

-大学院歯学独立研究科-

第 148 回 中 間 発 表 会 プ ロ グ ラ ム  
第 56 回 テ ー マ 発 表 会 プ ロ グ ラ ム

大学院学生等が、これまでの研究成果を発表します。  
どなたでも聴講できますので、多数の参加をお待ちしております (聴講申込不要)

場 所：実習館2階 総合歯科医学研究所セミナー室

日 時：2026年8月26日(水) 17時30分 開会

—2026年8月26日(水)—

| No. | 発表区分・予定時間                          | 演題名・発表者                                                                                                                                    | 審査委員                         |
|-----|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 1   | [中 間]<br>17:30~18:00<br>司会:小林 教授   | 「Lepr <sup>+</sup> bone marrow stromal cells protect Inflammaging and immune-senescence through Wnt secretion」<br>朱 徳超 硬組織疾患制御再建学 硬組織機能解析学 | 主査:村上教授<br>副査:中村特任教<br>:芳澤教授 |
| 2   | [テ ー マ]<br>18:00~18:10<br>司会:黒岩 教授 | 「チタンと 12%金銀パラジウム合金の口腔内における化学的安定性の評価」<br>黒岩 寧々 硬組織疾患制御再建学 生体材料学                                                                             | —                            |

発表内容の要旨(課程博士)  
Abstract of Presented Research (For the Doctoral Course)

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| 学 籍 番 号<br>Student ID No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ID # G 2408                                                                                                                               | 入 学 年<br>Entrance Year | 2024 年<br>Year |
| (ふりがな)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | シュ・デチョウトクテョウ                                                                                                                              |                        |                |
| 氏 名<br>Name in Full                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 朱 徳超                                                                                                                                      |                        |                |
| 専 攻 分 野<br>Major Field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 硬組織機能解析学                                                                                                                                  |                        |                |
| 主 指 導 教 員<br>Chief Academic Advisor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 小林 泰浩                                                                                                                                     |                        |                |
| 発 表 会 区 分<br>Type of Meeting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 中間発表会 ・ 大学院研究科発表会 ・ 松本歯科大学学会<br>Midterm Meeting / Graduate school research meeting presentation / The Matsumoto Dental University Society |                        |                |
| 演題名 / Title of Presentation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                           |                        |                |
| Lep <sup>r</sup> + bone marrow stromal cells protect Inflammaging and immune-senescence through Wnt secretion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                           |                        |                |
| 発表要旨 / Abstract                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                        |                |
| <p>Wnt ligands activate both canonical and non-canonical signaling pathways and play important roles in regulating bone metabolism to maintain bone mass. However, it remains unclear whether Wnt ligands derived from bone cells suppress bone phenotypes associated with aging.</p> <p>To address this question, we generated leptin receptor (LepR)-Cre; Wntless conditional knockout mice (LepR-Wls cKO), in which LepR-expressing cells are unable to secrete Wnt ligands, and analyzed their phenotypes. LepR-Wls cKO mice exhibited decreased bone mass and increased bone marrow adipogenesis without markedly changes in body fat mass or locomotor activity.</p> <p>Notably, survival analysis from 20 to 80 weeks of age revealed that LepR-Wls cKO mice had a 3.48-fold (males) and 4.15-fold (females) higher risk of mortality compared with heterozygous controls. Frailty assessment further demonstrated that LepR-Wls cKO mice developed systemic aging phenotypes beginning at middle age (35 weeks). Immunohistochemistry, western blotting, and qPCR analyses of senescence markers, including p16, SA-β-Gal, and inflammatory cytokines, suggested that LepR-Wls cKO mice develop bone marrow inflammaging, characterized predominantly by senescence in monocyte/macrophage lineage cells. Consistently, lipopolysaccharide (LPS) challenges showed that LepR-Wls cKO mice also exhibited increased mortality, indicating accelerated immunosenescence in these mice.</p> <p>Taken together, these findings suggest that bone marrow stromal cell-derived Wnt ligands protect against bone marrow inflammaging, thereby delaying age-associated immunosenescence.</p> |                                                                                                                                           |                        |                |