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## Development of the “waveless” bovine model

### Running Title

### Waveless bovine model

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### ABSTRACT

Development of a bovine model without ovarian follicular waves (waveless) and transient increases in gonadotropin secretion during estrous cycles may lead to new methods to more consistently regulate ovulatory follicle growth thereby improving efficiency of embryo transfer. We hypothesized that the GnRH antagonist acyline would inhibit gonadotropin secretion thereby blocking follicular waves, ovarian function and ovulation during estrous cycles of cattle. To test this hypothesis, beef heifers ( $n = 5$  per group) were treated twice daily with vehicle (control) or 25 or 50  $\mu\text{g}/\text{kg}$  acyline beginning 12 h after GnRH-induced ovulation and ending 21 days later. Each animal was subjected to ovarian ultrasonography for 25 days to monitor number and growth of follicles  $\geq 3$  mm

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