

Introduction of bucks during the late luteal phase of female goats modifies progesterone pattern

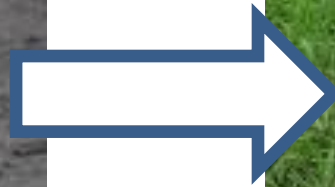
R. Ungerfeld¹, A. Orihuela²

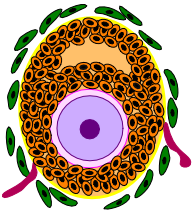
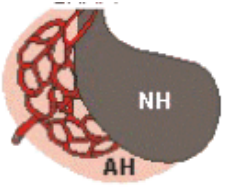
¹ Facultad de Veterinaria, Universidad de la República, Montevideo, Uruguay

² Facultad de Ciencias Agropecuarias de la Universidad Autónoma del Estado de Morelos, Cuernavaca, Morelos, Mexico

Introduction

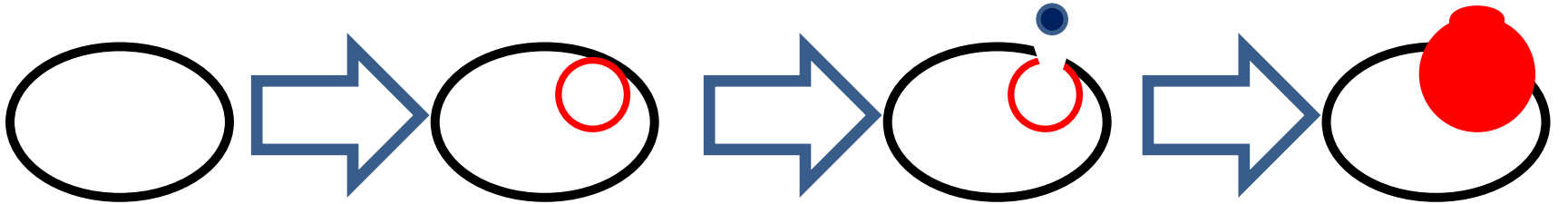
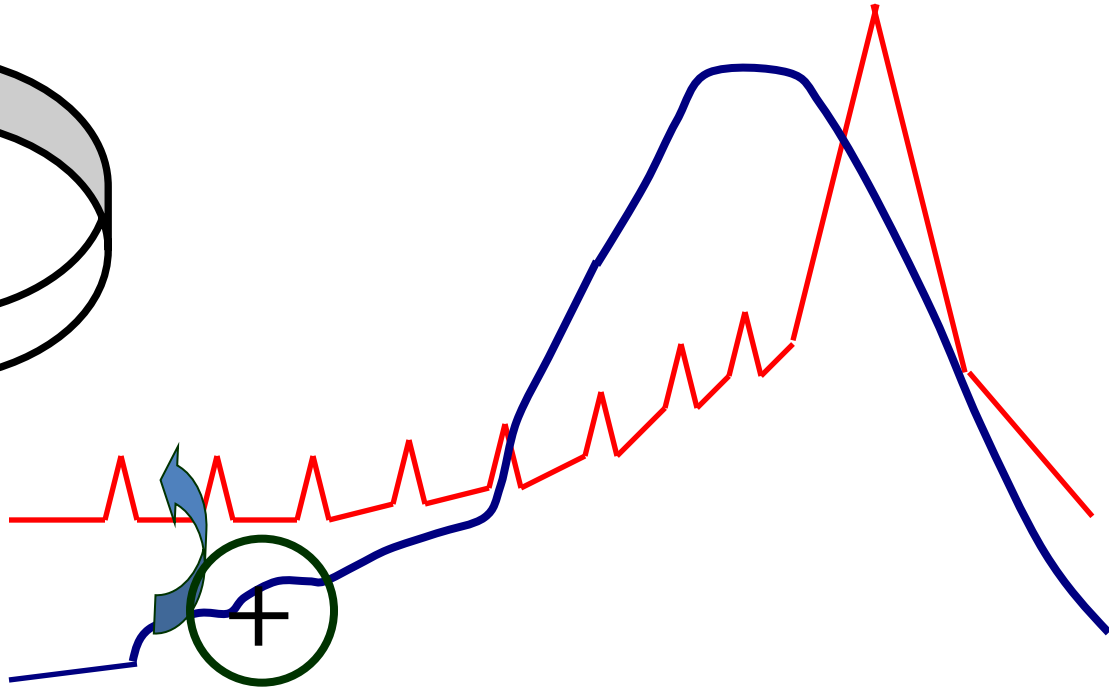
- Male effect (buck and ram effect)



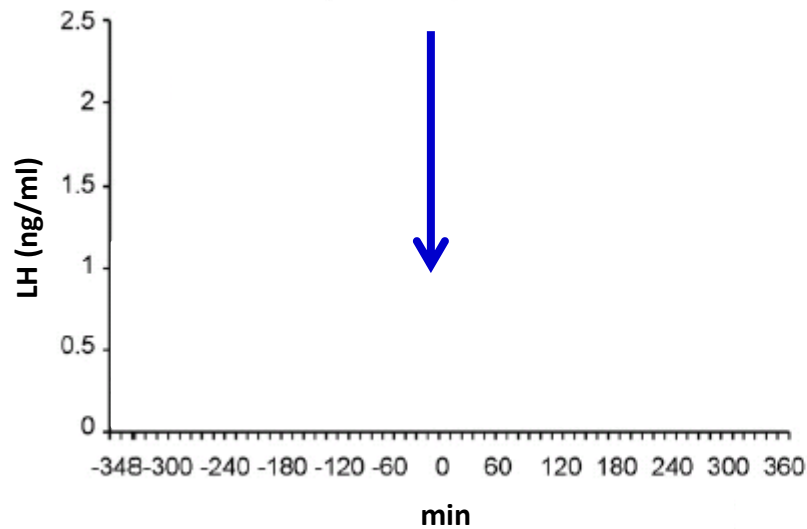


LH

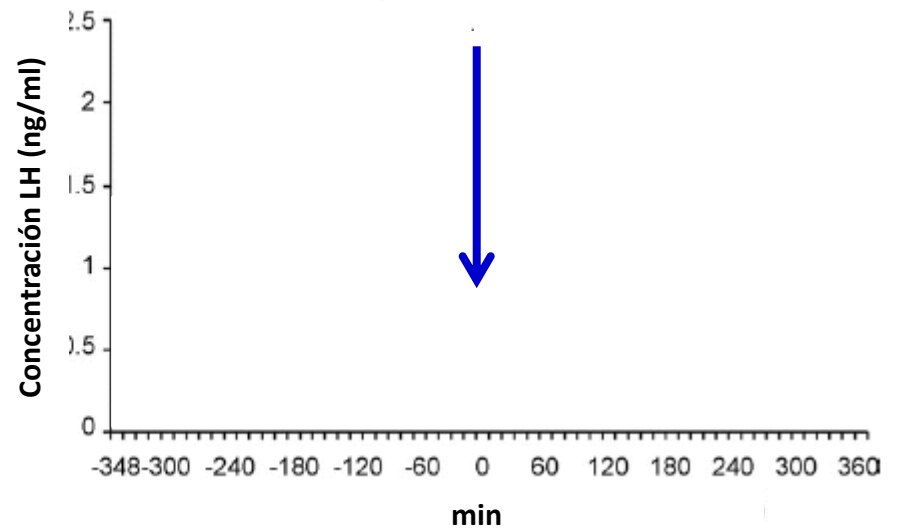
E2



But... what happens in cyclic animals?

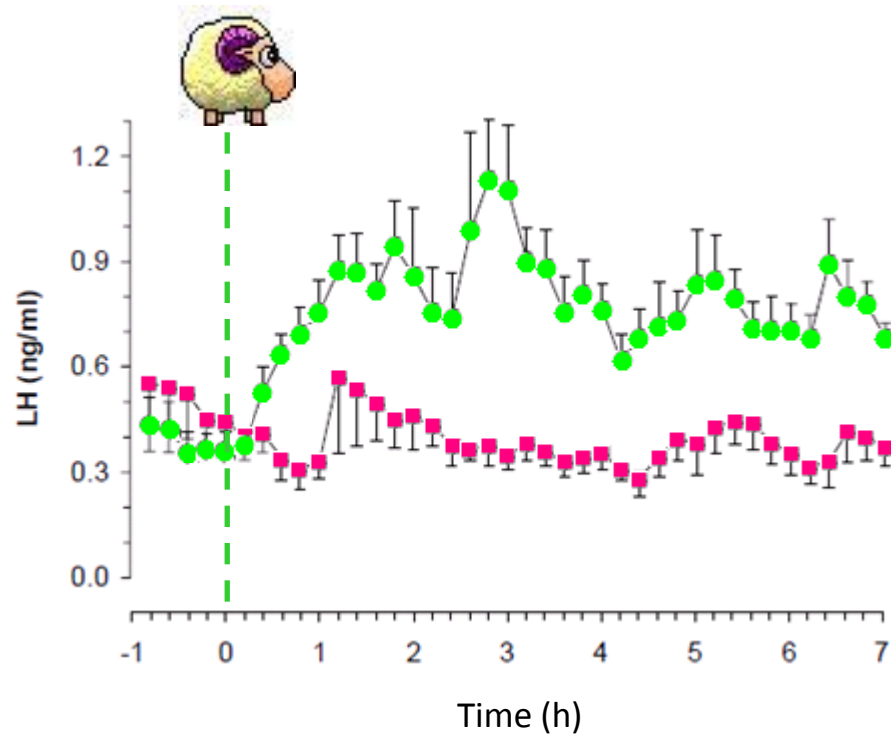


Early luteal phase



Late luteal phase

In cyclic ewes even treated with progestagens...



Effect on oestrus and ovulation of exposing creole goats to the male at three times of the year

P. Chemineau



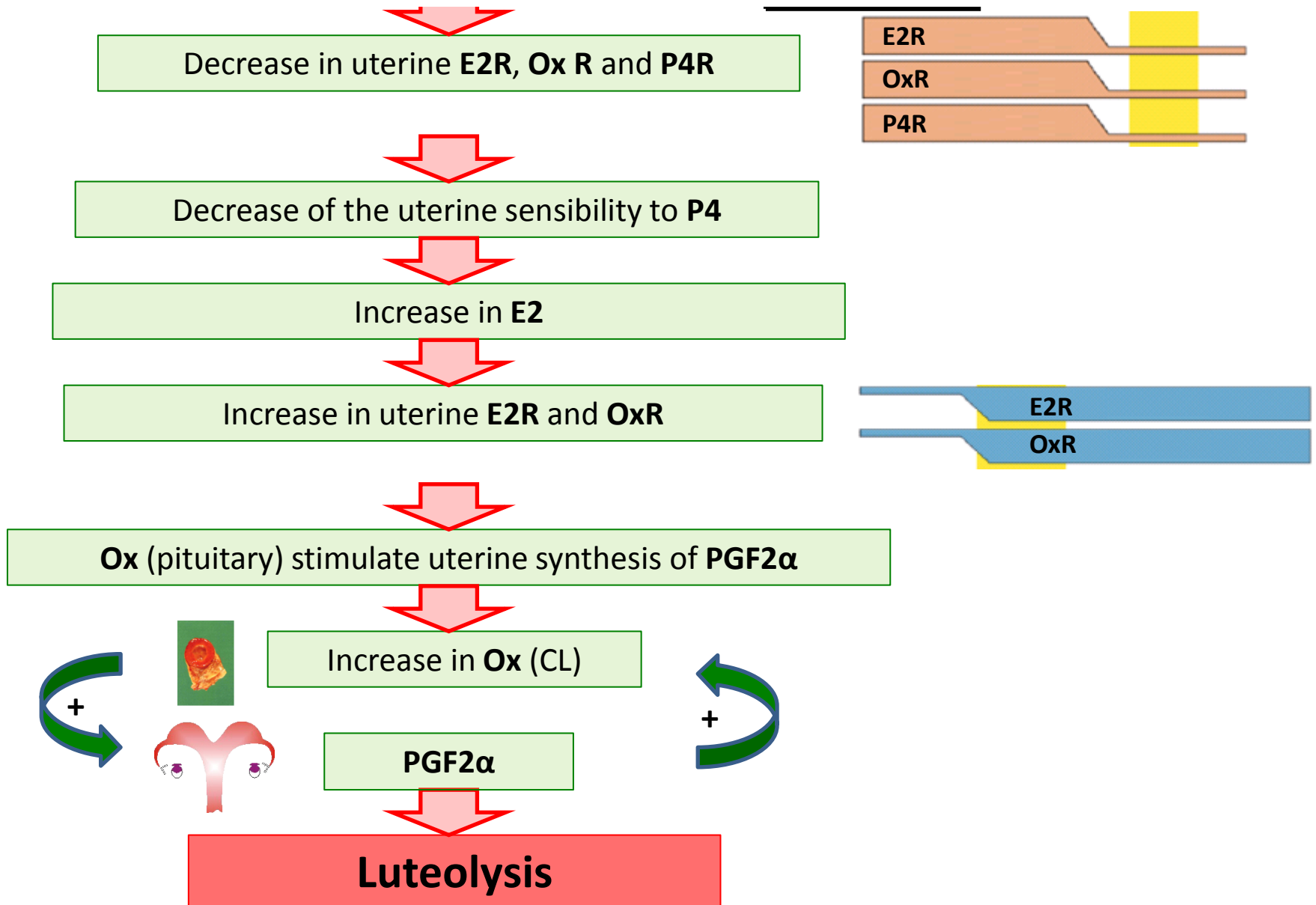
This could certainly not be the case on Day 2. Therefore, it appears that the presence of males may have induced rapid luteolysis and early ovulation in the females which would normally have ovulated several days later.



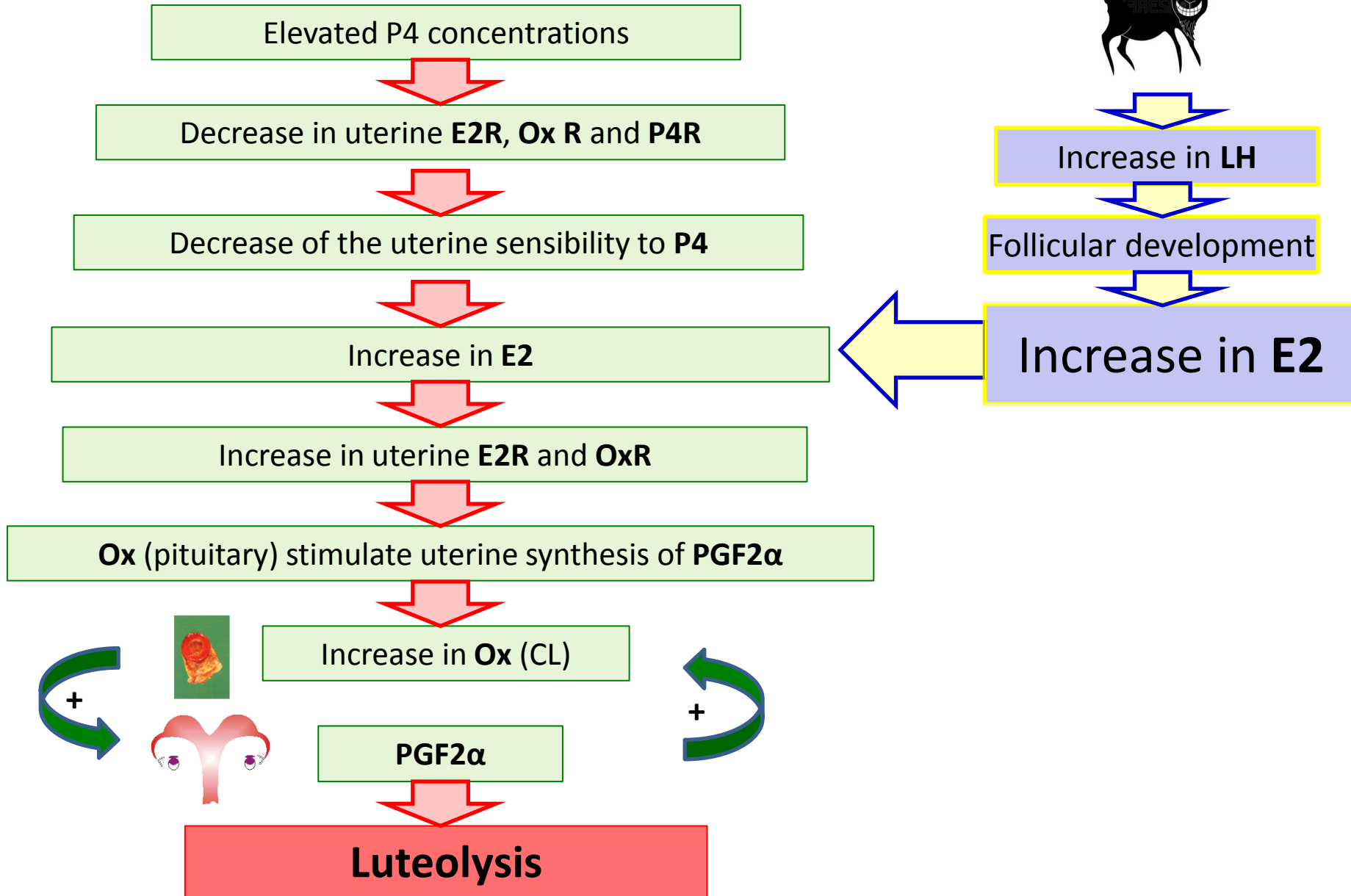
Text-fig. 2. Distribution of first oestrus after introduction of males (Day 0) in females (N = 136) that were cyclic before teasing. The broken line represents the uniform distribution. For Days 1–19, $\chi^2 = 142.58$, $P < 0.001$.

the distribution of oestrus was significantly different from the expected uniform distribution

Luteolytic process in small ruminants



The buck effect...



Aim

- To determine the progesterone profile after the introduction of bucks during the advanced luteal phase of does.

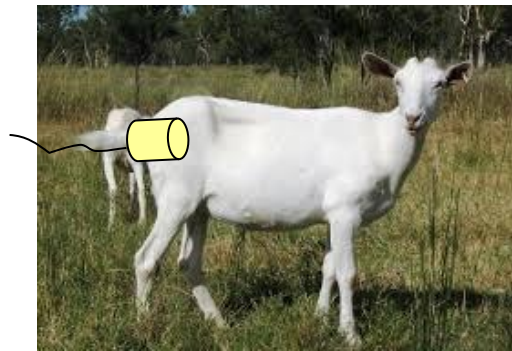


Materials and methods

- 14 cyclic, non-lactating 2.5 years-old does
- Completely isolated from males for at least 6 months.



- Estrous cycle:





- 15 days later...



BE group



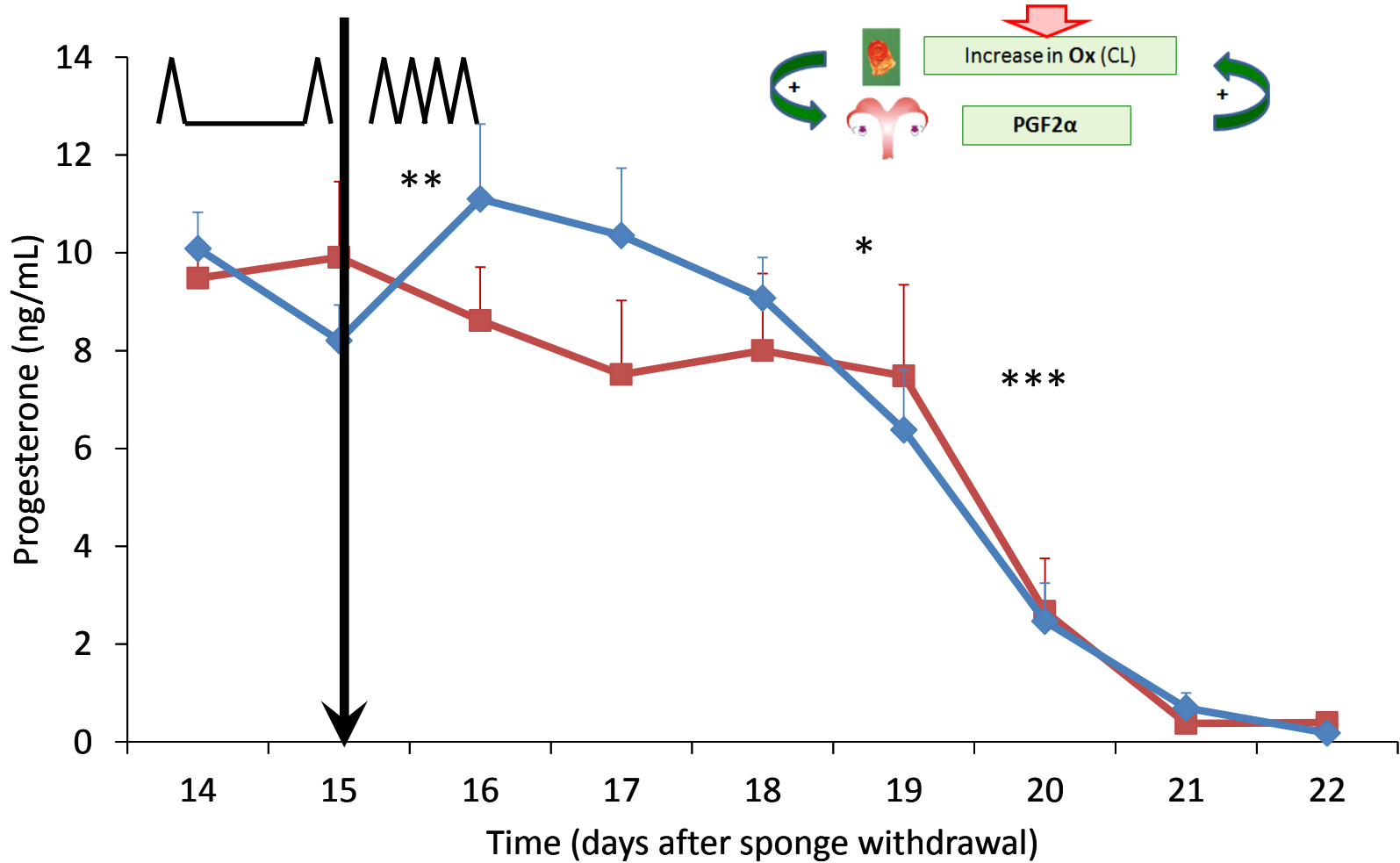
CON group

progesterone



Results and Discussion

- Length of the luteal phase:
 - ✓ BE: 15.5 ± 0.2 d
 - ✓ CON: 15.1 ± 0.3 d (ns)
- Progesterone <1 ng/mL in all does 20 days after sponge withdrawn.



Conclusion

- The introduction of bucks during the late luteal phase of isolated does can induce changes in the progesterone pattern, showing an early increase followed by a pronounced withdrawal.

Future directions

- Species
- Social-stimulation
- Techniques: doppler, hormonal measurement
- Inclusion in estrous synchronization treatments,



Thanks for your
attention