

EFFECT OF DIETARY ENERGY LEVEL ON FOLLICLE AND OOCYTE QUALITY DURING POST-PARTUM PERIOD IN DAIRY COWS

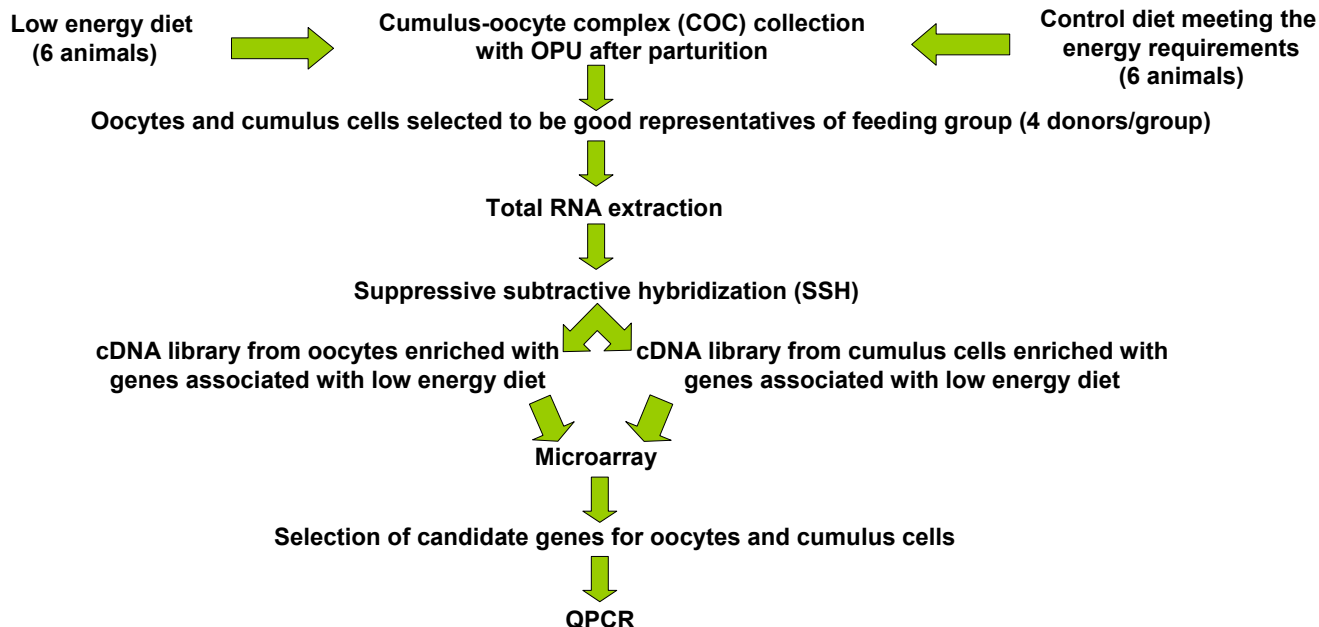
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INTRODUCTION

- Nutritional status is one of the major factors affecting reproductive performance in dairy cows
- Post-partum negative energy balance affects quality of oocytes, one of the key factors for subsequent embryo quality and viability
- The aim of this study was to investigate the effects of energy-restricted diet on the quality of cumulus-oocyte complex (COC) during early postpartum period, and to find indicator genes specific for energy deprivation

MATERIALS AND METHODS



RESULTS

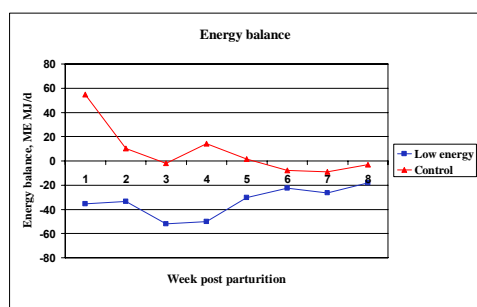


Figure 1. Weekly post partum energy balance in low energy and control groups.

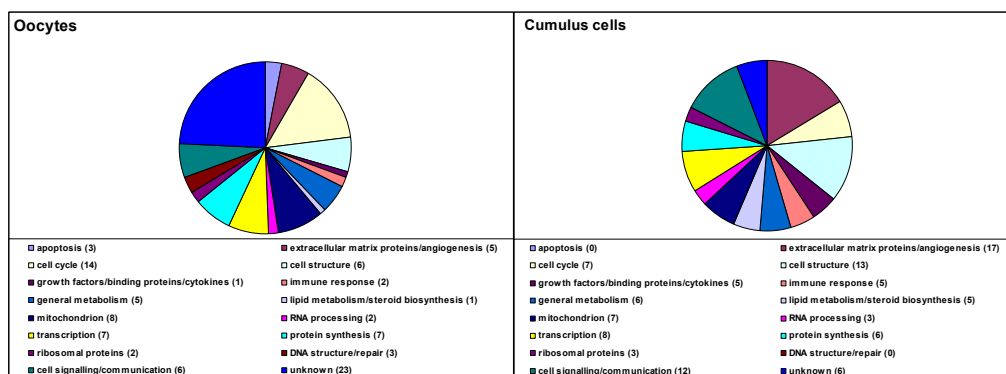


Figure 2. Classification of low energy specific genes into 15 functional categories. Numbers in parenthesis indicate total number of genes.

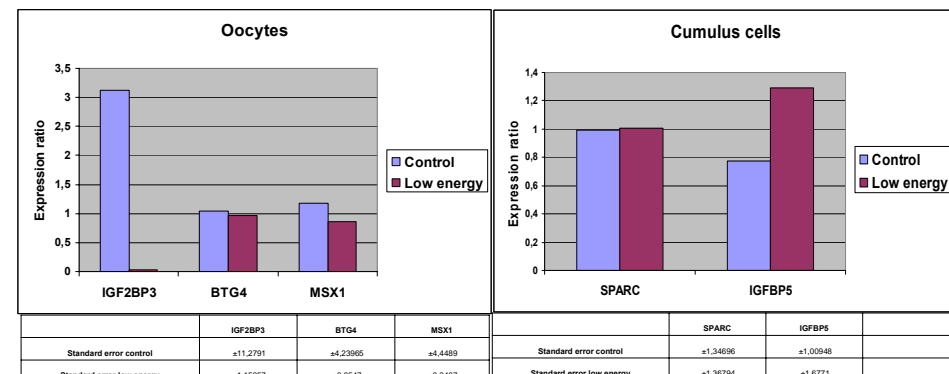


Figure 3. Microarray results were confirmed with verification samples in QPCR. Relative expression levels of three selected candidate genes for oocytes and two for cumulus cells were calculated. None of the differences between the two feeding groups were significant.

CONCLUSIONS

- None of the selected candidate genes turned out to be true positive low energy associated genes in QPCR verifications
- Further evaluation of the both libraries is needed