

## 5. Animal products technology

データ閲覧・コメント入力可能期間：2021年3月28日0時～4月3日24時（予定）

### [P5-29] Establishment of new experimental model to investigate the mechanism by which water-soluble ZnPP is formed in Parma ham

○Yang Zhai<sup>1</sup>, Toru Hayakawa<sup>1</sup>, Haruto Kumura<sup>1</sup>, Jun-ichi Wakamatsu<sup>1</sup> (1.Hokkaido Univ.)

**[Objective]** Zinc-protoporphyrin IX (ZnPP) is the predominant red pigment in Parma ham and is mainly water-soluble by binding to hemoglobin. In two experimental models we had established, only trace amount of water-soluble ZnPP was produced. In this study, we tried to establish a new model producing plenty of water-soluble ZnPP like Parma ham. **[Methods]** The porcine *longissimus thoracis et lumborum* (LTL) muscle was homogenized and then incubated anaerobically under different conditions. The fluorescence intensity of ZnPP was detected with spectrophotometer. ZnPP-binding proteins were determined with urea-PAGE and western blotting. **[Results]** In the established new model, the fluorescence intensity of water-soluble ZnPP increased 10-fold compared to previous experimental models by incubating 50% LTL muscle anaerobically at pH 5.5 for 10 days at 35°C. Urea-PAGE and western blotting showed that the ZnPP-binding protein was mainly hemoglobin same as Parma ham.