

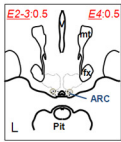
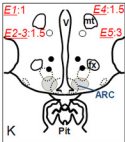
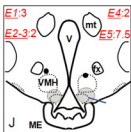
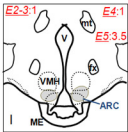
Supplemental Figure Legends

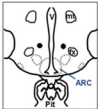
Fig. 1. Location microimplants and microinjections in Experiments 1-5 depicted on schematic coronal section of the ovine hypothalamus. Grey ovals in each panel depict range of locations of correct sites in this AP position in all experiments. Red text indicates the number of animals in each experiment with placements in this coronal section. In some cases bilateral sites were in different coronal planes as indicated by "0.5". Sites that were missed dorsally are indicated by black dots; sites that were in the third ventricle (V), through the base of the hypothalamus, or in the mammillary body are not shown.

Schematic sections are redrawn from **Lehman MN, Robinson JE Karsch FJ, and Silverman AJ** 1985 Immuocytochemical localization of luteinizing hormone-releasing hormone (LHRH) pathways in the sheep brain during anestrus and the mid-luteal phase of the estrous cycle. *J Comp Neurol* 244: 19-35.

Letters identifying each panel (I-L) are from Fig. 1 of that publication. ARC: arcuate nucleus; fx: fornix; ME: median eminence; mt: mammillothalamic tract; Pit: pituitary stalk; V: third ventricle; VMH: ventromedial hypothalamic nucleus.

Fig 2. Effects of misplaced microimplants of SB222200. Top panels depicts position of dorsal (left) and posterior (right) missed sites and bottom panels show LH pulse patterns in empty (Control) and SB222200-filled microimplants placed in each site. Solid circles depict peak of each pulse. ARC: arcuate nucleus; fx: fornix; MB: mammillary body; mt: mammillothalamic tract; Pit: pituitary stalk; V: third ventricle.

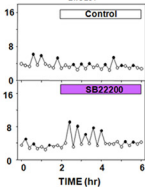
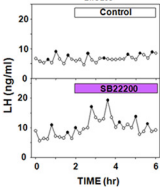




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Supplemental Table 1. Effects of 500 pmoles of Kiss1r antagonist

Pulse parameter	CONTROL			ANTAGONIST		
	Pre	Post 0-2h	Post 2-4h	Pre	Post 0-2h	Post 2-4h
Mean LH	10.8 ± 0.5	11.5 ± 1.4	10.9 ± 0.9	11.1 ± 2.1	13.8 ± 1.6	16.3 ± 3.0
Pulse amplitude	8.3 ± 1.5	9.1 ± 2.0	7.9 ± 1.9	5.7 ± 1.2	7.5 ± 1.9	7.8 ± 1.2
Interpulse interval	46.4 ± 1.6	46.4 ± 2.5	47.6 ± 2.2	44.8 ± 4.6	47.2 ± 4.7	46.8 ± 5.5

Data presented are means (\pm SEM, n=5) for time periods before (pre) and 0-2 and 2-4 hr after (Post) bilateral microinjections into the ARC nucleus. Mean LH and pulse amplitude are expressed in ng/ml; interpulse intervals are in minutes. There were no statistical differences based on two-way ANOVA with repeated measures.