

Frank F. Bartol: Selected Publications

1. George AF, Rahman KM, Camp ME, Prasad N, **Bartol FF**, Bagnell CA. Defining age- and lactocrine-sensitive elements of the neonatal porcine uterine microRNA-mRNA interactome. *Biol Reprod* 2017; 96:327-340.
2. **Bartol FF**, Wiley AA, George AF, Miller DJ, Bagnell CA. Postnatal reproductive development and the lactocrine hypothesis. *J Anim Sci* 2017; DOI: 10.2527/jas2016.1144
3. Rahman KM, Camp ME, Prasad N, McNeel AK, Levy SE, **Bartol FF**, Bagnell CA. Age and Nursing Affect the Neonatal Porcine Uterine Transcriptome. *Biol Reprod* 2016; 94:46.
4. Ho TY, Rahman KM, Camp ME, Wiley AA, **Bartol FF**, Bagnell CA. Timing and duration of nursing from birth affect neonatal porcine uterine matrix metalloproteinase 9 and tissue inhibitor of metalloproteinase 1. *Domest Anim Endocrinol* 2016; 59:1-10.
5. Al Naib A, Tucker HL, Xie G, Keisler DH, **Bartol FF**, Rhoads RP, Akers RM, Rhoads ML. Prepubertal tamoxifen treatment affects development of heifer reproductive tissues and related signaling pathways. *J Dairy Sci* 2016; 99:5780-5792.
6. Rahman KM, Lovich JE, Lam C, Camp ME, Wiley AA, **Bartol FF**, Bagnell CA. Nursing supports neonatal porcine testicular development. *Domest Anim Endocrinol* 2014; 48:84-92.
7. Nanjappa MK, Ahuja M, Dhanasekaran M, Coleman ES, Braden TD, **Bartol FF**, Bird RC, Wanders D, Judd RL, Akingbemi BT. Bisphenol A regulation of testicular endocrine function in male rats is affected by diet. *Toxicol Lett* 2014; 225:479-487.
8. Camp ME, Wiley AA, Boulos MB, Rahman KM, **Bartol FF**, Bagnell CA. Effects of age, nursing, and oral IGF1 supplementation on neonatal porcine cervical development. *Reproduction* 2014; 148:441-451.
9. Miller DJ, Wiley AA, Chen JC, Bagnell CA, **Bartol FF**. Nursing for 48 hours from birth supports porcine uterine gland development and endometrial cell compartment-specific gene expression. *Biol Reprod* 2013; 88:4.
10. Cooke PS, Spencer TE, **Bartol FF**, Hayashi K. Uterine glands: development, function and experimental model systems. *Mol Hum Reprod* 2013; 19:547-558.
11. **Bartol FF**, Wiley AA, Miller DJ, Silva AJ, Roberts KE, Davolt ML, Chen JC, Frankshun AL, Camp ME, Rahman KM, Vallet JL, Bagnell CA. Lactation Biology Symposium: lactocrine signaling and developmental programming. *J Anim Sci* 2013; 91:696-705.
12. Bagnell CA, **Bartol FF**. Milk-borne relaxin and reproductive system development. *Ital J Anat Embryol* 2013; 118:15-16.
13. Frankshun AL, Chen J, Barron LA, Ho TY, Miller DJ, Rahman KM, **Bartol FF**, Bagnell CA. Nursing during the first two days of life is essential for the expression of proteins important for growth and remodeling of the neonatal porcine cervix. *Endocrinology* 2012; 153:4511-4521.
14. Cooke PS, Ekman GC, Kaur J, Davila J, Bagchi IC, Clark SG, Dziuk PJ, Hayashi K, **Bartol FF**. Brief exposure to progesterone during a critical neonatal window prevents uterine gland formation in mice. *Biol Reprod* 2012; 86:63.
15. Cooke PS, Borsdorf DC, Ekman GC, Doty KF, Clark SG, Dziuk PJ, **Bartol FF**. Uterine gland development begins postnatally and is accompanied by estrogen and progesterone receptor expression in the dog. *Theriogenology* 2012; 78:1787-1795.
16. **Bartol FF**, Bagnell CA. Lactocrine programming of female reproductive tract development: environmental connections to the reproductive continuum. *Mol Cell Endocrinol* 2012; 354:16-21.
17. Frankshun AL, Ho TY, Reimer DC, Chen J, Lasano S, Steinetz BG, **Bartol FF**, Bagnell CA. Characterization and biological activity of relaxin in porcine milk. *Reproduction* 2011; 141:373-380.

18. Chen JC, Frankshun AL, Wiley AA, Miller DJ, Welch KA, Ho TY, **Bartol FF**, Bagnell CA. Milk-borne lactocrine-acting factors affect gene expression patterns in the developing neonatal porcine uterus. *Reproduction* 2011; 141:675-683.
19. Cannon MV, Dunn DA, Irwin MH, Brooks AI, **Bartol FF**, Trounce IA, Pinkert CA. Xenomitochondrial mice: investigation into mitochondrial compensatory mechanisms. *Mitochondrion* 2011; 11:33-39.
20. Sherrill JD, Sparks M, Dennis J, Mansour M, Kempainen BW, **Bartol FF**, Morrison EE, Akingbemi BT. Developmental exposures of male rats to soy isoflavones impact Leydig cell differentiation. *Biol Reprod* 2010; 83:488-501.
21. Chen JC, Wiley AA, Ho TY, Frankshun AL, Hord KM, **Bartol FF**, Bagnell CA. Transient estrogen exposure from birth affects uterine expression of developmental markers in neonatal gilts with lasting consequences in pregnant adults. *Reproduction* 2010; 139:623-630.
22. Wiley AA, Kauffold J, Wahner M, Crean-Harris B, Miller DJ, Bagnell CA, **Bartol FF**. Laser microdissection of neonatal porcine endometrium for tissue-specific evaluation of relaxin receptor (RXFP1) expression in response to perinatal zearalenone exposure. *Ann N Y Acad Sci* 2009; 1160:190-191.
23. Ho TY, Dilts MA, **Bartol FF**, Bagnell CA. Relaxin promotes matrix metalloproteinase-2 and decreases Wnt/beta-catenin expression in the neonatal porcine heart. *Ann N Y Acad Sci* 2009; 1160:287-288.
24. Frankshun AL, Ho TY, Steinetz BG, **Bartol FF**, Bagnell CA. Biological activity of relaxin in porcine milk. *Ann N Y Acad Sci* 2009; 1160:164-168.
25. Chen JC, Wiley AA, Kauffold J, Wahner M, **Bartol FF**, Bagnell CA. Perinatal zearalenone exposure affects RXFP1, RXFP2, and morphoregulatory gene expression in the neonatal porcine uterus. *Ann N Y Acad Sci* 2009; 1160:188-189.
26. **Bartol FF**, Wiley AA, Bagnell CA. Relaxin and maternal lactocrine programming of neonatal uterine development. *Ann N Y Acad Sci* 2009; 1160:158-163.
27. Bagnell CA, Steinetz BG, **Bartol FF**. Milk-borne relaxin and the lactocrine hypothesis for maternal programming of neonatal tissues. *Ann N Y Acad Sci* 2009; 1160:152-157.
28. Yan W, Chen J, Wiley AA, Crean-Harris BD, **Bartol FF**, Bagnell CA. Relaxin (RLX) and estrogen affect estrogen receptor alpha, vascular endothelial growth factor, and RLX receptor expression in the neonatal porcine uterus and cervix. *Reproduction* 2008; 135:705-712.
29. **Bartol FF**, Wiley AA, Bagnell CA. Epigenetic programming of porcine endometrial function and the lactocrine hypothesis. *Reprod Domest Anim* 2008; 43 Suppl 2:273-279.
30. Masters RA, Crean BD, Yan W, Moss AG, Ryan PL, Wiley AA, Bagnell CA, **Bartol FF**. Neonatal porcine endometrial development and epithelial proliferation affected by age and exposure to estrogen and relaxin. *Domest Anim Endocrinol* 2007; 33:335-346.
31. Yan W, Wiley AA, Bathgate RA, Frankshun AL, Lasano S, Crean BD, Steinetz BG, Bagnell CA, **Bartol FF**. Expression of LGR7 and LGR8 by neonatal porcine uterine tissues and transmission of milk-borne relaxin into the neonatal circulation by suckling. *Endocrinology* 2006; 147:4303-4310.
32. Yan W, Ryan PL, **Bartol FF**, Bagnell CA. Uterotrophic effects of relaxin related to age and estrogen receptor activation in neonatal pigs. *Reproduction* 2006; 131:943-950.
33. **Bartol FF**, Wiley AA, Bagnell CA. Uterine development and endometrial programming. *Soc Reprod Fertil Suppl* 2006; 62:113-130.
34. Yan W, Wiley AA, **Bartol FF**, Bagnell CA. Tissue-specific effects of relaxin on the reproductive tract of neonatal gilts. *Ann N Y Acad Sci* 2005; 1041:132-135.
35. Bagnell CA, Yan W, Wiley AA, **Bartol FF**. Effects of relaxin on neonatal porcine uterine growth and development. *Ann N Y Acad Sci* 2005; 1041:248-255.

36. Tarleton BJ, Braden TD, Wiley AA, **Bartol FF**. Estrogen-induced disruption of neonatal porcine uterine development alters adult uterine function. *Biol Reprod* 2003; 68:1387-1393.
37. Tarleton BJ, Wiley AA, **Bartol FF**. Neonatal estradiol exposure alters uterine morphology and endometrial transcriptional activity in prepubertal gilts. *Domest Anim Endocrinol* 2001; 21:111-125.
38. Gray CA, Taylor KM, Ramsey WS, Hill JR, Bazer FW, **Bartol FF**, Spencer TE. Endometrial glands are required for preimplantation conceptus elongation and survival. *Biol Reprod* 2001; 64:1608-1613.
39. Gray CA, **Bartol FF**, Tarleton BJ, Wiley AA, Johnson GA, Bazer FW, Spencer TE. Developmental biology of uterine glands. *Biol Reprod* 2001; 65:1311-1323.
40. Allison Gray C, **Bartol FF**, Taylor KM, Wiley AA, Ramsey WS, Ott TL, Bazer FW, Spencer TE. Ovine uterine gland knock-out model: effects of gland ablation on the estrous cycle. *Biol Reprod* 2000; 62:448-456.
41. Tarleton BJ, Wiley AA, **Bartol FF**. Endometrial development and adenogenesis in the neonatal pig: effects of estradiol valerate and the antiestrogen ICI 182,780. *Biol Reprod* 1999; 61:253-263.
42. Spencer TE, Stagg AG, Joyce MM, Jenster G, Wood CG, Bazer FW, Wiley AA, **Bartol FF**. Discovery and characterization of endometrial epithelial messenger ribonucleic acids using the ovine uterine gland knockout model. *Endocrinology* 1999; 140:4070-4080.
43. Spencer TE, Stagg AG, Joyce MM, Jenster G, Wood CG, Bazer FW, Wiley AA, **Bartol FF**. Discovery and Characterization of Endometrial Epithelial Messenger Ribonucleic Acids Using the Ovine Uterine Gland Knockout Model1. *Endocrinology* 1999; 140:4070-4080.
44. Spencer TE, **Bartol FF**, Bazer FW, Johnson GA, Joyce MM. Identification and characterization of glycosylation-dependent cell adhesion molecule 1-like protein expression in the ovine uterus. *Biol Reprod* 1999; 60:241-250.
45. **Bartol FF**, Wiley AA, Floyd JG, Ott TL, Bazer FW, Gray CA, Spencer TE. Uterine differentiation as a foundation for subsequent fertility. *J Reprod Fertil Suppl* 1999; 54:287-302.
46. Tarleton BJ, Wiley AA, Spencer TE, Moss AG, **Bartol FF**. Ovary-independent estrogen receptor expression in neonatal porcine endometrium. *Biol Reprod* 1998; 58:1009-1019.
47. Ott TL, Wiley AA, **Bartol FF**. Effects of stage of gestation and uterine ligation on ovine placentome development and glycosaminoglycans. *J Anim Sci* 1997; 75:1053-1062.
48. Christenson RK, **Bartol FF**, Vallet JL, Wiley AA, Spencer TE. Comparative study of uterine morphogenesis and protein secretion in neonatal White crossbred and Meishan gilts. *Biol Reprod* 1997; 56:1112-1119.
49. Johnson LW, Moffatt RJ, **Bartol FF**, Pinkert CA. Optimization of embryo transfer protocols for mice. *Theriogenology* 1996; 46:1267-1276.
50. Vallet JL, Christenson RK, **Bartol FF**, Wiley AA. Effect of treatment with retinyl palmitate, progesterone, oestradiol and tamoxifen on secretion of a protein similar to retinol-binding protein during uterine gland development in neonatal pigs. *J Reprod Fertil* 1995; 103:189-197.
51. **Bartol FF**, Johnson LL, Floyd JG, Wiley AA, Spencer TE, Buxton DF, Coleman DA. Neonatal exposure to progesterone and estradiol alters uterine morphology and luminal protein content in adult beef heifers. *Theriogenology* 1995; 43:835-844.
52. Wolfenson D, **Bartol FF**, Badinga L, Barros CM, Marple DN, Cummins K, Wolfe D, Lucy MC, Spencer TE, Thatcher WW. Secretion of PGF2alpha and oxytocin during hyperthermia in cyclic and pregnant heifers. *Theriogenology* 1993; 39:1129-1141.
53. Spencer TE, Wiley AA, **Bartol FF**. Neonatal age and period of estrogen exposure affect porcine uterine growth, morphogenesis, and protein synthesis. *Biol Reprod* 1993; 48:741-751.

54. Spencer TE, **Bartol FF**, Wiley AA, Coleman DA, Wolfe DF. Neonatal porcine endometrial development involves coordinated changes in DNA synthesis, glycosaminoglycan distribution, and 3H-glucosamine labeling. *Biol Reprod* 1993; 48:729-740.
55. **Bartol FF**, Wiley AA, Spencer TE, Vallet JL, Christenson RK. Early uterine development in pigs. *J Reprod Fertil Suppl* 1993; 48:99-116.
56. Spencer TE, Wiley AA, **Bartol FF**. Lectin binding sites as markers of neonatal porcine uterine development. *J Histochem Cytochem* 1992; 40:1937-1942.
57. Bird RC, **Bartol FF**, Daron H, Stringfellow DA, Riddell MG. Mitogenic activity in ovine uterine fluids: characterization of a growth factor activity which specifically stimulates myoblast proliferation. *Biochem Biophys Res Commun* 1988; 156:108-115.
58. **Bartol FF**, Wiley AA, Goodlett DR. Ovine uterine morphogenesis: histochemical aspects of endometrial development in the fetus and neonate. *J Anim Sci* 1988; 66:1303-1313.
59. **Bartol FF**, Wiley AA, Coleman DA, Wolfe DF, Riddell MG. Ovine uterine morphogenesis: effects of age and progestin administration and withdrawal on neonatal endometrial development and DNA synthesis. *J Anim Sci* 1988; 66:3000-3009.
60. Wiley AA, **Bartol FF**, Barron DH. Histogenesis of the ovine uterus. *J Anim Sci* 1987; 64:1262-1269.
61. **Bartol FF**, Roberts RM, Bazer FW, Thatcher WW. Characterization of proteins produced in vitro by bovine endometrial explants. *Biol Reprod* 1985; 33:745-759.
62. **Bartol FF**, Roberts RM, Bazer FW, Lewis GS, Godkin JD, Thatcher WW. Characterization of proteins produced in vitro by periattachment bovine conceptuses. *Biol Reprod* 1985; 32:681-693.
63. Thatcher WW, **Bartol FF**, Knickerbocker JJ, Curl JS, Wolfenson D, Bazer FW, Roberts RM. Maternal recognition of pregnancy in cattle. *J Dairy Sci* 1984; 67:2797-2811.
64. **Bartol FF**, Thatcher WW, Lewis GS, Bliss EL, Drost M, Bazer FW. Effect of estradiol-17beta on PGF and total protein content in bovine uterine flushings and peripheral plasma concentration of 13, 14-dihydro-15-keto-PGF(2alpha). *Theriogenology* 1981; 15:345-358.
65. **Bartol FF**, Thatcher WW, Bazer FW, Kimball FA, Chenault JR, Wilcox CJ, Roberts RM. Effects of the estrous cycle and early pregnancy on bovine uterine, luteal, and follicular responses. *Biol Reprod* 1981; 25:759-776.