



animals



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Maternal Nutrition and Offspring Programming: Impact on Animal Production and Performance

Guest Editor:

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Message from the Guest Editor

The fetal period is very important for the development of animals, because all organs and tissues are rapidly formed and developed at this stage, undergoing further growth and maturation after birth. Developing tissues and organs are most sensitive to changes in the external environment, including maternal malnutrition, which leads to poor embryonic development and limits the long-term growth performance of animals. In the early embryonic stage, both muscle cells and fat cells are developed from the mesoderm, and their common origin provides an opportunity to strengthen muscle growth instead of adipogenic differentiation, thereby enhancing the lean/fat ratio of offspring. Understanding of mechanisms linking maternal nutrition to fetal development and offspring growth performance allows us to precisely manage animals to enhance production efficiency and quality.

In this issue, a number of prominent researchers working on fetal developmental programming contribute research or review articles, with the objective to provide current status and updates in fetal programming research in livestock production.



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Special *Issue*



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Message from the Editor-in-Chief

Animals is an on-line open access journal that was first published in 2011. *Animals* adheres to rigorous peerreview and editorial processes and publishes only high quality manuscripts that address important issues in the many varied disciplines that involve animals, with a focus on animal science, animal welfare and animal ethics. *Animals* is covered in the Science Citation Index Expanded (SCIE) in Web of Science, with the latest Impact Factor: 3.0 (2022, ranks 12 /62 (Q1) in ‘Agriculture, Dairy & Animal Science’; 13/143 (Q1) in ‘Veterinary Sciences’), 5-Year Impact Factor: 3.2.

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