

Comparative biology of oocyte aging

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Reproductive aging is observed in domestic and wild animal species under human care. While oocyte aging has been mainly explored in laboratory rodents, studies in multiple animal species can contribute to the general knowledge of that phenomenon and provide new ideas to overcome this critical issue. Mammalian oocytes differ in anatomy (size, nucleo-cytoplasmic ratio, lipid content) and biology (growth, meiotic resumption timing) as well as in the causes of aging. It appears that oocytes from induced ovulators (e.g. felid species) are not impacted by aging the same way as gametes from spontaneous ovulators (e.g. deer species). Corrective solutions also have to be species specific.