

DAFTAR PUSTAKA

- Ada T. F. and Wolfe D. (2014) 'Histopathology Methods and Protocols', 1180, p. 31. DOI: 10.1007/978-1-4939-1050-2_3.
- Al-Maawi, S., Vorakulpipat, C., Orłowska, A., Zrnc, T. A., Sader, R. A., James Kirkpatrick, C. and Ghanaati, S. (2018) 'In vivo implantation of a bovine-derived collagen membrane leads to changes in the physiological cellular pattern of wound healing by the induction of multinucleated giant cells: An adverse reaction?', *Frontiers in Bioengineering and Biotechnology*, 6(AUG), pp. 1–13. DOI: 10.3389/fbioe.2018.00104.
- Alturkistani, H. A., Tashkandi, F. M. and Mohammedsaleh, Z. M. (2015) 'Histological Stains: A Literature Review and Case Study', *Global journal of health science*, 8(3), pp. 72–79. DOI: 10.5539/gjhs.v8n3p72.
- Anderson, J. M., Gristina, A. G., Hanson, S. R., Harker, L. A., Johnson, R. J., Merritt, K., Naylor, P. T., Schoen, F. J. and Introduction, I. (2004) 'Their Evaluation', pp. 1–62
- Anderson, J. M. (2013) 'Inflammation, Wound Healing, and the Foreign-Body Response', *Biomaterials Science: An Introduction to Materials: Third Edition*, pp. 503–512. DOI: 10.1016/B978-0-08-087780-8.00044-9.
- Arrosyad, A. R. (2019) *Uji Sitotoksitas Demineralized Dentin Material Membrane Terhadap Kultur Sel Osteoblas MC3T3-E1 Melalui Uji MTT*. Available at: <http://repository.unair.ac.id/93413/>.
- Avwioro, G. (2011) 'Histochemical uses of haematoxylin—a review', *Jpcs*, 1(November 2010), pp. 24–34

- Baht, G. S., Vi, L. and Alman, B. A. (2018) 'The Role of the Immune Cells in Fracture Healing', *Current Osteoporosis Reports*. *Current Osteoporosis Reports*, 16(2), pp. 138–145. DOI: 10.1007/s11914-018-0423-2.
- Bohling, M. W. (2013) 'Wound healing', *Feline Soft Tissue and General Surgery*, pp. 171–175. DOI: 10.1016/B978-0-7020-4336-9.00017-2.
- Brierly, G. I., Tredinnick, S., Lynham, A. and Woodruff, M. A. (2016) 'Critical Sized Mandibular Defect Regeneration in Preclinical In Vivo Models', *Current Molecular Biology Reports*. *Current Molecular Biology Reports*, 2(2), pp. 83–89. DOI: 10.1007/s40610-016-0036-4.
- Brodbeck, W. G. and Anderson, J. M. (2009) 'Giant cell formation and function', *Current Opinion in Hematology*, 16(1), pp. 53–57. DOI: 10.1097/MOH.0b013e32831ac52e.
- Broughton, G., Janis, J. E. and Attinger, C. E. (2006) 'Wound healing: An overview', *Plastic and Reconstructive Surgery*, 117(7 SUPPL.), pp. 1–32. DOI: 10.1097/01.prs.0000222562.60260.f9.
- Buza, J. A. and Einhorn, T. (2016) 'Bone healing in 2016', *Clinical Cases in Mineral and Bone Metabolism*, 13(2), pp. 101–105. DOI: 10.11138/ccmbm/2016.13.2.101.
- Carlisle, P. L., Guda, T., Silliman, D. T., Hale, R. G. and Baer, P. R. B. (2019) 'Are critical size bone notch defects possible in the rabbit mandible?', *Journal of the Korean Association of Oral and Maxillofacial Surgeons*, 45(2), pp. 97–107. DOI: 10.5125/jkaoms.2019.45.2.97.
- Christo, S. N., Diener, K. R., Bachhuka, A., Vasilev, K. and Hayball, J. D. (2015) 'Innate Immunity and Biomaterials at the Nexus: Friends or Foes', *BioMed*

- Research International*, 2015. DOI: 10.1155/2015/342304.
- Coughlin, M. J., Grimes, J. S. and Kennedy, M. P. (2006) ‘Coralline hydroxyapatite bone graft substitute in hindfoot surgery’, *Foot and Ankle International*, 27(1), pp. 19–22. DOI: 10.1177/107110070602700104.
- Damien, E. and Revell, P. A. (2005) ‘Biomedical use of corals and coralline hydroxyapatite in hard tissue replacement’, *Bone Grafts and Bone Substitutes: Basic Science and Clinical Applications*, pp. 513–532. DOI: 10.1142/9789812775337_0032.
- Dimitriou, R., Mataliotakis, G. I., Calori, G. M. and Giannoudis, P. V. (2012a) ‘The role of barrier membranes for guided bone regeneration and restoration of large bone defects: Current experimental and clinical evidence’, *BMC Medicine*, 10. DOI: 10.1186/1741-7015-10-81.
- Dimitriou, R., Mataliotakis, G. I., Calori, G. M. and Giannoudis, P. V. (2012b) ‘The role of barrier membranes for guided bone regeneration and restoration of large bone defects: Current experimental and clinical evidence’, *BMC Medicine*. BioMed Central Ltd, 10(1), p. 81. DOI: 10.1186/1741-7015-10-81.
- Elgali, I. (2015) ‘Molecular and structural patterns of guided bone regeneration (GBR) Experimental studies on the role of GBR membrane and bone substitute materials’
- Farizah, N., Kamadjaja, D. B., Wibowo, A., Soesilowati, P. and Harijadi, A. (2018) ‘Expression of transforming growth factor- β 1 and osteocalcin in rat calvaria defect after application of bovine cortical bone membrane’, *Asian Journal of Microbiology, Biotechnology and Environmental Sciences*,

20(December), pp. S134–S137

Gao, X., Qin, W., Wang, P., Wang, L., Weir, M. D., Reynolds, M. A., Zhao, L., Lin, Z. and Xu, H. H. K. (2019) ‘Nano-structured demineralized human dentin matrix to enhance bone and dental repair and regeneration’, *Applied Sciences (Switzerland)*, 9(5). DOI: 10.3390/app9051013.

Gerecke, C., Fuhrmann, S., Striffler, S., Schmidt-Hieber, M., Einsele, H. and Knop, S. (2016) ‘Diagnostik und Therapie des Multiplen Myeloms’, *Deutsches Arzteblatt International*, 113(27–28), pp. 470–476. DOI: 10.3238/arztebl.2016.0470.

Ghiasi, M. S., Chen, J. E., Rodriguez, E. K., Vaziri, A. and Nazarian, A. (2019) ‘Computational modeling of human bone fracture healing affected by different conditions of initial healing stage’, *BMC Musculoskeletal Disorders*. *BMC Musculoskeletal Disorders*, 20(1), pp. 1–14. DOI: 10.1186/s12891-019-2854-z.

Gonzalez, A. C. D. O., Andrade, Z. D. A., Costa, T. F. and Medrado, A. R. A. P. (2016) ‘Wound healing - A literature review’, *Anais Brasileiros de Dermatologia*, 91(5), pp. 614–620. DOI: 10.1590/abd1806-4841.20164741.

Grosso, A., Burger, M. G., Lunger, A., Schaefer, D. J., Banfi, A. and Di Maggio, N. (2017) ‘It takes two to tango: Coupling of angiogenesis and osteogenesis for bone regeneration’, *Frontiers in Bioengineering and Biotechnology*, 5(NOV), pp. 1–7. DOI: 10.3389/fbioe.2017.00068.

Hankenson, K. D., Dishowitz, M., Gray, C. and Schenker, M. (2011) ‘Angiogenesis in bone regeneration’, *Injury*. Elsevier Ltd, 42(6), pp.

556–561. DOI: 10.1016/j.injury.2011.03.035.

Hankenson, K. D., Gagne, K. and Shaughnessy, M. (2015) ‘Extracellular signaling molecules to promote fracture healing and bone regeneration’, *Advanced Drug Delivery Reviews*. Elsevier B.V., 94, pp. 3–12. DOI: 10.1016/j.addr.2015.09.008.

He, Y., Lin, S., Ao, Q. and He, X. (2020) ‘The co-culture of ASCs and EPCs promotes vascularized bone regeneration in critical-sized bone defects of cranial bone in rats’, *Stem Cell Research and Therapy*. Stem Cell Research & Therapy, 11(1), pp. 1–12. DOI: 10.1186/s13287-020-01858-6.

Hilsdorf, A. W. and Krieger, J. E. (1999) ‘Characterization of six rat strains (*Rattus norvegicus*) by mitochondrial DNA restriction fragment length polymorphism’, *Brazilian Journal of Medical and Biological Research*, 32(3), pp. 267–273. DOI: 10.1590/S0100-879X1999000300003.

Huh, J. Y., Choi, B. H., Kim, B. Y., Lee, S. H., Zhu, S. J. and Jung, J. H. (2005) ‘Critical size defect in the canine mandible’, *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontology*, 100(3), pp. 296–301. DOI: 10.1016/j.tripleo.2004.12.015.

Iain H. Kalfas, M. D. F. (2001) ‘Principles of bone healing’, *Neurosurgical Focus*, 10(4), pp. 1–4. Available at: <http://thejns.org/doi/abs/10.3171/foc.2001.10.4.2>.

Jimi, E., Hirata, S., Osawa, K., Terashita, M., Kitamura, C. and Fukushima, H. (2012) ‘The current and future therapies of bone regeneration to repair bone defects’, *International Journal of Dentistry*, 2012, pp. 1–8. DOI: 10.1155/2012/148261.

- Kamadajaja, D. B., Harijadi, A., Soesilawati, P., Wahyuni, E., Maulidah, N., Fauzi, A., Rah Ayu, F., Simanjuntak, R., Soesanto, R., Asmara, D., Rizqiawan, A., Agus, P. and Pramono, C. (2017) 'Demineralized Freeze-Dried Bovine Cortical Bone: Its Potential for Guided Bone Regeneration Membrane', *International Journal of Dentistry*, 2017. DOI: 10.1155/2017/5149675.
- Kesler, G., Shvero, D. K., Tov, Y. S. and Romanos, G. (2011) 'Platelet derived growth factor secretion and bone healing after ErYAG laser bone irradiation', *Journal of Oral Implantology*, 37(SPEC. ISSUE), pp. 195–204. DOI: 10.1563/AAID-JOI-D-09-00120.1.
- Kim, D., Kang, T., Gober, D. and Orlich, C. (2011) 'A Liquid Membrane as a Barrier Membrane for Guided Bone Regeneration', *ISRN Dentistry*, 2011, pp. 1–5. DOI: 10.5402/2011/468282.
- Koga, T., Minamizato, T., Kawai, Y., Miura, K. I., Takashi, I., Nakatani, Y., Sumita, Y. and Asahina, I. (2016) 'Bone regeneration using dentin matrix depends on the degree of demineralization and particle size', *PLoS ONE*, 11(1), pp. 1–12. DOI: 10.1371/journal.pone.0147235.
- Kulkarni, Upasana, 2014 (no date) 'Suppression of neutrophil and T cell mediated inflammation through plasma cell IL-10'
- Kumar, P., Vinitha, B. and Fathima, G. (2013) 'Bone grafts in dentistry', *Journal of Pharmacy and Bioallied Sciences*, 5(SUPPL.1), pp. 125–128. DOI: 10.4103/0975-7406.113312.
- Kusumbe, A. P., Ramasamy, S. K. and Adams, R. H. (2014) 'Coupling of angiogenesis and osteogenesis by a specific vessel subtype in bone', *Nature*. Nature Publishing Group, 507(7492), pp. 323–328. DOI:

10.1038/nature13145.

Lee, S.-W. and Kim, S.-G. (2014) 'Membranes for the Guided Bone Regeneration', *Maxillofacial Plastic and Reconstructive Surgery*, 36(6), pp. 239–246. DOI: 10.14402/jkamprs.2014.36.6.239.

Lemeshow, S., Ogston, S. A., Hosmer, D. W., Klar, J. and Lwanga, S. K. (1991) 'Adequacy of Sample Size in Health Studies.', *Biometrics*, 47(1), p. 347. DOI: 10.2307/2532527.

Leong, E. W. J., Cheng, A. C., Tee-Khin, N. and Wee, A. G. (2006) 'Management of acquired mandibular defects - Prosthodontic considerations', *Singapore Dental Journal*, 28(1), pp. 22–33

Liu, J. and Kerns, D. G. (2014) 'Mechanisms of Guided Bone Regeneration: A Review', *The Open Dentistry Journal*, 8(1), pp. 56–65. DOI: 10.2174/1874210601408010056.

Lu, C., Marcucio, R. and Miclau, T. (2006) 'Assessing angiogenesis during fracture healing.', *The Iowa orthopaedic journal*, 26, pp. 17–26

Marsell, R. and Einhorn, T. A. (2012) 'The biology', *Injury*, 42(6), pp. 551–555. DOI: 10.1016/j.injury.2011.03.031.THE.

Minges Wols, H. A. (2006) 'Plasma Cells', *Encyclopedia of Life Sciences*, pp. 1–8. DOI: 10.1038/npg.els.0004030.

Miron, R. J. and Bosshardt, D. D. (2018) 'Multinucleated Giant Cells: Good Guys or Bad Guys?', *Tissue Engineering - Part B: Reviews*, 24(1), pp. 53–65. DOI: 10.1089/ten.teb.2017.0242.

Nauth, A., Lane, J., Watson, J. T. and Giannoudis, P. (2015) 'Bone graft substitution and augmentation', *Journal of Orthopaedic Trauma*, 29(12),

pp. S34–S38. DOI: 10.1097/BOT.0000000000000464.

Nofikasari, I., Rufaida, A., Aqmarina, C. D., Failasofia, Fauia, A. R. and Handajani, J. (2016) ‘Efek aplikasi topikal gel ekstrak pandan wangi terhadap penyembuhan luka gingiva ekstrak daun pandan wangi konsentrasi 50 % dalam dilakukan di Laboratorium Penelitian dan Pengujian Terpadu (LPPT) Unit III Universitas Gadjah Mada Surat keterangan kelayak’, *Majalah Kedokteran Gigi Indonesia*, 2(2), pp. 53–59

Oliveira, M. T. F. (2013) ‘Reconstruction of Mandibular Defects’, in Rocha, F. S. (ed.). Rijeka: IntechOpen, p. Ch. 17. DOI: 10.5772/53856.

Omar, O., Elgali, I., Dahlin, C. and Thomsen, P. (2019) ‘Barrier membranes: More than the barrier effect?’, *Journal of Clinical Periodontology*, 46(S21), pp. 103–123. DOI: 10.1111/jcpe.13068.

Oryan, A., Monazzah, S. and Bigham-Sadegh, A. (2015) ‘Bone injury and fracture healing biology’, *Biomedical and Environmental Sciences*. The Editorial Board of Biomedical and Environmental Sciences, 28(1), pp. 57–71. DOI: 10.3967/bes2015.006.

Pezzatini, S., Solito, R., Morbidelli, L., Lamponi, S., Boanini, E., Bigi, A. and Ziche, M. (2006) ‘The effect of hydroxyapatite nanocrystals on microvascular endothelial cell viability and functions’, *Journal of Biomedical Materials Research - Part A*, 76(3), pp. 656–663. DOI: 10.1002/jbm.a.30524.

Praba, F. W. . B. D. dan R. (2015) ‘PROSES PENYEMBUHAN DEFЕК TULANG (Kajian pada Tikus Wistar dengan Analisis Histomorfometri)’,

J Kedokteran Gigi, 6, pp. 8–17. Available at:
<https://journal.ugm.ac.id/jkg/article/view/29928>.

Prabhakar, P. and Bhuvaneshwarri, J. (2015) ‘Guided bone regeneration -A review’, *Biomedical and Pharmacology Journal*, 8SE, pp. 365–368. DOI: 10.13005/bpj/705.

Pradhitta, R. A. (2019) *Uji porositas dan morfologi demineralized dentin material membrane sebagai guided bone regeneration*

Ragbir, M., Brown, J. S. and Mehanna, H. (2016) ‘Reconstructive considerations in head and neck surgical oncology: United Kingdom National Multidisciplinary Guidelines’, *The Journal of laryngology and otology*, 130(S2), pp. S191–S197. DOI: 10.1017/s0022215116000621.

Reinke, J. M. and Sorg, H. (2012) ‘Wound repair and regeneration’, *European Surgical Research*, 49(1), pp. 35–43. DOI: 10.1159/000339613.

Ribatti, D. (2013) ‘Angiogenesis’, *Brenner’s Encyclopedia of Genetics: Second Edition*, 1, pp. 130–132. DOI: 10.1016/B978-0-12-374984-0.00065-6.

Ribatti, D., Tamma, R. and Vacca, A. (2019) ‘Mast cells and angiogenesis in human plasma cell malignancies’, *International Journal of Molecular Sciences*, 20(3). DOI: 10.3390/ijms20030481.

Rodrigues, M., Kosaric, N., Bonham, C. A. and Gurtner, G. C. (2019) ‘Wound healing: A cellular perspective’, *Physiological Reviews*, 99(1), pp. 665–706. DOI: 10.1152/physrev.00067.2017.

Saima, S., Jan, S., Shah, A., Yousuf, A. and Batra, M. (2016) ‘Bone grafts and bone substitutes in dentistry’, *Journal of Oral Research and Review*, 8(1), p. 36. DOI: 10.4103/2249-4987.182488.

- Saito, T., Kitayama, D., Sakamoto, A., Tsuruoka, N., Arima, M., Hatano, M., Miyazaki, M. and Tokuhisa, T. (2008) 'Effective collaboration between IL-4 and IL-21 on B cell activation', *Immunobiology*, 213(7), pp. 545–555. DOI: 10.1016/j.imbio.2008.01.006.
- de Santana, R. B., de Mattos, C. M. L., Francischone, C. E. and Van Dyke, T. (2010) 'Superficial Topography and Porosity of an Absorbable Barrier Membrane Impacts Soft Tissue Response in Guided Bone Regeneration', *Journal of Periodontology*, 81(6), pp. 926–933. DOI: 10.1902/jop.2010.090592.
- Saran, U., Gemini Piperni, S. and Chatterjee, S. (2014) 'Role of angiogenesis in bone repair', *Archives of Biochemistry and Biophysics*. Elsevier Inc., 561, pp. 109–117. DOI: 10.1016/j.abb.2014.07.006.
- Sari, D. S., Maduratna, E., Ferdiansyah, F., Sudiana, I. K. and Rantam, F. A. (2018) 'Cytotoxicity test and characteristics of demineralized dentin matrix scaffolds in adipose-derived mesenchymal stem cells of rats', *Dental Journal (Majalah Kedokteran Gigi)*, 51(4), p. 194. DOI: 10.20473/j.djmk.v51.i4.p194-199.
- Sathyendra, V. and Darowish, M. (2013) 'Basic science of bone healing', *Hand Clinics*. Elsevier Inc, 29(4), pp. 473–481. DOI: 10.1016/j.hcl.2013.08.002.
- Schipani, E., Maes, C., Carmeliet, G. and Semenza, G. L. (2009) 'Regulation of osteogenesis-angiogenesis coupling by HIFs and VEGF', *Journal of Bone and Mineral Research*, 24(8), pp. 1347–1353. DOI: 10.1359/jbmr.090602.
- Sheikh, Z., Brooks, P. J., Barzilay, O., Fine, N. and Glogauer, M. (2015)

- ‘Macrophages, foreign body giant cells and their response to implantable biomaterials’, *Materials*, 8(9), pp. 5671–5701. DOI: 10.3390/ma8095269.
- Sinno, H. and Prakash, S. (2013) ‘Complements and the Wound Healing Cascade: An Updated Review’, *Plastic Surgery International*, 2013, pp. 1–7. DOI: 10.1155/2013/146764.
- Stavropoulos, F., Nale, J. C. and Ruskin, J. D. (2002) ‘Guided bone regeneration’, *Oral and Maxillofacial Surgery Clinics of North America*, 14(1), pp. 15–27. DOI: 10.1016/S1042-3699(02)00013-4.
- Subagio, E. W., Kamadjaja, D. B., Afikaningtyas, D., Abidin, Z. Z., Soesilowati, P. and Pramono, C. (2018) ‘Early healing phase in rat’s calvarial critical-size defect after implantation of bovine cortical membrane’, *Asian Journal of Microbiology, Biotechnology and Environmental Sciences*, 20(December), pp. S113–S116
- Thiruvoth, F., Mohapatra, D., Sivakumar, D., Chittoria, R. and Nandhagopal, V. (2015) ‘Current concepts in the physiology of adult wound healing’, *Plastic and Aesthetic Research*, 2(5), p. 250. DOI: 10.4103/2347-9264.158851.
- Ud-Din, S., Sebastian, A., Giddings, P., Colthurst, J., Whiteside, S., Morris, J., Nuccitelli, R., Pullar, C., Baguneid, M. and Bayat, A. (2015) ‘Angiogenesis is induced and wound size is reduced by electrical stimulation in an acute wound healing model in human skin’, *PLoS ONE*, 10(4), pp. 1–22. DOI: 10.1371/journal.pone.0124502.
- Utomo, D. P., Kamadjaja, D. B., Ayu, F. R., Soesilowati, P., Harijadi, A. and

- Soesanto, R. (2018) 'Analysis of tissue response after subcutaneous implantation of demineralized freeze-dried bovine cortical bone membrane', *Asian Journal of Microbiology, Biotechnology and Environmental Sciences*, 20(December), pp. S1–S5
- Vasconcelos, D. P., Águas, A. P., Barbosa, M. A., Pelegrín, P. and Barbosa, J. N. (2019) 'The inflammasome in host response to biomaterials: Bridging inflammation and tissue regeneration', *Acta Biomaterialia*. Acta Materialia Inc., 83, pp. 1–12. DOI: 10.1016/j.actbio.2018.09.056.
- Velnar, T., Bailey, T. and Smrkolj, V. (2009) 'The wound healing process: An overview of the cellular and molecular mechanisms', *Journal of International Medical Research*, 37(5), pp. 1528–1542. DOI: 10.1177/147323000903700531.
- Wahyuningtyas, E., Hsu, L. C., Lan, W. C., Wen, S. C., Ou, K. L., Chou, H. H., Huang, M. S. and Sugiatno, E. (2019) 'Application of a Promising Bone Graft Substitute in Bone Tissue Regeneration: Characterization, Biocompatibility, and in Vivo Animal Study', *BioMed Research International*, 2019. DOI: 10.1155/2019/1614024.
- Wang, Y., Wan, C., Deng, L., Liu, X., Cao, X., Gilbert, S. R., Boussein, M. L., Faugere, M. C., Guldberg, R. E., Gerstenfeld, L. C., Haase, V. H., Johnson, R. S., Schipani, E. and Clemens, T. L. (2007) 'The hypoxia-inducible factor α pathway couples angiogenesis to osteogenesis during skeletal development', *Journal of Clinical Investigation*, 117(6), pp. 1616–1626. DOI: 10.1172/JCI31581.