

Doctoral Dissertation Presentation (public hearing)
博士論文発表会 (公聴会)

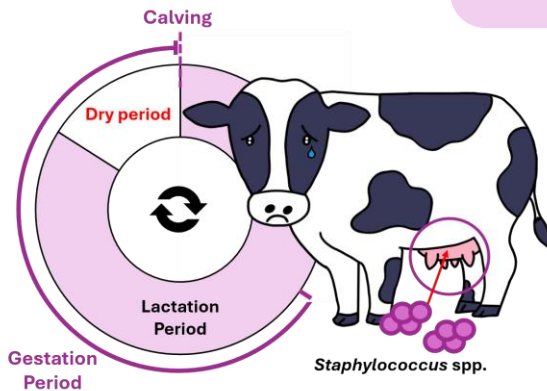
**Studies on The Effect of Bovine Lactoferrin on *Staphylococcus* Species
Isolated From Bovine Mastitis Cases**

(乳房炎牛から分離された *Staphylococcus* 属菌に対するウシラクトフェリンの効果に関する研究)

Presenter: Seraphina Kumala (D231236)

Date, Time: July 31st (Fri.) 2026, 10.00 ~ 11.00

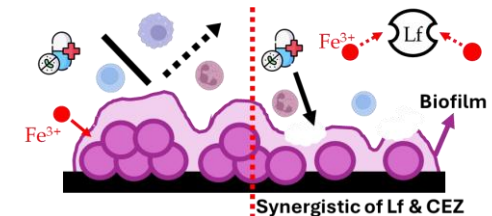
Venue: C303 (School of Applied Biological Science)



Description:

Mastitis, the intramammary infection due to broad pathogen invasion, is a common disease in dairy industry worldwide. Thus, antibiotic usually given to control the mastitis prevalence. *Staphylococcus* spp., the most prevalent mastitis-causing pathogen, were known able to produce biofilm to enhance their pathogenicity and survivability in various environment. As one of the immune response, Lactoferrin (Lf), the antimicrobial peptide, are naturally secreted in milk and enhanced upon infection and during the dry period, the non-lactating period of dairy cows. Lf is an iron sequester, thus limiting the iron, an essential micronutrient for bacterial cellular metabolism and enzymatic activity, availability to be used by bacteria.

However, the effect of Lf on bovine clinical mastitis-causing *Staphylococcus* spp. growth and biofilm production was still not yet understood. Thus, this study investigate the potential antimicrobial and antibiofilm properties of Lf individually and when combined with cefazolin, one of the common antimicrobial drug to control subsequent mastitis during the dry period, on the isolated bovine clinical mastitis-causing *Staphylococcus* spp.



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