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## In Vitro and In Vivo Digestibility Studies in Ruminants

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### **Message from the Guest Editors**

Digestion and metabolism of nutrients in ruminants are key aspects of feeding systems, since digestibility and rumen degradability are the main sources of variation of protein and energy value of feeds. Reliable and appropriate biological data can be obtained using in vitro, in situ or in vivo techniques.

In vivo methods are the most reliable ones and are considered usually as a reference. However, they are expensive, time consuming, limited to a small number of feeds evaluated at the same time and need an elevated number of animals to obtain reliable results. Moreover, new demands of reducing the use of research animals have created interest in in vitro techniques. In vitro techniques for feed evaluation are important methodologies for studying the fermentative and digestive characteristics of feed. They represent biological models that properly simulate the digestion process in animals, but their results are limited, since these in vitro techniques cannot mimic all the metabolic processes that occur in a live animal.

Studies investigating new feedstuff or by-products, or the effect of feed additives on digestibility and enteric methane production will be welcome.



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**Special** Issue



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## Message from the Editor-in-Chief

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