DAFTAR PUSTAKA

Affandi, M.M.R.M.M., Tripathy M., Ali Shah, S.A., Majeed, A.B.A., 2016, Solubility Enhancement of Simvastatin by Arginine: Thermodynamics, Solute–Solvent Interactions, and Spectral Analysis, Drug Design, *Development and Therapy*, 10, pp. 959–969.

Alhammadi, M.S., Halboub, E., Fayed, M.S., Labib, A., El-Saaidi, C.M.S., 2018, Global Distribution of Malocclusion Traits: A systematic review, *Dental Press Journal of Orthodontics*, 23(6): e1–e10.

Al-hamdany, A. K., Al-khatib, A. R. and Al-sadi, H. I., 2017, Influence of Olive Oil on Alveolar Bone Response during Orthodontic Retentio Period : Rabbit Model Study, *Acta Odontologica Scandinavica*, 75(6): 413–422.

Alam, S., Ueki, K., Nakagawa, K., dkk., 2009, Statin-Induced Bone Morphogenetic Protein (BMP) 2 Expression during Bone Regeneration: an Immunohistochemical Study, *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*, 107 (1): 22–29.

Alansari, S., Sangsuwon, C., Vongthongleur, T., Kwal, R., chneh Teo, M., Lee, Y.B., Nervina, J., Teixeira, C., Alikhani, M., 2015, Biological Principles behind Accelerated Tooth Movemen, *Seminars in Orthodontics*, 21 (3): 151–161.

Alhasyimi, A.A., Pudyani, P., Asmara, W., Ana I.D., 2018, Enhancement of PostOrthodontic Tooth Stability by Carbonated Hydroxyapatite-Incorporated Advanced Platelet-Rich Fibrin in Rabbits, *Orthodontics and Craniofacial Research*, 21(2):112–118.

Alhasyimi, A.A., Rosyida, N.F., 2019, Cocoa Administration may Accelerate Orthodontic Tooth Movement by Inducing Osteoclastogenesis in Rats, *Iranian Journal of Basic Medical Sciences*, 22(2): 206–210.

Alhasyimi, A.A., Rosyida, N.F., Rihadini, M.S., 2019, Postorthodontic Relapse Prevention by Administration of Grape Seed (Vitis vinifera) Extract Containing Cyanidine in Rats, *European Journal of Dentistry*, 13(4): 629–634.

AlSwafeeri, H., ElKenany, W., Mowafu, M., Saharet, K., 2018, Effect of Local Administration of Simvastatin on Postorthodontic Relapse in a Rabbit Model, *American Journal of Orthodontics and Dentofacial Orthopedics*, 153(6):861–871.

Anon, 2006, *Remington: The Science and Practice of Pharmacy*, Lippincott Williams & Wilkins, Philadelphia.

Arakawa, T., Kita, Y., Koyama, A.H., 2008, Solubility Enhancement Of Gluten And Organic Compounds By Arginine, *International Journal of Pharmaceutics*, 355 (1–2): 220–223.

Ardhani, R., Susilowati, R. & Dewi Ana, I., 2015, Functional Recovery of Axonal Injury Induced by Gelatin-Hydrogel Film and PRP: An Initial Study in Rats. J, *Biomedical Science and Engineering*, 8(8): 160–169.

Ayukawa, Y., Okamura, A., Koyano, K., 2004, Simvastatin Promotes Osteogenesis around Titanium Implants, *Clin Oral Implants Res*, 15: 346–50.

Badan Pengawas Obat dan Makanan Republik Indonesia, 2014, *Pedoman Uji Toksisitas Non Klinik secara in vivo.*

Bahreman, A.A., 2017. Retention Considerations in The Assessment of Long-Term Stability in Early Versus Late Orthodontic Treatment, *Seminars in Orthodontics*, 23 (2): 123–148.

Belibasakis, G.N., Bostanci, N., 2012, The RANKL-OPG System in Clinical Periodontology, *Journal of Clinical Periodontology*, 39(3): 239–248.

Blake, M., dan Bibby, K., 1998, Retention and Stability: A Review of the Literature, *American Journal of Orthodontics and Dentofacial Orthopedics*, 114 (3): 299–306.

Bondemark, L., Holm, A.K., Hansen, K., Axelsson, S., Mohlin, B., Brattstrom, V.,Paulin, G., ietila, T., 2007, Long-Term Stability of Orthodontic Treatment and Patient Satisfaction, *The Angle Orthodontist*, 77(1): 181–191.

Boyce, B.F., dan Xing, L., 2008, Functions of RANKL/RANK/OPG in Bone Modeling and Remodeling, *Arch Biochem Biophys*, 473(2): 139–146.

Cadenas-Perula, M., Yanez-Vico R.M., Solano-Reina, E., Iglesias-Linarest, A., 2016, Effectiveness of Biologic Methods of Inhibiting Orthodontic Tooth Movement in Animal Studies. *American Journal of Orthodontics and Dentofacial Orthopedics*, 150 (1) : 33–48.

Calle, D.J, Sanudo, C., Sumillera, M, Garces, C.M., 2012, Expression of RANKL and OPG in primary osteoblasts, *Rev Osteoporos Metab Miner*, 4(4): 133–138.

Chang PC, Chong LY, Dovban ASM, Lim LP, Lim JC, Kuo MYP, dkk., 2014, Sequential Platelet Derived Growth Factor – Simvastatin Release Promotes Dentoalveolar Regeneration, *Tissue Eng A*, 20: 356–64.

Chen, P.Y., Sun, J.S., Tsuang, Y.H., Chen, M.H., Weng, P.W., Lin, F.H, 2010, Simvastatin Promotes Osteoblast Viability and Differentiation via

Ras/Smad/Erk/BMP-2 Signaling Pathway, *Nutrition Research*. 30(3): 191–199.

Chen, S., Yang, J., Zhang, S., Feng, L., Effects of Simvastatin Gel on Bone Regeneration in Alveolar Defects, *Chinese Medical Journal*, 124(2009):3953–3958.

Commission, F. S., 2007, *Evaluation Report of Food Additives Polysorbates, Food Safety Commission Japan*. Available at: https://www.fsc.go.jp/english/evaluationreports/foodadditive/polysorbate_report.pdf.

Coors, E.A., Seybold, H., Merk, H.F., Mahler, V., 2005, Polysorbate 80 in Medical Products and Nonimmunologic Anaphylactoid Reactions, *Annals of Allergy, Asthma and Immunology*, 95(6): 593–599.

Czekanska, E. M., Stoddart, M.J., Richard, R.G., Hayes, J.S., 2012, In search of an osteoblast cell model for in vitro research, *European Cells and Materials*, 24: 1–17.

Dolci, G.S., Portela, L.V., Onofre de Souza, D., Fossati, M.A.C., Atorvastatin-Induced Osteoclast Inhibition Reduces Orthodontic Relapse, American *Journal of Orthodontics and Dentofacial Orthopedics*, 151(3): 528–538.

Dolci, G. S., Ballarini, A., Gamaeiro, G.H., Onofre de Souza, D., de Melo, F., Fossati, M.A.C., 2018, Atorvastatin Inhibits Osteoclastogenesis and Arrests Tooth Movement, *American Journal of Orthodontics and Dentofacial Orthopedics*, 153(6): 872–882.

Dunn, A.M., Hofmann, O.S., Waters, B., Witchel, E., 2000, Osteoprotegerin Produced by Osteoblasts Is an Important Regulator in Osteoclast Development and Function, *Endocrinology*, 141(9): 395–410.

Ehnert, S., Zhao, J., Pscherer, S., Freude, T., Dooley, S., Kolk, A., Stöckle, U., Nussler, A.K., Hube, R., 2012, Transforming Growth Factor β1Inhibits Bone Morphogenic Protein (BMP)-2 and BMP-7 signaling via Upregulation of Ski-Related Novel Protein N (SnoN): Possible mechanism for the Failure of BMP therapy?, *BMC Medicine*, 10: 1–11.

Esnaashari, N., Sadheghian, S., Razavi, S.M., Minaiyan, M., Afsari, E., 2013, The Effects of Simvastatin on Bone Remodeling , Tooth Movement and Root Resorption in Orthodontic Treatments. *Biomedical and Phamrcology Journal*, 6 (2): 271–278.

Fasolin, L.H., Picone, C.S.F., Santana, R.C., Cunha, R.L., 2013, P Production of Hybrid Gels from Polysorbate and Gellan Gum, *Food Research*

International, 54(1): 501–507.

Fernández-González, F.J., dkk., 2015, Recombinant Osteoprotegerin Effects During Orthodontic Movement in a Rat Model, *European Journal of Orthodontics*: 1–7.

Franzen, T.J., Brudvik, P., Vandevska-Radunovic, V., 2013. Periodontal Tissue Reaction during Orthodontic Relapse in Rat Molars, *European Journal of Orthodontics*, 35 (2): 152–159.

Garrett, I.R. & Mundy, G.R., 2002. The Role of Statins as Potential Targets for Bone Formation. *Arthritis research*, 4: 237–240.

Ginebra, M.P., Traykova, T., Planell, J.A., 2006, Calcium phosphate cements: competitive drug carriers for the musculoskeletal system? *Biomaterials*, 27: 2171–7.

Grant, M., Wilson, J., Rock, P., Chapple, I., 2013, Induction of Cytokines, MMP9, TIMPs, RANKL and OPG during Orthodontic Tooth Movement, *European Journal of Orthodontics*, 35(5): 644–651.

Han, G. Chen, Y., Hou, J., Liu, C., Chen, C., Zhuang, J., Meng W., 2010, Effects of Simvastatin on Relapse and Remodeling of Periodontal Tissues After Tooth Movement in Rats, *American Journal of Orthodontics and Dentofacial Orthopedics*, 138 (5): 550.e1-550.e7.

Higuchi, T., Connors, K.A., 1965, Phase solubility techniques. *Adv. Anal. Chem. Instrum*. 4: 117–122.

Hirano, A., Kameda, T., Arakawa, T., Shiraki, K., 2010, Arginine-Assisted Solubilization System for Drug Substances: Solubility Experiment and Simulation, *Journal of Physical Chemistry B*, 114 (42): 13455–13462.

Hoare, T.R., dan Kohane, D.S., 2008, Hydrogels in Drug Delivery: Progress and Challenges, *Polymer*, 49: 1993–2007.

Hokugo, A., Saito, T., Li, A., Sato, K., Tabata, Y., Jarrahya, R., 2014, Stimulation of Bone Regeneration Following the Controlled Release of Water-Insoluble Oxysterol from Biodegradable Hydrogel, *Biomaterials*, 35 (21): 5565–5571.

Huang X, Huang Z, Li W. 2014, Highly Efficient Release of Simvastatin from Simvastatin-Loaded Calcium Sulphate Scaffolds Enhances Segmental Bone Regeneration in Rabbits, *MolMed Rep*, 9: 2152–8.

Iglesias-Linares, A., Yanez-Vico, R., Solano-Reina, E., Torres-Lagares, D., Gonza´ lez Moles, M.A, 2010, Influence of Bisphosphonates in Orthodontic Therapy: Systematic Review, *Journal of Dentistry*, 38(8):

603–611.

Iyyer, B.S., Bhalaji, S.I., 2004, *Orthodontics The Art and Science*, New Delhi: Arya (Medi) Publisihing House.

Jacobson, R.H., Wang, P., Glueck, C.J., 1997, Myositis and Rhabdomyolysis Associated with Concurrent Use of Simvastatin and Nefazodone, *JAMA*, 277: 296–7.

Jia, Z., Zhang, Y., Chen, Y.H., Dusad, A., Yuan, H., Ren, K., Li, F., Fehringer, E.V., Purdue, P. Edward, Goldring, S.R., Daluiski, Aaron W, 2015, Simvastatin Prodrug Micelles Target Fracture and Improve Healing, *Journal of Controlled Release*, 200: 23–34.

Jiao, J., 2008, Polyoxyethylated Nonionic Surfactants and their Applications in Topical Ocular Drug delivery, *Advanced Drug Delivery Reviews*, 60(15): 1663–1673.

Jones, D.H., Kong, Y.Y., Penninger, J.M., 2002, Role of RANKL and RANK in Bone Loss and Arthritis, *Annals of the Rheumatic Diseases*, 61(Supplement 2): 32ii – 39.

Joondeph, D.R., 2011, *Stability, Retention, and Relapse dalam Orthodontics: Current Principles and Techniques*. St. Louis, Missouri: Mosby, h. 991–1019.

Kaji, H., Naito, J., Inoue, Y., Sowa, H., Sugimoto, T, 2008, Statin Suppresses Apoptosis in Osteoblastic Cells: Role of Transforming Growth Factor-β-Smad3 Pathway, *Hormone and Metabolic Research*, 40(11): 746–751.

Kaji, H., Kanatani, M., Sugimoto, T., Chihara, K., 2012, Statins Modulate the Levels of Osteoprotegerin/ Receptor Activator of NFkB Ligand mRNA in Mouse Bone−cell Cultures, *NCRM Working Paper*, (4): 1–10.

Kapila, S. & King, G.J., 2015. Biological Mechanisms in Nanda, R., *Orthodontic Tooth Movement dalam Esthetics and Biomechanics in Orthodontics*. St. Louis, Missouri: Saunders, h. 90–107.

Kasagi, S., Chen, W., 2013, TGF-beta1 on osteoimmunology and the bone component cells, Cell and Bioscience. *Cell & Bioscience*, 3(4): 1-7.

Kaur, G., Mehta, S.K., 2017, Developments of Polysorbate (Tween) based Microemulsions: Preclinical Drug Delivery, Toxicity and Antimicrobial Applications, *International Journal of Pharmaceutics*, 529(1–2): 134–160.

Kheirallah, M. & Almeshaly, H., 2016, Simvastatin, Dosage and Delivery System

for Supporting Bone Regeneration, An Update Review, *Journal of Oral and Maxillofacial Surgery Pathology*, 28: 205–209.

Kini, U., Nandeesh, B.N., 2012, P*hysiology of Bone Formation, Remodeling, and Metabolism* dalam Fogelman dkk., Radionuclide and Hybrid Bone Imaging, Berlin Heidelberg: Springer-Verlag, h. 29–57.

Kobayashi, Y., Hashimoto, F., Miyamoto, H., Kanaoka, K., Yumiko, MK., Nakashima, T., Shibata, M., Kobayashi, K., Kato, Y., Force-Induced Osteoclast Apoptosis in vivo is Accompanied by Elevation in Transforming Growth Factor β and Osteoprotegerin Expression, *Journal of Bone and Mineral Research*, 15 (10): 1924–1934.

Kocer, A., Oner, M., Karaman, I., Kocer, D., Kafadra, I.H., Gney, A., dkk., 2014;The Effects of Locally Applied Simvastatin on An Experimental Mouse Femur Nonunion Model, *Acta Orthop Traumatol Turc*, 48:679–84.

Kommuri, K., Javed, F., Akram, Z., Khan, J., 2020, Effect of Statins on Orthodontic Tooth Movement: A systematic Review of Animal and Clinical Studies, *Archives of Oral Biology*, 111 (September 2019): 1-11.

Krishnan, V., Davidovitch, Z., 2006, Cellular, Molecular, and Tissue-Level Reactions to Orthodontic Force, *American Journal of Orthodontics and Dentofacial Orthopedics*, 129 (4): 1-32.

Kular, J., Tickner, J., Man Chim, S., Xu J., 2012, An Overview of The Regulation of Bone Remodelling at the Cellular Level, *Clinical Biochemistry*, 45(12): 863–873.

Lachman L., H. Lieberman, and J. L., 1986, Kanig, *The Theory and Practise of Industrial Pharmacy*, Lea & Febiger.

Larrañeta, E., Stewart, S., Ervine, M., Al-Kasasbeh, R., Donnelly, R.F, 2018, Hydrogels for Hydrophobic Drug Delivery. Classification, Synthesis and Applications, *Journal of Functional Biomaterials*, 9 (13): 1-20.

Lee, P.J., Langer, R, Shastri, V.P.,2003, Novel Microemulsion Enhancer Formulation for Simultaneous Transdermal Delivery of Hydrophilic and Hydrophobic Drugs, *Pharmaceutical Research*, 20(2), pp. 264–269.

Lee, Y., Schmid, MJ., Marx, DB., Beatty, M W., Cullen, DM., Collins, ME., Reinhardt, 2008, The Effect of Local Simvastatin Delivery Strategies on Mandibular Bone Formation In Vivo, *Biomaterials*, 29(12): 1940–1949.

van Leeuwen, EJ., Maltha, JC., Kuijpers-Jagtman, AM., Van 't Hof, MA., 2003,

The Effect of Retention on Orthodontic Relapse after the Use of Small Continuous or Discontinuous Forces. An experimental study in Beagle Dogs, *European Journal of Oral Sciences*, 111(2): 111–116.

Legacy, F., Roberts, J. A., Epker, B.N., Burr, D.B., Hartsfield, J.K., 2006. Remodeling of Mineralized Tissues, Part I : The Frost Legacy, *Semin Orthod*, 12: 216-237

Li, B., Zhang, Y.H., Wang, L.X., Li, X., Zhang, X.D., 2015, Expression of OPG, RANKL, and RUNX2 in Rabbit Periodontium under Orthodontic Force, *Genetics and Molecular Research*, 14(4): 19382–19388.

Li, Y., Jacox, LA., Little, SH., Ko, C.C., 2018, Orthodontic Tooth Movement: The Biology and Clinical Implications, *Kaohsiung Journal of Medical Sciences*, 34(4): 207–214.

Little, N., Rogers, B., Flannery, M., 2011, Bone formation, Remodelling and Healing, *Surgery*, 29 (4): 141–145.

Littlewood, S.J., Kandasamy, S., Huang, G., 2017, Retention and Relapse in Clinical Practice, *Australian Dental Journal*, 62 (1): 51–57.

Maltha, J.C., Vandevska-Radunovic, V., Kuijpers-Jagtman, A.M., 2015, *The Biological Background of Relapse of Orthodontic Tooth Movement, Biological Mechanisms of Tooth Movement*: Second Edition, John Willey Pub, h. 248–259.

Masella, R., dan Meister, M., 2006. Current Concepts in The Biology of Orthodontic Tooth Movement, *Am J Orthod Dentofacial Orthop*, 129 (4): 458–468.

Meikle, M.C., 2006. The Tissue, Cellular, and Molecular Regulation of Orthodontic Tooth Movement: 100 Years After Carl Sandstedt, *European Journal of Orthodontics*, 28 (3): 221–240.

Merck, 2020. *Rat Osteoblasts (ROb)*, https://www.sigmaaldrich.com/technical-documents/protocols/biology/rat-osteoblasts.html (diakses pada 18 Juli 2020).

Mousavil, G., Mohajeri, D., 2013, Assessment of Pravastatin Effects on Healing of Bone Defect in Rats, *Life Sci J*, 10: 1206–9.

Mtaya, M., Brudvik, P., Åstrøm, A.N., 2009, Prevalence of Malocclusion and its Relationship With Socio-Demographic Factors, Dental Caries, and Oral Hygiene in 12 to 14 year old Tanzanian schoolchildren, *European Journal of Orthodontics*, 31 (5): 467–476.

Murtaza, G., 2012. Solubility Enhancement of Simvastatin: A review, *Acta*

Poloniae Pharmaceutica - Drug Research, 69 (4): 581–590.

National Center for Biotechnology Information, PubChem Database, *Simvastatin*, CID=54454, https://pubchem.ncbi.nlm.nih.gov/compound/Simvastatin (diakses pada 6 Juli, 2020).

Nyan, M., Sato, D., Kihara, H., MacHida, T., Ohya, 2009, Effects of the Combination with α-Tricalcium Phosphate and Simvastatin on Bone Regeneration, *Clinical Oral Implants Research*, 20(3): 280–287.

Oryan, A., Kamali, A. and Moshiri, A., 2015, Potential Mechanisms and Applications of Statins on Osteogenesis: Current Modalities, Conflicts and Future Directions, *Journal of Controlled Release*, 215: 12–24.

Nimeri, G., Kau, C.H., Abou-Kheir, N.S., Corona, R., 2013. Acceleration of Tooth Movement during Orthodontic Treatment - a Frontier in Orthodontics, *Progress in Orthodonthic*, 14 (42): 1–8.

Oxlund H., Andreassen T.T., 2004, Simvastatin Treatment Partially Prevents Ovariectomy-Induced Bone Loss while Increasing Cortical Bone Formation, *Bone*, 34: 609–18.

Pagkalos, J., Cha, J.M., Kang, Y., Heliotis, M., Tsiridis, E., 2010, Simvastatin Induces Osteogenic Differentiation of Murine Embryonic Stem Cells, *JBMR*, 25(11): 2470–2478.

Pandis, N., Vlahopoulos, K., Madianos, P., Eliades, T., 2017, Long-Term Periodontal Status of Patients with Mandibular Lingual Fixed Retention, *European Journal of Orthodontics*, 29: 471–476.

Park, J.-B., 2009, The Use of Simvastatin in Bone Regeneration, Med Oral Patol Oral Cir Bucal, *Sep Medicina Oral*, 114 (9): 485–8.

Park, S.B., Lih, E., Park, K.S., Joung, Y.K., Han, D.K.. 2017, Biopolymer-Based Functional Composites for Medical Applications, *Progress in Polymer Science*, 68: 77-105.

Park, Y.S., David, A.E., Park, K.M., Lin, C.Y., Than, K.D., Lee, K., dkk., 2013, Controlled Release of Simvastatin from in Situ Forming Hydrogel Triggers Bone Formation in MC3T3E1 Cells, *AAPS J*, 15: 367–76.

Patriati, A., Ardhani, R., Pranowo, H.D., Putra, E.G.R., Ana, I.D., 2016, The Effect of Freeze-Thaw Treatment to the Properties of Gelatin-Carbonated Hydroxypatite Membrane for Nerve Regeneration Scaffold, *Key Engineering Materials*, 696: 129-144.

Perillo, L., Masucci, C., Ferro, F., Apicella, D., Bacceti, T., 2010, Prevalence of Orthodontic Treatment Need In Southern Italian Schoolchildren,

European Journal of Orthodontics, 32 (1): 49–53.

Pratt, M.C., Kluemper, G.T., Lindstrom, A.F., 2011, Patient Compliance with Orthodontic Retainers in the Postretention Phase, *American Journal of Orthodontics and Dentofacial Orthopedics*, 140 (2): 196–201.

Proffit, W.R., Fields, H. W., Sarver, D. M., 2007, *Contemporary Orthodontics*, 4th edition, St. Louis Missouri: Mosby Elsevier.

Raggatt, L.J., Partridge, N.C., 2010, Cellular and Molecular Mechanisms of Bone Remodeling, *The Journal of Biological Chemistry*, 285 (33): 25103–25108.

Reitan, K., 1959, Tissue Rearragement during Retention of Orthodontically Rotated Teeth, *The Angle orthodontist*, 29 (2): 105–113.

Roberts, W.E., Epker, B.N., Burr, D.B., Heartsfield, J.K., Roberts J.A., 2006, Remodeling of Mineralized Tissues, Part II: Control and Pathophysiology, *Seminars in Orthodontics*, 12 (4): 238-253.

Rossouw, E., Malloy, R., 2017., The Need for Retention – An important consideration, *Seminars in Orthodontics*, 23 (2): 109-122.

Rossouw, P.E. & Malik, S., 2016, The Retention Protocol, *Seminars in Orthodontics*, 23 (2): 237-248.

Rosyida, N.F., Ariyanto, T., Pudyani, P.S., Ana, I.D., 2018, Preparation of Simvastatin Hydrogel through Arginine Addition for Drug Delivery System, *Matec Conference Proceeding*, 01002: 10-13.

Ruan, F., Zheng, Q. & Wang, J., 2012, Mechanisms of Bone Anabolism Regulated by Statins, *Bioscience Reports*, 32 (6): 511–9.

Rúbia, M., Raffin, F.N., Moura, T., 2012, Strategies Used for to Improve Aqueous Solubility of Simvastatin : a Systematic Review, *Revista de Ciencias Farmaceuticas Basica e Aplicada*, 33 (4): 497–507.

Savjani, K.T., Gajjar, A.K. & Savjani, J.K., 2012, Drug Solubility: Importance and Enhancement Techniques, *ISRN Pharmaceutics*, 1–10.

Schachter, M., 2005, Chemical, Pharmacokinetic and Pharmacodynamic Properties of Statins: an Update, *Fundamental and Clinical Pharmacology*, 19 (1): 117–125.

van Schepdael, A., Vander Sloten, J. & Geris, L., 2013, A Mechanobiological Model of Orthodontic Tooth Movement, *Biomechanics and Modeling in Mechanobiology*, 12 (2): 249–265.

Schwartzberg, L.S., Navari, R.M., 2018, Safety of Polysorbate 80 in the Oncology Setting, *Advances in Therapy*, 35(6): 754–767.

Seifi, M., Kazemi, B., Kabiri, S., Badiee, M., 2017, Analysis of Transforming Growth Factor-β1 Expression in Resorptive Lacunae following Orthodontic Tooth Movement in an Animal Model, *Cell Journal*, 19(2): 278–282.

Shawesh, M., Bhatti, B., Usmani, T., Mandall, N., 2010, Hawley Retainers Full- or Part-Time? A randomized Clinical Trial, *European Journal of Orthodontics*, 32(2): 165–170.

Sheibaninia, A., Valaei, N., Vosooghi, M., 2010,Incidence of Relapse in Orthodontics Treatments and Related Factor, *Journal of Research in Dental Sciences*, 7(2): 32–41.

Siddiqui, J.A., danPartridge, N.C., 2016, Physiological Bone Remodeling: Systemic Regulation and Growth Factor Involvement, *Physiology*, 31(3): 233–245.

Sirtori, C.R., 2014, The Pharmacology of Statins, *Pharmacological Research*, 88: 3–11.

Stancu, I.C., Lungu, A., Iovu, H., 2014, 3-*Hydrogels for Bone Regeneration*, Woodhead Publishing Limited.

von Stechow, D., Fish, S., Yahalom, D., Bab, I., Chorev, M., Muller, R., Alexander, J.M., 2003. Does simvastatin stimulate bone formation in vivo? *BMC Musculoskeletal Disorders*, 4: 8.

Stein, D., Lee, Y., Schmid, M.J., Killpack, B., Genrich, M.A., Narayana, N., dkk., 2005, Local Simvastatin Effects on Mandibular Bone Growth and Inflammation, *J Periodontol*, 76: 1861–70.

Sunarintyas, S., Siswomihardjo, W., Tontowi, A.E., 2012, Cytotoxicity of Cricula triphenestrata Cocoon extract on Human Fibroblasts, *Int J Biomater*, 2012: 493075.

Suparwitri, S. dan Noviasari, P., 2019, Effect of Olive Oil Administration on the Level of Transforming Growth Factor β1 during Orthodontic Tooth Movement in Old and Young Guinea Pigs, *F1000Research*, 8 (May): 2028

Tanigo, T., Takaoka, R., Tabata, Y., 2010, Sustained Release of Water-Insoluble Simvastatin from Biodegradable Hydrogel Augments Bone Regeneration, *Journal of Controlled Release*, 143 (2): 201–206.

Thilander, B., 2011, Tissue Reactions in Orthodontics dalam Graber L., Vanarsdall

R., Katherine W.V., *Orthodontics: Current Principles and Techniques*, Mosby, h. 1104.

Tripuwabhrut, P., Mustafa, M., Gjerde, C.G., Brudvik, P., Mustafa, K., 2013. Effect of Compressive Force on Human Osteoblast-Like Cells and Bone Remodelling: an in Vitro Study. *Archives of Oral Biology*, 58 (7): 826–836.

Tsubaki, M., dkk., 2012, Bisphosphonate- and Statin-Induced Enhancement of OPG Expression and Inhibition of CD9, M-CSF, and RANKL Expressions via Inhibition of the Ras/MEK/ERK Pathway and Activation of p38MAPK in Mouse Bone Marrow Stromal Cell Line ST2. *Molecular and Cellular Endocrinology*, 361 (1–2): 219–231.

Uematsu, S., Mogi, M., Deguchi, T., 1996, Increase of Transforming Growth Factor-β1 in Gingival Crevicular Fluid during Human Orthodontic Tooth Movement, *Archives of Oral Biology*, 41(11): 1091–1095.

Vieira, G., Chaves, S.B., Ferreira, V.M., de Freitas, K.M.S., Amorim, R.F.B., 2015, The Effect of Simvastatin on Relapse of Tooth Movement and Bone Mineral Density in Rats Measured by a New Method Using Microtomography, *Acta Cirúrgica Brasileira*, 30 (5): 319–327.

Vig, P.S., Weintraub, J.A., Brown, C., Kowalski, C.J., dkk., 1990, The Duration of Orthodontic Treatment with and without Extractions: a Pilot Study of Five Selected Practices. *American Journal of Orthodontics and Dentofacial Orthopedics*, 97 (1): 45–51.

Wilson, B., Samanta, M.K., Santhi, K., Kumar, K.P.S., Paramakrishnan, N., Suresh, B., 2008, Poly(n-butylcyanoacrylate) Nanoparticles Coated with Polysorbate 80 for the Targeted Delivery of Rivastigmine into the Brain to Treat Alzheimer's Disease, *Brain Research*, 1200: 159–168.

Wu, M., Chen, G. and Li, Y.P., 2016, TGF-β and BMP Signaling in Osteoblast, Skeletal Development, and Bone Formation, Homeostasis and Disease, *Bone Research*, 4 (December 2015): 16009.

Wu, Z., Liu, C., Zang, G., 2008, The Effect of Simvastatin on Remodelling of the Alveolar Bone Following Tooth Extraction, *International Journal of Oral and Maxillofacial Surgery*, 37 (2): 170–176.

Yan, J., dkk., 2015, Solution Thermodynamics of Simvastatin in Pure Solvents and Binary Solvent Mixtures, *Fluid Phase Equilibria*, 406: 77–90.

Yasasvini, S., Anusa, R.S., VedhaHari, B.N., Prabhu, P.C., Ramya Devi, D., 2017, Topical Hydrogel Matrix Loaded with Simvastatin Microparticles for Enhanced Wound healing Activity, *Materials Sicence and Engineering*

C, 72: 160-167.

Yoshimatsu, M., Shibata, Y., Chang, X., Moriishi, T., Kitaura, H., Hashimoto, F., Yoshida, N., Chang, X., Yamaguchi, A., Yoshimatsu, M., Shibata, Y., Kitaura, H., Chang, X., Moriishi, T., Hashimoto, F., Yoshida, N., Yamaguchi, A., 2006, Experimental Model of Tooth Movement by Orthodontic Force in Mice and its Application to Tumor Necrosis Factor Receptor-Deficient Mice, *J Bone Miner Metab*, 24: 20–27.

Yuan, Y., Choi, K., Choi, S.O., Kim, J., 2018, Early Stage Release Control of an Anticancer Drug by Drug-Polymer Miscibility in a Hydrophobic Fiber-Based Drug Delivery System, *RSC Advances*, 8(35): 19791–19803.

Zhang, Y., Bradley, A.D., Wang, D., Reinhardt, R.A., 2014, Statins, Bone Metabolism and Treatment of Bone Catabolic Diseases. *Pharmacological Research*, 88: 53-61.

Zhao, N., dkk., 2012, Local Osteoprotegerin Gene Transfer Inhibits Relapse of Orthodontic Tooth Movement. *American Journal of Orthodontics and Dentofacial Orthopedics*, 141 (1): 30–40.

Zuo, C., Huang, Y., Bajis, R., Sahih, M., Li, Y. P., 2012, Osteoblastogenesis Regulation Signals in Bone Remodeling, *Osteoporosis International*, 23(6): 1653–1663.