The temporal and spatial distribution of bovine placental lactogen (bPL), insulin-like growth factors I (IGF-I) and II (IGF-II) was studied in cattle during intrauterine development.

The IGF-II was measured by RIA system that used recombinant human IGF-II (GroPep Pty. Ltd., Adelaide, Australia). The reactivity of bovine IGF-II in this system was higher than 85%.

Radioimmunoassay of bPL was performed according to the method of Beckers et al. (1982) with slight modifications. Recombinant bPL (rbPL; NHPP, Dr. Parlow) was used as standard and tracer.

In conclusion, during the last two-thirds of pregnancy IGF-I and IGF-II gradually increase, this coincide with fetal growth rates measured in bovine species (Holland et al., 1997) suggesting that these molecules are involved in the fetal development. In the current study, fetal bPL showed a distinct temporal pattern from those of IGF-I and -II. These finding may help to understand the relation between placental hormones, growth factors and intrauterine growth.