# Special Issue

# Molecular Mechanisms Affecting Reproduction and Fertility in Cattle

### Message from the Guest Editors

Reproductive performance and fertility in dairy cows have declined over the past five decades. Female reproductive processes are complex, including luteolysis, follicular development, ovulation, fertilization, recognition and establishment of pregnancy, and parturition. Disruption in any of these processes will lead to poor reproductive performance and fertility. Many risk factors are involved, including genetics, physiology, nutrition, infections, and management. Selection for a higher milk yield increases metabolic load and leads to negative energy balance and decreased pregnancy rate. However, the explicit underlying molecular mechanisms remain elusive. The development of a wide variety of molecular and cell biology tools, such as gene and protein expression quantification, microarray, next-generation sequencing, proteomics, metabolomics, and the related bioinformatics tools, has enabled the investigation at pathway and global levels. This has also provided important insights improving our understanding of the underlying mechanisms of poor fertility and helping to combat this issue.

### Guest Editors

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### Deadline for manuscript submissions

closed (31 July 2022)

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