



Name: Ryann McFee

Education: B.S. University of Nebraska-Lincoln, 2001

Job Description: Research Technician

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Project Description/Responsibilities:

Projects:

**1) Role of VEGF in testis morphogenesis:**

The objectives of this project are to determine the role of angiogenic factors such as VEGF and its receptors on seminiferous cord formation, embryonic testis growth and potential Sertoli-germ cell interactions.

**2) Role of VEGF in ovarian morphogenesis:**

The objective of this project is to determine the role of VEGF in the formation of vasculature and primordial follicle development in the perinatal ovary.

**2) MGA (melengestrol acetate) treatment in bulls:**

The objective of this project is to determine how daily intake of MGA, a synthetic progesterone, effects the onset of puberty, testis development, and spermatogenesis in bulls.

Responsibilities:

Perform collection, histological preparation and sectioning of various tissues and conduct immunohistochemistry, brightfield and confocal microscopy. Dissect tissues and isolate cell populations for cell

and organ cultures and perform various molecular techniques including isolation of DNA and RNA, genotyping, conventional and Real Time PCR.

## **Publications:**

### **Articles**

1. **McFee, R.M.**, Bott, R.C., Clopton, D.T., and Cupp, A.S. Inhibition of Vascular Endothelial

Growth Factor (VEGF) signaling arrests vascular development and impairs seminiferous cord formation during testis morphogenesis in the rat. Biol. Reprod. (In Press)

2. Clopton, D.T., Bott, R.C., **McFee, R.M.**, and Cupp, A.S. Cellular localization of VEGFR-2 in VEGFR2/Lac Z mice indicates a role in neovascularization and spermatogenesis during testis development. Biol. Reprod. (In Press)

### Relevant Abstracts

1. Cupp, A., **McFee, R.**, Pohlmann, R., Toombs, C., and Clopton, D. Inhibition of vascular endothelial growth factor (VEGF) signaling perturbs seminiferous cord formation and alters development of vasculature during testis morphogenesis in the rat. Biol Reprod 2002; 66(Suppl. 1):110

2. **McFee, R.**, Pohlmann, R, Clopton, D, Bott, R, Rozeel, T, and Cupp, A. Inhibition of VEGF signal transduction arrests vascular development and blocks follicle progression to the pre-antral stage in perinatal rat ovaries. Biol. Reprod. 2004 (Submitted)

3. Bott, R, Clopton, D., **McFee, R.**, and Cupp, A. The sex specific expression pattern of vascular endothelial growth factor receptor-2 (VEGFR-2) indicates a potential role for vascular formation in the development of morphogenic structures in both the ovary and testis of VEGFR-2/Lac Z mice. Biol. Reprod. 2004 (Submitted)

4. Clopton, D., Bott, R., **McFee, R.**, an

d Cupp, A. Cellular expression of vascular endothelial growth factor receptor-2 (VEGFR-2) indicates potential non-angiogenic roles of VEGFR-2 in spermatogenesis and ovulation in VEGFR-2/Lac Z mice. Biol. Reprod. 2004 (Submitted)

Hobbies: Running, reading and visiting my family scattered throughout the mid-west.