

DAFTAR PUSTAKA

- Abbass, M. M. S., El-Rashidy, A. A., Sadek, K. M., Moshly, S. El, Radwan, I. A., Rady, D., Dörfer, C. E., & Fawzy El-Sayed, K. M. (2020). Hydrogels and Dentin–Pulp Complex Regeneration: From the Benchtop to Clinical Translation. *Polymers*, 12(12): 1–65. <https://doi.org/10.3390/polym12122935>
- Akat, E., Yenmiş, M., Pombal, M. A., Molist, P., Megías, M., Arman, S., Veselý, M., Anderson, R., & Ayaz, D. (2022). Comparison of Vertebrate Skin Structure at Class Level: A Review. *Anatomical Record*, 305(12): 3543–3608. <https://doi.org/10.1002/ar.24908>
- Al-Qudaihi, G., Al-Rouqi, R., & Al-Saleh, I. (2025). Evaluating Paraben Concentrations in Skincare Products and assessing Their Potential Health Risks. *Journal of Environmental Exposure Assessment*, 4(1). <https://doi.org/10.20517/jeea.2024.41>
- Alquraisy, A., Wathoni, N., Wilar, G., & Suhandi, C. (2024). Formulation and Characterization of Secretome Hydrogel Based on Sodium Alginate as Anti-Aging. *Jurnal Ilmiah Kesehatan (JIKA)*, 6(3): 575–587. <https://doi.org/10.36590/jika.v6i3.1005>
- Amfotis, M. L., Made, N., Suarni, R., & Arpiwi, N. L. (2022). Penyembuhan Luka Sayat pada Kulit Tikus Putih (*Rattus norvegicus*) yang Diberi Ekstrak Daun Kirinyuh (*Chromolaena odorata*). *Journal of Biological Sciences*, 9(1): 139–151. <https://doi.org/10.24843/metamorfosa.2021.v09.i01.p13>
- Anil, S., Thomas, N. G., Chalisserry, E. P., Dalvi, Y. B., Ramadoss, R., & Vellappally, S. (2024). Isolation, Culture, and Characterization of Dental Pulp Stem Cells from Human Deciduous and Permanent Teeth. *Journal of Visualized Experiments*, 2024(207). <https://doi.org/10.3791/65767>
- Araújo, E. R. D., Xavier-Santos, J. B., da Silva, V. C., de Lima, J. B. F., Schlamb, J., Fernandes-Pedrosa, M. de F., da Silva Júnior, A. A., de Araújo Júnior, R. F., Rathinasabapathy, T., Moncada, M., Esposito, D., Guerra, G. C. B., & Zucolotto, S. M. (2023). Gel Formulated with Bryophyllum Pinnatum Leaf Extract Promotes Skin Wound Healing In Vivo by Increasing VEGF Expression: A Novel Potential Active Ingredient for Pharmaceuticals. *Frontiers in Pharmacology*, 13. <https://doi.org/10.3389/fphar.2022.1104705>
- Armstrong, D. G., Tan, T. W., Boulton, A. J. M., & Bus, S. A. (2023). Diabetic Foot Ulcers: A Review. *JAMA*, 330(1): 62–75. <https://doi.org/10.1001/jama.2023.10578>

- Bar, J. K., Lis-Nawara, A., & Grelewski, P. G. (2021). Dental Pulp Stem Cell-Derived Secretome and Its Regenerative Potential. *International Journal of Molecular Sciences*, 22(21). <https://doi.org/10.3390/ijms222112018>
- Barakat, M., Dipietro, L. A., & Chen, L. (2021). Limited Treatment Options for Diabetic Wounds: Barriers to Clinical Translation despite Therapeutic Success in Murine Models. *Advances in Wound Care*, 10(8): 436–460. <https://doi.org/10.1089/wound.2020.1254>
- Bardill, J. R., Laughter, M. R., Stager, M., Liechty, K. W., Krebs, M. D., & Zgheib, C. (2022). Topical Gel-Based Biomaterials for The Treatment of Diabetic Foot Ulcers. *Acta Biomaterialia*, 138: 73–91. <https://doi.org/10.1016/j.actbio.2021.10.045>
- Berebichez-Fridman, R., & Montero-Olvera, P. R. (2018). Sources and Clinical Applications of Mesenchymal Stem Cells State-of-the-Art Review. *Sultan Qaboos University Medical Journal*, 18(3), e264–e277. <https://doi.org/10.18295/squmj.2018.18.03.002>
- Bertone, A. L., Reisbig, N. A., Kilborne, A. H., Kaido, M., Salmanzadeh, N., Lovasz, R., Sizemore, J. L., Scheuermann, L., Kopp, R. J., Zekas, L. J., & Brokken, M. T. (2017). Equine dental Pulp Connective Tissue Particles Reduced Lameness in Horses in a Controlled Clinical Trial. *Frontiers in Veterinary Science*, 4(MAR). <https://doi.org/10.3389/fvets.2017.00031>
- Buang, A., Ishak, P., & Maya, E. N. (2024). Formulasi Gel Ekstrak Daun Kitolod (*Isotoma Longiflora L.*) Menggunakan Basis HPMC dan Uji Efek Antiinflamasi terhadap Mencit (*Mus musculus*). *PAPS Journals*, 3(2), 49–62.
- Burgess, J. L., Wyant, W. A., Abujamra, B. A., Kirsner, R. S., & Jozic, I. (2021). Diabetic Wound-Healing Science. *Medicina (Lithuania)*, 57(10). <https://doi.org/10.3390/medicina57101072>
- Bussche, L., Harman, R. M., Syracuse, B. A., Plante, E. L., Lu, Y. C., Curtis, T. M., Ma, M., & Van De Walle, G. R. (2015). Microencapsulated Equine Mesenchymal Stromal Cells Promote Cutaneous Wound Healing In Vitro. *Stem Cell Research and Therapy*, 6(1). <https://doi.org/10.1186/s13287-015-0037-x>
- Chen, T., & Chang, H. (2024). Deciphering Trends in Replacing Preservatives in Cosmetics Intended for Infants and Sensitive Population. *Scientific Reports*, 14(1). <https://doi.org/10.1038/s41598-024-69624-9>
- Chen, Y., Wang, X., Tao, S., Wang, Q., Ma, P. Q., Li, Z. B., Wu, Y. L., & Li, D. W. (2023). Research Advances in Smart Responsive-Hydrogel Dressings with Potential Clinical Diabetic Wound Healing Properties. *Military Medical Research*, 10(1). <https://doi.org/10.1186/s40779-023-00473-9>

- Cheng, H. Y., Anggelia, M. R., Liu, S. C., Lin, C. F., & Lin, C. H. (2024). Enhancing Immunomodulatory Function of Mesenchymal Stromal Cells by Hydrogel Encapsulation. *Cells*, 13(3). <https://doi.org/10.3390/cells13030210>
- Choudhary, R. K., & Choudhary, S. (2022). *Stem Cells in Veterinary Science*. Singapore: Springer Nature. <https://doi.org/10.1007/978-981-16-3464-2>
- Choudhary, V., Choudhary, M., & Bollag, W. B. (2024). Exploring Skin Wound Healing Models and the Impact of Natural Lipids on the Healing Process. *International Journal of Molecular Sciences*, 25(7). <https://doi.org/10.3390/ijms25073790>
- Ciolacu, D. E., Nicu, R., & Ciolacu, F. (2020). Cellulose-Based Hydrogels as Sustained Drug-Delivery Systems. *Materials*, 13(22): 1–37. <https://doi.org/10.3390/ma13225270>
- Clark, M., & Hoenig, M. (2021). Feline Comorbidities: Pathophysiology and Management of the Obese Diabetic Cat. *Journal of Feline Medicine and Surgery*, 23(7): 639–648. <https://doi.org/10.1177/1098612X211021540>
- Dahlizar, S., Anggraeni, Y., Munfarikhatin, A., Suryani, N., Suzanti Betha, O., Zilhada, Fajriah, S., Wira Septama, A., Handayani, M., & Herdini. (2025). The Effect of Gelatin and Propylene Glycol on the Penetration Rate of Asiaticoside from *Centella asiatica* (L.) Urb Leaf Extract Gel. *Pharmaceutical and Biomedical Sciences Journal*, 7(1): 43–53. <https://doi.org/10.15408/pbsj.v7i1.43891>
- Denyer, A. L., O'Neill, D. G., Brodbelt, D. C., Holder, A., Catchpole, B., & Davison, L. J. (2025). Epidemiology and Clinical Management of 1072 Dogs with Diabetes Mellitus in a UK Diabetes Register. *Companion Animal Health and Genetics*, 12(1): 7. <https://doi.org/10.1186/s40575-025-00146-x>
- Djatumurti, D. R., Rafida, A., Manalu, A. Y. P., & Pangestiniingsih, T. W. (2021). Re-epithelization and Density of Collagen Fibers on Wound Healing of Mice's Skin (*Mus musculus*) that Treated with Combination of Chitosan Membrane and Eel (*Monopterus albus*) Mucous. *BIO Web of Conferences*, 33. <https://doi.org/10.1051/bioconf/20213306005>
- Dominici, M., Le Blanc, K., Mueller, I., Slaper-Cortenbach, I., Marini, F. C., Krause, D. S., Deans, R. J., Keating, A., Prockop, D. J., & Horwitz, E. M. (2006). Minimal Criteria for Defining Multipotent Mesenchymal Stromal Cells. The International Society for Cellular Therapy position statement. *Cytotherapy*, 8(4): 315–317. <https://doi.org/10.1080/14653240600855905>
- Du, Y., Wang, J., Fan, W., Huang, R., Wang, H., & Liu, G. (2023). Preclinical Study of Diabetic Foot Ulcers: from Pathogenesis to Vivo/Vitro Models

- and Clinical Therapeutic Transformation. *International Wound Journal*, 20(10): 4394–4409. <https://doi.org/10.1111/iwj.14311>
- Ghasemi, A., & Jeddi, S. (2023). Streptozotocin as a Tool for Induction of Rat Models of Diabetes: A Practical Guide. *EXCLI Journal*, 22: 274–294. <https://doi.org/10.17179/excli2022-5720>
- Ghomi, E. R., Khalili, S., Khorasani, S. N., Neisiany, R. E., & Ramakrishna, S. (2019). Wound Dressings: Current Advances and Future Directions. *Journal of Applied Polymer Science*, 136(27). <https://doi.org/10.1002/app.47738>
- Greco, D. S. (2018). Diabetes Mellitus in Animals. *Nutritional and Therapeutic Interventions for Diabetes and Metabolic Syndrome*, 507–517. <https://doi.org/10.1016/B978-0-12-812019-4.00037-4>
- Greene, C. J., Anderson, S., Barthels, D., Howlader, M. S. I., Kanji, S., Sarkar, J., & Das, H. (2022). DPSC Products Accelerate Wound Healing in Diabetic Mice through Induction of SMAD Molecules. *Cells*, 11(15). <https://doi.org/10.3390/cells11152409>
- Gugjoo, M. B., & Pal, A. (2020). Mesenchymal Stem Cell in Veterinary Sciences. *Mesenchymal Stem Cell in Veterinary Sciences*. Springer Singapore. <https://doi.org/10.1007/978-981-15-6037-8>
- Guo, H., Wu, H., & Li, Z. (2023). The Pathogenesis of Diabetes. *International Journal of Molecular Sciences*, 24(8). <https://doi.org/10.3390/ijms24086978>
- Guo, H.-F., Ali, R. M., Hamid, R. A., Chang, S. K., Zainal, Z., & Khaza'ai, H. (2020). Original Article A New Histological Score Grade for Deep Partial-Thickness Burn Wound Healing Process. *Int J Burn Trauma*, 10(5). www.IJBT.org
- Han, C., Barakat, M., & Dipietro, L. A. (2022). Angiogenesis in Wound Repair: Too Much of a Good Thing? *Cold Spring Harbor Perspectives in Biology*, 14(10). <https://doi.org/10.1101/cshperspect.a041225>
- Hartmeier, P. R., Pham, N. B., Velankar, K. Y., Issa, F., Giannoukakis, N., & Meng, W. S. (2021). Hydrogel Dressings for Chronic Wound Healing in Diabetes: Beyond Hydration HHS Public Access. *J Pharm Drug Deliv Res*, 10(1).
- He, J., Fu, J., Wang, R., Liu, X., Yao, J., Xing, W., Wang, X., & He, Y. (2025). Tissue Repair Mechanisms of Dental Pulp Stem Cells: A Comprehensive Review from Cutaneous Regeneration to Mucosal Healing. *Current Issues in Molecular Biology*, 47(7). <https://doi.org/10.3390/cimb47070509>
- Heilen, L. B., Roßgardt, J., Dern-Wieloch, J., Vogelsberg, J., & Staszky, C. (2023). Isolation and Cultivation as well as In Situ Identification of MSCs

- from Equine Dental Pulp and Periodontal Ligament. *Frontiers in Veterinary Science*, 10. <https://doi.org/doi:10.3389/fvets.2023.1116671>
- Huang, K., Mi, B., Xiong, Y., Fu, Z., Zhou, W., Liu, W., Liu, G., & Dai, G. (2025). Angiogenesis During Diabetic Wound Repair: from Mechanism to Therapy Opportunity. *Burns and Trauma*, 13. <https://doi.org/10.1093/burnst/tkae052>
- Ishikawa, S., Horinouchi, C., Murata, D., Matsuzaki, S., Misumi, K., Iwamoto, Y., Korosue, K., & Hobo, S. (2017). Isolation and Characterization of Equine Dental Pulp Stem Cells Derived from Thoroughbred Wolf Teeth. *Journal of Veterinary Medical Science*, 79(1): 47–51. <https://doi.org/10.1292/jvms.16-0131>
- Jaffey, J. A., Backus, R. C., Kreisler, R., Graves, T. K., Al-Nakkash, L., & Allison, L. (2024). Evaluation of Serum Vitamin D Metabolites, Phagocytosis, and Biomarkers of Inflammation in Dogs with Naturally Occurring Diabetes Mellitus. *Frontiers in Veterinary Science*, 11. <https://doi.org/10.3389/fvets.2024.1441993>
- Johnson-Pitt, A., Catchpole, B., & Davison, L. J. (2024). Exocrine Pancreatic Inflammation in Canine Diabetes Mellitus – An Active Offender? *Veterinary Journal*, 308. <https://doi.org/10.1016/j.tvjl.2024.106241>
- Jones, V., Grey, J. E., & Harding, K. G. (2006). ABC of Wound Healing Wound Dressings. *BMJ*, 332, 777–780.
- König, H. E., & Liebich, H.-G. (2020). *Veterinary Anatomy of Domestic Animals Textbook and Colour Atlas by König* (seventh edition). Stuttgart: Georg Thieme Verlag. <https://doi.org/10.1055/b-007-167437>
- Kumar, A., Mahajan, A., Kumari, P., Singh, J., Raik, S., Saha, L., Pal, A., Medhi, B., Rattan, V., & Bhattacharyya, S. (2022). Dental Pulp Stem Cell Secretome Ameliorates D-Galactose Induced Accelerated Aging In Rat Model. *Cell Biochemistry and Function*, 40(5): 535–545. <https://doi.org/10.1002/cbf.3723>
- Laksmiawati, D. R., Noor, S. U., Sumiyati, Y., Hartanto, A., Widowati, W., & Pratami, D. K. (2022). The Effect of Mesenchymal Stem Cell-Conditioned Medium Gel on Burn Wound Healing in Rat. *Veterinary World*, 15(4): 841–847. <https://doi.org/10.14202/vetworld.2022.841-847>
- Meiliana, A., Dewi, N. M., & Wijaya, A. (2024). Mesenchymal Stem Cell-Derived Extracellular Vesicles: An Emerging Therapeutic Strategy for Diabetic Wound Healing. *Indonesian Biomedical Journal*, 16(6): 487–509. <https://doi.org/10.18585/inabj.v16i6.3407>
- Mochizuki, M., Sagara, H., & Nakahara, T. (2020). Type I Collagen Facilitates Safe and Reliable Expansion of Human Dental Pulp Stem Cells in

- Xenogeneic Serum-Free Culture. *Stem Cell Research and Therapy*, 11(1). <https://doi.org/10.1186/s13287-020-01776-7>
- Moghan, M., Naidu, P., Zulkifly, N. B., Selan, Y. N., Setyawan, E. M. N., Winarsih, S., & Kusindarta, D. L. (2023). Secretome of bovine Umbilical Vein Endothelial Cells Promote Wound Healing Regeneration on the Second Degree Rat Model Burn Injury. *Open Veterinary Journal*, 13(12): 1597–1606. <https://doi.org/10.5455/OVJ.2023.v13.i12.9>
- Monaghan, M. G., Borah, R., Thomsen, C., & Browne, S. (2023). Thou Shall Not Heal: Overcoming the Non-Healing Behaviour of Diabetic Foot Ulcers by Engineering the Inflammatory Microenvironment. *Advanced Drug Delivery Reviews*, 203. <https://doi.org/10.1016/j.addr.2023.115120>
- Nalisa, D. L., Moneruzzaman, M., Changwe, G. J., Mobet, Y., Li, L. P., Ma, Y. J., & Jiang, H. W. (2022). Stem Cell Therapy for Diabetic Foot Ulcers: Theory and Practice. *Journal of Diabetes Research*, 2022. <https://doi.org/10.1155/2022/6028743>
- Nifontova, G., Safaryan, S., Khristidis, Y., Smirnova, O., Vosough, M., Shpichka, A., & Timashev, P. (2024). Advancing Wound Healing by Hydrogel-Based Dressings Loaded with Cell-Conditioned Medium: A Systematic Review. *Stem Cell Research and Therapy*, 15(1). <https://doi.org/10.1186/s13287-024-03976-x>
- Nordin, N. S., Dasor, M. M., Ariffin, F., Berahim, Z., & Haron, M. H. (2022). The Effect of the Dental Stem Cell Secretome on Tissue Regeneration: A Systematic Review. *Progress in Stem Cell*, 9(1–2): 318–336. <https://doi.org/10.15419/psc.v9i1-2.413>
- Nurrahman, A. (2023). Physical Quality Testing of Peel-Off Gel Mask Kedondong Leaf Extract (Spondias Dulcis Soland. Ex Park) with Variations of HPMC K15M as Gelling Agent and Propylene Glycol as Humectant. *Jurnal Kesehatan Tujuh Belas*, 5(1): 296-300.
- Purwaningrum, M., Haryanto, A., Kayanaveda, Y., & Sawangmake, C. (2025). Osteogenic Differentiation Potential of Equine Dental Pulp vs. Periodontal Ligament Stem Cells: A Comparative In Vitro Study. *Jurnal Medik Veteriner*, 8(2): 262–272. <https://doi.org/10.20473/jmv.vol8.iss2.2025.262-272>
- Raja, J. M., Maturana, M. A., Kayali, S., Khouzam, A., & Efevbokhan, N. (2023). Diabetic Foot Ulcer: A Comprehensive Review of Pathophysiology and Management Modalities. *World Journal of Clinical Cases*, 11(8), 1684–1693. <https://doi.org/10.12998/wjcc.v11.i8.1684>
- Rashmi, G. S. (2013). *Textbook of Dental Anatomy, Physiology and Occlusion*. New Delhi: JP Medical Ltd.

- Rosanto, Y. B., Hasan, C. Y., Rahardjo, R., & Pangestiningih, T. W. (2021). Effect of Snail Mucus on Angiogenesis during Wound Healing. *F1000Research*, 10, 181. <https://doi.org/10.12688/f1000research.51297.1>
- Sari, Y., Upoyo, A. S., Sumeru, A., Yusuf, S., Haryanto, Nuriya, & Taufik, A. (2022). Nursing Students' Knowledge and Attitude toward Diabetic Ulcer Care and Their Contributing Factors in Indonesia. *International Journal of Nursing Sciences*, 9(4): 496–503. <https://doi.org/10.1016/j.ijnss.2022.09.013>
- Setiani, I., & Endriyatno, N. C. (2023). Formulasi Gel Ekstrak Buah Tomat (*Solanum lycopersicum* L.) dengan Variasi Konsentrasi HPMC serta Uji Fisiknya. *Indonesian Journal of Pharmaceutical Education*, 3(3). <https://doi.org/10.37311/ijpe.v3i3.21186>
- Shoma Suresh, K., Bhat, S., Guru, B. R., Muttigi, M. S., & Seetharam, R. N. (2020). A Nanocomposite Hydrogel Delivery System for Mesenchymal Stromal Cell Secretome. *Stem Cell Research and Therapy*, 11(1). <https://doi.org/10.1186/s13287-020-01712-9>
- Singh, A., Shadangi, S., Gupta, P. K., & Rana, S. (2025). Type 2 Diabetes Mellitus: A Comprehensive Review of Pathophysiology, Comorbidities, and Emerging Therapies. *Comprehensive Physiology*, 15(1). <https://doi.org/10.1002/cph4.70003>
- Soltani, S., Mansouri, K., Parvaneh, S., Thakor, A. S., Pociot, F., & Yarani, R. (2022). Diabetes Complications and Extracellular Vesicle Therapy. *Reviews in Endocrine and Metabolic Disorders*, 23(3): 357–385. <https://doi.org/10.1007/s11154-021-09680-y>
- Song, J., Zhao, T., Wang, C., Sun, X., Sun, J., & Zhang, Z. (2025). Cell Migration in Diabetic Wound Healing: Molecular Mechanisms and Therapeutic Strategies (Review). *International Journal of Molecular Medicine*, 56(2). <https://doi.org/10.3892/ijmm.2025.5567>
- Szablewski, L. (2025). Associations Between Diabetes Mellitus and Neurodegenerative Diseases. *International Journal of Molecular Sciences*, 26(2). <https://doi.org/10.3390/ijms26020542>
- Tsutsui, T. W. (2020). Dental Pulp Stem Cells: Advances to Applications. *Stem Cells and Cloning: Advances and Applications*, 13: 33–42. <https://doi.org/10.2147/SCCAA.S166759>
- Vidinský, B., Gál, P., Toporcer, T., Longauer, F., Lenhardt, Bobrov, N., & Sabo, J. (2006). Histological Study of the First Seven Days of Skin Wound Healing in Rats. *ACTA VET. BRNO*, 75: 197–202. <http://www.vfu.cz/acta-vet/actavet.htm>

- Vlad, R. A., Pinte, A., Pinte, C., Rédei, E. M., Antonoaea, P., Bîrsan, M., & Ciurba, A. (2025). Hydroxypropyl Methylcellulose—A Key Excipient in Pharmaceutical Drug Delivery Systems. *Pharmaceutics*, 17(6). <https://doi.org/10.3390/pharmaceutics17060784>
- Wahidin, M., Achadi, A., Besral, B., Kosen, S., Nadjib, M., Nurwahyuni, A., Ronoatmodjo, S., Rahajeng, E., Pane, M., & Kusuma, D. (2024). Projection of Diabetes Morbidity and Mortality till 2045 in Indonesia based on Risk Factors and NCD Prevention and Control Programs. *Scientific Reports*, 14(1). <https://doi.org/10.1038/s41598-024-54563-2>
- Waite, O., Gostelow, R., Wright, E., Jepson, R. E., Brodbelt, D. C., & O'Neill, D. G. (2025). Frequency, Risk Factors, and Mortality for Diabetes Mellitus in 1 225 130 Cats Under Primary Veterinary Care in the United Kingdom in 2019. *Journal of Veterinary Internal Medicine*, 39(4). <https://doi.org/10.1111/jvim.70161>
- Xu, Y., Hu, Q., Wei, Z., Ou, Y., Cao, Y., Zhou, H., Wang, M., Yu, K., & Liang, B. (2023). Advanced Polymer Hydrogels that Promote Diabetic Ulcer Healing: Mechanisms, Classifications, and Medical Applications. *Biomaterials Research*, 27(1). <https://doi.org/10.1186/s40824-023-00379-6>
- Xu, Z. H., Ma, M. H., Li, Y. Q., Li, L. L., & Liu, G. H. (2023). Progress and Expectation of Stem Cell Therapy for Diabetic Wound Healing. *World Journal of Clinical Cases*, 11(3): 506–513. <https://doi.org/10.12998/wjcc.v11.i3.506>
- Yang, S., Chen, S., Zhang, C., Han, J., Lin, C., Zhao, X., Guo, H., & Tan, Y. (2023). Enhanced Therapeutic Effects of mesenchymal Stem Cell-Derived Extracellular Vesicles within Chitosan Hydrogel in the Treatment of Diabetic Foot Ulcers. *Journal of Materials Science: Materials in Medicine*, 34(9). <https://doi.org/10.1007/s10856-023-06746-y>
- Yi, J., Tang, Q., Sun, S., Xie, H., Wang, L., & Yin, X. (2025). Exosomes in Diabetic Wound Healing: Mechanisms, Applications, and Perspectives. *Diabetes, Metabolic Syndrome and Obesity*, 18: 2955–2976. <https://doi.org/10.2147/DMSO.S532885>
- Zain, D. N., Idacahyati, K., & Novitasari, E. (2022). Uji Aktivitas Sediaan Gel Kombinasi Minyak Atsiri Daun Kirinyuh (*Chromolaena odorata L.*) dengan Curcumin terhadap Penyembuhan Luka Diabetes pada Tikus Galur Wistar. *Prosiding Seminar nasional Diseminasi Hasil Penelitian Program Studi S1 Farmasi*, 2: 433-442.

- Zakrzewski, W., Dobrzyński, M., Szymonowicz, M., & Rybak, Z. (2019). Stem cells: Past, Present, and Future. *Stem Cell Research and Therapy*, 10(1). <https://doi.org/10.1186/s13287-019-1165-5>
- Zamanifard, M., Nasiri, M., Yarahmadi, F., Zonoori, S., Razani, O., Salajegheh, Z., Imanipour, M., Mohammadi, S. M., Jomehzadeh, N., & Asadi, M. (2024). Healing of Diabetic Foot Ulcer with Topical and Oral Administrations of Herbal Products: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *International Wound Journal*, 21(2). <https://doi.org/10.1111/iwj.14760>
- Zanchetta, F. C., De Wever, P., Morari, J., Gaspar, R. C., Prado, T. P. do, De Maeseneer, T., Cardinaels, R., Araújo, E. P., Lima, M. H. M., & Fardim, P. (2024). In Vitro and In Vivo Evaluation of Chitosan/HPMC/Insulin Hydrogel for Wound Healing Applications. *Bioengineering*, 11(2). <https://doi.org/10.3390/bioengineering11020168>
- Zhou, H., Li, X., Yin, Y., He, X. T., An, Y., Tian, B. M., Hong, Y. L., Wu, L. A., & Chen, F. M. (2020). The Proangiogenic Effects of Extracellular Vesicles Secreted by Dental Pulp Stem Cells Derived from Periodontally Compromised Teeth. *Stem Cell Research and Therapy*, 11(1). <https://doi.org/10.1186/s13287-020-01614-w>
- Zhou, Z., Zheng, J., Lin, D., Xu, R., Chen, Y., & Hu, X. (2022). Exosomes Derived from Dental Pulp Stem Cells Accelerate Cutaneous Wound Healing by Enhancing Angiogenesis via the Cdc42/p38 MAPK Pathway. *International Journal of Molecular Medicine*, 50(6): 1–15. <https://doi.org/10.3892/ijmm.2022.5199>
- Zuo, D. B., Wang, C. H., Sang, M., Sun, X. D., Chen, G. P., & Ji, K. K. (2025). Stem cell Therapy for Diabetes: Advances, Prospects, and Challenges. *World Journal of Diabetes*, 16(7).