# **Special Issue**

## Gene Therapy on Ruminant Animals

## Message from the Guest Editor

Genetic diseases in the context of gene therapy have been widely studied, and many of these indications have been successfully recapitulated in mice. However, murine homologues are limited as translational models because of their small size and decreased life span compared to humans, and also because the mutations induced by gene targeting do not always faithfully reflect the clinical manifestations of the corresponding diseases in humans. These limitations could be overcome by employing large animal models. This edition focuses on gene therapy of ruminants and will address issues around the use of genetic manipulation tools on ruminants, the context of this genetic manipulation, i.e. infectious diseases, monogenic diseases, and in utero gene therapy, the ethical concerns raised thereof, and finally the potential that ruminants hold as convincing and efficacious models in recapitulating corresponding human indications in a more faithful way compared to mouse models in terms of physiology, body and organ size, lifespan, and metabolism.

#### **Guest Editor**

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## Message from the Editor-in-Chief

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