

„Mitochondrial and metabolic changes during early embryo development in vitro – searching for the molecular markers of bovine oocyte quality”

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The aim of the project is verification if the changes in metabolic and energetic status during early embryo development in vitro account for the oocyte quality. Following experiments were planned in the study: [1] determination of the possible relationship between the disturbance on the level of mitochondrial DNA during early embryo development in vitro and oocyte quality, [2] determination of the possible relationship between the disturbance on the level of mitochondrial DNA in the cumulus oophorus during oocyte in vitro maturation and oocyte quality as well as [3] determination of the possible influence of the disturbance on the level of mitochondrial DNA in the cumulus oophorus cells on the transcriptomic changes in the obtained in vitro bovine blastocysts.

Requirements for the candidate:

1. Strong determination for scientific work
2. Master Thesis accomplishment – life science degree, veterinarian or any other biological degree
3. Knowledge in the field of animal physiology, as well as cell biology
4. Basic knowledge in the field of molecular biology, cell culture, and microscopy
5. Availability and willingness for gathering of the scientific material. Ability to work with animals.
6. Self dependence and ability to work alone as well as in the group
7. Very good knowledge of English language

Required documents

1. Motivation letter
2. CV
3. Master Thesis Certificate
4. Recommendation letter