

M.G. Moscoso¹, L. Cutaia², M. Aviles¹, I. Videla Dorna², L. Alisio¹, D. Moreno¹
¹ Facultad de Ciencias Agropecuarias, Universidad Católica de Córdoba, Argentina
² Syntex SA, Argentina, lcutaia@syntexar.com

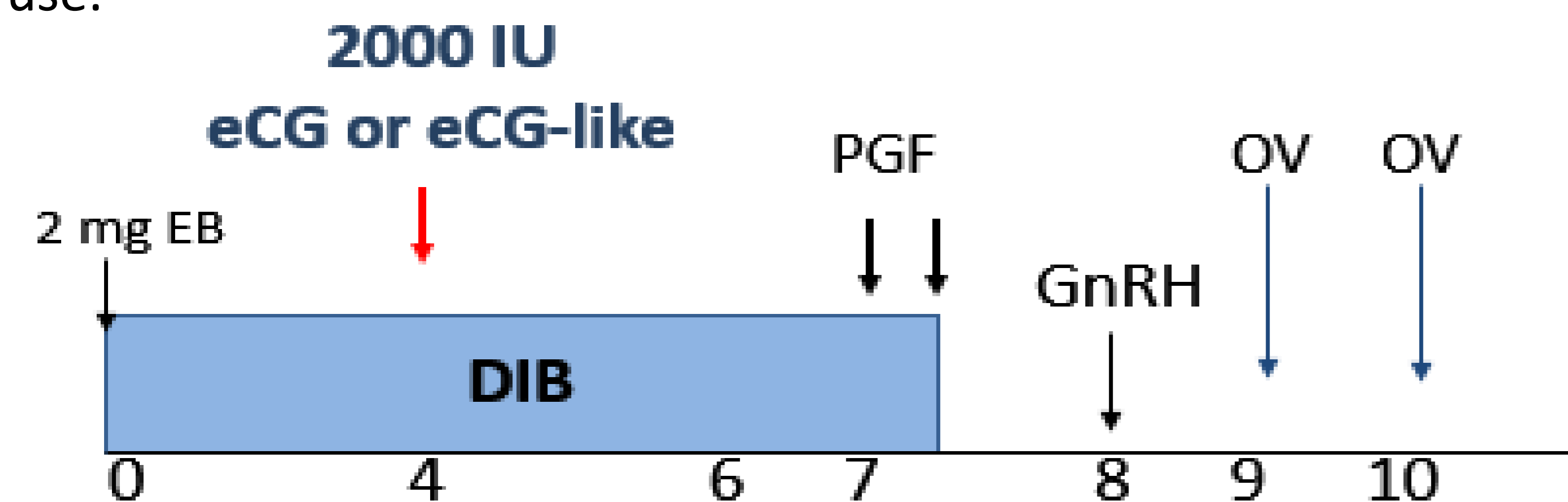
Background-aim

The objective of this study was to determine the biological activity of a synthetic eCG-like glycoprotein produced by recombinant technology as an alternative to native eCG in cattle.

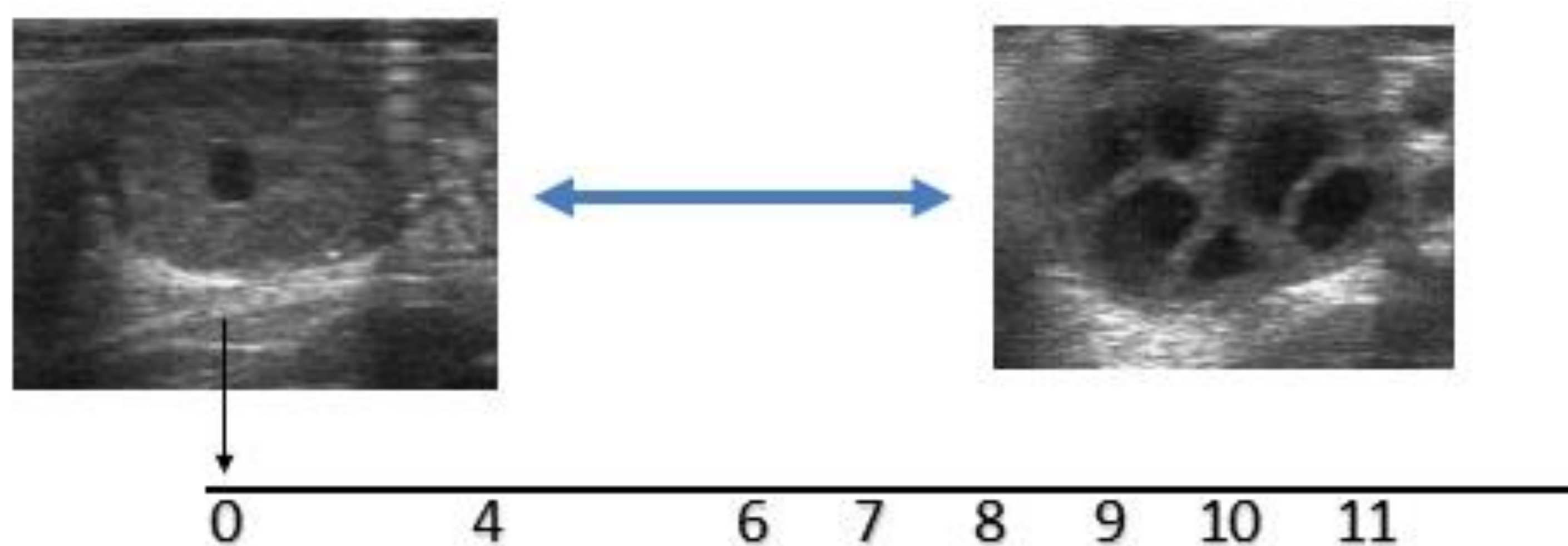


Materials and Methods

The trial was conducted in two periods in a crossover design (Period 1 and 2). Angus/Hereford cows between 3 to 5 years of age were use.

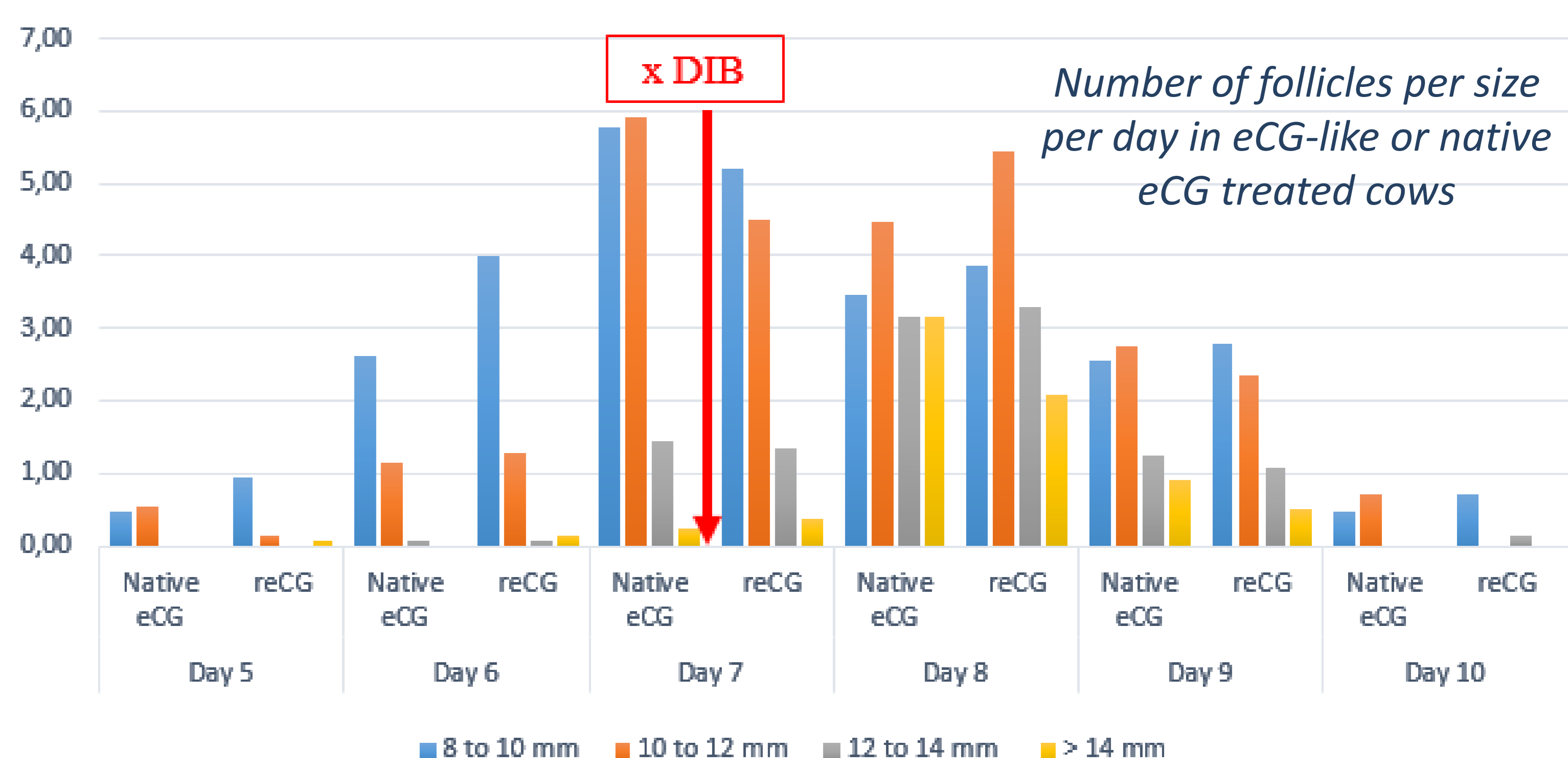
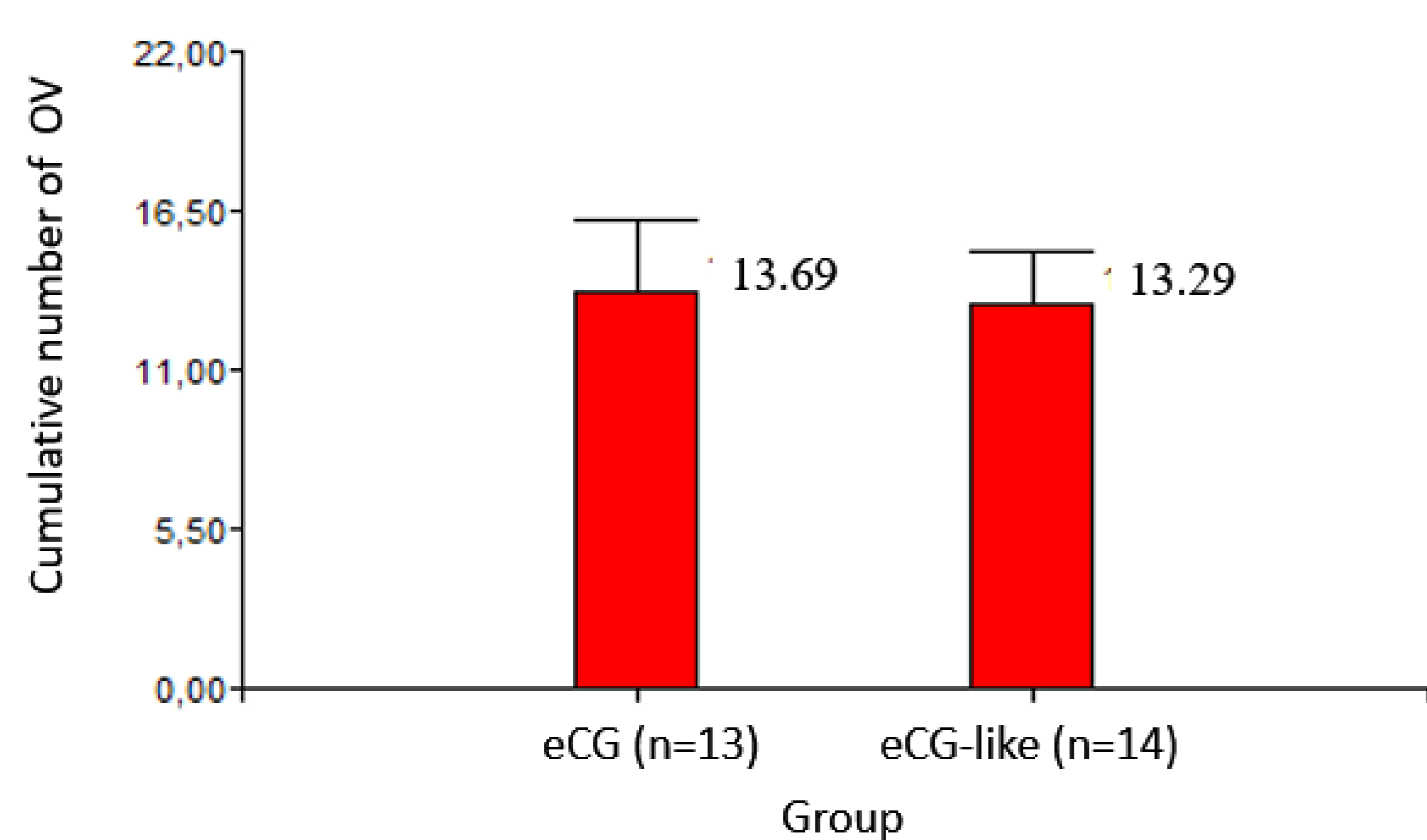


- ✓ EB: Estradiol benzoate (Gonadiol®, Syntex)
- ✓ DIB: Intravaginal device (1 gram of P4, DIB®, Syntex)
- ✓ eCG: 2000 IU of equine chorionic gonadotropin (Novormon®, Syntex)
- ✓ eCG-like: 2000 IU eCG-like glycoprotein (PCT/EP2019/073277, Syntex)
- ✓ PGF: 500 µg sodium cloprostenol (Cyclase®, Syntex)
- ✓ GnRH: 100 µg gonadorelin acetate (Gonasyn®, Syntex)



The animals were scanned by transrectal ultrasonography daily. On day 8 of treatment all follicles > 8 mm diameter (pre-ovulatory) were recorded. Daily ultrasound examinations were continued until Day 11 to determine the number of ovulations, defined as the disappearance of follicles larger than 8 mm present in the previous examination.

Results



- There was no effect of Period ($P=0.17$) or Period*Group interaction ($P=0.69$) for follicle numbers.
- Tended to be an effect of Period ($P=0.06$) on the number of ovulations, but no Period*Group interaction ($P=0.85$).

Number of pre-ovulatory follicles (>8 mm) on Day 8 of treatment	
Native eCG (n=13)	14.5±2.3
eCG-like (n=14)	15.0±1.9

Group $P=0.83$; Period $P=0.06$; Group*Period $P=0.85$

Conclusions

We conclude that the eCG-like glycoprotein produced by recombinant technology has the same biological activity as native eCG.