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POSTER

# Effects of FSH, cumulus cell morphology and follicular fluid from different follicular sizes on the in vitro maturation of bovine oocytes

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## Abstract

The quality of mature oocyte plays a vital role in assisted reproductive technology, as well as animal cloning. Therefore, optimization of the in vitro maturation procedure for oocytes has long been of interests for researchers in the fields of reproduction. In this study, we investigated the effect of different supplement culture factors on in vitro maturation of bovine oocytes such as follicular-stimulating hormone (FSH) (experiment 1), different layers of cumulus cells (CCs) (experiment 2), and follicular fluid (FF) collected from different follicle sizes (experiment 3). With result from experiment 1, bovine oocytes cultured in in vitro maturation (IVM) medium supplemented with FSH reached to higher maturation rate than cultured in the basic one (85.9% and 69.3% respectively). In addition, experiment 2 suggested that, the groups of 3-4 layers and 2-3 layers achieve higher rate of oocyte maturity than group of <1 layers (84.38%; 82.46%; 47.83% respectively). However, the result of experiment 3 show that FF collected from different follicle size did not affect to the maturation rate. In conclusion, FSH and layers of CCs affect to the maturation of bovine oocytes.

## Keywords

Bovine oocyte, in vitro maturation, FSH, follicular fluid, cumulus cells

## Funding

## References