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Mitigation of Enteric Methane Emission from Ruminants—Impact of Feed Modification and Rumen Manipulation

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Message from the Guest Editor

Dear Colleagues,

Methane has a strong greenhouse effect. The mitigation of methane production by ruminants has been a subject of intensive research.

The reduction of enteric methanogenesis can usually be achieved by manipulating ruminants´ diet (including changing dietary composition, using anti-methanogenic feed sources or adding anti-methanogenic additives). As the rumen microbial communities related with methanogenesis (methanogenic archaea, eubacteria, protozoa, fungi) and their activity are affected by host dietary changes, the enteric methane production is then reduced. Nevertheless, the host´s genetic background may also influence the enteric methanogenesis by interacting with the rumen microbiota, which in turn may affect the success of the rumen manipulation to mitigate the emission of methane by the host.

This Special Issue aims to present recent research advances on the exploration of rumen manipulation strategies to reduce the enteric methane emissions by ruminants. Studies reporting the influence of the host genetic background on rumen methanogenesis are also of interest.

Keywords: ruminants; enteric methane; rumen microbiota; methanogenesis; host genetics

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Message from the Editor-in-Chief

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