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**Czech Journal of Animal Science** 

Effects of non-steroidal gonadal factors on LH secretion in female common carp during the reproductive cycle

Chyb J., Mikolajczyk T., Sokolowska-Mikolajczyk M., Socha M., Szczerbik P., Biedroń D., Dębowska M., Kasiuk M., Madej J., Podczerwińska E., Adamek M., Epler P.:

Czech J. Anim. Sci., 53 (2008): 398-403 [ fulltext ]

The aim of this study was to evaluate the effects of recombinant human inhibin A, recombinant human activin A and desteroidized ovarian extract on LH secretion *in vitro* and *in vivo* in female

common carp during different stages of reproductive cycle. Inhibin stimulated spontaneous as well as GnRH-stimulated LH release in vivo in fish during gonadal recrudescence. This hormone did not have an influence on spontaneous LH secretion in the periovulatory period, but had a slightly inhibitory effect on GnRHstimulated LH release in this stage of gonad maturity. Activin decreased spontaneous LH secretion during gonadal recrudescence and increased LH secretion before ovulation, having no effects on GnRH-stimulated LH release during both stages of gonad maturity. The desteroidized ovarian extract failed to modify spontaneous LH secretion, but decreased GnRH-stimulated LH release during recrudescence and especially before ovulation. It is to conclude that these data suggest the differential role of inhibin/activin as substances in the regulation of LH secretion in common carp females.

#### **Keywords:**

inhibin; activin; ovarian extract; LH; common carp; aquaculture

