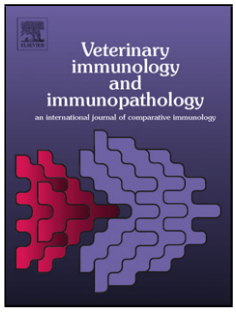

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Threshold level of *Riemerella anatipestifer* crossing blood-brain barrier and expression profiles of immune-related proteins in blood and brain tissue from infected ducks

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Highlights

· *R. anatipestifer* could cross blood-brain barrier with low-level bacteremia of 7.5×10^2 CFU/ml.

· High bacterial counts in brain tissue were a crucial lethal factor during *R. anatipestifer* infection.

· Th1 and Th17 responses were mainly induced, followed by Th2 response during *R. anatipestifer* infection.

· IL-17F had higher expression level than IL-17A and IL-17D in blood and brain tissue from infected ducks.