

DAFTAR PUSTAKA

- Adisti, S. P., Subagya, & Wibowo, S. (2022). *Terapi sel punca pada penyakit Parkinson*. 19, 1–8. <https://jurnal.ugm.ac.id/bns/article/view/73904>
- Ahn, J., Park, E., Kim, B. J., Kim, J.-S., Choi, B., Lee, S.-H., & Han, I. (2015). Transplantation of human Wharton's jelly-derived mesenchymal stem cells highly expressing TGF β receptors in a rabbit model of disc degeneration. *Stem Cell Research & Therapy*, 6(1), 190. <https://doi.org/10.1186/s13287-015-0183-1>
- Aminatun, Indriani, Y., & Hikmawati, D. (2019). Fabrication of Chitosan-Chondroitin Sulfate/Hydroxyapatite Composite Scaffold by Freeze Drying Method. *Journal of International Dental and Medical Research I*, 12, 1355–1362.
- Ang, S. L., Shaharuddin, B., Chuah, J.-A., & Sudesh, K. (2020). Electrospun poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)/silk fibroin film is a promising scaffold for bone tissue engineering. *International Journal of Biological Macromolecules*, 145, 173–188. <https://doi.org/10.1016/j.ijbiomac.2019.12.149>
- Argentati, C., Morena, F., Bazzucchi, M., Armentano, I., Emiliani, C., & Martino, S. (2018). Adipose Stem Cell Translational Applications: From Bench-to-Bedside. *International Journal of Molecular Sciences*, 19(11), 3475. <https://doi.org/10.3390/ijms19113475>
- Baek, S. J., Kang, S. K., & Ra, J. C. (2011). *In vitro* migration capacity of human adipose tissue-derived mesenchymal stem cells reflects their expression of receptors for chemokines and growth factors. *Experimental and Molecular Medicine*, 43(10), 596. <https://doi.org/10.3858/EMM.2011.43.10.069>
- Baino, F., Hamzehlou, S., & Kargozar, S. (2018). Bioactive Glasses: Where Are We and Where Are We Going? *Journal of Functional Biomaterials*, 9(1), 25. <https://doi.org/10.3390/jfb9010025>
- Balbaied, & Moore. (2019). Overview of Optical and Electrochemical Alkaline Phosphatase (ALP) Biosensors: Recent Approaches in Cells Culture Techniques. *Biosensors*, 9(3), 102. <https://doi.org/10.3390/bios9030102>
- Beeravolu, N., Brougham, J., Khan, I., McKee, C., Perez-Cruet, M., & Chaudhry, G. R. (2018). Human umbilical cord derivatives regenerate intervertebral disc. *Journal of Tissue Engineering and Regenerative Medicine*, 12(1), e579–e591. <https://doi.org/10.1002/term.2330>
- Bergert, M., Lembo, S., Sharma S, & Russo. (2020). *Cell Surface Mechanics Gate Embryonic Stem Cell Differentiation*.

- Bonafede, R., & Mariotti, R. (2017). ALS Pathogenesis and Therapeutic Approaches: The Role of Mesenchymal Stem Cells and Extracellular Vesicles. *Frontiers in Cellular Neuroscience*, 11. <https://doi.org/10.3389/fncel.2017.00080>
- Boukari, Y., Qutachi, O., Scurr, D. J., Morris, A. P., Doughty, S. W., & Billa, N. (2017). A dual-application poly (<sc>dl</sc>-lactic-co-glycolic) acid (PLGA)-chitosan composite scaffold for potential use in bone tissue engineering. *Journal of Biomaterials Science, Polymer Edition*, 28(16), 1966–1983. <https://doi.org/10.1080/09205063.2017.1364100>
- Bouler, J. M., Pilet, P., Gauthier, O., & Verron, E. (2017). Biphasic calcium phosphate ceramics for bone reconstruction: A review of biological response. *Acta Biomaterialia*, 53, 1–12. <https://doi.org/10.1016/j.actbio.2017.01.076>
- Brown, C., McKee, C., Bakshi, S., Walker, K., Hakman, E., Halassy, S., Svinarich, D., Dodds, R., Govind, C. K., & Chaudhry, G. R. (2019). Mesenchymal stem cells: Cell therapy and regeneration potential. *Journal of Tissue Engineering and Regenerative Medicine*, 13(9), 1738–1755. <https://doi.org/10.1002/term.2914>
- Budiarto, B. R. (2015). *Polymerase Chain Reaction (Pcr) : Perkembangan Dan Perannya Dalam Diagnostik Kesehatan*. 6.
- Busra, M. F. M., & Loka Nathan, Y. (2019). Recent Development in the Fabrication of Collagen Scaffolds for Tissue Engineering Applications: A Review. *Current Pharmaceutical Biotechnology*, 20(12), 992–1003. <https://doi.org/10.2174/1389201020666190731121016>
- Cai, Y., Tong, S., Zhang, R., Zhu, T., & Wang, X. (2018). In vitro evaluation of a bone morphogenetic protein-2 nanometer hydroxyapatite collagen scaffold for bone regeneration. *Molecular Medicine Reports*. <https://doi.org/10.3892/mmr.2018.8579>
- Chen, X.-Q., Chen, L.-L., Fan, L., Fang, J., Chen, Z.-Y., & Li, W.-W. (2014). Stem cells with FGF4-bFGF fused gene enhances the expression of bFGF and improves myocardial repair in rats. *Biochemical and Biophysical Research Communications*, 447(1), 145–151. <https://doi.org/10.1016/j.bbrc.2014.03.131>
- Cheng, H., Chabok, R., Guan, X., Chawla, A., Li, Y., Khademhosseini, A., & Jang, H. L. (2018). Synergistic interplay between the two major bone minerals, hydroxyapatite and whitlockite nanoparticles, for osteogenic differentiation of mesenchymal stem cells. *Acta Biomaterialia*, 69, 342–351. <https://doi.org/10.1016/j.actbio.2018.01.016>
- Cojocaru, D. G., Hondke, S., Krüger, J. P., Bosch, C., Croicu, C., Florescu, S.,

- Lazarescu, A., Patrascu, J., Patrascu, J., Dauner, M., Gresser, G. T., & Endres, M. (2020). Meniscus-shaped cell-free polyglycolic acid scaffold for meniscal repair in a sheep model. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, 108(3), 809–818. <https://doi.org/10.1002/jbm.b.34435>
- Cui, Y., Ma, S., Zhang, C., Cao, W., Liu, M., Li, D., Lv, P., Xing, Q., Qu, R., Yao, N., Yang, B., & Guan, F. (2017). Human umbilical cord mesenchymal stem cells transplantation improves cognitive function in Alzheimer's disease mice by decreasing oxidative stress and promoting hippocampal neurogenesis. *Behavioural Brain Research*, 320, 291–301. <https://doi.org/10.1016/j.bbr.2016.12.021>
- Devi Kusumawati, S., Hadianto, I., Alayda Pracoyo, A., & Ayu Handayani, N. (2023). *Perbandingan Nilai Pengukuran Kuantitatif Isolat Asam Ribonukleat (RNA) Menggunakan Spektrofotometer Nanodrop dan Mikrodrop pada Sampel Hepar Ayam (Gallus gallus domesticus)*.
- Dirja, B. T., & Kusuma, D. R. (2021). *Prospek Media Sel Punca Jaringan Adiposa Terkondisi Sebagai Anti Aging*.
- Donnaloja, F., Jacchetti, E., Soncini, M., & Raimondi, M. T. (2020). Natural and Synthetic Polymers for Bone Scaffolds Optimization. *Polymers*, 12(4), 905. <https://doi.org/10.3390/polym12040905>
- Dwivedi, R., Kumar, S., Pandey, R., Mahajan, A., Nandana, D., Katti, D. S., & Mehrotra, D. (2020). Polycaprolactone as biomaterial for bone scaffolds: Review of literature. *Journal of Oral Biology and Craniofacial Research*, 10(1), 381–388. <https://doi.org/10.1016/j.jobcr.2019.10.003>
- Dwivedi, R., Pandey, R., Kumar, S., & Mehrotra, D. (2020). Poly hydroxyalkanoates (PHA): Role in bone scaffolds. *Journal of Oral Biology and Craniofacial Research*, 10(1), 389–392. <https://doi.org/10.1016/j.jobcr.2019.10.004>
- Ebrahimi, M., Botelho, M. G., & Dorozhkin, S. V. (2017). Biphasic calcium phosphates bioceramics (HA/TCP): Concept, physicochemical properties and the impact of standardization of study protocols in biomaterials research. *Materials Science and Engineering: C*, 71, 1293–1312. <https://doi.org/10.1016/j.msec.2016.11.039>
- Echave, M. C., Hernández-Moya, R., Iturriaga, L., Pedraz, J. L., Lakshminarayanan, R., Dolatshahi-Pirouz, A., Taebnia, N., & Orive, G. (2019). Recent advances in gelatin-based therapeutics. *Expert Opinion on Biological Therapy*, 19(8), 773–779. <https://doi.org/10.1080/14712598.2019.1610383>
- Elango, J., Zhang, J., Bao, B., Palaniyandi, K., Wang, S., Wenhui, W., & Robinson, J.

- S. (2016). Rheological, biocompatibility and osteogenesis assessment of fish collagen scaffold for bone tissue engineering. *International Journal of Biological Macromolecules*, 91, 51–59. <https://doi.org/10.1016/j.ijbiomac.2016.05.067>
- Elsworth, J. D. (2020). Parkinson's disease treatment: past, present, and future. *Journal of Neural Transmission*, 127(5), 785–791. <https://doi.org/10.1007/s00702-020-02167-1>
- Essa, D., Kondiah, P. P. D., Choonara, Y. E., & Pillay, V. (2020). The Design of Poly(lactide-co-glycolide) Nanocarriers for Medical Applications. *Frontiers in Bioengineering and Biotechnology*, 8. <https://doi.org/10.3389/fbioe.2020.00048>
- Evangelista, A. F., Vannier-Santos, M. A., de Assis Silva, G. S., Silva, D. N., Juiz, P. J. L., Nonaka, C. K. V., dos Santos, R. R., Soares, M. B. P., & Villarreal, C. F. (2018). Bone marrow-derived mesenchymal stem/stromal cells reverse the sensorial diabetic neuropathy via modulation of spinal neuroinflammatory cascades. *Journal of Neuroinflammation*, 15(1), 189. <https://doi.org/10.1186/s12974-018-1224-3>
- Farris, A. L., Rindone, A. N., & Grayson, W. L. (2016). Oxygen delivering biomaterials for tissue engineering. In *Journal of Materials Chemistry B* (Vol. 4, Issue 20, pp. 3422–3432). Royal Society of Chemistry. <https://doi.org/10.1039/c5tb02635k>
- Ferreira, A. M., Gentile, P., Chiono, V., & Ciardelli, G. (2012). Collagen for bone tissue regeneration. *Acta Biomaterialia*, 8(9), 3191–3200. <https://doi.org/10.1016/j.actbio.2012.06.014>
- Gabr, M. M., Zakaria, M. M., Refaie, A. F., Ismail, A. M., Khater, S. M., Ashamallah, S. A., Azzam, M. M., & Ghoneim, M. A. (2018). Insulin-producing Cells from Adult Human Bone Marrow Mesenchymal Stromal Cells Could Control Chemically Induced Diabetes in Dogs. *Cell Transplantation*, 27(6), 937–947. <https://doi.org/10.1177/0963689718759913>
- Gregor, A., Filová, E., Novák, M., Kronek, J., Chlup, H., Buzgo, M., Blahnová, V., Lukášová, V., Bartoš, M., Nečas, A., & Hošek, J. (2017). Designing of PLA scaffolds for bone tissue replacement fabricated by ordinary commercial 3D printer. *Journal of Biological Engineering*, 11(1), 31. <https://doi.org/10.1186/s13036-017-0074-3>
- Grémare, A., Guduric, V., Bareille, R., Heroguez, V., Latour, S., L'heureux, N., Fricain, J.-C., Catros, S., & Le Nihouannen, D. (2018). Characterization of printed PLA scaffolds for bone tissue engineering. *Journal of Biomedical Materials Research Part A*, 106(4), 887–894. <https://doi.org/10.1002/jbm.a.36289>
- Gunawan, G., Dalhar, M., & Kurniawan, S. N. (2017). Parkinson And Stem Cell Therapy. *MNJ (Malang Neurology Journal)*, 3(1), 39–46.

<https://doi.org/10.21776/ub.mnj.2017.003.01.7>

Han, L., Zhou, Y., Zhang, R., Wu, K., Lu, Y., Li, Y., Duan, R., Yao, Y., Zhu, D., & Jia, Y. (2018). MicroRNA Let-7f-5p Promotes Bone Marrow Mesenchymal Stem Cells Survival by Targeting Caspase-3 in Alzheimer Disease Model. *Frontiers in Neuroscience*, 12. <https://doi.org/10.3389/fnins.2018.00333>

Harlim, A. (2018). *Optimasi Isolasi Sel Punca Dari Jaringan Lemak Manusia Dan Immunophenotyping*.

Harrell, C. R., Markovic, B. S., Fellabaum, C., Arsenijevic, A., & Volarevic, V. (2019). Mesenchymal stem cell-based therapy of osteoarthritis: Current knowledge and future perspectives. *Biomedicine & Pharmacotherapy*, 109, 2318–2326. <https://doi.org/10.1016/j.biopha.2018.11.099>

Harris, V. K., Stark, J., Vyshkina, T., Blackshear, L., Joo, G., Stefanova, V., Sara, G., & Sadiq, S. A. (2018). Phase I Trial of Intrathecal Mesenchymal Stem Cell-derived Neural Progenitors in Progressive Multiple Sclerosis. *EBioMedicine*, 29, 23–30. <https://doi.org/10.1016/j.ebiom.2018.02.002>

Hartono, B. (2017). Sel Punca : Karakteristik, Potensi dan Aplikasinya. *Jurnal Kedokteran Meditek*, 22, 1–4. <http://ejournal.ukrida.ac.id/ojs/index.php/Meditek/article/view/1456>

Hemshekhar, M., Thushara, R. M., Chandranayaka, S., Sherman, L. S., Kemparaju, K., & Girish, K. S. (2016). Emerging roles of hyaluronic acid bioscaffolds in tissue engineering and regenerative medicine. *International Journal of Biological Macromolecules*, 86, 917–928. <https://doi.org/10.1016/j.ijbiomac.2016.02.032>

Herdis. (2017). *Potensi Sel Punca Mesenkim Asal Jaringan Adiposa Menjadi Sel Osteoblas* (Herdis, J. I. Royani, & A. Arianto, Eds.). BPPT Press.

Issa, M. R., Naja, A. S., Bouji, N. Z., & Sagherian, B. H. (2022). The role of adipose-derived mesenchymal stem cells in knee osteoarthritis: a meta-analysis of randomized controlled trials. *Therapeutic Advances in Musculoskeletal Disease*, 14, 1759720X2211460. <https://doi.org/10.1177/1759720X221146005>

J, A., Kuttappan, S., Keyan, K. S., & Nair, M. B. (2016). Evaluation of osteoinductive and endothelial differentiation potential of Platelet-Rich Plasma incorporated Gelatin-Nanohydroxyapatite Fibrous Matrix. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, 104(4), 771–781. <https://doi.org/10.1002/jbm.b.33605>

Jafary, F., Hanachi, P., & Gorjipour, K. (2017). Osteoblast Differentiation on Collagen Scaffold with Immobilized Alkaline Phosphatase. *International Journal of Organ*

Transplantation Medicine, 8.

- Jang, H. L., Zheng, G. Bin, Park, J., Kim, H. D., Baek, H.-R., Lee, H. K., Lee, K., Han, H. N., Lee, C.-K., Hwang, N. S., Lee, J. H., & Nam, K. T. (2016). In Vitro and In Vivo Evaluation of Whitlockite Biocompatibility: Comparative Study with Hydroxyapatite and β -Tricalcium Phosphate. *Advanced Healthcare Materials*, 5(1), 128–136. <https://doi.org/10.1002/adhm.201400824>
- Jeong, J., Kim, J. H., Shim, J. H., Hwang, N. S., & Heo, C. Y. (2019a). Bioactive calcium phosphate materials and applications in bone regeneration. *Biomaterials Research*, 23(1), 4. <https://doi.org/10.1186/s40824-018-0149-3>
- Jeong, J., Kim, J. H., Shim, J. H., Hwang, N. S., & Heo, C. Y. (2019b). Bioactive calcium phosphate materials and applications in bone regeneration. *Biomaterials Research*, 23(1), 4. <https://doi.org/10.1186/s40824-018-0149-3>
- Jo, C. H., Lee, Y. G., Shin, W. H., Kim, H., Chai, J. W., Jeong, E. C., Kim, J. E., Shim, H., Shin, J. S., Shin, I. S., Ra, J. C., Oh, S., & Yoon, K. S. (2014). Intra-Articular Injection of Mesenchymal Stem Cells for the Treatment of Osteoarthritis of the Knee: A Proof-of-Concept Clinical Trial. *STEM CELLS*, 32(5), 1254–1266. <https://doi.org/10.1002/stem.1634>
- Jung, S.-R., Song, N.-J., Yang, D. K., Cho, Y.-J., Kim, B.-J., Hong, J.-W., Yun, U. J., Jo, D.-G., Lee, Y. M., Choi, S. Y., & Park, K. W. (2013). Silk proteins stimulate osteoblast differentiation by suppressing the Notch signaling pathway in mesenchymal stem cells. *Nutrition Research*, 33(2), 162–170. <https://doi.org/10.1016/j.nutres.2012.11.006>
- Jurado, M., De La Mata, C., Ruiz-García, A., López-Fernández, E., Espinosa, O., Remigia, M. J., Moratalla, L., Goterris, R., García-Martín, P., Ruiz-Cabello, F., Garzón, S., Pascual, M. J., Espigado, I., & Solano, C. (2017). Adipose tissue-derived mesenchymal stromal cells as part of therapy for chronic graft-versus-host disease: A phase I/II study. *Cytotherapy*, 19(8), 927–936. <https://doi.org/10.1016/j.jcyt.2017.05.002>
- Kargozar, S., Baino, F., Hamzehlou, S., Hill, R. G., & Mozafari, M. (2018). Bioactive glasses entering the mainstream. *Drug Discovery Today*, 23(10), 1700–1704. <https://doi.org/10.1016/j.drudis.2018.05.027>
- Karina, K., Rosliana, I., Rosadi, I., Schwartz, R., Sobariah, S., Afifi, I., Widayastuti, T., Remelia, M., Wahyuningsih, K. A., & Pawitan, J. A. (2020). Safety of Technique and Procedure of Stromal Vascular Fraction Therapy: From Liposuction to Cell Administration. *Scientifica*, 2020. <https://doi.org/10.1155/2020/2863624>
- Kastrinaki, M.-C., Pavlaki, K., Batsali, A. K., Kouvidi, E., Mavroudi, I., Pontikoglou,

- C., & Papadaki, H. A. (2013). Mesenchymal Stem Cells in Immune-Mediated Bone Marrow Failure Syndromes. *Clinical and Developmental Immunology*, 2013, 1–10. <https://doi.org/10.1155/2013/265608>
- Kim, D.-Y., Han, Y.-H., Lee, J. H., Kang, I.-K., Jang, B.-K., & Kim, S. (2014). Characterization of Multiwalled Carbon Nanotube-Reinforced Hydroxyapatite Composites Consolidated by Spark Plasma Sintering. *BioMed Research International*, 2014, 1–10. <https://doi.org/10.1155/2014/768254>
- Kim, H. D., Jang, H. L., Ahn, H.-Y., Lee, H. K., Park, J., Lee, E., Lee, E. A., Jeong, Y.-H., Kim, D.-G., Nam, K. T., & Hwang, N. S. (2017). Biomimetic whitlockite inorganic nanoparticles-mediated in situ remodeling and rapid bone regeneration. *Biomaterials*, 112, 31–43. <https://doi.org/10.1016/j.biomaterials.2016.10.009>
- Kim, H. W., Lee, H.-S., Kang, J. M., Bae, S.-H., Kim, C., Lee, S.-H., Schwarz, J., Kim, G. J., Kim, J.-S., Cha, D. H., Kim, J., Chang, S. W., Lee, T. H., & Moon, J. (2018). Dual Effects of Human Placenta-Derived Neural Cells on Neuroprotection and the Inhibition of Neuroinflammation in a Rodent Model of Parkinson's Disease. *Cell Transplantation*, 27(5), 814–830. <https://doi.org/10.1177/0963689718766324>
- Koller, M. (2018). Biodegradable and Biocompatible Polyhydroxy-alkanoates (PHA): Auspicious Microbial Macromolecules for Pharmaceutical and Therapeutic Applications. *Molecules*, 23(2), 362. <https://doi.org/10.3390/molecules23020362>
- Li, J., Zhang, X., Udduttula, A., Fan, Z. S., Chen, J. H., Sun, A. R. J., & Zhang, P. (2021). Microbial-Derived Polyhydroxyalkanoate-Based Scaffolds for Bone Tissue Engineering: Biosynthesis, Properties, and Perspectives. In *Frontiers in Bioengineering and Biotechnology* (Vol. 9). Frontiers Media S.A. <https://doi.org/10.3389/fbioe.2021.763031>
- Liu, X.-Y., Yang, L.-P., & Zhao, L. (2020). Stem cell therapy for Alzheimer's disease. *World Journal of Stem Cells*, 12(8), 787–802. <https://doi.org/10.4252/wjsc.v12.i8.787>
- Liu, Y., Du, Q., Ma, C., Xi, X., Wang, L., Zhou, M., Burrows, J. F., Chen, T., & Wang, H. (2019). Structure–activity relationship of an antimicrobial peptide, phylloseptin-PHa: Balance of hydrophobicity and charge determines the selectivity of bioactivities. *Drug Design, Development and Therapy*, 13, 447–458. <https://doi.org/10.2147/DDDT.S191072>
- Mahanani, E. sih. (2013). *Perancah Hidogel untuk Aplikasi Rekayasa Jaringan Tulang*. 2, 1–6. <https://www.neliti.com/publications/218442/perancah-hidogel-untuk-aplikasi-rekayasa-jaringan-tulang#cite>
- Mahmoudi Saber, M. (2019). Strategies for surface modification of gelatin-based

nanoparticles. *Colloids and Surfaces B: Biointerfaces*, 183, 110407. <https://doi.org/10.1016/j.colsurfb.2019.110407>

Manuguerra-GagnÉ, R., Boulos, P. R., Ammar, A., Leblond, F. A., Krosl, G., Pichette, V., Lesk, M. R., & Roy, D.-C. (2013). Transplantation of Mesenchymal Stem Cells Promotes Tissue Regeneration in a Glaucoma Model Through Laser-Induced Paracrine Factor Secretion and Progenitor Cell Recruitment. *Stem Cells*, 31(6), 1136–1148. <https://doi.org/10.1002/stem.1364>

Mazini, L., Rochette, L., Admou, B., Amal, S., & Malka, G. (2020). Hopes and Limits of Adipose-Derived Stem Cells (ADSCs) and Mesenchymal Stem Cells (MSCs) in Wound Healing. *International Journal of Molecular Sciences*, 21(4), 1306. <https://doi.org/10.3390/ijms21041306>

Melke, J., Midha, S., Ghosh, S., Ito, K., & Hofmann, S. (2016). Silk fibroin as biomaterial for bone tissue engineering. *Acta Biomaterialia*, 31, 1–16. <https://doi.org/10.1016/j.actbio.2015.09.005>

Mendoza, M., Contreras-Cristán, A., & Gutiérrez-Peña, E. (2021). Bayesian analysis of finite populations under simple random sampling. *Entropy*, 23(3), 1–19. <https://doi.org/10.3390/e23030318>

Merino-González, C., Zuñiga, F. A., Escudero, C., Ormazabal, V., Reyes, C., Nova-Lamperti, E., Salomón, C., & Aguayo, C. (2016). Mesenchymal Stem Cell-Derived Extracellular Vesicles Promote Angiogenesis: Potencial Clinical Application. *Frontiers in Physiology*, 7. <https://doi.org/10.3389/fphys.2016.00024>

Miyamoto, S., Koyanagi, R., Nakazawa, Y., Nagano, A., Abiko, Y., Inada, M., Miyaura, C., & Asakura, T. (2013). Bombyx mori silk fibroin scaffolds for bone regeneration studied by bone differentiation experiment. *Journal of Bioscience and Bioengineering*, 115(5), 575–578. <https://doi.org/10.1016/j.jbiosc.2012.11.021>

Murab, S., Chameettachal, S., Bhattacharjee, M., Das, S., Kaplan, D. L., & Ghosh, S. (2013). Matrix-Embedded Cytokines to Simulate Osteoarthritis-Like Cartilage Microenvironments. *Tissue Engineering Part A*, 19(15–16), 1733–1753. <https://doi.org/10.1089/ten.tea.2012.0385>

Murphy, C., O'Brien, F., Little, D., & Schindeler, A. (2013). Cell-scaffold interactions in the bone tissue engineering triad. *European Cells and Materials*, 26, 120–132. <https://doi.org/10.22203/eCM.v026a09>

Mustafa, H., Rachmawati, I., Udin Balai Litbang, Y. P., Litbang Kesehatan, B., Kesehatan, K. R., Masitudju No, J., Panimba, L., Tengah, S., & Badan Pengkajian dan Penerapan Teknologi, I. (2016). *Pengukuran Konsentrasi dan Kemurnian DNA Genom Nyamuk Anopheles barbirostris Genomic DNA Concentration and Purity*

Measurement of Anopheles barbirostris.

- Naji, A., Eitoku, M., Favier, B., Deschaseaux, F., Rouas-Freiss, N., & Suganuma, N. (2019). Biological functions of mesenchymal stem cells and clinical implications. *Cellular and Molecular Life Sciences*, 76(17), 3323–3348. <https://doi.org/10.1007/s00018-019-03125-1>
- Nasri, F., Mohtasebi, M.-S., Hashemi, E., Zarrabi, M., Gholijani, N., & Sarvestani, E. K. (2018). Therapeutic Efficacy of Mesenchymal Stem Cells and Mesenchymal Stem Cells-derived Neural Progenitors in Experimental Autoimmune Encephalomyelitis. *International Journal of Stem Cells*, 11(1), 68–77. <https://doi.org/10.15283/ijsc17052>
- Neo, M., Nakamura, T., Ohtsuki, C., Kokubo, T., & Yamamuro, T. (1993). Apatite formation on three kinds of bioactive material at an early stage in vivo: A comparative study by transmission electron microscopy. *Journal of Biomedical Materials Research*, 27(8), 999–1006. <https://doi.org/10.1002/jbm.820270805>
- Ngoc Ha, G., Thi Tuyet Trinh, T., Xuan Truyen, N., Van Tien, H., & Hoai Lam, T. (2019). Affordable Method For Water Contact Angle Measurement. In *Tap chí Khoa học Công nghệ và Thực phẩm* (Vol. 19, Issue 1).
- Nguyen, T. B. L., & Lee, B.-T. (2014). A Combination of Biphasic Calcium Phosphate Scaffold with Hyaluronic Acid-Gelatin Hydrogel as a New Tool for Bone Regeneration. *Tissue Engineering Part A*, 20(13–14), 1993–2004. <https://doi.org/10.1089/ten.tea.2013.0352>
- Nguyen, T. P., Nguyen, Q. V., Nguyen, V.-H., Le, T.-H., Huynh, V. Q. N., Vo, D.-V. N., Trinh, Q. T., Kim, S. Y., & Le, Q. Van. (2019). Silk Fibroin-Based Biomaterials for Biomedical Applications: A Review. *Polymers*, 11(12), 1933. <https://doi.org/10.3390/polym11121933>
- Ningrum, A. P., & Kurniawaty, E. (2019). Peran Sel Punca Mesenkim Dalam Memperbaiki Kerusakan Parenkim Paru. *Majority*, 8, 1–5.
- Noviantari, A., & Febrianti, T. (2021). Kajian: Aplikasi Sel Punca Mesenkim pada Tata Laksana Klinis Penyakit Stroke. *Media Penelitian Dan Pengembangan Kesehatan*, 31(4), 301–318. <https://doi.org/10.22435/mpk.v31i4.4465>
- Oravcová, J., & Labašová, E. (2022). The analysis of surface roughness of the samples produced by 3D printing. *Journal of Physics: Conference Series*, 2413(1). <https://doi.org/10.1088/1742-6596/2413/1/012010>
- Osborne, A., Sanderson, J., & Martin, K. R. (2018). Neuroprotective Effects of Human

Mesenchymal Stem Cells and Platelet-Derived Growth Factor on Human Retinal Ganglion Cells. *Stem Cells*, 36(1), 65–78. <https://doi.org/10.1002/stem.2722>

Oshina, I., & Spigulis, J. (2021). Beer-Lambert law for optical tissue diagnostics: current state of the art and the main limitations. *Journal of Biomedical Optics*, 26(10). <https://doi.org/10.1117/1.jbo.26.10.100901>

Panda, N. nath, Biswas, A., Pramanik, K., & Jonnalagadda, S. (2015). Enhanced osteogenic potential of human mesenchymal stem cells on electrospun nanofibrous scaffolds prepared from eri-tasar silk fibroin. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, 103(5), 971–982. <https://doi.org/10.1002/jbm.b.33272>

Pawitan, J. A., Pratama, G., & Jusuf, A. A. (2018). *Aspek Biologi, Pemrosesan Dan Aplikasi Klinis Sel Punca Mesenkimal* (W. Mubarok, R. Anggraeni, & E. Luviah, Eds.; Vol. 1). Continuing Medical Education-Continuing Professional Development (CME-CPD) Unit Fakultas Kedokteran Universitas Indonesia. <https://scholar.ui.ac.id/en/publications/aspek-biologi-pemrosesan-dan-aplikasi-klinis-sel-punca-mesenkimal>

Paxton, N. C., & Woodruff, M. A. (2022). Measuring contact angles on hydrophilic porous scaffolds by implementing a novel raised platform approach: A technical note. *Polymers for Advanced Technologies*, 33(10), 3759–3765. <https://doi.org/10.1002/pat.5792>

Pereira, C. L., Teixeira, G. Q., Ribeiro-Machado, C., Caldeira, J., Costa, M., Figueiredo, F., Fernandes, R., Aguiar, P., Grad, S., Barbosa, M. A., & Gonçalves, R. M. (2016). Mesenchymal Stem/Stromal Cells seeded on cartilaginous endplates promote Intervertebral Disc Regeneration through Extracellular Matrix Remodeling. *Scientific Reports*, 6(1), 33836. <https://doi.org/10.1038/srep33836>

Perez-Cruet, M., Beeravolu, N., McKee, C., Brougham, J., Khan, I., Bakshi, S., & Chaudhry, G. R. (2019). Potential of Human Nucleus Pulposus-Like Cells Derived From Umbilical Cord to Treat Degenerative Disc Disease. *Neurosurgery*, 84(1), 272–283. <https://doi.org/10.1093/neuros/nyy012>

Planchon, S. M., Lingas, K. T., Reese Koç, J., Hooper, B. M., Maitra, B., Fox, R. M., Imrey, P. B., Drake, K. M., Aldred, M. A., Lazarus, H. M., & Cohen, J. A. (2018). Feasibility of mesenchymal stem cell culture expansion for a phase I clinical trial in multiple sclerosis. *Multiple Sclerosis Journal - Experimental, Translational and Clinical*, 4(1), 205521731876528. <https://doi.org/10.1177/2055217318765288>

Polo-Corrales, L., Latorre-Esteves, M., & Ramirez-Vick, J. E. (2014). Scaffold Design for Bone Regeneration. *Journal of Nanoscience and Nanotechnology*, 14(1), 15–56. <https://doi.org/10.1166/jnn.2014.9127>

- Porsiana, M. D., & Arimbawa, I. K. (2020). Terapi Stem Cell untuk Penyakit Parkinson. *Cermin Dunia Kedokteran*, 47, 212–216. <https://cdkjurnal.com/index.php/CDK/article/view/356>
- Pravdyuk, A. I., Petrenko, Y. A., Fuller, B. J., & Petrenko, A. Y. (2013). Cryopreservation of alginate encapsulated mesenchymal stromal cells. *Cryobiology*, 66(3), 215–222. <https://doi.org/10.1016/j.cryobiol.2013.02.002>
- Preethi Soundarya, S., Haritha Menon, A., Viji Chandran, S., & Selvamurugan, N. (2018). Bone tissue engineering: Scaffold preparation using chitosan and other biomaterials with different design and fabrication techniques. *International Journal of Biological Macromolecules*, 119, 1228–1239. <https://doi.org/10.1016/j.ijbiomac.2018.08.056>
- Pulingam, T., Appaturi, J. N., Parumasivam, T., Ahmad, A., & Sudesh, K. (2022). Biomedical Applications of Polyhydroxyalkanoate in Tissue Engineering. *Polymers*, 14(11), 2141. <https://doi.org/10.3390/polym14112141>
- Putra, A. (2019). *Basic Molecular Stem Cell* (A. Soebandrio & Y. Kusnadi, Eds.). Unissula Press.
- Putri, I. L. (2021). *Rekayasa Tulang Alveolar: Dengan Kombinasi Sel Punca Adiposa dan Cangkok Tulang* (A. Riyanto & A. Febrianto, Eds.). Airlangga University Press. https://books.google.co.id/books?hl=en&lr=&id=mfhJEAAAQBAJ&oi=fnd&pg=PP1&dq=sel+punca+terhadap+osteogenesis&ots=Ro0egqXSQN&sig=mf_KVQ8uJ9wisTqAiUwS8zy8GIk&redir_esc=y#v=onepage&q=sel%20punca%20terhadap%20osteogenesis&f=false
- Ramesh, N., Moratti, S. C., & Dias, G. J. (2018). Hydroxyapatite-polymer biocomposites for bone regeneration: A review of current trends. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, 106(5), 2046–2057. <https://doi.org/10.1002/jbm.b.33950>
- Ramot, Y., Haim-Zada, M., Domb, A. J., & Nyska, A. (2016). Biocompatibility and safety of PLA and its copolymers. *Advanced Drug Delivery Reviews*, 107, 153–162. <https://doi.org/10.1016/j.addr.2016.03.012>
- Rao, X., Huang, X., Zhou, Z., & Lin, X. (n.d.). An improvement of the 2^{-delta delta CT} method for quantitative real-time polymerase chain reaction data analysis.
- Rao, X., Huang, X., Zhou, Z., & Lin, X. (2013). An improvement of the 2^{-delta delta CT} method for quantitative real-time polymerase chain reaction data analysis. *Biostatistics, Bioinformatics and Biomathematics*, 3(3), 71–85.

- Rio, D. C. (2015). Denaturation and electrophoresis of RNA with formaldehyde. *Cold Spring Harbor Protocols*, 2015(2), 219–222. <https://doi.org/10.1101/pdb.prot080994>
- Risal, K. J. S., Bamahry, A., & B, I. K. A. (2019). Analisis Luaran Pasien Malnutrisi yang Mendapat Terapi Gizi di RS Ibnu Sina Makassar Tahun 2015-2016. *UMI Medical Journal*, 4, 1–14.
- Rosadi, I., Karina, K., Rosliana, I., Sobariah, S., Afifi, I., Widayastuti, T., & Barlian, A. (2019). In vitro study of cartilage tissue engineering using human adipose-derived stem cells induced by platelet-rich plasma and cultured on silk fibroin scaffold. *Stem Cell Research & Therapy*, 10(1), 369. <https://doi.org/10.1186/s13287-019-1443-2>
- Rouubeix, C., Godefroy, D., Mias, C., Sapienza, A., Riancho, L., Degardin, J., Fradot, V., Ivkovic, I., Picaud, S., Sennlaub, F., Denoyer, A., Rostene, W., Sahel, J. A., Parsadaniantz, S. M., Brignole-Baudouin, F., & Baudouin, C. (2015). Intraocular pressure reduction and neuroprotection conferred by bone marrow-derived mesenchymal stem cells in an animal model of glaucoma. *Stem Cell Research & Therapy*, 6(1), 177. <https://doi.org/10.1186/s13287-015-0168-0>
- Safitri, E., Hariadi, M., & Prasetyo, H. (2019). *Stem Cell : Kultur Kondisi Hipoksia Upaya Peningkatan Viabilitas dan Pemeliharaan Jangka Lama Sel Punca Diam* (Riyanto & E. Febrianto, Eds.). Pusat Penerbitan dan Percetakan UNAIR.
- Samal, S. K., Dash, M., Declercq, H. A., Gheysens, T., Dendooven, J., Voort, P. Van Der, Cornelissen, R., Dubruel, P., & Kaplan, D. L. (2014). Enzymatic mineralization of silk scaffolds. *Macromolecular Bioscience*, 14(7), 991–1003. <https://doi.org/10.1002/mabi.201300513>
- Sato, K., Yamawaki-Ogata, A., Kanemoto, I., Usui, A., & Narita, Y. (2016). Isolation and characterisation of peripheral blood-derived feline mesenchymal stem cells. *The Veterinary Journal*, 216, 183–188. <https://doi.org/10.1016/j.tvjl.2016.08.009>
- Setyawati, R., & Zubaidah, siti. (2021). Optimasi Konsentrasi Primer dan Suhu Annealing dalam Mendeteksi Gen Leptin pada Sapi Peranakan Ongole (PO) Menggunakan Polymerase Chain Reaction (PCR). *Indonesian Journal Of Laboratory*, 4.
- Sharifi, F., Atyabi, S. M., Norouzian, D., Zandi, M., Irani, S., & Bakhshi, H. (2018). Polycaprolactone/carboxymethyl chitosan nanofibrous scaffolds for bone tissue engineering application. *International Journal of Biological Macromolecules*, 115, 243–248. <https://doi.org/10.1016/j.ijbiomac.2018.04.045>

- Sharma, U., Pal, D., & Prasad, R. (2014). Alkaline Phosphatase: An Overview. *Indian Journal of Clinical Biochemistry*, 29(3), 269–278. <https://doi.org/10.1007/s12291-013-0408-y>
- Sharmila, G., Muthukumaran, C., Kirthika, S., Keerthana, S., Kumar, N. M., & Jeyanthi, J. (2020). Fabrication and characterization of Spinacia oleracea extract incorporated alginate/carboxymethyl cellulose microporous scaffold for bone tissue engineering. *International Journal of Biological Macromolecules*, 156, 430–437. <https://doi.org/10.1016/j.ijbiomac.2020.04.059>
- Shue, L., Yufeng, Z., & Mony, U. (2012a). Biomaterials for periodontal regeneration. *Biomatter*, 2(4), 271–277. <https://doi.org/10.4161/biom.22948>
- Shue, L., Yufeng, Z., & Mony, U. (2012b). Biomaterials for periodontal regeneration. *Biomatter*, 2(4), 271–277. <https://doi.org/10.4161/biom.22948>
- Shui, W., Zhang, W., Yin, L., Nan, G., Liao, Z., Zhang, H., Wang, N., Wu, N., Chen, X., Wen, S., He, Y., Deng, F., Zhang, J., Luu, H. H., Shi, L. L., Hu, Z., Haydon, R. C., Mok, J. M., & He, T.-C. (2014). Characterization of scaffold carriers for BMP9-transduced osteoblastic progenitor cells in bone regeneration. *Journal of Biomedical Materials Research Part A*, 102(10), 3429–3438. <https://doi.org/10.1002/jbm.a.35006>
- Siagian, R. M., & Krisandi, G. (2020). Analisis Potensi Terapi Seluler Menggunakan Adipose-Derived Stem Cells Dan Platelet-Rich Plasma Dalam Penanganan Penyakit Alzheimer. *Al-Iqra Medical Journal : Jurnal Berkala Ilmiah Kedokteran*, 3(1). <https://doi.org/10.26618/aimj.v3i1.4153>
- Siappa Tonglolangi, O., & Pratiningrum, M. (2021). Hubungan Gejala Klinis Dengan Nilai Ct Pada Pemeriksaan Real-Time Pcr Sars-Cov-2. In *J. Ked. Mulawarman* (Vol. 8, Issue 3).
- Singh, R. K., Awasthi, S., Dhayalan, A., Ferreira, J. M. F., & Kannan, S. (2016). Deposition, structure, physical and invitro characteristics of Ag-doped β -Ca₃(PO₄)₂/chitosan hybrid composite coatings on Titanium metal. *Materials Science and Engineering: C*, 62, 692–701. <https://doi.org/10.1016/j.msec.2016.02.013>
- Sophian, A., & Yustina, Y. (2023). Analisis Nilai Kemurnian DNA Menggunakan Nano Fotometer pada Rasio 260/230 yang Diisolasi dari Produk Nugget. *Muhammadiyah Journal of Nutrition and Food Science (MJNF)*, 3(2), 82. <https://doi.org/10.24853/mjnf.3.2.82-86>
- Stewart, A. N., Kendziora, G., Deak, Z. M., Brown, D. J., Fini, M. N., Copely, K. L., Rossignol, J., & Dunbar, G. L. (2017). Co-transplantation of mesenchymal and neural stem cells and overexpressing stromal-derived factor-1 for treating spinal

cord injury. *Brain Research*, 1672, 91–105.
<https://doi.org/10.1016/j.brainres.2017.07.005>

Suvarnapathaki, S., Wu, X., Zhang, T., Nguyen, M. A., Goulopoulos, A. A., Wu, B., & Camci-Unal, G. (2022). Oxygen generating scaffolds regenerate critical size bone defects. *Bioactive Materials*, 13, 64–81.
<https://doi.org/10.1016/j.bioactmat.2021.11.002>

Suzuki, O., Shiwaku, Y., & Hamai, R. (2020). Octacalcium phosphate bone substitute materials: Comparison between properties of biomaterials and other calcium phosphate materials. *Dental Materials Journal*, 39(2), 187–199.
<https://doi.org/10.4012/dmj.2020-001>

Topis, J. B., Amelia, V., & Suliansyah, I. (2023). *Systematic Literature Review: Identification of Interleukin-10 in Mesenchymal Stem Cells for Inflammation*.
<https://doi.org/10.29303/jbt.v23i4.5547>

Trislianto, D. A. (2019). *Metodologi Penelitian (Panduan lengkap)* (Giovanni, Ed.). ANDI.

Tuukkanen, J., & Nakamura, M. (2017). Hydroxyapatite as a Nanomaterial for Advanced Tissue Engineering and Drug Therapy. *Current Pharmaceutical Design*, 23(26). <https://doi.org/10.2174/1381612823666170615105454>

Tyler, B., Gullotti, D., Mangraviti, A., Utsuki, T., & Brem, H. (2016). Polylactic acid (PLA) controlled delivery carriers for biomedical applications. *Advanced Drug Delivery Reviews*, 107, 163–175. <https://doi.org/10.1016/j.addr.2016.06.018>

Ulery, B. D., Nair, L. S., & Laurencin, C. T. (2011). Biomedical applications of biodegradable polymers. *Journal of Polymer Science Part B: Polymer Physics*, 49(12), 832–864. <https://doi.org/10.1002/polb.22259>

van Buul, G. M., Siebelt, M., Leijs, M. J. C., Bos, P. K., Waarsing, J. H., Kops, N., Weinans, H., Verhaar, J. A. N., Bernsen, M. R., & van Osch, G. J. V. M. (2014). Mesenchymal stem cells reduce pain but not degenerative changes in a mono-iodoacetate rat model of osteoarthritis. *Journal of Orthopaedic Research*, 32(9), 1167–1174. <https://doi.org/10.1002/jor.22650>

Venkatesan, J., Nithya, R., Sudha, P. N., & Kim, S.-K. (2014). *Role of Alginate in Bone Tissue Engineering* (pp. 45–57). <https://doi.org/10.1016/B978-0-12-800268-1.00004-4>

Wang, C., Jeong, K.-J., Park, H. J., Lee, M., Ryu, S.-C., Hwang, D. Y., Nam, K. H., Han, I. H., & Lee, J. (2020). Synthesis and formation mechanism of bone mineral, whitlockite nanocrystals in tri-solvent system. *Journal of Colloid and Interface*

Science, 569, 1–11. <https://doi.org/10.1016/j.jcis.2020.02.072>

Wang, J., Yu, X., Cao, X., Tan, L., Jia, B., Chen, R., & Li, J. (2023). GAPDH: A common housekeeping gene with an oncogenic role in pan-cancer. *Computational and Structural Biotechnology Journal*, 21, 4056–4069. <https://doi.org/10.1016/j.csbj.2023.07.034>

Wang, Q., Wang, M., Wang, K., Liu, Y., Zhang, H., Lu, X., & Zhang, X. (2015). Computer simulation of biomolecule–biomaterial interactions at surfaces and interfaces. *Biomedical Materials*, 10(3), 032001. <https://doi.org/10.1088/1748-6041/10/3/032001>

Wang, Y., Zhang, D., Shen, B., Zhang, Y., & Gu, P. (2018). Stem/Progenitor Cells and Biodegradable Scaffolds in the Treatment of Retinal Degenerative Diseases. *Current Stem Cell Research & Therapy*, 13(3), 160–173. <https://doi.org/10.2174/1574888X13666171227230736>

Wardiana, A. (2015). Potensi Sel Punca Pluripotensi Terinduksi sebagai Generasi Baru untuk Terapi. 1. <https://terbitan.biotek.lipi.go.id/index.php/biotrends/article/view/8/6>

Watchararot, T., Prasongchean, W., & Thongnuek, P. (2021). Angiogenic property of silk fibroin scaffolds with adipose-derived stem cells on chick chorioallantoic membrane. *Royal Society Open Science*, 8(3), rsos.201618. <https://doi.org/10.1098/rsos.201618>

Widhiastuti, S. S. (2020). Aplikasi Media Terkondisi Sel Punca Mesensimal dalam Terapi Penyakit Degeneratif dan Penyembuhan Luka. *Biota : Jurnal Ilmiah Ilmu-Ilmu Hayati*, 48–60. <https://doi.org/10.24002/biota.v5i1.2963>

Widowati, wahyu, Bachtiar, I., Murti, H., Laksmitawati, D. R., Sumitro, S. B., Widodo, M. A., Mozef, T., Rihibiha, D. D., Kusuma, H. S. W., & Rizal. (2020). *Mesenchymal Stem Cell : Dasar teori & strategi aplikasi klinis untuk terapi kanker* (R. Astikawati & E. K. Dewi, Eds.). Erlangga.

Wongpinyochit, T., Johnston, B. F., & Seib, F. P. (2018). Degradation Behavior of Silk Nanoparticles—Enzyme Responsiveness. *ACS Biomaterials Science & Engineering*, 4(3), 942–951. <https://doi.org/10.1021/acsbiomaterials.7b01021>

Wu, H., Lin, K., Zhao, C., & Wang, X. (2022). Silk fibroin scaffolds: A promising candidate for bone regeneration. *Frontiers in Bioengineering and Biotechnology*, 10. <https://doi.org/10.3389/fbioe.2022.1054379>

Wu, R., Li, H., Yang, Y., Zheng, Q., Li, S., & Chen, Y. (2021). Bioactive Silk Fibroin-Based Hybrid Biomaterials for Musculoskeletal Engineering: Recent Progress and Perspectives. *ACS Applied Bio Materials*, 4(9), 6630–6646.

<https://doi.org/10.1021/acsabm.1c00654>

Xiao, D., Zhang, J., Zhang, C., Barbieri, D., Yuan, H., Moroni, L., & Feng, G. (2020). The role of calcium phosphate surface structure in osteogenesis and the mechanisms involved. *Acta Biomaterialia*, 106, 22–33. <https://doi.org/10.1016/j.actbio.2019.12.034>

Xu, J. (2018). *Therapeutic Applications of Mesenchymal Stem Cells for Systemic Lupus Erythematosus* (pp. 73–85). https://doi.org/10.1007/5584_2018_212

Yanagisawa, T., Yasuda, A., Makkonen, R. I., & Kamakura, S. (2020). Influence of pre-freezing conditions of octacalcium phosphate and collagen composite for reproducible appositional bone formation. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, 108(7), 2827–2834. <https://doi.org/10.1002/jbm.b.34613>

Zadpoor, A. A. (2015). Bone tissue regeneration: the role of scaffold geometry. *Biomaterials Science*, 3(2), 231–245. <https://doi.org/10.1039/C4BM00291A>

Zhang, L., Zhang, W., Hu, Y., Fei, Y., Liu, H., Huang, Z., Wang, C., Ruan, D., Heng, B. C., Chen, W., & Shen, W. (2021). Systematic Review of Silk Scaffolds in Musculoskeletal Tissue Engineering Applications in the Recent Decade. *ACS Biomaterials Science & Engineering*, 7(3), 817–840. <https://doi.org/10.1021/acsbiomaterials.0c01716>

Zhang, M., Zhang, F., Sun, J., Sun, Y., Xu, L., Zhang, D., Wang, Z., & He, W. (2017). The condition medium of mesenchymal stem cells promotes proliferation, adhesion and neuronal differentiation of retinal progenitor cells. *Neuroscience Letters*, 657, 62–68. <https://doi.org/10.1016/j.neulet.2017.07.053>

Zhang, W., Feng, Y.-L., Pang, C.-Y., Lu, F.-A., & Wang, Y.-F. (2019). Transplantation of adipose tissue-derived stem cells ameliorates autoimmune pathogenesis in MRL/lpr mice. *Zeitschrift Für Rheumatologie*, 78(1), 82–88. <https://doi.org/10.1007/s00393-018-0450-5>

Zhang, Y., Wu, D., Zhao, X., Pakvasa, M., Tucker, A. B., Luo, H., Qin, K. H., Hu, D. A., Wang, E. J., Li, A. J., Zhang, M., Mao, Y., Sabharwal, M., He, F., Niu, C., Wang, H., Huang, L., Shi, D., Liu, Q., ... El Dafrawy, M. (2020). Stem Cell-Friendly Scaffold Biomaterials: Applications for Bone Tissue Engineering and Regenerative Medicine. *Frontiers in Bioengineering and Biotechnology*, 8. <https://doi.org/10.3389/fbioe.2020.598607>

Zhao, C., Qazvini, N. T., Sadati, M., Zeng, Z., Huang, S., De La Lastra, A. L., Zhang, L., Feng, Y., Liu, W., Huang, B., Zhang, B., Dai, Z., Shen, Y., Wang, X., Luo, W., Liu, B., Lei, Y., Ye, Z., Zhao, L., ... He, T.-C. (2019). A pH-Triggered, Self-Assembled, and Bioprintable Hybrid Hydrogel Scaffold for Mesenchymal Stem

Cell Based Bone Tissue Engineering. *ACS Applied Materials & Interfaces*, 11(9), 8749–8762. <https://doi.org/10.1021/acsmami.8b19094>

Zhao, X., Han, Y., Li, J., Cai, B., Gao, H., Feng, W., Li, S., Liu, J., & Li, D. (2017). BMP-2 immobilized PLGA/hydroxyapatite fibrous scaffold via polydopamine stimulates osteoblast growth. *Materials Science and Engineering: C*, 78, 658–666. <https://doi.org/10.1016/j.msec.2017.03.186>

Zhou, C., Li, M., Zhang, Y., Ni, M., Wang, Y., Xu, D., Shi, Y., Zhang, B., Chen, Y., Huang, Y., Zhang, S., Shi, H., & Jiang, B. (2020). Autologous adipose-derived stem cells for the treatment of Crohn's fistula-in-ano: an open-label, controlled trial. *Stem Cell Research & Therapy*, 11(1), 124. <https://doi.org/10.1186/s13287-020-01636-4>