# DAFTAR PUSTAKA

Arni Irawaty Djais, Firman salam, Eri Hendra Jubhari, Shinta Rahma, & Rachmi Bachtiar. (2021). Ridge and socket preservation management for prevention of bone resorption as a preparation for the placement of implant and denture. *Makassar Dental Journal*, *10*(2), 125–128. https://doi.org/10.35856/mdj.v10i2.418

Bai, X., Cao, R., Wu, D., Zhang, H., Yang, F., & Wang, L. (2023). Dental Pulp Stem Cells for Bone Tissue Engineering: A Literature Review. Dalam *Stem Cells International* (Vol. 2023). Hindawi Limited. https://doi.org/10.1155/2023/7357179

Bar, J. K., Lis-Nawara, A., & Grelewski, P. G. (2021). Dental pulp stem cell-derived secretome and its regenerative potential. Dalam *International Journal of Molecular Sciences* (Vol. 22, Nomor 21). MDPI. https://doi.org/10.3390/ijms222112018

Barootchi, S., Tavelli, L., Majzoub, J., Stefanini, M., Wang, H. L., & Avila-Ortiz, G. (2023). Alveolar ridge preservation: Complications and cost-effectiveness. Dalam *Periodontology 2000* (Vol. 92, Nomor 1, hlm. 235–262). John Wiley and Sons Inc. https://doi.org/10.1111/prd.12469

Bello, A. B., Kim, D., Kim, D., Park, H., & Lee, S. H. (2020). Engineering and functionalization of gelatin biomaterials: From cell culture to medical applications. Dalam *Tissue Engineering - Part B: Reviews* (Vol. 26, Nomor 2, hlm. 164–180). Mary Ann Liebert Inc. https://doi.org/10.1089/ten.teb.2019.0256

Benhamida, S. A., El Maroush, M. A., Elgendy, A. A., & Elsaltani, M. H. (2019). Residual ridge resorption, the effect on prosthodontics management of edentulous patient: an article review. *International Journal of Scientific Research and Management*, *7*(09). https://doi.org/10.18535/ijsrm/v7i9.mp04

Chen, G., Deng, C., & Li, Y. P. (2012). TGF-β and BMP signaling in osteoblast differentiation and bone formation. Dalam *International Journal of Biological Sciences* (Vol. 8, Nomor 2, hlm. 272–288). https://doi.org/10.7150/ijbs.2929

de Winter, T. J. J., & Nusse, R. (2021). Running Against the Wnt: How Wnt/β-Catenin Suppresses Adipogenesis. Dalam *Frontiers in Cell and Developmental Biology* (Vol. 9). Frontiers Media S.A. https://doi.org/10.3389/fcell.2021.627429

Edward, M., Mahyudin, F., & Manyakori, D. B. P. (2022). THE EFFECT OF CULTURE TECHNIQUES OF HYPOXIC STEM CELL SECRETOME ON THE NUMBER OF GROWTH FACTOR TGF-ß, BMP-2, VEGF. *(JOINTS) Journal Orthopaedi and Traumatology Surabaya*, *11*(1), 5–9. https://doi.org/10.20473/joints.v11i1.2022.5-9

Fee, L. (2017). Socket preservation. Dalam *British Dental Journal* (Vol. 222, Nomor 8, hlm. 579–582). Nature Publishing Group. https://doi.org/10.1038/sj.bdj.2017.355

Fujii, Y., Hatori, A., Chikazu, D., & Ogasawara, T. (2023). Application of Dental Pulp Stem Cells for Bone and Neural Tissue Regeneration in Oral and Maxillofacial Region. Dalam *Stem Cells International* (Vol. 2023). Hindawi Limited. https://doi.org/10.1155/2023/2026572

Gan, L., Liu, Y., Cui, D., Pan, Y., Zheng, L., & Wan, M. (2020). Dental Tissue-Derived Human Mesenchymal Stem Cells and Their Potential in Therapeutic Application. Dalam *Stem Cells International* (Vol. 2020). Hindawi Limited. https://doi.org/10.1155/2020/8864572

Govindaraj, K., Kannan, S., Karperien, M., & Post, J. N. (2023). *Mapping RUNX2 transcriptional dynamics during multi-lineage differentiation of human mesenchymal stem cells*. https://doi.org/10.1101/2023.03.30.534618

Gugliandolo, A., Fonticoli, L., Trubiani, O., Rajan, T. S., Marconi, G. D., Bramanti, P., Mazzon, E., Pizzicannella, J., & Diomede, F. (2021). Oral bone tissue regeneration: Mesenchymal stem cells, secretome, and biomaterials. Dalam *International Journal of Molecular Sciences* (Vol. 22, Nomor 10). MDPI AG. https://doi.org/10.3390/ijms22105236

Hendrijanti, N., Rostiny, R., Kuntjoro, M., Hidajati, H. E., Soekobagiono, S., Subianto, A., Ariani, M. D., & Agung Bakhtiar, D. (2019). *The effect of low-level estrogen in mandibular bone: An in vivo study*. http://www.drjjournal.net

Herrera-Ruiz, A., Tovar, B. B., García, R. G., Tamez, M. F. L., & Mamidi, N. (2022). Nanomaterials-Incorporated Chemically Modified Gelatin Methacryloyl-Based Biomedical Composites: A Novel Approach for Bone Tissue Engineering. Dalam *Pharmaceutics* (Vol. 14, Nomor 12). MDPI. https://doi.org/10.3390/pharmaceutics14122645

Hoque, E., Nuge, T., Tshai, K. Y., Nordin, N., Hoque, M. E., Yeow, T. K., & Prasad, R. G. S. V. (2015). *GELATIN BASED SCAFFOLDS FOR TISSUE ENGINEERING-A REVIEW*. https://www.researchgate.net/publication/272748016

Huang, J., Xiong, J., Yang, L., Zhang, J., Sun, S., & Liang, Y. (2021). Cell-free exosome-laden *scaffold*s for tissue repair. *Nanoscale*, *13*(19), 8740–8750. https://doi.org/10.1039/d1nr01314a

Iwasaki, Y., Yamato, H., & Fukagawa, M. (2018). TGF-beta signaling in bone with chronic kidney disease. Dalam *International Journal of Molecular Sciences* (Vol. 19, Nomor 8). MDPI AG. https://doi.org/10.3390/ijms19082352

Katagiri, W., Osugi, M., Kawai, T., & Hibi, H. (2016). First-in-human study and clinical case reports of the alveolar bone regeneration with the secretome from human

mesenchymal stem cells. *Head and Face Medicine*, *12*(1). https://doi.org/10.1186/s13005-016-0101-5

Kim, Y. K., & Ku, J. K. (2020). Extraction socket preservation. Dalam *Journal of the Korean Association of Oral and Maxillofacial Surgeons* (Vol. 46, Nomor 6, hlm. 435–439). Korean Association of Oral and Maxillofacial Surgeons. https://doi.org/10.5125/JKAOMS.2020.46.6.435

Komori, T. (2019). Regulation of proliferation, differentiation and functions of osteoblasts by runx2. Dalam *International Journal of Molecular Sciences* (Vol. 20, Nomor 7). MDPI AG. https://doi.org/10.3390/ijms20071694

Komori, T. (2022). Whole Aspect of Runx2 Functions in Skeletal Development. Dalam *International Journal of Molecular Sciences* (Vol. 23, Nomor 10). MDPI. https://doi.org/10.3390/ijms23105776

Kubilius, M., Kubilius, R., Gleiznys, A., Ricardas Kubilius, -dds, med, hab, Alvydas Gleiznys, professor, & prof, assoc. (2012). The preservation of alveolar bone ridge during tooth extraction. Dalam *Stomatologija, Baltic Dental and Maxillofacial Journal* (Vol. 14, Nomor 1).

Kwak, E. A., & Lee, N. Y. (2019). Synergetic roles of TGF-β signaling in tissue engineering. Dalam *Cytokine* (Vol. 115, hlm. 60–63). Academic Press. https://doi.org/10.1016/j.cyto.2018.12.010

Lee, K.-S., Kim, H.-J., Li, Q.-L., Chi, X.-Z., Ueta, C., Komori, T., Wozney, J. M., Kim, E.-G., Choi, J.-Y., Ryoo, H.-M., & Bae, S.-C. (2000). *RUNX2 Is a Common Target of Transforming Growth Factor 1 and Bone Morphogenetic Protein 2, and Cooperation between RUNX2 and Smad5 Induces Osteoblast-Specific Gene Expression in the Pluripotent Mesenchymal Precursor Cell Line C2C12* (Vol. 20, Nomor 23).

Lin, Y., Huang, S., Zou, R., Gao, X., Ruan, J., Weir, M. D., Reynolds, M. A., Qin, W., Chang, X., Fu, H., & Xu, H. H. K. (2019). Calcium phosphate cement *scaffold* with stem cell co-culture and prevascularization for dental and craniofacial bone tissue engineering. Dalam *Dental Materials* (Vol. 35, Nomor 7, hlm. 1031–1041). Elsevier Inc. https://doi.org/10.1016/j.dental.2019.04.009

Liu, Y., Xiong, W., Li, J., Feng, H., Jing, S., Liu, Y., Zhou, H., Li, D., Fu, D., Xu, C., He, Y., & Ye, Q. (2024). Application of dental pulp stem cells for bone regeneration. Dalam *Frontiers in Medicine* (Vol. 11). Frontiers Media SA. https://doi.org/10.3389/fmed.2024.1339573

Livak, K. J., & Schmittgen, T. D. (2001). Analysis of relative gene expression data using real-time quantitative PCR and the 2-ΔΔCT method. *Methods*, *25*(4), 402–408. https://doi.org/10.1006/meth.2001.1262

Lukin, I., Erezuma, I., Maeso, L., Zarate, J., Desimone, M. F., Al-Tel, T. H., Dolatshahi-Pirouz, A., & Orive, G. (2022). Progress in Gelatin as Biomaterial for Tissue Engineering. Dalam *Pharmaceutics* (Vol. 14, Nomor 6). MDPI. https://doi.org/10.3390/pharmaceutics14061177

Luo, K. (2017). Signaling cross talk between TGF-β/Smad and other signaling pathways. Dalam *Cold Spring Harbor Perspectives in Biology* (Vol. 9, Nomor 1). Cold Spring Harbor Laboratory Press. https://doi.org/10.1101/cshperspect.a022137

McCarthy, T. L., & Centrella, M. (2010). Novel links among Wnt and TGF-βsignaling and Runx2. *Molecular Endocrinology*, *24*(3), 587–597. https://doi.org/10.1210/me.2009-0379

McGonnell, I. M., Grigoriadis, A. E., Lam, E. W. F., Price, J. S., & Sunters, A. (2012). A specific role for phosphoinositide 3-kinase and AKT in osteoblasts? Dalam *Frontiers in Endocrinology* (Vol. 3, Nomor JUL). https://doi.org/10.3389/fendo.2012.00088

Meiliana, A., Dewi, N. M., & Wijaya, A. (2019). Mesenchymal stem cell secretome: Cell-free therapeutic strategy in regenerative medicine. Dalam *Indonesian Biomedical Journal* (Vol. 11, Nomor 2, hlm. 113–124). Prodia Education and Research Institute. https://doi.org/10.18585/inabj.v11i2.839

Misawa, H., Kobayashi, N., Soto-Gutierrez, A., Chen, Y., Yoshida, A., Rivas-Carrillo, J. D., Navarro-Alvarez, N., Tanaka, K., Miki, A., Takei, J., Ueda, T., Tanaka, M., Endo, H., Tanaka, N., & Ozaki, T. (2006). PuraMatrix TM Facilitates Bone Regeneration in Bone Defects of Calvaria in Mice. *Cell Transplantation*, *15*, 903–910. www.cognizantcommunication.com

Namjoynik, A., Islam, M. A., & Islam, M. (2023). Evaluating the efficacy of human dental pulp stem cells and *scaffold* combination for bone regeneration in animal models: a systematic review and meta-analysis. Dalam *Stem Cell Research and Therapy* (Vol. 14, Nomor 1). BioMed Central Ltd. https://doi.org/10.1186/s13287-023-03357-w

Pokrovskaya, L. A., Zubareva, E. V., Nadezhdin, S. V., Lysenko, A. S., & Litovkina, T. L. (2020). Biological activity of mesenchymal stem cells secretome as a basis for cell-free therapeutic approach. *Research Results in Pharmacology*, *6*(1), 57–68. https://doi.org/10.3897/RRPHARMACOLOGY.6.49413

Prahasanti, C., Ulfah, N., Kusuma, I., Hayati, N., Ernawati, Di., Krismariono, A., & Bramantoro, T. (2018). Transforming growth factor-β1 and runt-related transcription factor 2 as markers of osteogenesis in stem cells from human exfoliated deciduous teeth enriched bone Grafting. *Contemporary Clinical Dentistry*, *9*(4), 574–576. https://doi.org/10.4103/ccd.ccd_609_18

Raj, A. T., Kheur, S., Khurshid, Z., Sayed, M. E., Mugri, M. H., Almasri, M. A., Al-Ahmari, M. M., Patil, V. R., Bhandi, S., Testarelli, L., & Patil, S. (2021). The growth factors and cytokines of dental pulp mesenchymal stem cell secretome may potentially aid in oral cancer proliferation. *Molecules*, *26*(18). https://doi.org/10.3390/molecules26185683

Resnik. (2021). *Misch's Contemporary Implant Dentistry*.

Rizkillah, M. N., Safira Isnaeni, R., Putri, R., & Fadilah, N. (2019). Pengaruh kehilangan gigi posterior terhadap kualitas hidup pada kelompok usia 45-65 tahun. Dalam *Padjadjaran J Dent Res Student, Februari* (Vol. 3, Nomor 1).

Ruspita, I., Fadyl Yunizar, M., Aditama, P., Indrastuti, M., Barunawati, S. B., Saleh, S., & Listyarifah, D. (2024). Journal of International Dental and Medical Research ISSN 1309-100X Vol. 17, Number. 1. 2024 Experimental article. http://www.jidmr.com

Salkin, H., Acar, M. B., Korkmaz, S., Gunaydin, Z., Gonen, Z. B., Basaran, K. E., & Ozcan, S. (2022). Transforming growth factor β1-enriched secretome up-regulate osteogenic differentiation of dental pulp stem cells, and a potential therapeutic for gingival wound healing: A comparative proteomics study. *Journal of Dentistry*, *124*. https://doi.org/10.1016/j.jdent.2022.104224

Setiawan, F., Wahjuningrum, D. A., & Utomo, D. N. (2021). The Property of Mesenchymal Stem Cells (MSCs) Secretome as a Bone Stimulator Candidate in Regeneration of Injured Bone. Dalam *Malaysian Journal of Medicine and Health Sciences* (Vol. 17, Nomor SUPP13).

Stephanie, N., Katarina, H., Amir, L. R., & Gunawan, H. A. (2017). ALP gene expression in cDNA samples from bone tissue engineering using a HA/TCP/Chitosan *scaffold*. *Journal of Physics: Conference Series*, *884*(1). https://doi.org/10.1088/1742-6596/884/1/012112

Sui, B., Chen, C., Kou, X., Li, B., Xuan, K., Shi, S., & Jin, Y. (2019). Pulp Stem Cell–Mediated Functional Pulp Regeneration. Dalam *Journal of Dental Research* (Vol. 98, Nomor 1, hlm. 27–35). SAGE Publications Inc. https://doi.org/10.1177/0022034518808754

Tang, Y. T., Huang, Y. Y., Zheng, L., Qin, S. H., Xu, X. P., An, T. X., Xu, Y., Wu, Y. S., Hu, X. M., Ping, B. H., & Wang, Q. (2017). Comparison of isolation methods of exosomes and exosomal RNA from cell culture medium and serum. *International Journal of Molecular Medicine*, *40*(3), 834–844. https://doi.org/10.3892/ijmm.2017.3080

Tsutsui, T. W. (2020). Dental pulp stem cells: Advances to applications. Dalam *Stem Cells and Cloning: Advances and Applications* (Vol. 13, hlm. 33–42). Dove Medical Press Ltd. https://doi.org/10.2147/SCCAA.S166759

Valenti, M. T., Mottes, M., Cheri, S., Deiana, M., Micheletti, V., Cosaro, E., Davì, M. V., Francia, G., & Carbonare, L. D. (2018). Runx2 overexpression compromises bone quality in acromegalic patients. *Endocrine-Related Cancer*, *25*(3), 269–277. https://doi.org/10.1530/ERC-17-0523

Wu, M., Wu, S., Chen, W., & Li, Y. P. (2024). The roles and regulatory mechanisms of TGF-β and BMP signaling in bone and cartilage development, homeostasis and disease. Dalam *Cell Research* (Vol. 34, Nomor 2, hlm. 101–123). Springer Nature. https://doi.org/10.1038/s41422-023-00918-9

Xue, N., Ding, X., Huang, R., Jiang, R., Huang, H., Pan, X., Min, W., Chen, J., Duan, J. A., Liu, P., & Wang, Y. (2022). Bone Tissue Engineering in the Treatment of Bone Defects. Dalam *Pharmaceuticals* (Vol. 15, Nomor 7). MDPI. https://doi.org/10.3390/ph15070879

Yankov, Y. G. (2023). Socket Preservation and Guided Bone Regeneration: Prerequisites for Successful Implant Dentistry. *Cureus*. https://doi.org/10.7759/cureus.48785

Zhang, Y., Xie, R. L., Croce, C. M., Stein, J. L., Lian, J. B., Van Wijnen, A. J., & Stein, G. S. (2011). A program of microRNAs controls osteogenic lineage progression by targeting transcription factor Runx2. *Proceedings of the National Academy of Sciences of the United States of America*, *108*(24), 9863–9868. https://doi.org/10.1073/pnas.1018493108

Zhang, Z., Zhang, X., Zhao, D., Liu, B., Wang, B., Yu, W., Li, J., Yu, X., Cao, F., Zheng, G., Zhang, Y., & Liu, Y. (2019). TGF-β1 promotes the osteoinduction of human osteoblasts via the PI3K/AKT/mTOR/S6K1 signalling pathway. *Molecular Medicine Reports*, *49*(5), 3505–3518. https://doi.org/10.3892/mmr.2019.10051

Zhao, R., Yang, R., Cooper, P. R., Khurshid, Z., Shavandi, A., & Ratnayake, J. (2021). Bone grafts and substitutes in dentistry: A review of current trends and developments. Dalam *Molecules* (Vol. 26, Nomor 10). MDPI AG. https://doi.org/10.3390/molecules26103007

Zhao, W., Wang, C., Liu, R., Wei, C., Duan, J., Liu, K., Li, S., Zou, H., Zhao, J., Wang, L., Qi, Y., Liang, W., Jiang, J., Zhang, W., Pang, L., & Li, F. (2016). Effect of TGF-β1 on the Migration and Recruitment of Mesenchymal Stem Cells after Vascular Balloon Injury: Involvement of Matrix Metalloproteinase-14. *Scientific Reports*, *6*. https://doi.org/10.1038/srep21176

Zubaidah, N., Pratiwi, D. D., Masa, M. M. S. N., Setiawatie, E. M., & Kunarti, S. (2022). The Osteogenesis Mechanisms of Dental Alveolar Bone Socket Post Induction with Hydroxyapatite Bovine Tooth Graft: An Animal Experimental in Rattus norvegicus Strain Wistar. *European Journal of Dentistry*. https://doi.org/10.1055/s-0042-1756691