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口頭発表 | 5. 畜産物利用

## 畜産物利用

座長:佐々木 啓介(農研機構畜産部門)、船津 保浩(酪農大食と健康)、川井 泰(日大生資科)、重盛 駿(信州大農)  
2019年9月18日(水) 13:30 ~ 16:20 第II会場 (7 番講義室)

II-18-01~II-18-04 : 佐々木 啓介

II-18-05~II-18-08 : 船津 保浩

II-18-09~II-18-12 : 川井 泰

II-18-13~II-18-16 : 重盛 駿

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15:30 ~ 15:40

### [II-18-12]Anti-viral immunobiotics from porcine small intestine.

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[Objective] Lactic acid bacteria (LAB) have been proposed as viable and effective food and feed supplements to improve host's resistance against rotaviral diarrheal diseases in humans and livestock animals. Here we evaluated the anti-viral immunomodulatory ability of *L. salivarius*<sup>1)</sup>.

[Methods] Porcine intestinal epithelial (PIE) cells were pre-stimulated with *L. salivarius* for 48 hours and then challenged with rotavirus OSU strain for 3, 6, 12 and 16 hours. Effect of *L. salivarius* on rotavirus infectivity evaluated by immunofluorescence. The mRNA expression level of immune related factors was quantified by qRT-PCR.

[Results] Some strains of *L. salivarius* were able to reduce the infectivity of the rotavirus OSU strain to around 60%. These strains significantly increased the mRNA levels of INF- $\beta$ , IFN- $\lambda$  with control groups. This study allowed us to select potential antiviral immunobiotics, which could be used as supplements to prepare immunologically functional food and feed.

1) Masumizu, Y. *et al.*, *Microorganisms*, 7:167, 1-17 (2019).