J., Wu, X.-F., Yu, S.-M., Cao, S.-Z., & Zong, X.-L. (2022). Antioxidant Capacity and Protective Effect of Cow Placenta Extract on D-Galactose-Induced Skin Aging in Mice. *Nutrients*, 14(21), 4659. doi:10.3390/nu14214659

- Socfindo (2025). *Jatropha multifida* l. Tersedia di <https://www.socfindoconservation.co.id/plant/752>, diakses pada Maret 2025.
- Suryaningrat, D., Abubakar, A., & Haddade, H. (2023). Pandangan Al-Qur'an Terhadap Penggunaan Obat dalam Pengobatan Penyakit. *PREPOTIF: Jurnal Kesehatan Masyarakat*.
- Thomas, N., Rusdin, A., Tulsyahra, M., Wathoni, N., & Kuswandi, A. (2020). Accelerated wound healing ability of *Jatropha* sap by iota carrageenan-poly (vinyl alcohol) hydrogel film. *Journal of Advanced Pharmaceutical Technology & Research*, 11(4), 226–232. doi:10.4103/japtr.JAPTR_11_20
- Torreele, E. (2024). Why are our medicines so expensive? Spoiler: Not for the reasons you are being told.... *European Journal of General Practice*, 30(1). doi:10.1080/13814788.2024.2308006
- Wallace, H. A., Basehore, B. M., & Zito, P. M. (2023). *Wound Healing Phases*. Treasure Island (FL): StatPearls Publishing.
- WFO (2025). *Jatropha multifida*. Tersedia di <https://www.worldfloraonline.org/taxon/wfo-0000219811>, diakses pada Maret 2025.
- Wernick, B., Nahirniak, P., & Stawicki, S. P. (2023). *Impaired Wound Healing*. Treasure Island (FL): StatPearls Publishing.
- Wilkinson, H. N., & Hardman, M. J. (2020). Wound healing: cellular mechanisms and pathological outcomes. *Open Biology*, 10(9). doi:10.1098/rsob.200223
- Yanni, D. A. P. (2024). Pengobatan Nabi di Era Modern: Menjembatani Praktik Kuno dengan Perawatan Kesehatan Kontemporer. *Jurnal Ruhul Islam*, 2(2), 111–139. doi:10.33476/jri.v2i2.212
- Yousef, H., Alhajj, M., Fakoya, A. O., & Sharma, S. (2024). *Anatomy, Skin (Integument), Epidermis*. Treasure Island (FL): StatPearls Publishing.