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Mechanisms of Mammalian Oocyte Quality Control, Molecular Regulation and Solutions

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Message from the Guest Editors

The effects of environmental factors, diseases and food safety on oocyte quality and maternal control have been a subject of increasing interest. Environmental exposures to chemical pollutants found in environments including the air, soil, water and biota, diseases such as obesity and diabetes and contaminated foods intake, including the ingestion of mycotoxins, can affect all oocyte maturation quality and reduce fertilization and early embryo development competence. These exposures could disrupt meiosis resumption, cell cycle progression, meiotic spindle organization, chromosome segregation, actin dynamics, organelle function and polar body extrusion. These exposed oocytes show mitochondria dysfunction, DNA damage, oxidative stress, apoptosis/autophagy and a reduced fertilization rate, indicating that the oocyte quality is affected.

This Special Issue aims to focus on the effects of molecular regulation and toxic exposure on mammalian oocyte maturation. We look forward to receiving your contributions.



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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: 2.7 (2023, ranks 10/80 (Q1) in ‘Agriculture, Dairy & Animal Science’; 16/167 (Q1) in ‘Veterinary Sciences’), 5-Year Impact Factor: 3.0.

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