

Global Veterinary Summit

August 31- September 02, 2015 Orlando-FL, USA

Expression of the gene of predicted zymogen granule protein (G3MZ19) homologue in the Bali cattle (*Bos javanicus*) saliva

Sulaiman Ngongu Depamede
Mataram University, Indonesia

Bali cattle (*Bos javanicus*) are a type of beef cattle native to Indonesia. Their size is relatively smaller (300-600 kg) than those of *Bos taurus* but Bali cattle have high adaptability to tropical conditions. Efforts to study the physiological of Bali cattle have been done through their saliva as a non-invasive material. Depamede et al. (2012) has reported the presence of a bactericidal substance in the saliva of Bali cattle. Furthermore, the results of proteomics studies indicated that the substance included in mannose binding lectin (MBL) protein family consisting of G3MZ19 which until now has not been characterized, F1N1Z8 similar to the peptide regulator of metastasis process of cancer cells and F1MCV8 which is a prolactin-inducible homologue precursor protein. In this presentation, I would like to share the results of our research on the expression and the phylogenetic study of G3MZ19 gene in Bali cattle. PCR was carried out using the primers developed from *Bos taurus* G3MZ19 gene (NCBI). Our studies revealed that G3MZ19 genes were expressed in the genomic DNA of Bali cattle. Results of dendogram with 1000 bootstrap replications indicate that Bali cattle are located between *Bos taurus* and *Bos mutus*. In addition to ruminants, in our dendogram analysis, we also included mono gastrics (humans and porcines). Evolutionary of G3MZ19 shows only *Sus scrofa* existed in the dendogram while humans do not at all. What is the role of this G3MZ19 in Bali cattle is still need to be investigated further.

Biography

Sulaiman Ngongu Depamede has completed his PhD from The University of Adelaide, South Australia. Besides being a Lecturer at the Faculty of Animal Science of Mataram University, he is also a Chairman of Immunobiology Laboratory, Mataram University (2005-2015); he now serves as Secretary of the Consortium for Research Large ruminants. His research in the last five years focused on the proteomics of Bali cattle (*Bos javanicus*) saliva. In 2013, he was a Visiting Scientist at the Ruakura Research Centre, Hamilton, New Zealand; there, together with researchers from the Ruakura Research Centre, he conducted a study on BSP-30 (a candidate bloat marker) in Bali cattle vs. New Zealand dairy cow saliva. He has published his research papers in reputed journals.

depamede@gmail.com

Notes: