

DAFTAR PUSTAKA

- Aheget, H., Mazini, L., Martin, F., Belqat, B., Marchal, J. A., & Benabdellah, K. (2020). Exosomes: Their Role in Pathogenesis, Diagnosis and Treatment of Diseases. *Cancers*, *13*(1), 84. <https://doi.org/10.3390/cancers13010084>.
- Ahmad, P., Stoddart, M. J., & Della Bella, E. (2021). The Role of Noncoding RNAs in Osteogenic Differentiation of Human Periodontal Ligament Stem Cells. *Craniomaxillofacial Trauma & Reconstruction Open*, *6*, 247275122199922. <https://doi.org/10.1177/2472751221999229>.
- Al Madhoun, A., Sindhu, S., Haddad, D., Atari, M., Ahmad, R., & Al-Mulla, F. (2021). Dental Pulp Stem Cells Derived From Adult Human Third Molar Tooth: A Brief Review. *Frontiers in Cell and Developmental Biology*, *9*. <https://doi.org/10.3389/fcell.2021.717624>.
- Amanzholkyzy, A., Zhumagaliyeva, S., Sultanova, N., Abilov, Z., Ongalbek, D., Donbayeva, E., Niyazbekova, A., & Mukazhanova, Z. (2025). Hydrogel Delivery Systems for Biological Active Substances: Properties and the Role of HPMC as a Carrier. *Molecules*, *30*(6), 1354. <https://doi.org/10.3390/molecules30061354>.
- Atalay, M., Oksala, N., Lappalainen, J., Laaksonen, D., Sen, C., & Roy, S. (2009). Heat Shock Proteins in Diabetes and Wound Healing. *Current Protein & Peptide Science*, *10*(1), 85–95. <https://doi.org/10.2174/138920309787315202>.
- Bäckesjö, C.-M., Li, Y., Lindgren, U., & Haldosén, L.-A. (2006). Activation of Sirt1 Decreases Adipocyte Formation During Osteoblast Differentiation of Mesenchymal Stem Cells. *Journal of Bone and Mineral Research*, *21*(7), 993–1002. <https://doi.org/10.1359/jbmr.060415>.
- Baouche, M., Ochota, M., Mermillod, P., Locatelli, Y., & Nizanski, W. (2023). Feline Wharton's jelly-derived mesenchymal stem cells as a feeder layer for oocytes maturation and embryos culture in vitro. *Frontiers in Veterinary Science*, *10*. <https://doi.org/10.3389/fvets.2023.1252484>.
- 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), 12018. <https://doi.org/10.3390/ijms222112018>.
- Boateng, J., & Catanzano, O. (2015). Advanced Therapeutic Dressings for Effective Wound Healing—A Review. *Journal of Pharmaceutical Sciences*, *104*(11), 3653–3680. <https://doi.org/10.1002/jps.24610>.

- Bundgaard, L., Jacobsen, S., Sørensen, M. A., Sun, Z., Deutsch, E. W., Moritz, R. L., & Bendixen, E. (2014). The Equine PeptideAtlas: A resource for developing proteomics-based veterinary research. *PROTEOMICS*, *14*(6), 763–773. <https://doi.org/10.1002/pmic.201300398>.
- Burgess, J. L., Wyant, W. A., Abujamra, B. A., Kirsner, R. S., & Jozic, I. (2021). Diabetic wound-healing science. In *Medicina (Lithuania)* (Vol. 57, Issue 10). MDPI. <https://doi.org/10.3390/medicina57101072>.
- Cao, Q., Zhang, R., & Ye, Q. (2024). Association and enterprise standard for producing and monitoring of quality extracellular vesicles /exosomes derived from human mesenchymal stem cells. *Nano TransMed*, *3*, 100058. <https://doi.org/10.1016/j.ntm.2024.100058>.
- Chiricosta, L., Silvestro, S., Gugliandolo, A., Marconi, G. D., Pizzicannella, J., Bramanti, P., Trubiani, O., & Mazzon, E. (2020). Extracellular vesicles of human periodontal ligament stem cells contain microRNAs associated to proto-oncogenes: Implications in cytokinesis. *Frontiers in Genetics*, *11*, 1–9. <https://doi.org/10.3389/fgene.2020.00582>.
- Cho, B. S., Kim, S.-B., Kim, S., Rhee, B., Yoon, J., & Lee, J. W. (2023). Canine Mesenchymal-Stem-Cell-Derived Extracellular Vesicles Attenuate Atopic Dermatitis. *Animals*, *13*(13), 2215. <https://doi.org/10.3390/ani13132215>.
- Choudhary, R. K., & Choudhary, S. (2022). Stem Cells in Veterinary Science. In *Stem Cells in Veterinary Science*. Springer Nature. <https://doi.org/10.1007/978-981-16-3464-2>.
- Dallacasagrande, V., & Hajjar, K. A. (2020). Annexin A2 in Inflammation and Host Defense. *Cells*, *9*(6), 1499. <https://doi.org/10.3390/cells9061499>.
- Dave, J. R., & Tomar, G. B. (2018). Dental Tissue-Derived Mesenchymal Stem Cells: Applications in Tissue Engineering. *Critical Reviews in Biomedical Engineering*, *46*(5), 429–468. <https://doi.org/10.1615/CritRevBiomedEng.2018027342>.
- De Schauwer, C., Meyer, E., Van de Walle, G. R., & Van Soom, A. (2011). Markers of stemness in equine mesenchymal stem cells: a plea for uniformity. *Theriogenology*, *75*(8), 1431–1443. <https://doi.org/10.1016/j.theriogenology.2010.11.008>.
- De Sousa, K. P., Rossi, I., Abdullahi, M., Ramirez, M. I., Stratton, D., & Inal, J. M. (2023). Isolation and characterization of extracellular vesicles and future directions in diagnosis and therapy. *WIREs Nanomedicine and Nanobiotechnology*, *15*(1). <https://doi.org/10.1002/wnan.1835>.

- Deng, H., & Chen, Y. (2022). The role of adipose-derived stem cells-derived extracellular vesicles in the treatment of diabetic foot ulcer: Trends and prospects. *Frontiers in Endocrinology*, 13. <https://doi.org/10.3389/fendo.2022.902130>.
- Deng, Q., Pan, S., Du, F., Sang, H., Cai, Z., Xu, X., Wei, Q., Yu, S., Zhang, J., & Li, C. (2024). The Effect of Conditioned Medium from Angiopoietin-1 Gene-Modified Mesenchymal Stem Cells on Wound Healing in a Diabetic Mouse Model. *Bioengineering*, 11(12). <https://doi.org/10.3390/bioengineering11121244>.
- 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>.
- DiPietro, L. A. (2016). Angiogenesis and wound repair: when enough is enough. *Journal of Leukocyte Biology*, 100(5), 979–984. <https://doi.org/10.1189/jlb.4MR0316-102R>.
- 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, X., Yuan, Q., Qu, Y., Zhou, Y., & Bei, J. (2016). Endometrial Mesenchymal Stem Cells Isolated from Menstrual Blood by Adherence. *Stem Cells International*, 2016(1). <https://doi.org/10.1155/2016/3573846>.
- Durham, A. E., Hughes, K. J., Cottle, H. J., Rendle, D. I., & Boston, R. C. (2009). Type 2 Diabetes mellitus with pancreatic β cell dysfunction in 3 horses confirmed with minimal model analysis. *Equine Veterinary Journal*, 41(9), 924–929. <https://doi.org/10.2746/042516409X452152>.
- El Moshy, S., Radwan, I. A., Rady, D., Abbass, M. M. S., El-Rashidy, A. A., Sadek, K. M., Dörfer, C. E., & Fawzy El-Sayed, K. M. (2020). Dental Stem Cell-Derived Secretome/Conditioned Medium: The Future for Regenerative Therapeutic Applications. In *Stem Cells International* (Vol. 2020). Hindawi Limited. <https://doi.org/10.1155/2020/7593402>.
- El-Husseiny, H. M., Mady, E. A., Helal, M. A. Y., & Tanaka, R. (2022). The Pivotal Role of Stem Cells in Veterinary Regenerative Medicine and Tissue Engineering. *Veterinary Sciences*, 9(11), 648. <https://doi.org/10.3390/vetsci9110648>.

- Foo, J. B., Looi, Q. H., Chong, P. P., Hassan, N. H., Yeo, G. E. C., Ng, C. Y., Koh, B., How, C. W., Lee, S. H., & Law, J. X. (2021). Comparing the Therapeutic Potential of Stem Cells and their Secretory Products in Regenerative Medicine. In *Stem Cells International* (Vol. 2021). Hindawi Limited. <https://doi.org/10.1155/2021/2616807>.
- Fu, X., Liu, G., Halim, A., Ju, Y., Luo, Q., & Song, G. (2019). Mesenchymal Stem Cell Migration and Tissue Repair. *Cells*, 8(8), 784. <https://doi.org/10.3390/cells8080784>.
- Gardin, C., Ricci, S., & Ferroni, L. (2016). *Dental Stem Cells (DSCs): Classification and Properties* (pp. 1–25). https://doi.org/10.1007/978-3-319-33299-4_1.
- Głaz, P., Rosińska, A., Woźniak, S., Boguszewska-Czubara, A., Biernasiuk, A., & Matosiuk, D. (2023). Effect of Commonly Used Cosmetic Preservatives on Healthy Human Skin Cells. *Cells*, 12(7), 1076. <https://doi.org/10.3390/cells12071076>.
- Gu, Y., Mu, Z., Chen, Y., Wu, C., Shi, J., & Bai, N. (2024). Therapeutic potential of ADSCs in diabetic wounds: a proteomics-based approach. *Frontiers in Cell and Developmental Biology*, 12. <https://doi.org/10.3389/fcell.2024.1468220>.
- Guo, L., Kawazoe, N., Hoshiba, T., Tateishi, T., Chen, G., & Zhang, X. (2008). Osteogenic differentiation of human mesenchymal stem cells on chargeable polymer-modified surfaces. *Journal of Biomedical Materials Research Part A*, 87A(4), 903–912. <https://doi.org/10.1002/jbm.a.31834>.
- Gurunathan, S., Kang, M.-H., & Kim, J.-H. (2021). A Comprehensive Review on Factors Influences Biogenesis, Functions, Therapeutic and Clinical Implications of Exosomes. *International Journal of Nanomedicine, Volume 16*, 1281–1312. <https://doi.org/10.2147/IJN.S291956>.
- Halim, D., Murti, H., Sandra, F., Boediono, A., Djuwantono, T., & Setiawan, B. (2010). *Stem Cell Dasar Teori & Aplikasi Klinis*. Erlangga.
- 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/10.3389/fvets.2023.1116671>.
- Hosmani, J., Assiri, K., Almubarak, H. M., Mannakandath, M. L., Al-Hakami, A., Patil, S., Babji, D., Sarode, S., Devaraj, A., & Chandramoorthy, H. C. (2020). Proteomic profiling of various human dental stem cells - a systematic review. *World Journal of Stem Cells*, 12(10), 1214–1236. <https://doi.org/10.4252/wjsc.v12.i10.1214>.

- Hoyle, N. P., Seinkmane, E., Putker, M., Feeney, K. A., Krogager, T. P., Chesham, J. E., Bray, L. K., Thomas, J. M., Dunn, K., Blaikley, J., & O'Neill, J. S. (2017). Circadian actin dynamics drive rhythmic fibroblast mobilization during wound healing. *Science Translational Medicine*, 9(415). <https://doi.org/10.1126/scitranslmed.aal2774>.
- Hsieh, M. C. W., Wang, W. T., Lin, C. Y., Kuo, Y. R., Lee, S. S., Hou, M. F., & Wu, Y. C. (2022). Stem Cell-Based Therapeutic Strategies in Diabetic Wound Healing. In *Biomedicines* (Vol. 10, Issue 9). MDPI. <https://doi.org/10.3390/biomedicines10092085>.
- Hu, N., Gao, Y., Jayasuriya, C. T., Liu, W., Du, H., Ding, J., Feng, M., & Chen, Q. (2019). Chondrogenic induction of human osteoarthritic cartilage-derived mesenchymal stem cells activates mineralization and hypertrophic and osteogenic gene expression through a mechanomiR. *Arthritis Research & Therapy*, 21(1), 167. <https://doi.org/10.1186/s13075-019-1949-0>.
- Humenik, F., Maloveská, M., Hudáková, N., Petroušková, P., Šufliarska, Z., Hornáková, L., Valenčáková, A., Kožár, M., Šišková, B., Mudroňová, D., Bartkovský, M., & Čížková, D. (2023). Impact of Canine Amniotic Mesenchymal Stem Cell Conditioned Media on the Wound Healing Process: In Vitro and In Vivo Study. *International Journal of Molecular Sciences*, 24(9). <https://doi.org/10.3390/ijms24098214>.
- Jeong, J.-O., Han, J. W., Kim, J.-M., Cho, H.-J., Park, C., Lee, N., Kim, D.-W., & Yoon, Y.-S. (2011). Malignant Tumor Formation After Transplantation of Short-Term Cultured Bone Marrow Mesenchymal Stem Cells in Experimental Myocardial Infarction and Diabetic Neuropathy. *Circulation Research*, 108(11), 1340–1347. <https://doi.org/10.1161/CIRCRESAHA.110.239848>.
- Ji, L., Bao, L., Gu, Z., Zhou, Q., Liang, Y., Zheng, Y., Xu, Y., Zhang, X., & Feng, X. (2019). Comparison of immunomodulatory properties of exosomes derived from bone marrow mesenchymal stem cells and dental pulp stem cells. *Immunologic Research*, 67(4–5), 432–442. <https://doi.org/10.1007/s12026-019-09088-6>.
- Jiang, X., Ma, J., Xue, K., Chen, J., Zhang, Y., Zhang, G., Wang, K., Yao, Z., Hu, Q., Lin, C., Lei, B., & Mao, C. (2024). Highly Bioactive MXene-M2-Exosome Nanocomposites Promote Angiogenic Diabetic Wound Repair through Reconstructing High Glucose-Derived Immune Inhibition. *ACS Nano*, 18(5), 4269–4286. <https://doi.org/10.1021/acsnano.3c09721>.
- Ju, Y., Yang, P., Liu, X., Wu, R., Shen, N., Hsiung, N., Yang, A., Zhang, C., Fang, B., & Liu, L. (2025). Antimicrobial dual-crosslinked hydrogel synergizes bioengineered extracellular vesicles for enhanced diabetic wound healing. *Materials Today Bio*, 32, 101870. <https://doi.org/10.1016/j.mtbio.2025.101870>.

- Jung, H. H., Kim, J.-Y., Lim, J. E., & Im, Y.-H. (2020). Cytokine profiling in serum-derived exosomes isolated by different methods. *Scientific Reports*, *10*(1), 14069. <https://doi.org/10.1038/s41598-020-70584-z>.
- Kaczmarek, K., Janicki, B., & Głowska, M. (2016). Insulin resistance in the horse: a review. *Journal of Applied Animal Research*, *44*(1), 424–430. <https://doi.org/10.1080/09712119.2015.1091340>.
- Kang, C.-M., Shin, M. K., Jeon, M., Lee, Y.-H., Song, J. S., & Lee, J.-H. (2022). Distinctive cytokine profiles of stem cells from human exfoliated deciduous teeth and dental pulp stem cells. *Journal of Dental Sciences*, *17*(1), 276–283. <https://doi.org/10.1016/j.jds.2021.03.019>.
- Karikoski, N. P., Box, J. R., Mykkänen, A. K., Kotiranta, V. V., & Raekallio, M. R. (2022). Variation in insulin response to oral sugar test in a cohort of horses throughout the year and evaluation of risk factors for insulin dysregulation. *Equine Veterinary Journal*, *54*(5), 905–913. <https://doi.org/10.1111/evj.13529>.
- Kellon, E., & Gustafson, K. (2023). Hypertriglyceridemia in equines with refractory hyperinsulinemia treated with SGLT2 inhibitors. *Open Veterinary Journal*, *13*(3), 365. <https://doi.org/10.5455/OVJ.2023.v13.i3.14>.
- Khan, R., Chua, Z., Tan, J., Yang, Y., Liao, Z., & Zhao, Y. (2019). From Pre-Diabetes to Diabetes: Diagnosis, Treatments and Translational Research. *Medicina*, *55*(9), 546. <https://doi.org/10.3390/medicina55090546>.
- Khin, P. P., Lee, J. H., & Jun, H.-S. (2023). Pancreatic Beta-cell Dysfunction in Type 2 Diabetes. *European Journal of Inflammation*, *21*. <https://doi.org/10.1177/1721727X231154152>.
- Kim, H., Wang, S. Y., Kwak, G., Yang, Y., Kwon, I. C., & Kim, S. H. (2019). Exosome-Guided Phenotypic Switch of M1 to M2 Macrophages for Cutaneous Wound Healing. *Advanced Science*, *6*(20). <https://doi.org/10.1002/advs.201900513>.
- Kimura, K., Tsukamoto, M., Sugisaki, H., Tanaka, M., Kuwamura, M., Matsumoto, Y., Ishihara, G., Watanabe, K., Okada, M., Nakanishi, M., Sugiura, K., & Hatoya, S. (2024). Generation of footprint-free, high-quality feline induced pluripotent stem cells using Sendai virus vector. *Regenerative Therapy*, *26*, 708–716. <https://doi.org/10.1016/j.reth.2024.08.012>.
- Kol, A., Arzi, B., Athanasiou, K. A., Farmer, D. L., Nolta, J. A., Rebhun, R. B., Chen, X., Griffiths, L. G., Verstraete, F. J. M., Murphy, C. J., & Borjesson, D. L. (2015). Companion animals: Translational scientist's new best friends. *Science Translational Medicine*, *7*(308). <https://doi.org/10.1126/scitranslmed.aaa9116>.

- Konop, M., Rybka, M., & Drapała, A. (2021). Keratin Biomaterials in Skin Wound Healing, an Old Player in Modern Medicine: A Mini Review. *Pharmaceutics*, 13(12), 2029. <https://doi.org/10.3390/pharmaceutics13122029>.
- Kou, M., Huang, L., Yang, J., Chiang, Z., Chen, S., Liu, J., Guo, L., Zhang, X., Zhou, X., Xu, X., Yan, X., Wang, Y., Zhang, J., Xu, A., Tse, H., & Lian, Q. (2022). Mesenchymal stem cell-derived extracellular vesicles for immunomodulation and regeneration: a next generation therapeutic tool? *Cell Death & Disease*, 13(7), 580. <https://doi.org/10.1038/s41419-022-05034-x>.
- Kumar, P., Kumar, S., Udupa, E. P., Kumar, U., Rao, P., & Honnegowda, T. (2015). Role of angiogenesis and angiogenic factors in acute and chronic wound healing. *Plastic and Aesthetic Research*, 2(5), 243. <https://doi.org/10.4103/2347-9264.165438>.
- Kuo, T. K., Ho, J. H., & Lee, O. K. (2009). Mesenchymal Stem Cell Therapy for Nonmusculoskeletal Diseases: Emerging Applications. *Cell Transplantation*, 18(9), 1013–1028. <https://doi.org/10.3727/096368909X471206>.
- L., P. K., Kandoi, S., Misra, R., S., V., K., R., & Verma, R. S. (2019). The mesenchymal stem cell secretome: A new paradigm towards cell-free therapeutic mode in regenerative medicine. *Cytokine & Growth Factor Reviews*, 46, 1–9. <https://doi.org/10.1016/j.cytogfr.2019.04.002>.
- Li, J., Tian, W., & Song, J. (2017). Proteomics Applications in Dental Derived Stem Cells. In *Journal of Cellular Physiology* (Vol. 232, Issue 7, pp. 1602–1610). Wiley-Liss Inc. <https://doi.org/10.1002/jcp.25667>.
- Li, J., Wang, Z., Huang, X., Wang, Z., Chen, Z., Wang, R., Chen, Z., Liu, W., Wu, B., Fang, F., & Qiu, W. (2021). Dynamic proteomic profiling of human periodontal ligament stem cells during osteogenic differentiation. *Stem Cell Research and Therapy*, 12(1). <https://doi.org/10.1186/s13287-020-02123-6>.
- Liu, J., Gao, J., Liang, Z., Gao, C., Niu, Q., Wu, F., & Zhang, L. (2022). Mesenchymal stem cells and their microenvironment. *Stem Cell Research & Therapy*, 13(1), 429. <https://doi.org/10.1186/s13287-022-02985-y>.
- Liu, T., Hu, W., Zou, X., Xu, J., He, S., Chang, L., Li, X., Yin, Y., Tian, M., Li, Z., Zhou, J., Jiang, X., & Chen, S. (2020). Human Periodontal Ligament Stem Cell-Derived Exosomes Promote Bone Regeneration by Altering MicroRNA Profiles. *Stem Cells International*, 2020, 1–13. <https://doi.org/10.1155/2020/8852307>.
- Lotfy, A., AboQuella, N. M., & Wang, H. (2023). Mesenchymal stromal/stem cell (MSC)-derived exosomes in clinical trials. *Stem Cell Research & Therapy*, 14(1), 66. <https://doi.org/10.1186/s13287-023-03287-7>.

- Luo, H., Birjandi, A. A., Ren, F., Sun, T., Sharpe, P. T., Sun, H., & An, Z. (2024). Advances in oral mesenchymal stem cell-derived extracellular vesicles in health and disease. *Genes & Diseases*, *11*(1), 346–357. <https://doi.org/10.1016/j.gendis.2023.03.015>.
- Luo, J., Liang, Y., Kong, F., Qiu, J., Liu, X., Chen, A., Luxon, B. A., Wu, H. W., & Wang, Y. (2017). Vascular endothelial growth factor promotes the activation of hepatic stellate cells in chronic schistosomiasis. *Immunology & Cell Biology*, *95*(4), 399–407. <https://doi.org/10.1038/icb.2016.109>.
- Lv, C., Huang, Y., Yan, R., & Gao, Y. (2023). Vascular endothelial growth factor induces the migration of human airway smooth muscle cells by activating the RhoA/ROCK pathway. *BMC Pulmonary Medicine*, *23*(1), 505. <https://doi.org/10.1186/s12890-023-02803-y>.
- Marconi, G. D., Fonticoli, L., Rajan, T. S., Lanuti, P., Della Rocca, Y., Pierdomenico, S. D., Trubiani, O., Pizzicannella, J., & Diomede, F. (2021). Transforming Growth Factor-Beta1 and Human Gingival Fibroblast-to-Myofibroblast Differentiation: Molecular and Morphological Modifications. *Frontiers in Physiology*, *12*. <https://doi.org/10.3389/fphys.2021.676512>.
- Markoski, M. M. (2016). Advances in the Use of Stem Cells in Veterinary Medicine: From Basic Research to Clinical Practice. *Scientifica*, *2016*, 1–12. <https://doi.org/10.1155/2016/4516920>.
- Mathew-Steiner, S. S., Roy, S., & Sen, C. K. (2021). Collagen in Wound Healing. *Bioengineering*, *8*(5), 63. <https://doi.org/10.3390/bioengineering8050063>.
- McIntyre, H. D., Catalano, P., Zhang, C., Desoye, G., Mathiesen, E. R., & Damm, P. (2019). Gestational diabetes mellitus. *Nature Reviews Disease Primers*, *5*(1), 47. <https://doi.org/10.1038/s41572-019-0098-8>.
- Mehmood, K., Zhang, H., Iqbal, M. K., Rehman, M. U., Shahzad, M., Li, K., Huang, S., Nabi, F., Zhang, L., & Li, J. (2017). *In Vitro* Effect of Apigenin and Danshen in Tibial Dyschondroplasia Through Inhibition of Heat-Shock Protein 90 and Vascular Endothelial Growth Factor Expressions in Avian Growth Plate Cells. *Avian Diseases*, *61*(3), 372–377. <https://doi.org/10.1637/11641-032817-RegR>.
- Mensing, N., Gasse, H., Hambruch, N., Haeger, J. D., Pfarrer, C., & Staszky, C. (2011). Isolation and characterization of multipotent mesenchymal stromal cells from the gingiva and the periodontal ligament of the horse. *BMC Veterinary Research*, *7*. <https://doi.org/10.1186/1746-6148-7-42>.
- Muñoz-Torres, J. R., Garza-Veloz, I., Velasco-Elizondo, P., & Martinez-Fierro, M. L. (2025). HEALS-A and GRADES: Novel Histological and Clinical Scales for Assessing Skin Regeneration in Murine Wound Healing Models. *Diagnostics*, *15*(3), 387. <https://doi.org/10.3390/diagnostics15030387>.

- Nagata, M., Iwasaki, K., Akazawa, K., Komaki, M., Yokoyama, N., Izumi, Y., & Morita, I. (2017). Conditioned Medium from Periodontal Ligament Stem Cells Enhances Periodontal Regeneration. *Tissue Engineering - Part A*, 23(9–10), 367–377. <https://doi.org/10.1089/ten.tea.2016.0274>.
- Nantavisai, S., Pisitkun, T., Osathanon, T., Pavasant, P., Kalpravidh, C., Dhitavat, S., Makjaroen, J., & Sawangmake, C. (2020). Systems biology analysis of osteogenic differentiation behavior by canine mesenchymal stem cells derived from bone marrow and dental pulp. *Scientific Reports*, 10(1), 20703. <https://doi.org/10.1038/s41598-020-77656-0>.
- Ojo, O. A., Ibrahim, H. S., Rotimi, D. E., Ogunlakin, A. D., & Ojo, A. B. (2023). Diabetes mellitus: From molecular mechanism to pathophysiology and pharmacology. *Medicine in Novel Technology and Devices*, 19, 100247. <https://doi.org/10.1016/j.medntd.2023.100247>.
- Pan, P., Svirskis, D., Waterhouse, G. I. N., & Wu, Z. (2023). Hydroxypropyl Methylcellulose Bioadhesive Hydrogels for Topical Application and Sustained Drug Release: The Effect of Polyvinylpyrrolidone on the Physicomechanical Properties of Hydrogel. *Pharmaceutics*, 15(9), 2360. <https://doi.org/10.3390/pharmaceutics15092360>.
- Peña, O. A., & Martin, P. (2024). Cellular and molecular mechanisms of skin wound healing. In *Nature Reviews Molecular Cell Biology* (Vol. 25, Issue 8, pp. 599–616). Nature Research. <https://doi.org/10.1038/s41580-024-00715-1>.
- Pomatto, M., Gai, C., Negro, F., Cedrino, M., Grange, C., Ceccotti, E., Togliatto, G., Collino, F., Tapparo, M., Figliolini, F., Lopatina, T., Brizzi, M. F., & Camussi, G. (2021). Differential Therapeutic Effect of Extracellular Vesicles Derived by Bone Marrow and Adipose Mesenchymal Stem Cells on Wound Healing of Diabetic Ulcers and Correlation to Their Cargoes. *International Journal of Molecular Sciences*, 22(8), 3851. <https://doi.org/10.3390/ijms22083851>.
- Pöschke, A., Krähling, B., Failing, K., & Staszky, C. (2018). Molecular Characteristics of the Equine Periodontal Ligament. *Frontiers in Veterinary Science*, 4. <https://doi.org/10.3389/fvets.2017.00235>.
- Potdar, P. D. (2015). Human dental pulp stem cells: Applications in future regenerative medicine. *World Journal of Stem Cells*, 7(5), 839. <https://doi.org/10.4252/wjsc.v7.i5.839>.
- 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>.

- Purwaningrum, M., Jamilah, N. S., Purbantoro, S. D., Sawangmake, C., & Nantavisai, S. (2021). Comparative characteristic study from bone marrow-derived mesenchymal stem cells. *Journal of Veterinary Science*, 22(6). <https://doi.org/10.4142/jvs.2021.22.e74>.
- Rad, M. R., Atarbashi-Moghadam, F., Khodayari, P., & Sijanivandi, S. (2022). Periodontal Ligament Stem Cell Isolation Protocol: A Systematic Review. *Current Stem Cell Research & Therapy*, 17(6), 537–563. <https://doi.org/10.2174/1574888X17666220128114825>.
- Radcliffe, C. H., Flaminio, M. J. B. F., & Fortier, L. A. (2010). Temporal Analysis of Equine Bone Marrow Aspirate During Establishment of Putative Mesenchymal Progenitor Cell Populations. *Stem Cells and Development*, 19(2), 269–282. <https://doi.org/10.1089/scd.2009.0091>.
- Raja, J. M., Maturana, M. A., Kayali, S., Khouzam, A., & Efeovbokhan, 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>.
- Reynolds, D. E., Vallapureddy, P., Morales, R. T., Oh, D., Pan, M., Chintapula, U., Linardi, R. L., Gaesser, A. M., Ortvad, K., & Ko, J. (2023). Equine mesenchymal stem cell derived extracellular vesicle immunopathology biomarker discovery. *Journal of Extracellular Biology*, 2(6). <https://doi.org/10.1002/jex2.89>.
- Salehpour, A., Shidfar, F., Hedayati, M., Neshatbini Tehrani, A., Farshad, A. A., & Mohammadi, S. (2020). Bisphenol A enhances adipogenic signaling pathways in human mesenchymal stem cells. *Genes and Environment*, 42(1), 13. <https://doi.org/10.1186/s41021-020-00150-6>.
- Saler, M., Caliozna, L., Botta, L., Benazzo, F., Riva, F., & Gastaldi, G. (2017). hASC and DFAT, Multipotent Stem Cells for Regenerative Medicine: A Comparison of Their Potential Differentiation In Vitro. *International Journal of Molecular Sciences*, 18(12), 2699. <https://doi.org/10.3390/ijms18122699>.
- Sharma, S., LeClaire, M., & Gimzewski, J. K. (2018). Ascent of atomic force microscopy as a nanoanalytical tool for exosomes and other extracellular vesicles. *Nanotechnology*, 29(13), 132001. <https://doi.org/10.1088/1361-6528/aaab06>.
- Simurda, T., Brunclikova, M., Asselta, R., Caccia, S., Zolkova, J., Kolkova, Z., Loderer, D., Skornova, I., Hudecek, J., Lasabova, Z., Stasko, J., & Kubisz, P. (2020). Genetic Variants in the FGB and FGG Genes Mapping in the Beta and Gamma Nodules of the Fibrinogen Molecule in Congenital Quantitative Fibrinogen Disorders Associated with a Thrombotic Phenotype. *International Journal of Molecular Sciences*, 21(13), 4616. <https://doi.org/10.3390/ijms21134616>.

- Singer, A. J. (2022). Healing Mechanisms in Cutaneous Wounds: Tipping the Balance. In *Tissue Engineering - Part B: Reviews* (Vol. 28, Issue 5, pp. 1151–1167). Mary Ann Liebert Inc. <https://doi.org/10.1089/ten.teb.2021.0114>.
- Soukup, R., Gerner, I., Gültekin, S., Baik, H., Oesterreicher, J., Grillari, J., & Jenner, F. (2022). Characterisation of Extracellular Vesicles from Equine Mesenchymal Stem Cells. *International Journal of Molecular Sciences*, 23(10), 5858. <https://doi.org/10.3390/ijms23105858>.
- Stefaniuk-Szmukier, M., Piórkowska, K., & Ropka-Molik, K. (2023). Equine Metabolic Syndrome: A Complex Disease Influenced by Multifactorial Genetic Factors. *Genes*, 14(8), 1544. <https://doi.org/10.3390/genes14081544>.
- Suh, H. N., Ji, J. Y., & Heo, J. S. (2024). Translating proteome and transcriptome dynamics of periodontal ligament stem cell-derived secretome/conditioned medium in an in vitro model of periodontitis. *BMC Oral Health*, 24(1). <https://doi.org/10.1186/s12903-024-04167-z>.
- Suvarna, S. K., Layton, C., & Bancroft, J. D. (2019). *Bancroft's Theory and Practice of Histological Techniques* (8th ed.). Elsevier. <https://doi.org/10.1016/C2015-0-00143-5>.
- Tang, L., Chen, Y., Pei, F., & Zhang, H. (2015). Lithium Chloride Modulates Adipogenesis and Osteogenesis of Human Bone Marrow-Derived Mesenchymal Stem Cells. *Cellular Physiology and Biochemistry*, 37(1), 143–152. <https://doi.org/10.1159/000430340>.
- Tatullo, M., Marrelli, M., Shakesheff, K. M., & White, L. J. (2015). Dental pulp stem cells: function, isolation and applications in regenerative medicine. *Journal of Tissue Engineering and Regenerative Medicine*, 9(11), 1205–1216. <https://doi.org/10.1002/term.1899>.
- Théry, C., Witwer, K. W., Aikawa, E., Alcaraz, M. J., Anderson, J. D., Andriantsitohaina, R., Antoniou, A., Arab, T., Archer, F., Atkin-Smith, G. K., Ayre, D. C., Bach, J., Bachurski, D., Baharvand, H., Balaj, L., Baldacchino, S., Bauer, N. N., Baxter, A. A., Bebawy, M., ... Zuba-Surma, E. K. (2018). Minimal information for studies of extracellular vesicles 2018 (MISEV2018): a position statement of the International Society for Extracellular Vesicles and update of the MISEV2014 guidelines. *Journal of Extracellular Vesicles*, 7(1). <https://doi.org/10.1080/20013078.2018.1535750>.
- Turlo, A. J., Hammond, D. E., Ramsbottom, K. A., Soul, J., Gillen, A., McDonald, K., & Peffers, M. J. (2023). Mesenchymal Stromal Cell Secretome Is Affected by Tissue Source and Donor Age. *Stem Cells*, 41(11), 1047–1059. <https://doi.org/10.1093/stmcls/sxad060>.

- Tutuianu, R., Rosca, A.-M., Iacomi, D. M., Simionescu, M., & Titorencu, I. (2021). Human Mesenchymal Stromal Cell-Derived Exosomes Promote In Vitro Wound Healing by Modulating the Biological Properties of Skin Keratinocytes and Fibroblasts and Stimulating Angiogenesis. *International Journal of Molecular Sciences*, 22(12), 6239. <https://doi.org/10.3390/ijms22126239>.
- Valluru, M., Staton, C. A., Reed, M. W. R., & Brown, N. J. (2011). Transforming Growth Factor- β and Endoglin Signaling Orchestrate Wound Healing. *Frontiers in Physiology*, 2. <https://doi.org/10.3389/fphys.2011.00089>.
- van de Vyver, M., Boodhoo, K., Frazier, T., Hamel, K., Kopcewicz, M., Levi, B., Maartens, M., Machcinska, S., Nunez, J., Pagani, C., Rogers, E., Walendzik, K., Wisniewska, J., Gawronska-Kozak, B., & Gimble, J. M. (2021). Histology Scoring System for Murine Cutaneous Wounds. *Stem Cells and Development*, 30(23), 1141–1152. <https://doi.org/10.1089/scd.2021.0124>.
- Villatoro, A. J., Martín-Astorga, M. D. C., Alcoholado, C., Sánchez-Martín, M. D. M., & Becerra, J. (2021). Proteomic analysis of the secretome and exosomes of feline adipose-derived mesenchymal stem cells. *Animals*, 11(2), 1–15. <https://doi.org/10.3390/ANI11020295>.
- Vizoso, F. J., Eiro, N., Cid, S., Schneider, J., & Perez-Fernandez, R. (2017). Mesenchymal stem cell secretome: Toward cell-free therapeutic strategies in regenerative medicine. In *International Journal of Molecular Sciences* (Vol. 18, Issue 9). MDPI AG. <https://doi.org/10.3390/ijms18091852>.
- 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>.
- Warhonowicz, M., Staszuk, C., & Gasse, H. (2007). Immunohistochemical detection of matrix metalloproteinase-1 in the periodontal ligament of equine cheek teeth. *Tissue and Cell*, 39(6), 369–376. <https://doi.org/10.1016/j.tice.2007.07.005>.
- Wu, M., Mi, J., Qu, G., Zhang, S., Jian, Y., Gao, C., Cai, Q., Liu, J., Jiang, J., & Huang, H. (2024). Role of Hedgehog Signaling Pathways in Multipotent Mesenchymal Stem Cells Differentiation. *Cell Transplantation*, 33. <https://doi.org/10.1177/09636897241244943>.
- Xia, E. J., Zou, S., Zhao, X., Liu, W., Zhang, Y., & Zhao, I. S. (2024). Extracellular vesicles as therapeutic tools in regenerative dentistry. *Stem Cell Research & Therapy*, 15(1), 365. <https://doi.org/10.1186/s13287-024-03936-5>.

- Xiao, Y., Zheng, L., Zou, X., Wang, J., Zhong, J., & Zhong, T. (2019). Extracellular vesicles in type 2 diabetes mellitus: key roles in pathogenesis, complications, and therapy. *Journal of Extracellular Vesicles*, 8(1). <https://doi.org/10.1080/20013078.2019.1625677>.
- y Baena, A. R., Casasco, A., & Monti, M. (2022). Hypes and Hopes of Stem Cell Therapies in Dentistry: a Review. *Stem Cell Reviews and Reports*, 18(4), 1294–1308. <https://doi.org/10.1007/s12015-021-10326-4>.
- Yadav, J. P., Singh, A. K., Grishina, M., Pathak, P., Verma, A., Kumar, V., Kumar, P., & Patel, D. K. (2024). Insights into the mechanisms of diabetic wounds: pathophysiology, molecular targets, and treatment strategies through conventional and alternative therapies. *Inflammopharmacology*, 32(1), 149–228. <https://doi.org/10.1007/s10787-023-01407-6>.
- Zhao, B., Zhang, X., Zhang, Y., Lu, Y., Zhang, W., Lu, S., Fu, Y., Zhou, Y., Zhang, J., & Zhang, J. (2021). Human Exosomes Accelerate Cutaneous Wound Healing by Promoting Collagen Synthesis in a Diabetic Mouse Model. *Stem Cells and Development*, 30(18), 922–933. <https://doi.org/10.1089/scd.2021.0100>.
- Zuliani-Alvarez, L., & Midwood, K. S. (2015). Fibrinogen-Related Proteins in Tissue Repair: How a Unique Domain with a Common Structure Controls Diverse Aspects of Wound Healing. *Advances in Wound Care*, 4(5), 273–285. <https://doi.org/10.1089/wound.2014.0599>.