GC Biomaterials 関連論文一覧　※各論文リストをクリックすると論文掲載サイトへ遷移します。

サイトランス グラニュール

【基礎研究論文】

○ 炭酸アパタイトとは？ならびに科学的評価

Kunio Ishikawa, et al. Bone Substitute Fabrication Based on Dissolution-Precipitation Reactions. *Materials.* 2010: 3(2): 1138-1155.

Kunio Ishikawa, et al. Fabrication of low crystalline B-type carbonate apatite block from low crystalline calcite block. *Journal of the Ceramic Society of Japan.* 2010: 118(1377): 341-344.

Kunio Ishikawa, et al. Physical and Histological Comparison of Hydroxyapatite, Carbonate Apatite, and β-Tricalcium Phosphate Bone Substitutes. *Materials (Basel).* 2018 Oct 16: 11(10): 1993.

Kunio Ishikawa, et al. Carbonate apatite bone replacement: learn from the bone. *J Tissue Eng Regen Med.* 2022 Feb: 16(2): 200-206.

○ 骨形成に関する研究

Youji Miyamoto, et al. Effects of low crystalline carbonate apatite on proliferation and osteoblastic differentiation of human bone marrow cells. *Journal of Materials science. Materials in Medicine.* 2015 Feb 06: 26(2): 99.

Youji Miyamoto, et al. Compositional and histological comparison of carbonate apatite fabricated by dissolution–precipitation reaction and Bio-Oss. *J Mater Sci Mater Med.* 2018 Jul 21: 29(8): 121.

Masahiro Saito, et al. Comparison of the vertical bone defect healing abilities of carbonate apatite, β-tricalcium phosphate, hydroxyapatite and bovine-derived heterogeneous bone. *Dent Mater J.* 2020 Mar 31: 39 (2): 309-318.

Ikiru Atsuta, et al. Replacement Process of Carbonate Apatite by Alveolar Bone in a Rat Extraction Socket. Materials. 2021: 14(16): 4457.

Yasunori Ayukawa, et al. Synergistic Effect of Carbonate Apatite and Autogenous Bone on Osteogenesis. *Materials.* 2022: 15(22), 8100.

Masahiro Nishimura, et al. Efficacy of bone grafting materials in preserving the alveolar ridge in a canine model. *Dental Materials Journal.* 2022 Apr 1: 41(2): 302-308.

Benoit Schaller, et al. Osteoclast behaviors on the surface of deproteinized bovine bone mineral and carbonate apatite substitutes in vitro. *J Biomed Mater Res A.* 2022 Aug:110(8):1524-1532.

Ikiru Atsuta, et al. Evaluation of carbonate apatite as a bone substitute in rat extraction sockets from the perspective of mesenchymal stem cells. *Dent Mater J.* 2023 Mar 30: 42(2): 282-290.

○ 歯周組織再生に関する研究

Masahiro Saito, et al. Comparison of the vertical bone defect healing abilities of carbonate apatite, β-tricalcium phosphate, hydroxyapatite and bovine-derived heterogeneous bone. *Dental Materials Journal.* 2020: 39 (2): 309-318.

Takanori Iwata, et al. Preclinical evaluation of the effect of periodontal regeneration by carbonate apatite in a canine one-wall intrabony defect model. Regenerative Therapy. 2023: 22: 128-135.

Anton Sculean, et al. Preclinical evaluation of a new synthetic carbonate apatite bone substitute on periodontal regeneration in intrabony defects. *Journal of Periodontal Research.* 2024: 59(1): 42-52.

○ 矯正・口蓋裂に関する研究

Kotaro Tanimoto, et al. Bone Regeneration in Artificial Jaw Cleft by Use of Carbonated Hydroxyapatite Particles and Mesenchymal Stem Cells Derived from Iliac Bone. *Int J Dent.* 2012: 352510.

Kotaro Tanimoto, et al. Bone Regeneration in a Canine Model of Artificial Jaw Cleft Using Bone Marrow Derived Mesenchymal Stem Cells and Carbonate Hydroxyapatite Carrier. *Cleft Palate Craniofac J.* 2020 Feb: 57(2): 208-217.

○ 創傷治癒に関する研究

Yasunori Ayukawa, et al. Effect of carbonate apatite as a bone substitute on oral mucosal healing in a rat extraction socket: in vitro and in vivo analyses using carbonate apatite. International Journal of Implant Dentistry. 2022: 8: 11

【臨床研究論文】

○ サイナスリフト

Youji Miyamoto, et al. Maxillary Sinus Floor Augmentation Using Low-Crystalline Carbonate Apatite Granules with Simultaneous Implant Installation: First-in-Human Clinical Trial. *J Oral Maxillofac Surg.* 2019 May: 77(5): 985.e1-985.e11.

Youji Miyamoto, et al. Application of low crystalline carbonate apatite granules in two-stage sinus floor augmentation: a prospective clinical trial and histomorphometric evaluation. *J Periodontal Implant Sci.* 2019 Oct 9: 49(6): 382-396.

Hiromasa Kawana, et al. Comparison of the performances of low crystalline carbonate apatite and Bio-Oss in sinus augmentation using three dimensional image analysis. *Int J Implant Dent.* 2021 Mar 23: 7(1): 24.

○ 歯周組織再生療法

Shinya Murakami, et al. An exploratory clinical trial to evaluate the safety and efficacy of combination therapy of REGROTH® and Cytrans® granules for severe periodontitis with intrabony defects. *Regenerative Therapy* 21. 2022: 104e113.

○ 細胞治療

Yasuhiro Kizu, et al. Retrospective study on the effect of adipose stem cell transplantation on jaw bone regeneration. *Int J Implant Dent.* 2024 Feb 5: 10(1): 3.

【ケースレポート】

○ インプラント治療

Yoichi Taniguchi, et al. Ridge Preservation and Augmentation Using a Carbonated Apatite Bone Graft Substitute: A Case Series. Dent J (Basel). 2024 Feb 28: 12(3): 55.

Akiyoshi Funato, et al. Novel Synthetic Carbonate Apatite as a Bone Substitute in Implant Treatments: Case Reports. *Int J Periodontics Restorative Dent.* 2024 May 24: 44(3): 257-266.

○ 歯周組織再生療法

Atsushi Saito, et al. Double-sided entire papilla preservation technique in the combination periodontal regenerative therapy: A case report. *Clin Adv Periodontics.* 2024 Jun: 14(2): 100-107.

サイトランス エラシールド

【基礎研究論文】

○ 吸収期間など基本物性評価

Satoshi Imazato, et al. Fabrication of novel poly (lactic acid/caprolactone) bilayer membrane for GBR application. Dent Mater. 2020 May: 36(5): 626-634.

○ GBR 非臨床評価試験

Satoshi Imazato, et al. Poly (lactic acid/caprolactone) bilayer membrane achieves bone regeneration through a prolonged barrier function. J Biomed Mater Res B Appl Biomater. 2024 Jan: 112(1): e35365.

Shuichi Sato, et al. Resorbable bilayer membrane made of L-lactide- ε -caprolactone in guided bone regeneration: an in vivo experimental study. Int J Implant Dent. 2024 Jan 25: 10(1): 1.

○ 細菌透過性確認試験

Satoshi Imazato, et al. Poly (lactic acid/caprolactone) bilayer membrane blocks bacterial penetration. J Periodontal Res. 2022 Jun: 57(3): 510-518.

○ その他 総説 など

Satoshi Imazato, et al. Barrier membranes for tissue regeneration in dentistry. Biomater Investig Dent. 2021 May 20: 8(1): 54-63.

【臨床研究論文】

○ GBR

Izumi Asahina, et al. Safety and feasibility assessment of biodegradable poly (L-lactic acid/ ε -caprolactone) membrane for guided bone regeneration: A case series of first-in-human pilot study. Journal of Dental Sciences Volume 17. January 2022: Issue 1: 368-376.

Izumi Asahina, et al. A Prospective Study of the Assessment of the Efficacy of a Biodegradable Poly (L-lactic Acid/ ε -Caprolactone) Membrane for Guided Bone Regeneration. J Clin Med. 2023 Sep 15: 12(18): 5994.

○ サイナスリフト

Kikue Yamaguchi, et al. The Effectiveness and Practicality of a Novel Barrier Membrane for the Open Window in Maxillary Sinus Augmentation with a Lateral Approach, with Risk Indicators for Bone Graft Displacement and Bone Height Decrease: A Prospective Study in Humans. *Bioengineering.* 2023: 10: 1110.