

PUBLICATIONS

Completed Publications in Scientific Journals

1. Marshall JC, Gibson DG. Origin of the third heart sound. *Brit Med J* 3: 778, 1969.
2. Gibson DG, Marshall JC, Lockey E. Assessment of proximal tubular sodium reabsorption during water diuresis in patients with heart disease. *Brit Heart J* 32: 399-405, 1970.
3. McDonald A, Harris A, Jefferson K, Marshall JC, McDonald E. Association of prolapse of the posterior cusp of the mitral valve and atrial septal defect. *Brit Heart J* 33: 383-387, 1971.
4. Tessier Y, Littleton P, Collet H, Marshall JC, McDonald EL. Plasma fibrinogen after the replacement of heart valves by grafts and prostheses. *Lancet* 1: 17-19, 1971.
5. Burke CW, Marshall JC. Ovarian failure with probably pituitary tumor. *Proc Royal Soc Med* 64: 1066-1067, 1971.
6. Anderson DC, Marshall JC, Fraser TR. Measurement of luteinizing hormone and plasma testosterone-like substances in the investigation of hypogonadism. *Proc Royal Soc Med* 64: 1265-1266, 1971.
7. Marshall JC, Fraser TR. Amenorrhea in anorexia nervosa: assessment and treatment with clomiphene citrate. *Brit Med J* 4: 590-592, 1971.
8. Marshall JC, Anderson DC, Burke CW, Galvao-Teles A, Fraser TR. Clomiphene citrate in men: elevation of cortisol, luteinizing hormone, testosterone and steroid-binding globulins. *J Endocrinol.* 53: 261-276, 1972.
9. Anderson DC, Marshall JC, Young JL, Fraser TR. Stimulation tests of pituitary-leydig cell function in normal male subjects and in hypogonadal men. *Clin Endocrinol* 1: 127-140, 1972.
10. Anderson DC, Marshall JC, Galvao-Teles A, Corker CS. Gynaecomastia and impotence associated with abnormal testosterone binding. *Proc Royal Soc Med*, 65: 787-788, 1972.
11. Besser GM, McNeilly AS, Anderson DC, Marshall JC, Harsoulis P, Hall R, Ormston BJ, Alexander L, Collins WP. The hormonal responses to synthetic luteinizing hormone and follicle-stimulating hormone releasing hormone (LH/FSH-RH) in man. *Brit Med J* 3: 267-271, 1972.
12. Marshall JC, Harsoulis P, Anderson DC, McNeilly AS, Besser GM, Hall R. Isolated pituitary gonadotropin deficiency: gonadotropin secretion after synthetic LH/FSH-releasing hormone. *Brit Med J* 4: 643-645, 1972.
13. Tunbridge WMG, Marshall JC, Burke CW. Primary hypothyroidism presenting as pituitary failure. *Brit Med J* 1: 153, 1973.
14. Galvao-Teles A, Anderson DC, Burke CW, Marshall JC, Corker CW, Brown RL, Clark ML. Biologically active androgens and oestradiol in men with chronic liver disease. *Lancet* 1: 173-177, 1973.
15. Marshall JC, Anderson DC, Fraser TR, Harsoulis P. Human luteinizing hormone in man: studies of metabolism and biological action. *J Endocrinol* 56: 431-439, 1973.

John C. Marshall, M.D., Ph.D.

16. Mortimer CH, Besser GM, McNeilly AS, Marshall JC, Harsoulis P, Tunbridge WMG, Hall R. The LH/FSH-releasing hormone test in patients with hypothalamic-pituitary-gonadal dys function. *Brit Med J* 4: 73-77, 1973.
17. Harsoulis P, Marshall JC, Kuku SF, Burke CW, London DR, Fraser TR. A combined test for the assessment of anterior pituitary function. *Brit Med J* 4: 326-329, 1973.
18. London DR, Butt WR, Lynch SS, Marshall JC, Owusu S, Robinson WR, Stephenson JM. Hormonal responses to intra nasal luteinizing hormone releasing hormone. *J Clin Endocrinol Metab* 37: 329-331, 1973.
19. Beumont PJV, Corker C, Friesen HG, Kolakowska T, Mandelbrote BM, Marshall JC, Murray MAF, Wiles DH. The effects of phenothiazines on endocrine function: effects in men and postmenopausal women. *Brit J Psychiatry* 124: 420-430, 1974.
20. Shaw RW, Butt WR, London DR, Marshall JC. Variation in response to synthetic luteinizing hormone-releasing hormone (LH-RH) at different phases of the same menstrual cycle in normal woman. *J Obst Gyn Brit Cwlth* 81: 632-639, 1974.
21. Joplin GF, Jackson RA, Arnot RN, Burke CW, Doyle FH, Harsoulis P, Lewis PD, Macerlean DP, Marshall JC, VanNoorden S, Fraser TR. The effect of yttrium 90 implantation on endocrine function and visual fields in patients with 'functionless' pituitary tumours, with biopsy and radiological findings. *Clin Endocrinol* 4: 139-163, 1975.
22. Shaw RW, Butt WR, London DR, Marshall JC. The oestrogen provocation test - a method of assessing the hypothalamic-pituitary axis in amenorrhoea. *Clin Endocrinol* 4: 267-276, 1975.
23. Marshall JC, Odell WD. Preparation of biologically active ¹²⁵I LHRH Suitable for membrane binding studies. *Proc Soc Exp Biol & Med* 149: 351-355, 1975.
24. Marshall JC, Reed PI, Gordon H. Luteinizing hormone secretion in patients presenting with post-oral contraceptive amenorrhoea: evidence for a hypothalamic feedback abnormality. *Clin Endocrinol* 5: 131-143, 1976.
25. Kjeld JM, Harsoulis P, Kuku SF, Marshall JC, Kaufman B, Fraser TR. Infusions of hFSH and hLH in normal men - kinetics of human follicle-stimulating hormone. *Acta Endocr* 81: 225-233, 1976.
26. Marshall JC, Shakespear RA, Odell WD. LHRH-pituitary plasma membrane binding: the presence of specific binding sites in other tissues. *Clin Endocr* 5: 671-677, 1976.
27. Wakeling A, Marshall JC, Beardwood CJ, deSouza VFA., Russell GFM. The effects of clomiphene citrate on the hypothalamic-pituitary-gonadal axis in anorexia nervosa. *Psychological Med* 6: 371-381, 1976.
28. Clayton RN, Shakespear RA, Marshall JC. LHRH binding to purified pituitary plasma membranes: absence of adenylate cyclase activation. *Molecular & Cell Endocrinol* 11: 63-78, 1978.
29. Heber D, Marshall JC, Odell WD. GnRH receptors: identification, specificity, and quantitation in non-pituitary tissues. *American Journal of Physiology* 235: E227-E230, 1978.

John C. Marshall, M.D., Ph.D.

30. Clayton RN, Shakespear RA, Duncan JA, Marshall JC. Luteinizing hormone releasing hormone inactivation by purified pituitary plasma membranes: effects on receptor-binding studies. *Endocrinology* 104: 1484-1494, 1979.
31. Clayton RN, Shakespear RA, Duncan JA, Marshall JC. Radioiodinated non-degradable gonadotropin-releasing hormone analogs: new probes for the investigation of pituitary gonadotropin releasing hormone receptors. With appendix by PJ Munson and D Rodbard. *Endocrinology* 105: 1369-1381, 1979.
32. Marshall JC, Kelch RP. Low dose pulsatile GnRH in anorexia nervosa: a model of human pubertal development. *J Clin Endocrinol Metab* 49: 712-718, 1979.
33. Savoy-Moore RT, Landefeld TD, Marshall JC. Hormonal measurement in rat anterior pituitary cell cultures: loss of radioimmunoreactive LH counteracted by fetal calf serum and bacitracin. *Mol & Cell Endocrinol* 18: 11-20, 1980.
34. Bourne GA, Regiani S, Payne AH, Marshall JC. Testicular GnRH receptors - characterization and localization on interstitial tissue. *J Clin Endocr Metab* 51: 407-410, 1980.
35. Savoy-Moore, RT, Schwartz NB, Duncan JA, Marshall JC. Pituitary gonadotropin-releasing hormone receptors during the rat estrous cycle. *Science* 209: 942-944, 1980.
36. Kelch RP, Hopwood NJ, Marshall JC. Diagnosis of gonadotropin deficiency in adolescents: limited prognostic usefulness of a standard gonadotropin-releasing hormone test in obese boys. *J Pediatrics* 97: 820-824, 1980.
37. Valk TW, Corley KP, Kelch RP, Marshall JC. Hypogonadotropic hypogonadism - hormonal responses to low dose pulsatile administration of gonadotropin-releasing hormone. *J Clin Endocr Metab* 51: 730-738, 1980.
38. Corley KP, Valk TW, Kelch RP, Marshall JC. Estimation of GnRH pulse amplitude during pubertal development. *Pediatric Research* 15: 157-162, 1981.
39. Frager MS, Pieper DR, Tonetta SA, Duncan JA, Marshall JC. Pituitary gonadotropin-releasing hormone (GnRH) receptors: effects of castration, steroid replacement and the role of GnRH in modulating receptors in the rat. *J Clin Invest* 67: 615-623, 1981.
40. Pieper DR, Richards JS, Marshall JC. Ovarian GnRH receptors-characterization, distribution and induction by GnRH. *Endocrinology* 108: 1148-1156, 1981.
41. Dalkin AC, Bourne GA, Pieper DR, Regiani S, Marshall JC. Pituitary and gonadal gonadotropin-releasing hormone receptors during sexual maturation in the rat. *Endocrinology* 108: 1658-1664, 1981.
42. Valk TW, Corley KP, Kelch RP, Marshall JC. Pulsatile gonadotropin-releasing hormone in gonadotropin deficient and normal men: suppression of FSH responses by testosterone. *J Clin Endocr Metab* 53: 184-191, 1981.
43. Valk TW, England BG, Marshall JC. Effects of cimetidine on pituitary function: alterations in hormone secretion profiles. *Clin Endocrinology* 15: (2)139-149, 1981.
44. Savoy-Moore RT, Schwartz NB, Duncan JA, Marshall JC. Pituitary GnRH receptors on proestrus: effect on pentobarbital blockade of ovulation in the rat. *Endocrinology* 109: 1360-1365, 1981.

John C. Marshall, M.D., Ph.D.

45. Valk TW, Marshall JC, Kelch RP. Simulation of the follicular phase of the menstrual cycle by intravenous administration of low dose pulsatile gonadotropin-releasing hormone (GnRH). *Am J Obstet Gynecol* 141: 842-843, 1981.
46. Pieper DR, Gala RR, Regiani SR, Marshall JC. Dependence of pituitary GnRH receptors on GnRH secretion from the hypothalamus. *Endocrinology* 110: 749-754, 1982.
47. Bourne GA, Dockrill MR, Regiani SR, Marshall JC, Payne AH. Induction of testicular GnRH receptors by GnRH-effects of pituitary hormones and relationship to inhibition of testosterone production. *Endocrinology* 110: 727-733, 1982.
48. Jakacki RI, Kelch RP, Sauder SE, Lloyd JS, Hopwood NJ, Marshall JC. Pulsatile secretion of luteinizing hormone in children. *J Clin Endocr Metab* 55: 453-459, 1982.
49. Barkan A, Regiani S, Duncan JA, Papavasiliou S, Marshall JC. Opioids modulate pituitary receptors for gonadotropin-releasing hormone. *Endocrinology* 112: 387-389, 1983.
50. Barkan AL, Regiani SR, Duncan JA, Marshall JC. Pituitary gonadotropin-releasing hormone receptors during gonadotropin surges in ovariectomized-estradiol treated rats. *Endocrinology* 112: 1042-1048, 1983.
51. Marshall JC, Case GD, Valk TW, Corley KP, Sauder SE, Kelch RP. Selective inhibition of FSH secretion by estradiol: a mechanism for modulation of gonadotropin responses to low dose pulses of gonadotropin-releasing hormone. *J Clin Invest* 71: 248-258, 1983.
52. Duncan JA, Dalkin AC, Barkan A, Regiani S, Marshall JC. Gonadal regulation of pituitary GnRH receptors during sexual maturation in the rat. *Endocrinology* 113: 2238-2246, 1983
53. Sauder SE, Case GD, Hopwood NJ, Kelch RP, Marshall JC. Comparison of the effects of opiate antagonism on gonadotropin secretion in children and in women with hypothalamic amenorrhea. *Pediatric Res.* 18: 322-328, 1984.
54. Barkan AL, Cassorla F, Loriaux DL, Marshall JC. Pregnancy in a patient with virilizing arrhenoblastoma. *Am J Obstet Gynecol* 149: 909-910, 1984.
55. Reame N, Sauder SE, Kelch RP, Marshall JC. Pulsatile gonadotropin secretion during the human menstrual cycle - evidence for altered frequency of GnRH secretion. *J Clin Endocrinol Metab* 59: 328-338, 1984.
56. Barkan AL, Cassorla F, Loriaux DL, Kelch RP, Marshall JC. Steroid and gonadotropin secretion in a patient with a 30 yr. history of virilization due to a lipid cell ovarian tumor. *Obstetrics and Gynecology* 64: 287-295, 1984.
57. Bourne GA, Marshall, JC. Anterior pituitary hormonal regulation of testicular GnRH receptors. *Endocrinology* 115: 723-727, 1984.
58. Pieper DR, Gala RR, Schiff MA, Regiani SR, Marshall JC. Pituitary GnRH receptor responses to GnRH in hypothalamic lesioned rats: inhibition of responses by hyperprolactinemia and evidence that testosterone and estradiol modulate gonadotropin secretion at a post-receptor site. *Endocrinology* 115: 1190-1196, 1984.

John C. Marshall, M.D., Ph.D.

59. Garcia A, Schiff M, Marshall JC. Regulation of pituitary gonadotropin releasing hormone (GnRH) receptors by pulsatile GnRH injections in male rats: - modulation by testosterone. *J Clin Invest* 74: 920-928, 1984.
60. Sauder SE, Frager M, Case GD, Kelch RP, Marshall JC. Abnormal patterns of pulsatile gonadotropin secretion in women with hyperprolactinemia and amenorrhea: responses to bromocriptine. *J Clin Endocrinol Metab* 59: 941-948, 1984.
61. Baldwin DM, Bourne GA, Marshall JC. Pituitary LH responsiveness to GnRH in vitro as related to GnRH receptor number. *American J Physiol* 247: E651-E656, 1984.
62. Kelch RP, Hopwood NJ, Sauder SE, Marshall JC. Evidence for decreased secretion of gonadotropin-releasing hormone (GnRH) in pubertal boys during short term testosterone treatment. *Pediatric Research*. 19: 112-117, 1985.
63. Dalkin AC, Duncan JA, Regiani S, Marshall JC. Reduction of pituitary GnRH receptors in immature rats treated with monosodium glutamate. *American J Physiol* 248: E126-E131, 1985.
64. Barkan AL, Duncan JA, Schiff M, Papavasiliou S, Garcia A, Kelch RP, Marshall JC. Opioid and neurotransmitter regulation of pituitary gonadotropin-releasing hormone receptors in the ovariectomized-estradiol treated rat: role of altered GnRH secretion. *Endocrinology* 116: 1003-1010, 1985.
65. Starkman MN, Marshall JC, LaFerla J, Kelch RP. Pseudocyesis - psychologic and neuroendocrine interrelationships. *Psychosomatic Medicine* 47: 46-57, 1985.
66. Thorson JA, Marshall JC, Bill CH, Keyes PL. D-Ala⁶-desGly¹⁰GnRH ethylamide: -absence of binding sites and lack of a direct effect in rabbit corpora lutea. *Biology of Reproduction*. 32: 226-231, 1985.
67. Katt JA, Duncan JA, Herbon L, Barkan A Marshall JC. The frequency of gonadotropin-releasing hormone stimulation determines the number of pituitary gonadotropin-releasing hormone receptors. *Endocrinology*. 116: 2113-2116, 1985.
68. Barkan AL, Kelch R, Marshall JC. Isolated gonadotrope failure in the polyglandular autoimmune syndrome. *N Engl J Med* 312: 1535-1540, 1985.
69. Garcia A, Herbon L, Barkan A, Papavasiliou SS, Marshall JC. Hyperprolactinemia inhibits gonadotropin-releasing hormone (GnRH) stimulation of the number of pituitary GnRH receptors. *Endocrinology* 117: 954-959, 1985
70. Reame NE, Sauder SE, Case GD, Kelch RP Marshall JC. Pulsatile gonadotropin secretion in women with hypothalamic amenorrhea: evidence that reduced frequency of GnRH secretion is the mechanism of persistent anovulation. *J Clin Endocrinol Metab* 61: 851-858, 1985.
71. Barkan AL, Reame NE, Kelch RP, Marshall JC. Idiopathic hypogonadotropic hypogonadism in men: dependence of the hormonal responses to GnRH on the magnitude of the endogenous GnRH secretory defect. *J Clin Endocrinol Metab* 61: 1118-1125 1985.
72. Duncan JA, Barkan A, Herbon L, Marshall JC. Regulation of pituitary GnRH receptors by pulsatile GnRH in female rats: effects of estradiol and prolactin. *Endocrinology* 118: 320-327. 1986.

73. Papavasiliou SS, Zmeili S, Khoury S, Landefeld TD, Chin WW, Marshall JC. Gonadotropin-releasing hormone differentially regulates expression of the alpha and luteinizing hormone beta subunit genes in male rats. *Proc Natl Acad Sci USA* 83: 4026-4029, 1986.
74. Papavasiliou SS, Zmeili S, Herbon L, Marshall JC, Landefeld TD. Alpha and LH beta mRNA quantitation in the anterior pituitary of castrate male and female rats using an optimized RNA dot blot hybridization assay. *Endocrinology* 119: 691-698, 1986.
75. Zmeili SM, Papavasiliou SS, Thorner MO, Evans WS, Marshall JC, Landefeld TD. Alpha and luteinizing hormone beta subunit mRNAs during the rat estrous cycle. *Endocrinology* 119: 1867-1870, 1986.
76. Hickstein DD, Marshall JC, Chandler WF. The Spectrum of pituitary adenoma hemorrhage. *West. J. Med:* 144:433, 1986.
77. Otto CA, Sherman PS, Fisher SJ, Valoppi VL, Marshall JC, Lloyd RV, Rogers WL, Weiland DM. Pituitary localization of 3H-Spiroperidol by an uptake-storage mechanism. *Nucl. Med. Biol.* 13: 533-537, 1986
78. Otto CA, Marshall JC, Lloyd RV, Sherman PS, Fisher SJ, Valoppi VL, Rogers WL, Weiland DM. Use of DES-treated rats as an animal model for assessment of pituitary adenoma imaging agents. *Nucl Med Biol* 13: 539-547, 1986.
79. Marshall JC, Kelch RP. Gonadotropin-releasing hormone - Role of pulsatile secretion in the regulation of reproduction. *N Engl J Med* 315: 1459-1468, 1986
80. Nippoldt TB, Khoury S, Barkan A, Kelch RP, Marshall JC. Gonadotropin responses to GnRH pulses in hypogonadotropic hypogonadism: LH responsiveness is maintained in the presence of luteal phase concentrations of estrogen and progesterone. *Clinical Endocrinology* 26: 293-301, 1987.
81. Khoury SA, Reame NE, Kelch RP, Marshall JC. Diurnal patterns of pulsatile LH secretion in hypothalamic amenorrhea - reproducibility and responses to opiate blockade and alpha 2 adrenergic agonist. *J Clin Endocrinol Metab* 64: 755-762, 1987.
82. Haisenleder DJ, Khoury S, Zmeili SM, Papavasiliou SS, Ortolano GA, Dee C, Duncan JA, Marshall JC. The frequency of pulsatile gonadotropin-releasing (GnRH) secretion regulates expression of alpha and LH beta mRNAs in male rats. *Molecular Endocrinology* 1: 834-838, 1987.
83. Haisenleder DJ, Barkan AL, Papavasiliou SS, Zmeili SM, Dee C, Ortolano GA, El-Gewely MR, Marshall JC. LH subunit mRNA concentrations during the LH surge in ovariectomized-estradiol replaced rats. *American Journal of Physiology* 254: E99-103, 1988.
84. Hale PM, Khoury S, Foster CM, Beitins IZ, Hopwood NJ, Marshall JC, Kelch RP. Increased LH pulse frequency during sleep in early pubertal boys - effects of testosterone infusion. *J Clin Endocrinol Metab* 66: 785-791, 1988.
85. Haisenleder DJ, Katt JA, Ortolano GA, El-Gewely MR, Duncan JA, Dee C, Marshall JC. The influence of GnRH pulse amplitude, frequency and treatment duration on the regulation of LH subunit mRNAs and LH secretion. *Molecular Endocrinology.* 2: 338-344, 1988.
86. Sauder SE, Frager MS, Case GD, Kelch RP, Marshall JC. Effects of changing gonadotropin-releasing hormone (GnRH) pulse frequency on gonadotropin secretion in men. *Clinical Endocrinology* 28: 647-656, 1988.

87. Ortolano GA, Haisenleder DJ, Dalkin AC, Iliff-Sizemore SA, Landefeld TD, Maurer RA, Marshall JC. Follicle-stimulating hormone beta subunit messenger ribonucleic acid concentrations during the rat estrous cycle. *Endocrinology* 123: 2149-2151, 1988.
88. Lee LR, Haisenleder DJ, Marshall JC, Smith MS. Expression of alpha subunit and luteinizing hormone (LH) beta messenger ribonucleic acid in the rat during lactation and after pup removal: Relationship to pituitary gonadotropin-releasing hormone receptors and pulsatile LH secretion. *Endocrinology* 124: 776-782, 1989.
89. Haisenleder DJ, Ortolano GA, Landefeld TD, Zmeili S, Marshall JC. Prolactin mRNA concentrations in 4 day cycling rats and during the prolactin surge. *Endocrinology* 124: 2023-2028, 1989.
90. Lee LR, Haisenleder DJ, Marshall JC, Smith MS. Effects of progesterone on pulsatile LH secretion and LH subunit mRNA during lactation in the rat. *Endocrinology* 124: 2128-2134, 1989.
91. Nippoldt TB, Reame NE, Kelch RP, Marshall JC. The roles of estradiol and progesterone in decreasing luteinizing hormone pulse frequency in the luteal phase of the menstrual cycle. *J Clin Endocrinol Metab* 69: 67-76, 1989.
92. Haisenleder DJ, Ortolano GA, Dalkin AC, Paul SJ, Chin WW, Marshall JC. GnRH regulation of gonadotropin subunit gene expression: studies in triiodothyronine-suppressed rats. *J Endocrinology* 122: 117-125, 1989.
93. Dalkin AC, Haisenleder DJ, Ortolano GA, Ellis T, Marshall JC. The frequency of gonadotropin-releasing hormone (GnRH) stimulation differentially regulates gonadotropin subunit mRNA expression. *Endocrinology* 125: 917-924, 1989.
94. Padmanabhan V, Sonstein J, Olton PL, Nippoldt T, Menon KMJ, Marshall JC, Kelch RP, Beitins IZ. Serum bioactive follicle-stimulating hormone increases during pregnancy. *J Clin Endocrinol Metab* 69: 968-977, 1989.
95. Foster CM, Hassing JM, Mendes TM, Hale PM, Padmanabhan V, Hopwood NJ, Beitins IZ, Marshall JC, Kelch RP. Testosterone infusion reduces nocturnal LH pulse frequency in pubertal boys. *J Clin Endocrinol Metab* 69: 1213-1220, 1989.
96. Lee LR, Haisenleder DJ, Marshall JC, Smith MS. The role of the suckling stimulus in regulating pituitary prolactin mRNA in the rat. *Mol Cell Endocrinol* 64: 243-249, 1989.
97. Dalkin AC, Haisenleder DJ, Ortolano GA, Suhr A, Marshall JC. Gonadal regulation of gonadotropin subunit gene expression: evidence for regulation of FSH beta mRNA by non-steroidal hormones in female rats. *Endocrinology* 127: 798-806, 1990.
98. Haisenleder DJ, Ortolano GA, Jolly D, Dalkin AC, Landefeld TD, Vale WW, Marshall JC. Inhibin secretion during the rat estrous cycle: relationships to FSH secretion and FSH beta subunit mRNA concentrations. *Life Sciences* 47: 1769-1773, 1990.
99. Haisenleder DJ, Ortolano GA, Dalkin AC, Ellis TR, Paul SJ, Marshall JC. Differential regulation of gonadotropin subunit gene expression by GnRH pulse amplitude in female rats. *Endocrinology* 127: 2869-2875, 1990.

100. Iliff-Sizemore SA, Ortolano GA, Haisenleder DJ, Dalkin AC, Krueger KA, Marshall JC. Testosterone differentially modulates gonadotropin subunit mRNA responses to GnRH pulse amplitude. *Endocrinology* 127: 2876-2883, 1990.
101. Paul SJ, Ortolano GA, Haisenleder DJ, Stewart JM, MA Shupnik, Marshall JC. Gonadotropin subunit mRNA concentrations after blockade of GnRH action: testosterone selectively increases FSH beta subunit mRNA by posttranscriptional mechanisms. *Mol Endocrinol* 4: 1943-1955, 1990.
102. Haisenleder DJ, Dalkin AC, Ortolano GA, Marshall JC, Shupnik MA. A pulsatile GnRH stimulus is required to increase transcription of the gonadotropin subunit genes: evidence for differential regulation of transcription by pulse frequency in vivo. *Endocrinol* 128: 509-517, 1991.
103. Christman, GM, Randolph, JF, Kelch, RP, Marshall, JC. Reduction of gonadotropin-releasing hormone pulse frequency is associated with subsequent selective follicle-stimulating hormone secretion in women with polycystic ovarian disease. *J Clin Endocrinol Metab* 72: 1278-1285, 1991.
104. Marshall JC, Dalkin AC, Haisenleder DJ, Paul SJ, Ortolano GA, Kelch RP. Gonadotropin releasing hormone pulses: regulators of gonadotropin synthesis and ovulatory cycles. *Rec Prog Horm Res* 47: 155-189, 1991.
105. Cook CB, Nippoldt TB, Kletter GB, Kelch RP, Marshall JC. Naloxone increases the frequency of LH (GnRH) pulsatile secretion in hyperprolactinemia. *J Clin Endocrinol Metab* 73: 1099-1105, 1991.
106. Kletter GB, Foster CM, Brown MB, Padmanabhan V, Beitins IZ, Marshall JC, Kelch RP. Naloxone does not reverse the suppressive effects of testosterone infusion on LH secretion in pubertal boys. *J Clin Endocrinol Metab* 73: 1241-1247, 1991.
107. Dalkin AC, Paul SJ, Haisenleder DJ, Ortolano GA, Yasin M, Marshall JC. Gonadal steroids effect similar regulation of gonadotropin subunit mRNA expression in both male and female rats. *J Endocrinol* 132: 39-45, 1992.
108. Haisenleder DJ, Ortolano GA, Dalkin AC, Yasin M, Marshall JC. Differential actions of TRH pulses in the expression of prolactin and TSH subunit mRNAs in rat pituitary cells in vitro. *Endocrinology* 130:2917-2923,1992.
109. Reame N, Marshall JC, Kelch RP. Pulsatile LH secretion in women with premenstrual syndrome: evidence for normal neuroregulation of the menstrual cycle. *Psychoneuroendocrinology* 17: 205-213, 1992.
110. Kletter GB, Foster CM, Beitins IZ, Marshall JC, Kelch RP. Acute effects of testosterone infusion and naloxone on LH secretion in normal men. *J Clin Endocrinol Metab* 75: 1215-1219, 1992.
111. Haisenleder DJ, Yasin M, Marshall JC. Enhanced effectiveness of pulsatile cAMP in stimulating prolactin and alpha subunit gene expression. *Endocrinology* 131: 3027-3033, 1992.
112. Dalkin AC, Knight CD, Shupnik M, Haisenleder DJ, Aloji J, Kirk S, Yasin M and Marshall JC. Ovariectomy and inhibin immunoneutralization acutely increase FSH β mRNA concentrations: evidence for a non-transcriptional mechanism. *Endocrinology* 132: 1297-1304, 1993.
113. Haisenleder DJ, Ortolano GA, Yasin M, Dalkin AC, Marshall JC. Differential regulation of gonadotropin subunit mRNA expression by GnRH pulse amplitude in vitro. *Endocrinology* 132: 1292-1296, 1993.

114. Lawson DM, Haisenleder DJ, Marshall JC. A comparison of the temporal effects of estradiol and diethylstilbestrol on pituitary DNA, prolactin mRNA and pituitary and serum prolactin in ovariectomized Holtzman rats. *Life Sciences* 53: 1267-1272, 1993.
115. Haisenleder DJ, Yasin M, Marshall JC. The regulation of prolactin, thyrotropin and gonadotropin subunit gene expression by pulsatile or continuous calcium signals. *Endocrinology* 133: 2055-2061, 1993.
116. Kerrigan JR, Dalkin AC, Haisenleder DJ, Yasin M, Marshall JC. Failure of gonadotropin releasing hormone (GnRH) pulses to increase LH beta mRNA in GnRH deficient female rats. *Endocrinology* 133: 2071-2079, 1993.
117. Dalkin AC, Gilrain JT, Marshall JC. Ovarian regulation of pituitary inhibin subunit and activin receptor type II (Act R II) gene expression: Evidence for a nonsteroidal inhibitory substance. *Endocrinology* 135: 944-949, 1994.
118. Kirk SE, Dalkin AC, Yasin M, Haisenleder DJ, Marshall JC. GnRH pulse frequency regulates expression of pituitary follistatin mRNA: a mechanism for differential gonadotrope function. *Endocrinology* 135: 876-880, 1994.
119. Kletter GB, Foster CM, Brown MB, Beitins IZ, Marshall JC, Kelch RP. Nocturnal naloxone fails to reverse the suppressive effects of testosterone infusion on LH secretion in pubertal boys. *J Clin Endocrin & Metab* 79: 1147-1151, 1994.
120. Haisenleder DJ, Yasin M, Marshall JC. Regulation of gonadotropin, thyrotropin subunit and prolactin mRNA expression by pulsatile or continuous protein kinase C (PKC) stimulation. *Endocrinology* 136: 13-19, 1995.
121. Aloji JA, Dalkin AC, Schwartz NB, Yasin M, Mann B, Haisenleder DJ, Marshall JC. Ovarian inhibin subunit gene expression: regulation by gonadotropins and estradiol. *Endocrinology* 136: 1227-1232, 1995.
122. Yasin M, Dalkin AC, Haisenleder DJ, Kerrigan JR, Marshall JC. GnRH pulse pattern regulates GnRH receptor gene expression: augmentation by estradiol. *Endocrinology* 136: 1559-1564, 1995.
123. Kerrigan JR, Yasin M, Haisenleder DJ, Dalkin AC, Marshall JC. Regulation of gonadotropin subunit mRNA expression in GnRH deficient female rats:- effects of GnRH, Galanin, GnRH-associated peptide, neuropeptide-Y, and thyrotropin-releasing hormone. *Biology of Reproduction* 53: 1-7, 1995.
124. Padmanbhan V, Dalkin AC, Yasin M, Haisenleder DJ, Marshall JC, Landefeld T. Are immediate early genes involved in GnRH receptor gene regulation? Characterization of changes in gonadotropin-releasing hormone receptor (GnRH-R), c-Fos and c-Jun mRNAs during the ovine estrous cycle. *Biology of Reproduction* 53:263-269, 1995.
125. Dalkin, AC, Haisenleder DJ, Gilrain JT, Marshall JC. Pituitary Activin Receptor Subtypes and Follistatin Gene Expression in Female Rats: Differential Regulation by Activin and Follistatin. *Endocrinology*, 137:548-554, 1996.
126. Yasin M, Dalkin AC, Haisenleder DJ, Marshall JC. Testosterone is Required for GnRH Stimulation of LH β mRNA Expression in Female Rats. *Endocrinology* 137:1265-1271, 1996.
127. Haisenleder DJ, Yasin M, Dalkin AC, Gilrain J, Marshall, JC. GnRH regulates steroidogenic factor (SF-1) gene expression in the rat pituitary. *Endocrinology*, 137:5719-5722, 1996.

128. Cemeroglu AP, Foster CM, Warner R, Kletter GB, Marshall JC, Kelch RP. Comparison of the neuroendocrine control of pubertal maturation in girls and boys with spontaneous puberty and in hypogonadal girls. *J. Clin Endocrinology Metab* 81:4352-4357, 1996.
129. Aloji JA, Marshall JC, Yasin M, Gilrain JT, Haisenleder DJ, Dalkin AC. Ovarian activin receptor subtype and follistatin gene expression: reciprocal regulation by gonadotropins. *Biology of Reproduction*, 56:1565-1569, 1997.
130. Haisenleder DJ, Yasin M, Marshall JC. Gonadotropin subunit and GnRH receptor gene expression are regulated by alterations in the frequency of calcium pulsatile signals. *Endocrinology*, 138:5227-5230, 1997.
131. Kletter GB, Padmanabhan V, Beitins IZ, Marshall JC, Kelch RP, Foster CM. Acute effects of estradiol infusion and naloxone on LH secretion in pubertal boys. *J. Clin Endocrinol Metab*, 82:4010-4014, 1997.
132. Pastor CL, Griffin-Korf ML, Aloji JA, Evans WS, Marshall JC. Polycystic ovarian syndrome - evidence for reduced sensitivity of the GnRH pulse generator to inhibition by estradiol and progesterone. *J Clin Endocrinol Metab*, 83:582-590, 1998.
133. Dalkin AC, Haisenleder DJ, Gilrain JT, Yasin MY, Marshall JC. Regulation of pituitary follistatin and inhibin activin subunit mRNAs in male and female rats:- evidence for inhibin regulation of follistatin in females *Endocrinology* 139: 2818-2823, 1998.
134. Haisenleder DJ, Cox ME, Parsons SJ, Marshall JC. GnRH pulses are required to maintain activation of mitogen-activated protein kinase (MAPK) - Role in stimulation of gonadotrope gene expression *Endocrinology* 139: 3104-3111, 1998.
135. Cemeroglu AP, Kletter GB, Guo W, Brown MB, Kelch RP, Marshall JC, Padmanabhan V, Foster CM. In pubertal girls, naloxone fails to reverse the suppression of luteinizing hormone secretion by estradiol. *J Clin Endocrinol Metab* 83:3501-3506, 1998.
136. Marshall JC. Estrogen-Progestagen therapy in the management of the polycystic ovary syndrome. *J Endocrinological Invest* 21: 618-622, 1998.
137. Dalkin AC, Haisenleder DJ, Gilrain JT, Aylor K, Yasin M, Marshall JC. GnRH regulation of gonadotropin subunit gene expression in female rats: actions on FSH beta mRNA involve differential expression of pituitary activin (beta B) and follistatin mRNAs. *Endocrinology*. 140: 903-908, 1999.
138. Eagleson CA, Gingrich MB, Pastor CL, Arora TK, Burt CM, Evans WS, Marshall JC. Polycystic ovarian syndrome: evidence that flutamide restores sensitivity of the GnRH pulse generator to inhibition by estradiol and progesterone. *J. Clin. Endocrinol. Metab* 85:4047-4052, 2000.
139. Dalkin AC, Burger LL, Aylor KW, Haisenleder DJ, Workman LJ, Cho S, Marshall JC. Regulation of gonadotropin subunit gene transcription by GnRH: measurement of primary transcript RNAs by quantitative RT-PCR assays, *Endocrinology* 142:139-146, 2001.
140. Padmanabhan V, Christman GM, Randolph JF, Kelch RP, Marshall JC, Beitins IZ. Dynamics of bioactive FSH secretion in women with polycystic ovarian syndrome: effects of estradiol and progesterone, *Fertility and Sterility* 75:881-888, 2001.

John C. Marshall, M.D., Ph.D.

141. Burger LL, Dalkin AC, Aylor KW, Workman LJ, Haisenleder DJ, Marshall JC. Regulation of gonadotropin subunit transcription after ovariectomy in the rat: measurement of subunit primary transcripts reveals differential roles of GnRH and inhibin, *Endocrinology* 142:3435-3442, 2001.
142. Haisenleder DJ, Workman LJ, Burger LL, Aylor KW, Dalkin AC, Marshall JC. Gonadotropin subunit transcriptional responses to calcium signals: evidence for regulation by pulse frequency, *Biology of Reproduction* 65:1789-1793, 2001.
143. Marshall JC, Eagleson CA, McCartney CR. Hypothalamic dysfunction. *Mol Cell Endocrinol* 183:29-32, 2001.
144. Kon YC, Loh KC, Tambyah JA, Lim LH, Marshall JC. Thyrotropin (TSH) secreting pituitary macroadenoma with cavernous sinus invasion, *Singapore Medical Journal* 42 (9):433-437, 2001.
145. McCartney CR, Gingrich MB, Hu Y, Evans WS, Marshall JC. Hypothalamic regulation of cyclic ovulation: evidence that the increase in GnRH pulse frequency during the follicular phase reflects the gradual loss of the restraining effects of progesterone, *J Clin Endocrinol Metab* 87:2194-2200, 2002.
146. Burger LL, Dalkin AC, Aylor KW, Haisenleder DJ, Marshall JC. GnRH pulse frequency modulation of gonadotropin subunit gene transcription in normal gonadotropes – assessment by primary transcript assay provides evidence for roles of GnRH and follistatin. *Endocrinology* 143: 3243-3249, 2002.
147. Haisenleder DJ, Burger LL, Aylor KW, Dalkin AC, Marshall JC. GnRH stimulation of gonadotropin subunit transcription: evidence for the involvement of calcium/calmodulin dependent kinase II (Ca/CAMK II) activation in rat pituitaries. *Endocrinology* 144:2768-2774, 2003.
148. Eagleson CA, Bellows AB, Hu Y, Gingrich MB, Marshall JC. Obese patients with polycystic ovary syndrome: evidence that metformin does not restore sensitivity of the gonadotropin-releasing hormone pulse generator to inhibition by ovarian steroids, *J Clin Endocrinol Metab* 88(11):5158-5162, 2003.
149. Prendergast KA, Burger LL, Aylor KW, Haisenleder DJ, Dalkin AC, Marshall JC. Pituitary follistatin gene expression in female rats: evidence that inhibin regulates transcription, *Biology of Reproduction* 70:364-370, 2004.
150. Burger LL, Haisenleder DJ, Aylor KW, Dalkin AC, Prendergast KA, Marshall JC. Regulation of LH β and FSH β gene transcription by androgens: testosterone directly stimulates FSH β transcription independent of its role on follistatin gene expression, *Endocrinology* 145:71-78, 2004.
151. McCartney CR, Bellows AB, Gingrich MB, Hu Y, Evans WS, Marshall JC, Veldhuis JD. Exaggerated 17-hydroxyprogesterone response to pulsatile iv recombinant human LH in women with PCOS, *Am J Physiol Endocrinol Metab* 286: E902-E908, 2004.
152. Haisenleder DJ, Burger LL, Aylor KW, Dalkin AC, Walsh HE, Shupnik MA, Marshall JC. Testosterone stimulates FSH β transcription via activation of extracellular signal-regulated kinase (ERK) in rat pituitary cells, *Biol Reprod*, 72:523-529, 2005.
153. Chhabra SK, McCartney CR, Yoo RY, Eagleson CA, Chang RJ, Marshall JC. Progesterone inhibition of the hypothalamic pulse generator: evidence for varied effects of hyperandrogenemia in adolescent girls. *J Clin Endocrinol Metab*, 90:2810-2815, 2005.
154. Marshall, JC. Obesity in adolescent girls – excess androgen, the real bad actor? (Editorial) *J Clin Endocrinol Metab*, 91:393-395, 2006.

155. McCartney CR, Prendergast KA, Chhabra S, Eagleson CA, Yoo R, Chang RJ, Foster CM, Marshall JC. The association of obesity and hyperandrogenemia during the pubertal transition in girls: obesity as a potential factor in the genesis of post-pubertal hyperandrogenemia. *J Clin Endo Metab* 91:1714-1722, 2006.
156. Blank SK, McCartney CR, Marshall JC. The origins and sequelae of abnormal neuroendocrine function in PCOS. *Human Reproduction Update* (doi:10.1093/humupd/dml017)12:351-361, 2006.
157. Haisenleder DJ, Aylor KW, Burger LL, Dalkin AC, Marshall JC. Stimulation of FSH β transcription by blockade of endogenous pituitary follistatin production: efficacy of adenoviral-delivered anti-sense mRNA in the rat. *Endocrine* 29:399-404, 2006.
158. McCartney CM, Blank SK, Prendergast KS, Chhabra S, Eagleson CA, Helm K, Yoo R, Chang RJ, Foster CM, Caprio S, Marshall JC. Obesity and sex steroid changes across puberty: evidence for marked hyperandrogenemia in pre and early pubertal girls. *J. Clin. Endocrinol. Metab.* (doi:10.1210/jc.2006-2002) 92: 430-436, 2007.
159. Wen Y, Gu J, Chakrabarti S, Aylor K, Marshall JC, Takahashi Y, Yoshimoto T, Nadler JL. Role of 12/15 lipoxygenase in the expression of IL-6 or TNF- α in macrophages. *Endocrinology* (doi:10.1210/en. 2006-0665) 148: 1313-1322, 2007.
160. Helm KD, McCartney CR, Okonkwo QL, Blank SK, Barrett EJ, Marshall JC. Hyperinsulinemia does not acutely enhance adrenal androgen production in women or men. *Hormone and Metabolic Res.* 39: 1-3, 2007.
161. Burger LL, Wotton GM, Haisenleder DJ, Aylor KW, Dalkin AC, Marshall JC. The regulation of FSH β transcription by gonadal steroids: testosterone and estradiol modulation of the activin intracellular signaling pathway. *Am J Physiol Endocrinol Metab* (E-00447-2006. R2) 293: 277-285, 2007.
162. McCartney CR, Blank SK, Marshall JC. Progesterone actively increases LH pulse amplitude but does not acutely influence nocturnal LH pulse frequency slowing during the late follicular phase in women. *Am. J. Physiol. Endo Metab* (doi:10.1152/ajpendo.00371.2006) 292: E900-906, 2007. *PMCID 17122090*
163. Haisenleder DJ, Burger LL, Walsh HE, Stevens J, Aylor KW, Shupnik MA, Marshall JC. Pulsatile GnRH stimulation of gonadotropin subunit transcription in rat pituitaries: evidence for the involvement of JUN-Kinase (JNK) but not p38. *Endocrinology* 149: 139-145, 2008. *PMCID 2194612*
164. Burger LL, Haisenleder DJ, Aylor KW, Marshall JC. Regulation of intracellular signaling cascades by GnRH pulse frequency in the rat pituitary: Roles for CAMII, ERK, and JNK activation. *Biol Reprod.* (doi:10.1095/bioreprod. 108.070987) 79:947-953, 2008. *PMCID 2574636*
165. McCartney CR, Prendergast KA, Blank SK, Helm KD, Chhabra S, Marshall JC. Maturation of diurnal LH (GnRH) secretion across puberty: evidence for altered regulation in obese peripubertal girls. *J. Clin. Endocrinol. Metab.* (doi:10.1210/jc/2008,1252) 94:56-66, 2009. *PMCID 2630866*
166. Blank SK, McCartney CR, Chhabra S, Helm KD, Eagleson CA, Chang RJ, Marshall JC. Modulation of GnRH pulse generator sensitivity to progesterone inhibition in hyperandrogenemic adolescent girls: Implications for regulation of pubertal maturation. *J Clin. Endocrinol Metabolism* (doi:10.1210/jc/2008, 2606) 94:2360-2366, 2009. *PMCID2708962*

167. Burger LL, Haisenleder DJ, Aylor KW, Marshall JC. Regulation of LH β and Egr1 gene expression by GnRH pulses in rat pituitaries is both Jun N-Terminal (JNK) and extracellular signal regulated kinase (ERK) dependent. *Biol Reprod* (doi:10.1095/biolreprod.109.1079426) 81:1206-1215, 2009. *PMCID* 2788048.
168. McCartney CR, Blank SK, Marshall JC. Estradiol and progesterone-induced slowing of gonadotropin-releasing hormone pulse frequency is not reversed by subsequent administration of mifepristone. *Endocrine* 36:239-245, 2009 (Epub July 16, 2009 as doi:10.1007/s2020-009-9215-x). *PMCID* 2758640.
169. Burt-Solorzano CM, McCartney CR, Blank SK, Knudsen KL, Marshall JC. Hyperandrogenemia in adolescent girls: origins of abnormal GnRH secretion. *Brit J Obstet Gynec* 117:143-149, 2010. *PMCID* 2994606.
170. Knudsen KL, Blank SK, Burt-Solorzano C, Patrie JS, Chang RJ, Caprio S, Marshall JC, McCartney CR. Hyperandrogenemia in obese peripubertal girls: Correlates and potential etiological determinants. *Obesity* 18:2118-2124, 2010 (E pub March 2010 as doi:10.1038/oby.2010.58), *PMCID* 2932780.
171. Burger LL, Haisenleder DJ, Marshall JC. GnRH pulse frequency differentially regulates SF-1, DAX1, and serum response factor—potential mechanism for GnRH pulse frequency regulation of LH β transcription in the rat. *Endocrine* 39: 212-219, 2011. (PMID21409515)
172. Jane JA, Starke RM, Elzoghby MA, Reames DL, Payne SC, Vance ML, Thorner MO, Marshall JC, Laws ER. Endoscopic transphenoidal surgery for acromegaly: Remission using modern criteria, complications and predictors of outcome. *J Clin Endocrinol Metab* 96:2732-2740, 2011. (PMID21715544)
173. Haisenleder DJ, Schoenfelder AH, Marcinko ES, Geddis LM, Marshall JC. Estimation of estradiol in mouse serum samples:--evaluation of commercial estradiol immunoassays. *Endocrinology* 152:4443-4447, 2011. (doi:10.1210/en-2011-1501,152:2011. (PMCID 3198998)
174. Abshire MY, Blank SK, Chhabra S, McCartney CR, Eagleson CA, Marshall JC. Role of androgen receptor CAG repeat polymorphism length in hypothalamic progesterone sensitivity in hyperandrogenemic adolescent girls. *Endocrine* 41: 156-158, 2012. (doi:10.1007/s 12020-011-9563-1, 2011) *PMCID* 3253981.
175. McGee W, Bishop C, Bahar A, Pohl C, Chang RJ, Marshall JC, Pau F, Stouffer R, Cameron J. Elevated androgens during puberty in female rhesus monkeys lead to increased neuronal drive to the reproductive axis: a possible component of polycystic ovary syndrome. *Human Reproduction*, 27:531-540, 2012 (doi: 10.1093/humrep/der393). *PMCID* 3258033
176. Marshall JC, Dunaif A. Should all women with PCOS be treated for insulin resistance. *Fertility and Sterility*, 97:18-22, 2012. (doi:10.1016/j.fertnstert.2011.11.036). *PMCID* 3277302
177. Burt-Solorzano CM, Beller JP, Abshire MY, Collins JS, McCartney CR, Marshall JC. Neuroendocrine dysfunction in polycystic ovary syndrome. *Steroids*, 77:332-337, 2012 (doi:10.1016/j.steroids.2011.12.007) (*PMCID*3453528)
178. Collins JS, Marshall JC, McCartney CR. Differential sleep-wake sensitivity of GnRH secretion to progesterone inhibition in early pubertal girls. *Neuroendocrinology*, 96 (3), 222-227, 2012. (doi:10.1159/000336395). (*PMCID*3590818)
179. Collins, JC, Beller, JP, Burt-Solorzano, C, Patrie, JT, Chang, RJ, Marshall, JC, McCartney, CR. Blunted Day-Night changes of Luteinizing Hormone pulse frequency in girls with obesity: The potential role of

Hyperandrogenemia. *J Clin Endocrinol Metab* 99 ;2887-2896. 2014 (doi:10.1210/jc.2013-3258)
PMCID: PMC 4121026.

180. McGee, WK, Bishop, CV, Pohl, Chang, RJ, Marshall, JC, Pau, FK, Stouffer, RI, Cameron, J L. Effects of hyperandrogenemia and increased adiposity on reproductive parameters in young adult female monkeys. *Am.J.Physiol* 306(11):E1292-304. 2014 [on line 4/26/14,E00310.2013 .doi: 10.1152/ajpendo .00310.] PMCID:PMC4042098
- 181 Scientific statement on the Diagnostic Criteria, Epidemiology, Pathophysiology and Molecular Genetics of Polycystic Ovary Syndrome. Dumesic, DA, Oberfield, S, Stener-Victorin, E, Marshall, JC, Lavin, JS, Legro, RS *Endocrine Reviews* 36: 487-525, 2015. PMCID:PMC4591526.
- 182 McCartney CR, Marshall JC, Polycystic Ovary Syndrome. *New Engl J Med*, 375; 54-64. 2016. (doi:10.1056/NEJMcp1514916) PMCID:PMC5301909
McCartney CR, Marshall JC, Polycystic Ovary Syndrome. Authors responses to letters. *New Engl J Med*, 375; 1397- 1399. 2016
- 183 Burt-Solorzano CM, Helm KD, Patrie JT, Shayya RF, Cook-Anderson R, Chang J, Mccartney CR, Marshall JC. Increased Adrenal androgen production in overweight peri-pubertal girls. *J Endocrine Soc.* 1(5) 538-552. 2017 (doi: 10.1210/js.2017-00013) PMID29264508 PMC5686668
- 184 Lundgren JA, Oldfield EH, Marshall JC, The Longest stalk: regression of giant prolactinoma with preserved pituitary function. *Pituitary*, 20(4), 485-487. 2017. (doi: 10.1007/s11102-017-0796-8) Feb, 2017 PMID 28210909
- 185 Lundgren JA, Kim SH, Burt-Solorzano CM, McCartney CR, Marshall JC. Progesterone Suppression of LH pulse frequency in adolescent girls with hyperandrogenism: effects of metformin. *J Clin Endocrinol Metab*, 103: 263-270, 2018 (doi:10.1210/jc.2017-02068) PMID29095983, PMC5761484
- 186 Kim SuHee, Lundgren JA, Bhabhra R, Collins JS, Patrie JT, Burt Solorzano CM, Marshall JC, McCartney CR. Progesterone-mediated inhibition of the GnRH pulse generator: differential sensitivity as a function of Sleep status.*J Clin Endocrinol Metab*, 103: 1112-1121,2018(doi:10.1210/jc.2017-02299) PMID29300925

Chapters in Books and Invited Papers

1. Besser GM, Marshall JC, McNeilly AS, Mortimer C, Tunbridge WMG. Effects of the LH/FSH-releasing hormone in patients with disease of the hypothalamic-pituitary-gonadal axis. *Acta Endocr, (Kbh) Suppl 177: 258-259, 1973.*
2. Besser GM, Mortimer GH, McNeilly AS, Marshall JC, Harsoulis P, Gomez-Pan AG, Tunbridge WMG, Hall R. Clinical implications of the LH/FSH-Releasing hormone. *Proceedings of the 1st Schering Symposium on Ovarian Function. Pisa, 1973.*
3. Marshall JC. Hormone measurements in the assessment of hypogonadism. *Rev Portuguesa Terapeutica Medica. 8: 44-62, 1974.*
4. Butt WR, London DR, Lynch SS, Marshall JC, Shaw RW. Gonadotropins in blood and urine: some clinical applications of radioimmunoassay. In: *Recent Progress in Reproductive Endocrinology. Gonadotropins and Gonadal Steroids, 389-405. Eds. PG Crosignani, VHT James. Academic Press, 1974.*
5. Marshall JC. Investigative procedures, chapter 3, in "the testis". In: *Clinics in Endocrinology and Metabolism, 4(3): 545-567. Eds. DR London, WR Butt. London, UK: W.B. Saunders, 1975.*
6. Kelch RP, Hopwood NJ, Marshall JC. Studies on the secretion of gonadotropin-releasing hormone (GnRH) during human sexual maturation. Vol 45: 60-65. *James L Wilson Scientific Symposium. University of Michigan Medical Center, 1979.*
7. Kelch RP, Corley KP, Valk TW, Marshall JC. Quantitative estimation of gonadotropin-releasing hormone (GnRH) secretion during human puberty. *Serono Symposium No. 36. Pathophysiology of Puberty, 23-41. Eds. E Cacciani, A Prader. New York/London: Academic Press, 1980.*
8. Marshall JC, Bourne GA, Frager M, Pieper, DR. Pituitary GnRH receptors - physiological changes and control of receptor number. In: *Functional Correlates of Hormone Receptors in Reproduction, 93-117. Ed. VB. Mahesh. ,New York: Elsevier/North Holland, 1981.*
9. Marshall JC. Amenorrhea. *Medicine International, 1: 291-296, 1981.*
10. Marshall JC. Gonadotropin-releasing hormone as a contraceptive. *Syllabus of the 34th Postgraduate Assembly of the Endocrine Society, 579-592, 1982.*
11. Marshall JC, Barkan A, Bourne GA, Duncan JA, Garcia A, Pieper DR, Regiani S. Physiology of Pituitary GnRH Receptors. In: *Recent Advances in Male Reproduction: The molecular basis and clinical implications, 22: 205-213. Eds. R D'Agata, MB Lipsett, HJ VanderMolen. Serono Symposia Vol. 7. New York: Raven Press, 1983.*
12. Kelch RP, Marshall JC, Sauder SE, Hopwood NJ, Reame NE. Gonadotropin regulation during human puberty. *Proc. 2nd Oregon Regional Primate Centre Symposium on Primate Reproductive Biology, Oregon, October 1982. In: Neuroendocrine Aspects of Reproduction, 2: 229-256. Ed. RL Reid. Academic Press, 1983.*
13. Marshall JC, Kelch RP, Sauder SE, Barkan A, Reame N, Khoury S. Pulsatile GnRH-studies of puberty and the menstrual cycle. In: *Endocrinology, 25-32. Eds. F Labrie, L Proulx. Proceedings of the VII International Congress of Endocrinology, Quebec, Canada, Excerpta Medica. International Congress Series 655. Amsterdam, Holland: Elsevier Science Publishers B.V., 1984.*

14. Marshall JC. Amenorrhea. *Medicine International* 2: 513-518, 1984.
15. Barkan AL, Marshall JC. Isolated gonadotrope failure in the polyglandular autoimmune syndrome. *N Eng J Med* 313: 1546, 1985. (letter)
16. Marshall JC. Impotence and altered libido. In: *Internal Medicine, Chapt 288: 1877-1882*. Eds. JH Stein, WJ Daly, JD Easton, JJ Hutton, PO Kohler, RA O'Rourke, MA Sande, JS Trier, NJ Zvaifler. Boston, MA: Little Brown and Company, 1987.
17. Marshall, JC Gynecomastia. Chapter 289, p 1882-1884 in: *Internal Medicine* Eds. JH Stein, WJ Daly, JD Easton, JJ Hutton, PO Kohler, RA O'Rourke, .A Sande, JS Trier, NJ Zvaifler. Boston, MA: Little, Brown and Company, 1987.
18. Marshall JC, Kelch RP. Pulsatile gonadotropin secretion in childhood and puberty. In *Episodic Hormone Secretion from Basic Science to Clinical Application*, Eds. TOF Wagner, M Filicori. Proc of Deutsche Gessellschaft Endokrinologie Winter School, Maria Alm, Austria, TM Verlag p.133-139, 1987.
19. Marshall JC, Kelch RP. Pulsatile GnRH secretion and the effects of opioid blockade in hypothalamic amenorrhea. In *Episodic Hormone Secretion from Basic Science to Clinical Application*, Eds. TOF Wagner, M. Filicori. Proc of Deutsche Gessellschaft Endokrinologie Winter School, Marie Alm Austria, TM Verlag p.223-229, 1987.
20. Barkan AL, Marshall JC. Mediation of the preovulatory surge:- LHRH pulsatility and opioid modulation. In *LHRH and its analogs:- contraceptive and therapeutic applications II*. p101-120. Eds. BH Vickery and JJ Nestor. Boston/Lancaster: MTP Press, 1987.
21. Kelch RP, Khoury SA, Hale PM, Hopwood NJ, Marshall JC. Pulsatile secretion of gonadotropins in children. In: *The Episodic Secretion of Hormones, 187-200*. Eds. WF Crowley Jr, J Hofler. New York: Churchill Livingstone, 1987.
22. Marshall JC. Clinical neuropharmacology of ovarian function and its disorders. Proc Simpson Symposia No. 1, *Reproductive Medicine*, 11-13. Eds. AA Calder. Center for Reproductive Biology, University of Edinburgh, 1988.
23. Marshall, JC. Regulation of gonadotropin secretion. In: *Endocrinology, Chapt 113, 1903-1914*. Eds. LJ DeGroot, GM Besser, GF Cahill, JC Marshall, DH Nelson, WD Odell, JT Potts, AH Rubenstein, E Steinberger, L Martini. Orlando, FL: Grune & Stratton, 1988.
24. Marshall, JC, Odell WD. The menstrual cycle - hormonal regulation, mechanisms of anovulation, responses of the reproductive tract to steroid hormones. In: *Endocrinology, Chapt 116, 1940-1949*. Eds. LJ DeGroot, GM Besser, GF Cahill, JC Marshall, DH Nelson, WD Odell, JT Potts, AH Rubenstein, E Steinberger, L Martini. Orlando, FL: Grune & Stratton, 1988.
25. Marshall JC, Haisenleder DJ, Ortolano GA, Dalkin AC, Paul SJ, Landefeld TD. Regulation of gonadotropin subunit gene expression. In: *Neural Control of Reproductive Function, Proc of the 5th Galveston Neuroscience Symposium, 1988*. *Neurology and Neurobiology, Chapt 24, 50: 411-426*. Eds. JM Lakowski, JR Perez-Polo, DK Rassin. New York, NY: Alan R. Liss Inc., 1989.
26. Marshall JC, Barkan AL. Hypothalamic-pituitary-end organ interactions. In: *Textbook of Internal Medicine, Chapt 409, 2109-2115*. Eds. WN Kelley, VT DeVita, HL DuPont, ED Harris, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, AW Watanabe, T Yamada. Philadelphia, PA: JP Lippincott, 1989.

27. Marshall JC, Barkan AL. Disorders of the hypothalamus and anterior pituitary. In: Textbook of Internal Medicine, Chapt 419, 2159-2172. Eds. WN Kelley, VT DeVita, HD DuPont, ED Harris, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, AW Watanabe, T Yamada. Philadelphia, PA: JP Lippincott, 1989.
28. Barkan AL, Marshall JC. Practical use of dynamic testing and evaluation of pituitary-target gland function. In: Textbook of Internal Medicine, Chapt 440, 2287-2293. Eds. WN Kelley, VT DeVita, HD DuPont, ED Harris, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, AW Watanabe, T Yamada. Philadelphia, PA: JP Lippincott, 1989.
29. Marshall JC. Control of gonadotropin secretion. In: LHRH and its analogues - their use in gynecological practice, Chapt 1, 1-19. Eds. RW Shaw, JC Marshall. London, UK: Butterworth and Co., Ltd., 1989.
30. Marshall JC. Amenorrhea. *Medicine International* 64: 2649-55, 1989.
31. Dalkin AC, Marshall JC. Medical therapy of hyperprolactinemia. In: *Endocrinology and Metabolism Clinics of North America*, 18(2): 259-277. Ed. A Barkan. Philadelphia, PA: WB Saunders Company, 1989.
32. Kelch RP, Marshall JC, Sauder SE. Pulsatile gonadotropin-releasing (GnRH/LRH) and the induction of puberty in human beings. In: *Control of the Onset of Puberty II*, 82-104. Ed. MM Grumbach, PC Sizonenko, ML Aubert Williams and Wilkins, 1989.
33. Kelch RP, Foster CM, Kletter GB, Sauder SE, Marshall JC. Changes in gonadotropin-releasing hormone (GnRH) secretion during human puberty. In: *Control of the Onset of Puberty III*, 169-181. Ed. HA Delemarre-van de Wall et al. Amsterdam, Holland: Elsevier Science Publishers, 1989.
34. Marshall JC. Impotence and altered libido. In: *Internal Medicine 3rd Edition*, Chapt 330, 2123-2128. Eds. JH Stein, JJ Hutton, PO Kohler, RA O'Rourke, HY Reynolds, MA Samuels, MA Sande, JS Trier, NJ Zvaifler. Boston, MA: Little Brown and Company, 1990.
35. Marshall JC. Gynecomastia. In: *Internal Medicine 3rd Edition*, Chapt 331, 2128-2130. Eds. JH Stein, JJ Hutton, PO Kohler, RA O'Rourke, HY Reynolds, MA Samuels, MA Sande, JS Trier, NJ Zvaifler. Boston, MA: Little Brown and Company, 1990.
36. Haisenleder DJ, Dalkin AC, Ortolano GA, Iliff-Sizemore SA, Paul SJ, Landefeld TD, Marshall JC. GnRH and differential regulation of gonadotropin subunit gene expression. In: *Glycoprotein Hormones*, Chapt 18, 197-208. Structure, Synthesis and Biologic Function. Eds. WW Chin, I Boime. Serono Symposia, USA, 1990.
37. Marshall JC, Haisenleder DJ, Dalkin AC, Paul SJ, Ortolano GA. Regulation of gonadotropin subunit gene expression. In: *Neuroendocrine Regulation of Reproduction*, Chapt 22, 239-249. Eds. SSC Yen, WW Vale. Serono Symposium, USA, 1990.
38. Marshall JC. Regulation and physiologic role of pulsatile gonadotropin secretion. In: *Neuroendocrine Regulation of Ovarian Function*, 21-41. Ed. KS Moghissi. Postgrad Meeting of the American Fertility Society, 1990.
39. Marshall JC. Regulation of gonadotropin synthesis and secretion by peptides and steroids. In: *Neuroendocrine Regulation of Ovarian Function*, 81-102. Ed. KS Moghissi. Postgrad Meeting of the American Fertility Society, 1990.

40. Marshall JC. Clinical manifestations of disordered GnRH secretion. In: Neuroendocrine Regulation of Ovarian Function, 135-158. Ed. KS Moghissi. Postgrad Meeting of the American Fertility Society, 1990.
41. Kelch RP, Foster CM, Kletter GB, Marshall JC. Neuroendocrine regulation of puberty in boys. In: Developmental Endocrinology, 67: 103-115. Ed. PC Sizonenko, ML Aubert. New York: Raven Press Medical and Scientific Publishers, 1990.
42. Marshall JC, Haisenleder DJ, Dalkin AC, Paul SJ, Ortolano GA. Regulation of gonadotropin subunit gene expression. In: Molecular and Clinical Advances in Pituitary Disorders, Current Issues in Endocrinology and Metabolism, Chapt 2, 13-25. Eds. S Melmed, RJ Robbins. Boston, MA: Blackwell Scientific Publications, 1991.
43. Marshall JC, Barkan AL. Hypothalamic-pituitary-end organ interactions. In: Textbook of Internal Medicine, Chapt 405, 1929-1936. Eds. WN Kelley, VT DeVita, HL DuPont, ED Harris, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, AW Watanabe, T Yamada. Philadelphia, PA: JP Lippincott, 1991.
44. Marshall JC, Barkan AL. Disorders of the hypothalamus and anterior pituitary. In: Textbook of Internal Medicine, Chapter 414, 1974-1987. Eds. WN Kelley, VT DeVita, HL DuPont, ED Harris, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, AW Watanabe, T Yamada. Philadelphia, PA: JP Lippincott, 1991.
45. Barkan AL, Marshall JC. Practical use of dynamic testing and evaluation of pituitary-target gland function. In: Textbook of Internal Medicine, Chapt 432, 2079-2085. Eds. WN Kelley, VT DeVita, HL DuPont, ED Harris, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, AW Watanabe, T Yamada. Philadelphia, PA: JP Lippincott, 1991.
46. Marshall JC, Dalkin AC, Haisenleder DJ, Paul SJ, Ortolano GA. Gonadotropin-releasing hormone regulation of gonadotropin subunit gene expression. In: Reproduction, Growth and Development, Serono Symposia Publications from Raven Press, 71: 253-262, Eds. A Negro-Vilar, G Perez-Palacios. Raven Press, 1991.
47. Marshall JC. Reproductive Endocrinology. In: Endocrinology and Metabolism, Medical Knowledge Self Assessment Program IX, Part A, Book 4, 149-154. American College of Physicians, 1991.
48. Marshall JC, Dalkin AC, Goodman GT, Haisenleder DJ, Paul SJ, Kelch RP. GnRH pulse patterns in the regulation of FSH secretion. In: Follicle-Stimulating Hormone - Regulation of Secretion and Molecular Mechanisms of Action, Chapt 23, 262-274, Eds. M. Hunzicker-Dunn, N. Schwartz. Serono Symposia, USA. New York: Springer-Verlog, 1992.
49. Marshall JC, Dalkin AC, Haisenleder DJ, Shupnik MA. Gonadotrope function and the secretion of gonadotropins - Regulation of gonadotropin subunit gene expression. In: Hormones in Gynecological Endocrinology, Chapt 15, 161-171. Eds. AR Genazzani, F Petraglia. Park Ridge, NJ: The Parthenon Publishing Group, 1992.
50. Marshall JC, Dalkin AC, Haisenleder DJ, Griffin ML, Kelch RP. GnRH pulses - the regulators of human reproduction. Transactions of the American Clinical and Climatological Association, 104:31-46, Williamsburg, VA, 1992.

John C. Marshall, M.D., Ph.D.

51. Marshall JC, Dalkin AC, Haisenleder DJ. Regulation of gonadotropin gene expression by gonadotropin releasing hormone - In Modes of action of GnRH and GnRH analogs. Chpt 3, 55-66. Ed PM Conn Serono Symposia. New York: Springer-Verlag, 1992.
52. Marshall JC. Amenorrhea. *Medicine International* 21:5, 207-212, 1993.
53. Marshall JC, Griffin ML. The role of changing pulse frequency in the regulation of ovulation. Proceedings of International Ferring Symposium. Rheingau, Germany. In: *Human Reproduction*, 8(2), 57-61. Ed. RG Edwards, 1993.
54. Marshall JC. Impotence and altered libido. In: *Internal Medicine 4th Edition*, Chapt 157, 1275-1280. Eds. JH Stein, PO Kohler. St. Louis, MO: Mosby-Year Book, 1994.
55. Marshall JC. Gynecomastia. In: *Internal Medicine 4th Edition*, Chapt 158, 1280-1282. Eds. JH Stein, PO Kohler. St. Louis, MO: Mosby-Year Book, 1994.
56. Haisenleder DJ, Dalkin AC, Marshall JC. Regulation of gonadotropin gene expression. In: *The Physiology of Reproduction*, second edition, Chapt 31, 1793-1832. Eds. E Knobil, JD Neill. New York, NY,: Raven Press, 1994.
57. Marshall JC, Dalkin AC, Haisenleder DJ, Kerrigan JR, Kirk SE, Yasin M. Pituitary translation of the pulsatile GnRH message. In: *Ovulation Induction: Basic Science and Clinical Advances*, 11-19. Eds. M. Filicori, C. Flamigni. Excerpta Medica International Congress. Amsterdam, Holland: Elsevier Science B.V., 1994.
58. Marshall JC. Regulation of gonadotropin secretion. In: *Endocrinology*, Chapt 113, 1993-2007. Eds. LJ DeGroot, M Besser, H Burger, JL Jameson, DL Loriaux, JC Marshall, WD Odell, JT Potts Jr., AH Rubenstein. Philadelphia, PA: W.B. Saunders, 1995.
59. Marshall JC. Hormonal regulation of the menstrual cycle and mechanisms of anovulation. In: *Endocrinology*, Chapt 117, 2046-2058. Eds. LJ DeGroot, M Besser, H Burger, JL Jameson, DL Loriaux, JC Marshall, WD Odell, JT Potts Jr., AH Rubenstein. Philadelphia, PA: W.B. Saunders, 1995.
60. Marshall JC, Dalkin AC, Haisenleder DJ, Kerrigan JR, Kirk SE, Aloji JA, Yasin M. Regulation of LH and FSH synthesis and secretion. In: *Recent Developments in Gynecology and Obstetrics, Proceedings 4th World Congress of Gynecological Endocrinology*. P3-15 Eds AR Genazzani, F Petroglia, GD Ambroggio, AD Genazzani, PG Artini. New York/London: Parthenon Publishing, 1996.
61. Marshall JC, Barkan AL. Disorders of the hypothalamus and anterior pituitary. In: *Textbook of Internal Medicine*. Chapt 406, p 2178-2197. Eds. WN Kelley, HL DuPont, JH Glick, ED Harris, DR Hathaway, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, T Yamada. Philadelphia, PA: JP Lippincott, 1996
62. Barkan AL, Marshall JC. Testing and evaluation of pituitary end-organ function. In: *Textbook of Internal Medicine*. Chapt 421, p 2303-2309. Eds. WN Kelley, HL DuPont, JH Glick, ED Harris, DR Hathaway, WR Hazzard, EW Holmes, LD Hudson, HD Humes, DW Paty, T Yamada. Philadelphia, PA: JP Lippincott, 1996.
63. Dalkin AC, Marshall JC. Reproduction/Fertility (Inhibin/Activin: Regulation of Fertility). In: *Endocrinology: Basic and Clinical Principles*. Chap. 26, p405-418. Eds. PM Conn, S Melmed. Totowa, NJ: The Humana Press Inc., 1997.

64. Marshall JC, Dalkin AC, Haisenleder DJ, Kirk SA. Inhibins, Activins, Follistatin and GnRH:-Regulators of gonadotropin subunit gene expression. Chap 4, p39-50. In *Inhibin, Activin and Follistatin - Regulation functions in system and cell biology*, Ed. T. Aono. Serono Symposia, USA. New York: Springer- Verlag, 1997.
65. Marshall JC. Impotence and altered libido. In: *Internal Medicine*, 5th Edition, Chap 292, p 1760-1764, Ed. JH Stein. St. Louis, MO: Mosby-Year Book, 1998.
66. Marshall JC. Gynecomastia. In: *Internal Medicine*, 5th Edition, Chap. 293, p 1764-1766, Ed. JH Stein. St. Louis, MO: Mosby-Year Book, 1998.
67. Marshall JC, Eagleson CA. Neuroendocrine aspects of polycystic ovary syndrome. In *Polycystic Ovary Syndrome*. Ed. A Dun.aif. Pp. 295-324, *Endocrinology & Metabolism Clinics of North America*, Vol 28:2. Philadelphia, PA: W.B. Saunders, 1999.
68. Marshall JC, Barkan AL. Disorders of the hypothalamus and anterior pituitary. In *Kelley's Textbook of Internal Medicine*, 4th Ed., Ch 403, pp. 2663-2683. Eds. Humes HD, DuPont HL, Gardner LB, Griffin JW, Harris ED, Hazzard WR, King TE, Loriaux LD, Nabel EG, Todd RF, Traber PG. Philadelphia, PA: Lippincott, Williams and Wilkins, 2000.
69. Barkan AL, Marshall JC. Testing and evaluation of pituitary end organ function. In *Kelley's Textbook of Internal Medicine*, 4th Ed., Ch 417, pp.2812-2821. Eds. Humes HD, DuPont HL, Gardner LB, Griffin JW, Harris ED, Hazzard WR, King TE, Loriaux LD, Nabel EG, Todd RF, Traber PG. Philadelphia, PA: Lippincott, Williams and Wilkins, 2000.
70. Marshall, JC. Regulation of Gonadotropin sythesis and secretion In *Endocrinology*, 4th edition, Chap. 139 p. 1916-1925. Eds. DeGroot LJ, Jameson JL, Burger H, Loriaux L, Marshall JC, Melmed S, Odell WD, Potts JT, Rubinstein AH. Philadelphia, PA: WB Saunders, 2001.
71. Marshall, JC. Hormonal Regulation of the menstrual cycle and mechanisms of anovulation In *Endocrinology*, 4th Ed. Chap.151 p. 2073-2085. Eds. DeGroot LJ, Jameson JL, Burger H, Loriaux L, Marshall JC, Melmed S, Odell WD, Potts JT, Rubinstein AH. Philadelphia, PA: WB Saunders, 2001.
72. Marshall JC. Hypothalamic amenorrhea: primary and secondary causes. In *Endocrine Society Clinical Endocrinology Update Syllabus*, pp. 3-14, Chicago, 2001.
73. Marshall JC. Evaluation of male hypogonadotropic hypogonadism. In *Endocrine Society Clinical Endocrinology Update Syllabus*, pp. 111-119, Chicago, 2001.
74. Marshall JC. Control of pituitary hormone secretion – the role of pulsatility. In *Comprehensive Clinical Endocrinology*, 3rd edition, Ch 2, pp 19-34. In Besser GM, Thorner, MO (eds). Harcourt Health Sciences, London, 2002.
75. Marshall JC, Eagleson CA, McCartney CR. Neuroendocrine dysfunction in polycystic ovarian syndrome. In Chang, Heindel, Dunaif (eds), *Polycystic Ovary Syndrome*, Ch. 8, pp 89-104. Marcel Dekker, New York, 2002.
76. Marshall JC, Eagleson CA, McCartney CR. Hypothalamic dysfunction. In Devoto L, Strauss JF III (eds), *Serono Symposia Proc on Reproductive Health – International Conference on Reproductive Competence: Pathophysiology and Therapeutic Interventions*, Elsevier, *Mol Cell Endocrinol* 186:227-230, 2002.

77. McCartney CR, Eagleson CA, Marshall, JC. Regulation of Gonadotropin Secretion: Implications for Polycystic Ovarian Syndrome. In Carr BR, Stewart PM (eds), *Seminars in Reproductive Medicine: Neuroendocrine Disorders and Reproduction*, 20(4):317-325, 2002.
78. Burger LL, Haisenleder DJ, Dalkin AC, Marshall JC. Regulation of gonadotropin subunit gene transcription. *J Mol Endocrinol*, 33:559-584, 2004.
McCartney CR, Prendergast KA, Chhabra S, Chopra C, Marshall JC. Neuroendocrine connection in PCOS. In Filicori M (ed), *Updates in Infertility Treatment*, pp. 427-440. Medimond S.r.l., Bologna, Italy, 2004.
79. Marshall JC. Regulation of gonadotropin synthesis and secretion. In DeGroot LJ, Jameson JL, DeKretzer D, Melmed S, Marshall JC, Grossman AB, Weir GC (eds), *Endocrinology*, 5th ed, Chapter 141, pp. 2687-2698. Elsevier, Philadelphia, 2005.
80. Marshall JC. Hormonal regulation of the menstrual cycle and mechanisms of anovulation. In DeGroot LJ, Jameson JL, DeKretzer D, Melmed S, Marshall JC, Grossman AB, Weir GC (eds), *Endocrinology*, 5th ed, Chapter 153, pp. 2911-2922. Elsevier, Philadelphia, 2005.
81. Blank SK, McCartney CR, Helm KD, Marshall JC. Neuroendocrine effects of androgens in adult polycystic ovary syndrome and female puberty, In the Hypothalamic Pituitary Axis in Reproduction. Ed. L. Halvorson, *Seminars in Reproductive Medicine*, 25: 352-359, 2007.
82. Marshall JC, McCartney CR, Blank SK, Lamberts-Okonkwo Q. Pubertal precursors of the polycystic ovarian syndrome. Chapter 7; p 107-122 In Dunaif A, Chang RJ, Franks S, Legro RL (eds), *Polycystic Ovarian Syndrome: Current Controversies from the Ovary to the Pancreas*. Humana Press, New Jersey, 2008.
83. Blank SK, Helm KD, McCartney CR, Marshall JC. Polycystic Ovarian Syndrome in Adolescence. In the *Menstrual Cycle and Adolescent Health*. *Annals of the New York Academy of Science*. 1135:p76-87, 2008. doi 10-1196/annuals.1429/005.
84. Marshall JC, McCartney CR, Blank SK, Helm K. Control of the onset of puberty: Implications for the evolution of polycystic ovary syndrome. *University of Virginia Journal of Medicine*, May, Vol. 5:27-34, 2009.
85. Haisenleder DJ, Marshall JC, Gonadotropins—Regulation of Synthesis and Secretion. In DeGroot LJ, Jameson JL, DeKretzer D, Melmed S, Marshall JC, Grossman AB, Weir GC (Eds.). *Endocrinology* 6th Edition, Chapter 117, p. 2134-2145. Saunders/Elsevier, Philadelphia, 2010.
86. Marshall JC, Reame NK. –Hormonal Regulation of the Menstrual Cycle, Mechanisms of Ovulation, Premenstrual Tension. In DeGroot LJ, Jameson JL, DeKretzer D, Melmed S, Marshall JC, Grossman AB, Weir GC (Eds.) *Endocrinology* 6th Edition, Chapter 128, p. 2327-2340. Saunders/Elsevier, Philadelphia, 2010.
87. McCartney CR, Marshall JC. Neuroendocrinology of Reproduction . In Yen and Jaffee’s *Reproductive Endocrinology*, Eds. J. Strauss, K. Barbieri. Chapter 1 p. 3-26, Elsevier (Saunders) Philadelphia 2013.
88. Haisenleder DJ, Marshall JC Gonadotropins – regulation of synthesis and secretion. In Jameson JL, DeGroot LJ, DeKretzer D, Melmed S, Guidice L, Grossman AB, Weir GC (Eds) *Endocrinology* 7th Edition, Chapter 116, p 2023-2036. Saunders/Elsevier, Philadelphia 2015.
- 89 Marshall JC Menstrual cycle and disorders of ovulation. In Jameson JL, DeGroot LJ, DeKretzer D,

John C. Marshall, M.D., Ph.D.

Melmed S, Guidice L, Grossman AB, Weir GC (Eds) Endocrinology 7th Edition, Chapter 129, p 2231-2241. Saunders/Elsevier, Philadelphia 2015.

- 90 McCartney CR, Marshall JC. Neuroendocrinology of Reproduction . In Yen and Jaffee's Reproductive Endocrinology and Fertility 8th Ed, Eds. J. Strauss, K. Barbieri. Chapter 1, p. 1- 24 , Elsevier (Saunders) Philadelphia. 2018.

Abstracts and Papers Presented to Societies

1. Marshall JC, Anderson DC, Burke CW, Galvao-Teles A, Fraser TR. Elevation of luteinizing hormone, testosterone and cortisol in men taking clomiphene citrate. *J Endocrinol* 48: xxxix, 1970.
2. Anderson DC, Marshall JC, Young JL, Fraser TR. Human chorionic gonadotropin and clomiphene in the diagnosis and treatment of male hypogonadotropic hypogonadism. *J Endocrinol* 48: x1-x1i, 1970.
3. Anderson DC, Fraser T, Marshall JC. Stimulation tests using plasma testosterone measured by competitive protein binding in the differential diagnosis of male hypogonadism. *Proc IIIrd Int Cong Horm Steroids, Hamburg. Abs 409, Exerpta Medica Found, #210, 1970.*
4. McNeilly AS, Anderson DC, Besser GM, Marshall JC, Harsoulis P, Alexander L, Ormston BJ, Hall R, Collins WP. The luteinizing hormone and follicle stimulating hormone response to synthetic LH releasing factor in man. *J Endocrinol* 55: xxiv-xxv, 1972.
5. Butt WR, London DR, Lynch SS, Marshall JC, Owusu S, Robinson WR, Stephenson JM. Effects of luteinizing hormone releasing hormone given intranasally. *J Endocrinol* 59: xiii, 1973.
6. Marshall JC, Morris R, Court C, Butt WR. Absent positive feedback of oestrogens: a cause of amenorrhea in hypothalamic-pituitary disease. *J Endocrinol* 59: xxiv, 1973.
7. Marshall JC, Besser GM. Clinical applications of the LH/FSH releasing hormone. *J Endocrinol* 58: xxxiii-xxxiv, 1973.
8. London DR, Butt WR, Marshall JC. Intranasal LH-releasing hormone. *Lancet* 1: 1450 (letter), 1973.
9. Marshall JC, Shakespear RA, Odell WD. LHRH binding to pituitary plasma membranes: evidence for the presence of specific receptors in other tissues. *J Endocrinol* 67: 38p-39p, 1975.
10. Marshall JC, Shakespear RA, Harper CM, Clayton RN, Walker RA. LHRH binding to pituitary plasma membranes and serum gonadotropin levels during puberty in the rat. *Abs 48, p. 19. Proceedings of 5th International Congress of Endocrinology, Hamburg, 1976.*
11. Clayton RN, Shakespear RA, Marshall JC. LRH degrading activity associated with a purified pituitary plasma membrane fraction. *J Endocrinol* 73: 34-35, 1977.
12. Heber D, Marshall JC, Odell WD. LHRH receptors: identification, specificity, and quantitation in non-pituitary tissues. *Fertil Steril* 28: 346-347, 1977.
13. Clayton RN, Shakespear RA, Marshall JC. Effect of testosterone and oestradiol on LHRH degradation by purified pituitary plasma membranes. *11th Acta Endocrinologica Congress. p. 59, Lausanne, 1977.*
14. Marshall JC, Clayton RN, Shakespear RA. Gonadotropin releasing hormone degradation by purified pituitary plasma membranes. *Abs 16, p. 62. Proceedings of the 59th Annual Meeting of the Endocrine Society, Chicago, IL, 1977.*
15. Lane J. Butt WR, London DR, Marshall JC. The effect of clomiphene on estrogen positive feedback. *J Endocrinol* 77: 66P, 1978.

John C. Marshall, M.D., Ph.D.

16. Clayton RN, Shakespear RA, Marshall JC. D Ser6 des Gly10 GnRH ethylamide receptor interactions: an explanation for enhanced bio-activity. Proceedings of the 60th Annual Meeting of the Endocrine Society, p.462, Miami, FL, 1978.
17. Marshall JC. Diagnosis of male infertility. Abs E9/1, p. 37. Advances in Medicine Symposium. London, July, 1978.
18. Marshall JC, Kelch RP. Low dose gonadotropin releasing hormone - a model of puberty. Clin Res 26: 658A, October, 1978.
19. Savoy-Moore RT, Landefeld TL, Marshall JC. Instability of luteinizing hormone released from rat anterior pituitary cell cultures. 63rd Annual Meeting FASEB, Fed Proc 38, Abs 3955, p. 980, Dallas, TX, 1979.
20. Clayton RN, Duncan JA, Marshall JC. Iodinated superagonist analogs for the identification of high affinity pituitary gonadotropin-releasing hormone receptors. Clin Res 27: 250A, April, 1979.
21. Marshall JC, Kelch RP. Administration of low dose pulses of gonadotropin-releasing hormone - a model of puberty. Clin Res 27: 256A, April, 1979.
22. Valk TW, Corley KP, Kelch RP, Marshall JC. 'Physiological' administration of GnRH - hormone responses in isolated gonadotropin deficiency. Proceedings of the 61st Annual Meeting of the Endocrine Society. Abs 740, p. 257, Anaheim, 1979.
23. Frager M, Duncan JA, Pieper D, Tonetta S, Marshall JC. Induction of pituitary membrane GnRH receptors by GnRH and a superagonist GnRH analog. Proceedings of the 61st Annual Meeting of the Endocrine Society, Abs 432, p. 180, Anaheim, 1979.
24. Valk TW, England BG, Marshall JC. Pituitary function on oral cimetidine therapy - suppression of growth hormone secretion. Clin Res 27: 618A, October, 1979.
25. Frager M, Duncan JA, Pieper D, Tonetta S, Marshall JC. High affinity pituitary GnRH receptors after castration, steroid replacement, and superagonist GnRH analog treatment. Clin Res 27: 626A, October, 1979.
26. Valk TW, England BG, Marshall JC. Effects of cimetidine on pituitary function. Am College Physicians, Michigan Chapter, Harbor Springs, MI, October, 1979.
27. Hopwood NJ, Kelch RP, Marshall JC. Diagnosis of gonadotropin deficiency in adolescents - limited prognostic usefulness of standard gonadotropin-releasing hormone tests in obese boys. Midwest Society for Pediatric Research, November, 1979.
28. Savoy-Moore RT, Schwartz NB, Duncan JA, Marshall JC. Pituitary gonadotropin-releasing hormone receptors during the rat estrous cycle - changes in receptor number. Proceedings of the 62nd Meeting of the Endocrine Society. Abs 141, p. 110, Washington, DC, 1980.
29. Valk TW, Corley KP, Kelch RP, Marshall JC. Testosterone treatment inhibits FSH secretion induced by "physiological" administration of GnRH. Proceedings of the 62nd Meeting of the Endocrine Society. Abs 632, p. 232, Washington, DC, 1980.
30. Frager M, Duncan J, Pieper D, Tonetta S, Marshall JC. Regulation of pituitary GnRH receptors by GnRH and gonadal steroids. Clin Res 28: 258A, 1980.

31. Bourne GA, Regiani S, Payne AH, Marshall JC. Testicular GnRH receptors - characterization and localization on interstitial tissue. Proc Soc Study Reprod, Abs 107, Biol Reprod 22, Suppl 1, 74A, 1980.
32. Pieper DR, Marshall JC. Characterization of GnRH receptors in rat ovaries. Proc Soc Study Reprod, Abs 6, Biol. Reprod 22, Suppl. 1, 23A, 1980.
33. Frager MS, Jakacki RI, Kelch RP, Marshall JC. Testicular steroids regulate endogenous GnRH pulse amplitude. Clin Res 28: 760A, October, 1980.
34. Dalkin AC, Bourne GA, Pieper DR, Regiani SA, Marshall JC. Pituitary and gonadal GnRH receptors during sexual maturation. Clin Res 28: 719A, October, 1980.
35. Marshall JC, Bourne GA, Frager M, Pieper DR. Pituitary GnRH receptors - physiological changes and control of receptor number. Proc of NIH Symposium in "Functional Correlates of Hormone Receptors in Reproduction", Augusta, GA, October, 1980.
36. Dalkin AC, Bourne GA, Pieper DR, Regiani SA, Marshall JC. Sexual maturation - changes in pituitary and gonadal GnRH receptors. Clin Res 29: 289A, April, 1981.
37. Pieper DR, Regiani S, Gala RR, Marshall JC. Dependence of pituitary GnRH receptors on GnRH secretion - evidence from hypothalamic lesioned rats. Proceedings of the 63rd Meeting of the Endocrine Society, Abs 195, p. 131, Cincinnati, OH, 1981.
38. Barkan A, Regiani SR, Duncan JA, Marshall JC. Pituitary GnRH receptors during the LH surge in female rats: effects of phenobarbital blockade and GnRH injections. Proceedings of the 63rd Meeting of the Endocrine Society, Abs 820, p. 287, Cincinnati, OH, 1981.
39. Bourne GA, Marshall JC. Regulation of testicular GnRH receptors: luteinizing hormone inhibits the increase in GnRH receptors after hypophysectomy. Proc Soc Study Reproduction, Abs 157, p. 101A, Biol Reprod, Suppl, 1981.
40. Jakacki RI, Kelch RP, Sauder SE, Lloyd JS, Hopwood NJ, Marshall JC. Prepubertal children secrete LH in a pulsatile manner. Proc Eur Soc Ped Endocr, p. 89, Geneva, Switzerland, 1981.
41. Duncan JA, Dalkin AC, Regiani SR, Barkan A, Marshall JC. Pituitary GnRH receptors during puberty in the rat - sexual dimorphism in gonadal feedback. Clin Res 29: 707A, 1981.
42. Case GD, Valk TW, Sauder SE, Kelch RP, Marshall JC. Estradiol inhibits gonadotropin responses to low dose GnRH pulses - a mechanism for decreased FSH secretion. Clin Res 29, 709A, 1981.
43. Sauder SE, Case GD, Frager M, Kelch RP, Marshall JC. LH pulse frequency increases during bromocriptine therapy in hyperprolactinemia. Clin Res 29: 756A, 1981.
44. Sauder SE, Kelch RP, Hopwood NJ, Marshall JC. Naloxone increases daytime LH secretion in hypothalamic amenorrhea but not in early puberty. Proc Soc Ped Res, Ped Res 16: Part 2, Abs 392, 1982.
45. Dalkin AC, Marshall JC. The effects of monosodium glutamate on pituitary and ovarian GnRH receptors during sexual maturation. Clin Res 30: 813A, 1982.

John C. Marshall, M.D., Ph.D.

46. Case GD, Valk TW, Sauder SE, Kelch RP, Marshall J.C. Estradiol selectively inhibits FSH secretion: a mechanism for modulation of gonadotropin responses to low dose GnRH pulses. *Clin Res* 30: 490A, 1982.
47. Barkan A, Regiani SR, Duncan JA, Marshall JC. Opioids acutely regulate pituitary GnRH receptors. *Proc 64th Meeting of the Endocrine Soc, Abs 826, p. 286, San Francisco, CA, 1982.*
48. Duncan JA, Regiani SR, Dalkin A, Barkan A, Marshall JC. Gonadal regulation of pituitary GnRH receptors during sexual maturation. *Proc Soc Study Reproduction. Biol Reprod, 26: Suppl. 1, Abstract 137, p. 105A, 1982.*
49. Marshall JC, Barkan A, Bourne GA, Duncan JA, Garcia A, Pieper DR, Regiani : Physiology of pituitary GnRH Receptors. *Proc Int Symposium on Recent Advances in Male Reproduction - Molecular basis and clinical implications. Abstract 26, p. 45, Catania, Italy, June 1982.*
50. Marshall JC, Kelch R., Sauder SE, Valk TW, Reame N. Pulsatile GnRH: studies of puberty and the menstrual cycle. *Proc Symposium on the Endocrinology of Puberty, p. 2, 166th Meeting of the Society of Endocrinology, London, UK, November, 1982.*
51. Garcia A, Schiff M, Regiani S, Marshall J.C. Testosterone modulates regulation of pituitary GnRH receptor by pulsatile GnRH. *Clin Res, 31:470A, 1983.*
52. Reame NE, Case GD, Sauder SE, Marshall JC, Kelch RP. Variations in GnRH frequency and amplitude modulate gonadotropin secretion during the menstrual cycle. *Clin Res, 31: 472A, 1983.*
53. Hickstein DD, Marshall JC. Pituitary apoplexy - the spectrum of pituitary adenoma hemorrhage. *Proc 64th Annual Session, American College of Physicians, Abs , p. San Francisco, CA, April, 1983.*
54. Kelch RP, Hopwood NJ, Sauder SE, Marshall JC. Decreased secretion of gonadotropin-releasing hormone in pubertal boys after sex steroid treatment. *Proc Soc Ped Res, Ped Res 17: (4) 164A, Abs 467, 1983.*
55. Barkan A, Duncan JA, Papavasiliou S, Schiff M, Garcia A, Kelch RP, Marshall JC. Acute modulation of pituitary GnRH receptors: role of GnRH and neurotransmitters. *Proc 65th Meeting of the Endocrine Soc, Abs 1133, p. 364, San Antonio, TX, 1983.*
56. Reame NE, Sauder SE, Case GD, Marshall J., Kelch RP. Reduced GnRH pulse frequency in hypothalamic amenorrhea: a cause for absent cyclicity. *Proc 65th Meeting of the Endocrine Soc, Abs 117, p. 110, San Antonio, TX, 1983.*
57. Marshall JC, Barkan A, Garcia A, Papavasiliou S, Pieper DR. Physiology of pituitary GnRH receptors. *Proc 149th A.A.A.S. National Meeting, p. 53, Detroit, MI, 1983.*
58. Pieper DR, Regiani SR, Schiff MA, Marshall JC. Pituitary GnRH receptor and LH responses to GnRH in hypothalamic lesioned rats: evidence that testosterone and estradiol act at a post-receptor site. *Biol Reprod 28, Suppl. 1, Abs 169, p. 117, 1983.*
59. Garcia A, Schiff MA, Papavasiliou S, Barkan A, Duncan J, Marshall JC. Prolactin directly inhibits GnRH induction of pituitary GnRH receptors. *Clin Res 31: 719A, 1983.*

John C. Marshall, M.D., Ph.D.

60. Barkan A, Garcia A, Papavasiliou S, Schiff MA, Duncan JA, Kelch RP, Marshall, JC. Neurotransmitter induced changes in GnRH secretion acutely modulate pituitary GnRH receptors. *Clin Res* 31: 762A, 1983.
61. Thorson J., Keyes PL, Bill CH, Marshall JC. Lack of a direct effect of a GnRH Analog on the Rabbit Corpus Luteum. Abs 265, Proc. 68th Meeting F.A.S.E.B, April, 1984.
62. Katt JA, Duncan JA, and Marshall JC. The frequency of GnRH stimulation determines the numbers of pituitary GnRH receptors. *Clin Res* 32: 268A, 1984.
63. Garcia A, Schiff MA, Papavasiliou S, Barkan A, Duncan J, Marshall JC. GnRH induction of pituitary GnRH receptors: direct inhibition by prolactin. *Clin Res* 32: 484A, 1984.
64. Sauder SE, Kelch RP, Hopwood NJ, Beitins IZ, Marshall JC. Effects of naloxone and clonidine on gonadotropin secretion in early pubertal boys. *Proc Soc Ped Res, Ped Res* 18: 176A, Abs 485, 1984.
65. Otto CA, Marshall JC, Lloyd RV, Sherman PS, Wieland DM. Radiolabelled spiroperidol: possible pituitary adenoma imaging agent. Abs 205, p.127, Proc 31st Annual Meeting Soc Nuclear Med., Los Angeles, CA, 1984.
66. Katt JA, Duncan JA, Marshall JC. The frequency of GnRH stimulation determines the number of pituitary GnRH receptors. Abs 30, Midwest Student Research Forum XV, Madison, WI, March, 1984.
67. Marshall JC, Kelch RP, Sauder S, Barkan A, Reame N, Khoury S. Pulsatile GnRH - studies of puberty and the menstrual cycle. Proc 7th International Congress of Endocrinology, p. 6, Excerpta Medica International Congress Series 652, Quebec, July, 1984.
68. Khoury S, Barkan A, Kelch RP, Marshall JC. LH and FSH responses to GnRH pulses in GnRH deficient patients treated with luteal phase steroids. *Clin. Res.* 32: 785A, 1984.
69. Duncan J, Herbon L, Marshall JC. Estradiol and prolactin modulate GnRH regulation of pituitary GnRH-receptors and gonadotropin secretion in female rats. Proc 67th Meeting of the Endocrine Soc, Abstract 1086 p. 272, Baltimore, MD, 1985.
70. Barkan A, Kelch RP, Marshall JC. Isolated pituitary gonadotrope failure in the polyglandular autoimmune syndrome. *Clin Res* 33: 304A, 1985.
71. Khoury S, Sauder SE, Hopwood N, Beitins IZ, Marshall JC, Kelch RP. Acute and chronic effects of clonidine on growth hormone and gonadotropins in adolescent boys. Proc International Soc for Pediatrics, Baltimore, MD, Ped Res 19: 608, 1985.
72. Papavasiliou SS, Zmeili S, Khoury S, Herbon L, Landefeld T, Chin WW, Marshall JC. GnRH modulation of alpha and beta LH gene expression in male rats. *Clin Res* 33: 536A, 1985.
73. Khoury S, Barkan A, Kelch RP, Marshall JC. Consistent LH responses to GnRH pulses in GnRH deficient patients treated with luteal phase steroids. *Clin Res* 33: 309A, 1985.
74. Khoury S, Reame N, Kelch RP, Marshall JC. Role of hypothalamic opioids in the inhibition of GnRH secretion in hypothalamic amenorrhea. *Clin Res* 33: 534A, 1985.

John C. Marshall, M.D., Ph.D.

75. Khoury S, Herbon LA, Kalra P, Marshall JC. Modulation of pituitary GnRH receptors by pulsatile GnRH: differential effects of androgen and estrogen in male rats. Proc 67th Meeting of the Endocrine Society, Abstract 1231, p. 308 Baltimore, MD, 1985.
76. Zmeili S, Papavasiliou S, Marshall JC, Landefeld T. An improved method for mRNA quantification using the dot blot assay: application to the gonadectomized rat model. Proc 67th Meeting of the Endocrine Society. Abs 1127, p. 282, Baltimore, MD, 1985.
77. Barkan A, Reame N, Kelch RP, Marshall JC. Dependence of the hormonal responses to GnRH on the magnitude of the endogenous secretory defect in men with isolated gonadotropin deficiency. Proc Symposium on Regulatory Factors in Development and Reproduction. Univ of Michigan, Abs 9, 1985.
78. Khoury S, Reame N, Kelch RP, Marshall JC. Reduced GnRH pulsatility in hypothalamic amenorrhea: consistency of diurnal patterns and effects of opiate blockade and adrenergic stimulation. Clin Res 33: 875A, 1985.
79. Khoury S, Herbon LA, Kalra P, Marshall JC. Differential effects of androgen and estrogen on the modulation of GnRH receptors and gonadotropins by pulsatile GnRH. Clin Res 33: 826A, 1985.
80. Hale PM, Foster CM, Khoury SA, Hopwood NJ, Beitins IZ, Marshall JC, Kelch RP. Acute effects of testosterone (T) on nocturnal secretion of LH in early pubertal boys. Proc Soc Ped Res. Ped Res 20: 375A, 1986.
81. Khoury S, Reame N, Kelch RP, Marshall JC. Reduced GnRH pulse frequency in hypothalamic amenorrhea is associated with consistent diurnal patterns and variable responsiveness to opiate blockade. Clin. Res. 34: 645A, 1986.
82. Zmeili S, Papavasiliou S, Marshall JC, Landefeld TD. Alpha and LH beta mRNAs are differentially regulated during the proestrus LH surge of the rat estrous cycle. Proc 68th Meeting of the Endocrine Society, Abs 35, p. 39, Anaheim, CA, 1986.
83. Haisenleder DJ, Barkan AL, Zmeili SM, Papavasiliou S, Dee C, Duncan JA, Marshall JC. Alpha & LH beta mRNAs during the LH surge in ovariectomized - estradiol replaced rats. Proc 68th Meeting of the Endocrine Society, Abs 474, p. 149, Anaheim, CA, 1986.
84. Kelch RP, Marshall JC, Hopwood NJ. Hypothalamic-pituitary regulation of human puberty. Proc 68th Meeting of the Endocrine Society, Abs 2A, p. 4, Anaheim, CA, 1986.
85. Reame NE, Marshall JC, Kelch RP. Pulsatile gonadotropin secretion during the perimenstrual transition. Proc of the American and Canadian Fertility Society, Toronto Abs 25, p.9, 1986.
86. Haisenleder DJ, Khoury S, Zmeili S, Papavasiliou S, Ortolano GA, Dee C, Duncan JA, Marshall JC. The frequency of GnRH pulses regulates expression of mRNAs for the alpha and LH beta subunits in male rats. Clin Res 34: 950A, 1986.
87. Nippoldt TB, Reame NE, Barkan A, Kelch RP, Marshall JC. Ovarian steroid regulation of pulsatile GnRH secretion during the luteal phase of normal menstrual cycles. Clin Res 34: 909A, 1986.
88. Haisenleder DJ, Khoury S, Zmeili SM, Papavasiliou S, Ortolano GA, Dee C, Marshall JC. Regulation of alpha and LH beta subunit mRNA concentrations by GnRH pulse frequency in male rats. Clin Res. 35: 584A, 1987.

John C. Marshall, M.D., Ph.D.

89. Nippoldt TB, Reame NE, Kelch RP, Marshall JC. Synergistic effects of progesterone and estradiol are required to slow GnRH pulse frequency in the luteal phase of the menstrual cycle. Proc 69th Meeting of the Endocrine Society Abs. 474, p. 139, Indianapolis, 1987.
90. Haisenleder DJ, Katt JA, Dee C, Ortolano JA, Marshall JC. Regulation of alpha and LH beta subunit mRNAs by GnRH pulse amplitude and frequency-relationships to acute LH release. Proc 69th Meeting of the Endocrine Society, Abs 610, p. 173, Indianapolis, 1987.
91. Lee LR, Haisenleder DJ, Marshall JC, Smith MS. Effects of pulsatile GnRH administration on alpha subunit and LH beta gene expression and on pulsatile LH secretion during lactation. Proc of the 17th Annual Meeting of the Society for Neuroscience, Abs 10.2, p.17, 1987.
92. Smith MS, Lee LR, Haisenleder D, Marshall JC. Regulation of pituitary GnRH receptors, alpha subunit and LH beta mRNA expression and LH secretion during lactation in the rat. Proc 1st Int Capri Conference on the brain and female reproductive function - basic and clinical aspects, Abs 21, Capri, Italy, 1987.
93. Reame NE, Marshall JC, Kelch RP, Stein KS. Pulsatile secretion of LH and progesterone in the mid luteal phase in women with PMS. Proc 2nd Int. Symposium on premenstrual, postpartum and menopausal mood disorders, Abs. 4, Kiawah Island, S. Carolina, 1987.
94. Haisenleder DJ, Ortolano GA, Nippoldt T, Dee C, Marshall JC. Induction of gonadotroph specific changes in alpha subunit mRNA levels by pulsatile GnRH administration. Clin Res 35: 884A, 1987.
95. Foster CM, Mendes T, Hale P, Beitins IZ, Hopwood NJ, Marshall JC, Kelch RP. Testosterone infusion decreases LH pulse frequency in early to mid-pubertal boys. Proc Soc Ped Res. Pediatric Res 26: 277A, 1988.
96. Padmanabhan V, Olton P, Nippoldt TB, Marshall JC, Kelch R, Beitins I. Bioactive serum h FSH increases during early pregnancy. Proc 8th International Cong. Endocrinol, Abs 03-19-057: 135, Kyoto, 1988.
97. Haisenleder DJ, Ortolano GA, Nippoldt TB, Dee C, Chin WW, Marshall JC. Pulsatile GnRH induces gonadotroph specific changes in alpha subunit mRNA in T3 suppressed rats. Clin Res 36: 608A, 1988.
98. Ortolano GA, Haisenleder DJ, Dalkin AC, Iliff SA, Maurer RA, Marshall JC. FSH beta subunit mRNA concentrations during the rat estrous cycle. Proc 70th Meeting of the Endocrine Society. Abs 420: 125, New Orleans, 1988.
99. Nippoldt TB, Cook CB, Kelch RP, Marshall JC. Opioid antagonism increases GnRH pulse frequency in patients with hyperprolactinemic hypogonadism. Proc 70th Meeting of the Endocrine Society. Abs 880: 240, New Orleans, 1988.
100. Marshall JC. Clinical neuropharmacology of ovarian function and its disorders. In: Proceedings of the Simpson Symposium on Reproductive Medicine, Center for Reproductive Biology, Abs 4:11, Edinburgh, Scotland, 1988.
101. Merajver SD, Ortolano GA, Haisenleder DJ, Marshall JC. Regulation of luteinizing hormone subunit gene expression by pulsatile GnRH in vitro: effect of GnRH pulse dose. Clin Res 36: 870A, 1988.
102. Dalkin AC, Ortolano GA, Haisenleder DJ, Marshall JC. Gonadal regulation of gonadotropin subunit gene expression: evidence for non-steroidal regulation in female rats. Clin Res 36: 869A, 1988.

103. Reame NE, Marshall JC, Kelch RP. The role of central endogenous opiate activity in premenstrual syndrome. Proc American Fertility Society for Psychosomatic Obstetrics and Gynecology: Abs p., Orlando, FL, 1989.
104. Dalkin AC, Haisenleder DJ, Ortolano GA, Ellis T, Marshall JC. Modulation of gonadotropin gene expression by GnRH pulse frequency: slow frequency preferentially stimulates FSH beta mRNA. Clin Res 37: 596A, 1989.
105. Foster CM, Hassing J, Padmanabhan V, Beitins IZ, Marshall JC, Kelch RP. Testosterone infusion produces adult male luteinizing hormone secretory patterns in pubertal boys. Clin Res 37: 358A, 1989.
106. Christman GM, Randolph JF, Kelch RP, Marshall JC. Reduction of GnRH pulse frequency induces preferential FSH secretion and follicular development in women with polycystic ovarian disease. Proc 71st Meeting of the Endocrine Society. Abs 990: 270, Seattle, 1989.
107. Paul SJ, Ellis TR, Marshall JC. Disappearance of gonadotropin subunit mRNAs from pituitaries in vivo: evidence for prolonged availability of LH beta mRNA in male rats. Proc 71st Meeting of the Endocrine Society. Abs. 311: 100, Seattle, 1989.
108. Haisenleder DJ, Dalkin AC, Ortolano GA, Iliff-Sizemore SA, Paul SJ, Landefeld TD, Marshall JC. GnRH and differential regulation of gonadotropin subunit gene expression. Abs 20: 20. Proc International Symposium on Glycoprotein Hormones, Serono Symposia, Newport Beach, CA, 1989.
109. Marshall JC, Haisenleder DJ, Dalkin AC, Paul SJ, Ortolano GA. Regulation of gonadotropin subunit gene expression. Abs. 4: 3, Proc 2nd International Pituitary Congress, Palm Desert, CA 1989.
110. Kletter GB, Foster CM, Beitins IZ, Marshall JC, Kelch RP. Testosterone infusion has a time dependent effect on luteinizing hormone secretion in pubertal boys. Clin Res 37: 960A, 1989.
111. Marshall JC, Haisenleder DJ, Dalkin AC, Paul SJ, Ortolano GA. Regulation of gonadotropin subunit gene expression. Abs: 25. Proc Serono Symposium: Neuroendocrine Regulation of Reproduction. Napa, CA, 1989.
112. Marshall JC. GnRH pulses as regulators of human reproduction. Proc 26th Annual Congress of the Soc for Endocrinol, Metab and Diabetes of S. Africa, Abs 3: 22. Wilderness, Cape Province, 1990.
113. Marshall JC. Regulation of gonadotropin gene expression. Proc 26th Annual Congress of the Soc for Endocrinol, Metab and Diabetes of S. Africa, Abs 4: 23. Wilderness, Cape Province, 1990.
114. Marshall JC, Dalkin AC, Haisenleder DJ, Paul SJ, Ortolano GA. GnRH regulation of gonadotropin subunit gene expression. Program Serono Symposium on Reproduction, Growth and Development/V, Abs 40: 47, Pan American Congress of Andrology, Acapulco, Mexico, April 1990.
115. Reame N, Marshall JC, Kelch RP. Role of endogenous opioids in the symptom response to lifestyle changes in PMS patients. Proc 18th Ann Meet of American Society for Psychosomatic Obstetrics and Gynecology, p. 15. New York City, March, 1990.
116. Paul SJ, Ortolano GA, Marshall JC. Testosterone selectively increases FSH beta mRNA in the absence of GnRH stimulation of the gonadotrope. Clin Res 38: 297A, 1990.

John C. Marshall, M.D., Ph.D.

117. Haisenleder DJ, Dalkin AC, Ortolano GA, Marshall JC, Shupnik MA. Pulsatile GnRH regulates transcription of gonadotropin subunit genes: differential effects of pulse frequency. Proc 72nd Meeting of the Endocrine Society, Abs 474: 143, Atlanta, 1990.
118. Kletter GB, Foster CM, Marshall JC, Kelch RP. Naloxone does not reverse the suppressive effects of testosterone infusion on LH secretion in early pubertal boys. Proc 72nd Meeting of the Endocrine Society, Abs 1457: 389, Atlanta, 1990.
119. Reame NE, Marshall JC, Kelch RP. Pulsatile LH secretion in women with premenstrual syndrome: evidence for normal neuroregulation of the menstrual cycle. Neuroendocrinology Letters 12(4): 309: A271, 1990.
120. Reame NE, Marshall JC, Kelch RP. Pulsatile LH secretion before and during progesterone or behavioral therapy in women with premenstrual syndrome (PMS). Proc 46th Meeting of the American Fertility Society. Fertil Steril, 54 (Suppl) S165, 1990.
121. Dalkin AC, Paul SJ, Haisenleder DJ, Ortolano GA, Marshall JC. Gonadal steroids effect the same regulation of gonadotropin subunit mRNA expression in both male and female rats. Clin Res 38: 859A, 1990.
122. Kletter GB, Foster CM, Beitins IZ, Marshall JC, Kelch RP. Comparison of the effects of testosterone and naloxone on LH secretion in pubertal boys and men. Clin Res 38: 806A, 1990.
123. Marshall JC, Dalkin AC, Goodman GT, Haisenleder DJ, Kelch RP, Paul SJ. GnRH pulse patterns in the regulation of FSH secretion. Proc Sero Symposium: Regulation and Actions of Follicle-Stimulating Hormone, p. 26. Northwestern Univ, Evanston, IL, 1990.
124. Marshall JC. GnRH pulses - regulators of gonadotropin synthesis and cyclic ovulation. Proc 10th Meeting of the British Endocrine Societies, Abs. 3: 3, Brighton, UK, 1991.
125. Marshall, JC, Dalkin AC, Haisenleder DJ. Regulation of gonadotropin gene expression by gonadotropin releasing hormone. Proc Sero Symposium: Modes of Action of GnRH and GnRH Analogs, Abs. 3: 55, Scottsdale, Arizona, 1991.
126. Dalkin AC, Knight C, Yasin M, Marshall JC. FSH beta mRNA increases within hours of ovariectomy - evidence for regulation independent of GnRH. Proc 73rd Meeting of the Endocrine Society, Abs 1701: 456, Washington DC, 1991.
127. Yasin M, Haisenleder DJ, Ortolano GA, Dalkin AC, Marshall JC. GnRH pulse amplitude differentially regulates gonadotropin subunit gene expression in vitro. Proc 73rd Meeting of the Endocrine Society, Abs. 1726: 462, Washington DC, 1991.
128. Reame N, Marshall JC, Kelch RP. A prospective study of menstrual symptoms in obese and normal weight women. Proc 19th Meeting of American Society for Psychosomatic Obstetrics and Gynecology, Abs 8: 16, Houston, TX, 1991.
129. Kletter GB, Foster CM, Beitins IZ, Marshall JC, Kelch RP. Nocturnal naloxone fails to reverse the suppression of LH secretion by testosterone infusion in pubertal boys. Proc 74th Meeting of the Endocrine Society, Abs 367: 143, San Antonio, TX, 1992.

John C. Marshall, M.D., Ph.D.

130. Kerrigan JR, Marshall JC. Development of a GnRH-deficient female rat model: effects of exogenous GnRH on gonadotropin subunit gene expression. Proc 74th Meeting of the Endocrine Society, Abs 1206: 353, San Antonio, TX, 1992.
131. Marshall JC, Dalkin AC, Haisenleder DJ, Griffin ML, Kelch RP. GnRH pulses - the regulators of human reproduction. Meeting of the American Clinical and Climatological Association. Abs 4: 2, Williamsburg, VA, 1992.
132. Haisenleder DJ, Yasin M, Yasin A, Marshall JC. The regulation of prolactin, thyrotropin and gonadotropin subunit gene expression by pulsatile or continuous calcium signals. Proc 75th Meeting of the Endocrine Society, Abs 1787: 497, Las Vegas, NV, 1993.
133. Kerrigan JR, Haisenleder DJ, Marshall JC. GnRH stimulation of gonadotropin subunit mRNAs: evidence for gender-specific regulation of LH- β gene expression. Proc 75th Meeting of the Endocrine Society, Abs 929: 283, Las Vegas, NV, 1993.
134. Dalkin, AC, Gilrain JT, Marshall JC: Pituitary activin receptor (ActRII) mRNA rises after ovariectomy: assessment by a quantitative polymerase chain reaction (PCR) assay. 3rd International Pituitary Congress, Abs P - 18, Los Angeles, CA, 1993.
135. Kirk S, Dalkin AC, Marshall JC: Regulation of pituitary follistatin gene expression by GnRH: development of a quantitative polymerase chain reaction (PCR) assay. 3rd International Pituitary Congress, Abs P - 19, Los Angeles, CA, 1993.
136. Kirk S, Dalkin AC, Haisenleder DJ, Marshall JC. GnRH pulse frequency regulates pituitary follistatin mRNA: A mechanism for differential gonadotropin synthesis. Clin Res 41:7 85A, 1993.
137. Aloji JA, Dalkin AC, Gilrain JT, Marshall JC. Ovarian activin receptor (ActRII): regulation by gonadotropins and estradiol. Clin Res 42: 270A, 1994.
138. Yasin M, Dalkin AC, Haisenleder DJ, Marshall JC. Pulsatile GnRH is required to stimulate GnRH receptor mRNA expression in vivo. Clin Res 42: 270A, 1994.
139. Kirk SE, Dalkin AC, Yasin M, Marshall JC. Pituitary follistatin mRNA expression: regulation by GnRH and testosterone. Clin Res 42: 271A, 1994.
140. Aloji JA, Yasin M, Dalkin AC, Marshall JC. Differential regulation of ovarian inhibin and follistatin mRNAs by gonadotropins and estradiol. Proc 76th Meeting of the Endocrine Society, Anaheim, CA, Abs 1653: 614, 1994.
141. Dalkin AC, Gilrain JT, Marshall JC. Ovarian regulation of pituitary activin receptor type II (ActRII) gene expression: evidence for a non-steroidal inhibitory substance. Proc 76th Meeting of the Endocrine Society, Anaheim, CA, Abs 1638: 610, 1994.
142. Griffin ML, Evans WS, Marshall JC. Reduced suppression of LH pulse frequency by luteal phase steroids in polycystic ovary syndrome (PCOS). Proc 76th Meeting of the Endocrine Society, Anaheim, CA, Abs 832: 408, 1994.
143. Haisenleder DJ, Yasin M, Marshall JC. Regulation of gonadotropin, thyrotropin subunit and prolactin mRNAs by pulsatile or continuous protein kinase C (PKC) stimulation. Proc 76th Meeting of the Endocrine Society, Anaheim, CA, Abs 1753: 639, 1994.

John C. Marshall, M.D., Ph.D.

144. Kirk S, Dalkin AC, Haisenleder DJ, Marshall JC. Pituitary follistatin mRNA expression is regulated by GnRH pulse frequency: a mechanism for differential gonadotropin synthesis. Proc 76th Meeting of the Endocrine Society, Anaheim, CA, Abs 1779: 645, 1994.
145. Yasin M, Dalkin AC, Haisenleder DJ, Kerrigan JR, Marshall JC. Synergistic action of GnRH and estradiol on pituitary GnRH-receptor mRNAs. Proc 76th Meeting of the Endocrine Society, Anaheim, CA, Abs 155: 239, 1994.
146. Dalkin AC, Haisenleder DJ, Yasin M, Marshall JC. Differential regulation of pituitary activin receptor subtype gene expression by exogenous activin. Clin Res 43: 259A, 1995.
147. Kletter GB, Foster CM, Padmanabhan V, Beitins IZ, Marshall JC, Kelch RP. In pubertal girls, naloxone fails to reverse the suppression of LH secretion by estradiol infusion. Proc 77th Meeting of the Endocrine Society, Washington, DC, Abs P1-47: 124, 1995.
148. Aloji JA, Kerrigan JR, Gilrain JT, Marshall JC, Dalkin AC. Reciprocal regulation of ovarian activin receptor subtypes and follistatin mRNAs by gonadotropins. Proc 77th Meeting of the Endocrine Society, Washington, DC, Abs P1-352: 200, 1995.
149. Haisenleder DJ, Cox M, Parsons SJ, Yasin M, Marshall JC. GnRH stimulation of mitogen-activated protein kinase (MAPK) activity: pulsatile vs continuous stimuli in female rats. Proc 77th Meeting of the Endocrine Society, Washington, DC, Abs P2-39: 300, 1995.
150. Kirk SE, Yasin M, Kerrigan J, Dalkin AC, Haisenleder DJ, Marshall JC. Estradiol directly increases expression of pituitary follistatin mRNA. Proc 77th Meeting of the Endocrine Society, Washington, DC, Abs P2-52: 303, 1995.
151. Leung SW, Dalkin AC, Marshall JC. Differential regulation of pituitary activin receptor subtype mRNAs by testosterone in the male rat. Proc 77th Meeting of the Endocrine Society, Washington, DC, Abs OR42-4: 104, 1995.
152. Yasin M, Haisenleder DJ, Dalkin AC, Marshall JC. Testosterone is required for GnRH stimulation of LH β mRNA expression in female rats. Proc 77th Meeting of the Endocrine Society, Washington, DC, Abs P2-55: 304, 1995.
153. Dalkin AC, Haisenleder DJ, Yasin M, Kirk SE, Marshall JC. Regulation of pituitary follistatin gene expression in the rat - evidence of an inhibitory role for inhibin. J of Invest Med 44:261A, 1996.
154. Aloji JA, Griffin ML, Evans WS, Pastor C, Marshall JC. Resistance to progesterone suppression of LH pulse frequency in polycystic ovary syndrome. Proc 78th Meeting of the Endocrine Society, San Francisco, Abs P2-611: 557, 1996.
155. Yasin M, Haisenleder DJ, Dalkin AC, Marshall JC. Role of testosterone(T) in the LH beta mRNA response to GnRH pulse amplitude in the female rat. Proc 78th Meeting of the Endocrine Society, San Francisco, Abs P1-397: 234, 1996.
156. Haisenleder DJ, Yasin M, Marshall JC. Gonadotropin, thyrotropin, prolactin and GnRH - receptor gene expression is regulated by alterations in the frequency of calcium pulse signals. Proc 78th Meeting of the Endocrine Society, San Francisco, Abs P3-253: 818, 1996.
157. Marshall JC, Dalkin AC, Haisenleder DJ, Gilrain JT, Yasin M. Activin, follistatin and regulation of gonadotrope gene expression. Proc 4th International Pituitary Congress, San Diego, Abs S5: 1996

158. Marshall JC, Dalkin AC, Haisenleder DJ, Kirk SE. Inhibins, Activins, Follistatin and GnRH - Regulators of Gonadotropin Subunit Gene Expression. Proc Int Conf on Inhibin, Activin and Follistatin - Recent advances and Future Views. Serono Symposium, Tokushima, Japan Abs. 3 P 4, 1996.
159. Marshall JC, Dalkin AC, Haisenleder DJ, Gilrain JT, Yasin M. One GnRH - two gonadotropins: physiologic and molecular regulation. Proc 16th Meeting of the British Endocrine Soc. Harrogate, UK. J. Endocrinology, 152: Suppl. Abs 2 P 2, 1997.
160. Haisenleder DJ, Yasin M, Marshall JC. A pulsatile GnRH signal is required to maintain pituitary mitogen activated protein kinase (MAPK) activation - frequency responses in vivo. Proc. 79th Meeting of the Endocrine Society. Minneapolis Abs P3-329, p 518,1997.
161. Dalkin AC, Haisenleder DJ, Yasin M, Gilrain JT, Marshall JC. Pituitary follistatin/FSH interactions in male and female rats - evidence for novel responses to inhibin and rapid GnRH pulses in females. Proc. 79th Meeting of the Endocrine Society. Minneapolis Abs P2-327, p 366,1997.
162. Haisenleder DJ, Marshall JC. Mitogen activated protein kinase (MAPK) plays an essential, but selective role in GnRH regulation of gonadotrope gene expression. Proc 80th Meeting of the Endocrine Society, New Orleans, Abs P3-431, p 474, 1998.
163. Dalkin AC, Aylor K, Gilrain JT, Haisenleder DJ, Marshall JC. GnRH regulation of FSH β gene expression in female rats involves differential expression of activin (β_B) and follistatin mRNAs. Proc 80th Meeting of the Endocrine Society. New Orleans, Abs P3-298, p 448, 1998.
164. Haisenleder DJ, Marshall JC. Regulation of gene expression in gonadotropes by alterations in calcium signal frequency. Proc 80th Meeting of the Endocrine Society. New Orleans, Abs S19-3, p 31,1998.
165. Marshall JC, Dalkin AC, Haisenleder DJ, Aylor K. Hypothalamic Pituitary Regulation of FSH Biosynthesis. Proc Meeting of the Society for the Study of Reproduction. Texas, Biol Reprod. 58 Suppl 1, Abs M8, p 24, 1998.
166. Marshall JC. Regulation of gonadotropin secretion in the polycystic ovary syndrome. Proc International Conference on Polycystic Ovary Syndrome. Athens, Greece. Abs 11, p20, 1998
167. CA Eagleson, TK Arora, CM Burt, WS Evans, JC Marshall. Antiandrogen therapy enhances sensitivity of the hypothalamic pulse generator to inhibition by progesterone in women with PCOS. Proc. 81st Meeting of the Endocrine Society, San Diego. Abs. P1 455p 231 1999.
168. Burger LL, Workman LJ, Aylor KW, Dalkin AC, Marshall JC. Differential regulation of FSH beta and LH beta gene transcription after ovariectomy in the rat: quantitation of primary transcripts by RT-PCR assay. Proc. 81st Meeting of The Endocrine Society, San Diego. Abs. P2 - 8 p 282 1999.
169. Dalkin AC, Haisenleder DJ, Shah K, Cho SK, Burger LL, Aylor KW, Workman LJ, Marshall JC. LH beta gene transcription is rapidly increased by GnRH- measurement of primary transcripts by RT-PCR assay. Proc. 81st Meeting of the Endocrine Society, San Diego. Abs. P2 - 5, p 281, 1999.
170. Marshall JC. Neuroendocrine perturbations of gonadal function. Proc 6th International Pituitary Congress, The Pituitary Society, Long Beach; p 25, 1999.

John C. Marshall, M.D., Ph.D.

171. Burger LL, Aylor KA, Dalkin AC, Haisenleder DJ, Workman LJ, Marshall JC. Regulation of LH β and FSH β transcription after ovariectomy: differential roles of GnRH and inhibin. Proc. 82nd Meeting of the Endocrine Society, Toronto, Abs 542, p. 136, 2000.
172. Eagleson CA, Gingrich MB, Arora TK, Evans WS, Marshall JC. Antiandrogen therapy in PCOS restores normal sensitivity of GnRH inhibition by low levels of progesterone. Proc. 82nd Meeting of the Endocrine Society, Toronto, Abs 2330, p. 563, 2000.
173. Haisenleder DJ, Workman LJ, Aylor KW, Burger LL, Dalkin AC, Marshall JC. Gonadotropin subunit transcriptional regulation by GnRH: evidence for selective desensitization of LH beta. Proc. 82nd Meeting of the Endocrine Society, Toronto, Abs 534, p. 134, 2000.
174. Marshall JC. Puberty - polycystic ovarian syndrome and the hypothalamus. Proc. PCOS Association Annual Meeting, San Diego, D3-2, p.17, 2000.\
175. Marshall JC, Eagleson CA, McCartney CR. Neuroendocrine dysfunction in polycystic ovarian syndrome. Proc. Polycystic Ovary Syndrome: Basic Biology and Clinical Intervention, NIEHS Symposium, Research Triangle Park, NC, Abs 7, p. 7, 2000.
176. Marshall, JC, Eagleson, CA, McCartney CR. Hypothalamic dysfunction. Serono Symposium: Reproductive Competence: Pathophysiology and therapeutic implications, Santiago, Chile, Abs L05, p. 6, 2000.
177. Eagleson CA, Gingrich MB, Hu Y, Marshall JC. Metformin does not enhance sensitivity of the hypothalamic GnRH pulse generator to progesterone in women with PCOS, Proc 83rd Meeting of the Endocrine Society, Denver, Abs P2-435, p. 386, 2001.
178. McCartney CR, Gingrich MB, Evans WS, Marshall JC. Increasing GnRH pulse frequency during the luteal-follicular transition reflects gradual loss of the restraining effects of progesterone, Proc 83rd Meeting of the Endocrine Society, Denver, Abs P2-398, p. 378, 2001.
179. Burger L, Aylor K, Haisenleder D, Dalkin A, Workman L, Marshall J. GnRH frequency regulates gonadotropin subunit transcription – roles for follistatin and activin, Proc 83rd Meeting of the Endocrine Society, Denver, Abs P3-281, p. 509, 2001.
180. Burger L, Aylor K, Dalkin A, Haisenleder D, Workman L, Marshall J. Both GnRH and inhibin regulate FSH β transcription – but only inhibin regulates FSH β mRNA stability, Proc 83rd Meeting of the Endocrine Society, Denver, Abs P3-283, p. 509, 2001.
181. McCartney CR, Gingrich MB, Hu Y, Evans WS, Marshall JC, Veldhuis JD. A novel paradigm of tandem GnRH antagonist administration and pulsatile IV infusions of recombinant human LH in healthy women, Proc 83rd Meeting of the Endocrine Society, Denver, Abs P2-399, p. 378, 2001.
182. Haisenleder DJ, Workman LJ, Burger LL, Aylor KW, Dalkin AC, Marshall JC. Gonadotropin subunit transcriptional responses to calcium signals: evidence for regulation by pulse frequency, Proc 83rd Meeting of the Endocrine Society, Denver, Abs P3-275, p. 508, 2001.
183. McCartney CR, Gingrich MB, Evans WS, Marshall JC. GnRH pulse frequency regulation in the menstrual cycle – increasing pulse frequency during the luteal-follicular transition reflects the gradual loss of progesterone inhibition, Program of the NICHD SCCPRR Meeting, Bethesda, MD, Abs 18, p. 34, 2001.

184. Eagleson CA, Gingrich MB, Hu Y, Marshall JC. Comparison of flutamide and metformin on the sensitivity of the hypothalamic GnRH pulse generator to progesterone in women with PCOS, Program of the NICHD SCCPRR Meeting, Bethesda, MD, Abs 19, p. 35, 2001.
185. Haisenleder DJ, Ferris HA, Burger LL, Aylor KW, Shupnik MA, Marshall JC. GnRH activates gonadotrope calcium/calmodulin-dependent protein kinase type II (Ca/CamK II), Proc 84th Mtg of the Endocrine Society, San Francisco, Abs P1-121, p. 183, 2002.
186. Burger LL, Aylor KW, Dalkin AC, Haisenlder DJ, Marshall JC. Follistatin in combination with slow frequency GnRH pulses reveals evidence for independent actions of activin and GnRH on FSH β gene transcription, Proc 84th Mtg of the Endocrine Society, San Francisco, Abs P2-126, p. 184, 2002.
187. Burger LL, Prendergast KA, Dalkin AC, Aylor KW, Haisenleder DJ, Marshall JC. Regulation of pituitary follistatin mRNA expression by inhibin in ovariectomized rats: the decline in follistatin mRNA after inhibin parallels changes in FSH β expression, Proc 84th Mtg of the Endocrine Society, San Francisco, Abs P1-125, p. 183, 2002.
188. McCartney CR, Bellows AB, Hu Y, Gingrich MB, Evans WS, Marshall JC, Veldhuis JD. Heightened secretion of 17-OHP in patients with PCOS following sequential blockade of endogenous LH release and pulsatile iv infusions of exogenous (rh) LH, Proc 84th Mtg of the Endocrine Society, San Francisco, Abs P2-610, p. 463, 2002.
189. Eagleson CA, Bellows AB, Foster C, McCartney CR, Marshall JC. Nocturnal elevation of progesterone in early pubertal girls – a mechanism for diurnal variation of GnRH (LH) secretion in puberty, Proc 84th Mtg of the Endocrine Society, San Francisco, Abs P3-50, p. 506, 2002.
190. Prendergast KA, Aylor KW, Dalkin AC, Burger LL, Marshall JC. Pituitary follistatin gene transcription in the rat: primary transcript expression follows a biphasic pattern following ovariectomy, Proc 84th Mtg of the Endocrine Society, San Francisco, Abs P1-124, p. 183, 2002.
191. Marshall JC, Eagleson CA, McCartney CR, Bellows AB. PCOS: Evidence for a primary defect of the GnRH pulse generator. , Proc 84th Mtg of the Endocrine Society, San Francisco, Abs S58-1, p. 55, 2002.
192. Groll JM, Vendrov AE, Marshall JC, Evans WS, Guidice LC, Lessey BA. Endometrial gene profiling in women with PCOS compared to normal women, Soc Gynec Invest, Abs 35, 2003.
193. Chaidarun SS, Burger LL, Aylor KW, Prendergast KA, Haisenleder DJ, Dalkin AJ, Marshall JC. Progesterone inhibition of LH (GnRH) secretion: testosterone impairment of progesterone negative feedback in female rats, Proc 85th Mtg of the Endocrine Society, Philadelphia, Abs P3-68, p. 491, 2003.
194. McCartney CR, Bellows AB, Gingrich MB, Hu Y, Evans WS, Marshall JC, Veldhuis JD. Ovarian steroid responses to pulsatile recombinant human LH infusions following GnRH antagonism: effects of leuprolide and metformin in polycystic ovary syndrome, Proc 85th Mtg of the Endocrine Society, Philadelphia, Abs P3-590, p. 615, 2003.
195. Chhabra S, Bellows AB, Prendergast KA, Chang RJ, Yoo R, Marshall JC. The hypothalamic GnRH pulse generator in normal and hyperandrogenemic girls: evidence for reduced sensitivity to progesterone inhibition in hyperandrogenemic adolescents, Proc 85th Mtg of the Endocrine Society, Philadelphia, Abs P2-203, p. 355, 2003.

John C. Marshall, M.D., Ph.D.

196. Prendergast KA, Bellows AB, Chhabra S, McCartney CR, Foster CM, Marshall JC. Plasma testosterone is elevated in obese adolescent girls: a link to abnormal regulation of LH secretion in PCOS? Proc 85th Mtg of the Endocrine Society, Philadelphia, Abs P3-544, p. 603, 2003.
197. Haisenleder DJ, Burger LL, Aylor KW, Dalkin AC, Ferris HA, Shupnik MA, Marshall JC. Testosterone activates extracellular signal-regulated kinase (ERK) in rat pituitary cells, Proc 85th Mtg of the Endocrine Society, Philadelphia, Abs P3-70, p. 491, 2003.
198. Prendergast KA, Burger LL, Aylor KW, Dalkin AC, Marshall JC. Regulation of follistatin and FSH β transcription: dual roles of inhibin, Proc 85th Mtg of the Endocrine Society, Philadelphia, Abs P3-69, p. 491, 2003.
199. Prendergast KA, Bellows AB, Chhabra S, McCartney CR, Foster CM, Marshall JC. Elevated plasma testosterone in obese early pubertal and adolescent girls: a mechanism for elevated LH (GnRH) secretion in adults with PCOS? Proc SCCPRR Annual Meeting, NICHD, Bethesda, Abs 5, p. 7, 2003.
200. McCartney CR, Bellows AB, Gingrich MB, Hu Y, Evans WS, Marshall JC, Veldhuis JD. Leuprolide and metformin actions on ovarian steroid responses to rh LH after blockade of endogenous LH secretion in women with PCOS, Proc SCCPRR Annual Meeting, NICHD, Bethesda, Abs 38, p. 40, 2003.
201. Chhabra S, Bellows AB, Prendergast KA, Chang RJ, Yoo R, Marshall JC. Evidence for reduced sensitivity of the hypothalamic GnRH pulse generator to progesterone inhibition in hyperandrogenemic adolescents, Proc SCCPRR Annual Meeting, NICHD, Bethesda, Abs 16, p. 18, 2003.
202. Marshall JC, Eagleson CA, McCartney CR, Prendergast KA, Chhabra SK, Bellows AB, Foster CM. Androgens modulate steroid feedback in women with PCOS – Implications for pubertal maturation, American Neuroendocrine Society, Proc 2003 Workshop on the Neuroendocrinology of Development, Philadelphia, Abs 3, p. 18, 2003.
203. Marshall JC, McCartney CR, Prendergast KA, Chhabra SK, Chopra C. The neuroendocrine connection in PCOS, Proc Updates in Infertility Treatment, Marco Island (FL), Abs 34, p. 36, 2004.
204. Chhabra SK, McCartney CR, Chopra C, Yoo R, Chang RJ, Marshall JC. Elevated testosterone impairs progesterone inhibition of the hypothalamic GnRH pulse generator: Evidence for reduced effects of hyperandrogenemia in adolescent girls of Hispanic decent, Proc 86th Mtg of the Endocrine Society, New Orleans, Abs P1-534, p. 288, 2004.
205. Chhabra SK, Prendergast KA, Chopra C, McCartney CR, Huerta M, Clarke WL, Rogol AD, Kasa-Vubu J, Foster CM, Marshall JC. Hyperandrogenemia in obese early pubertal and adolescent girls: Elevated insulin as a mechanism for excess androgen production? Proc 86th Mtg of the Endocrine Society, New Orleans, Abs P1-555, p. 294, 2004.
206. Burger LL, Dalkin AC, Greenberg VL, Haisenleder DJ, Aylor KW, Marshall JC. Testosterone increases both stimulatory Smads 2 and 4 and inhibitory Smad 7 mRNAs in the pituitary: Is there a relationship to T-induced FSH β transcription? Proc 86th Mtg of the Endocrine Society, New Orleans, Abs P3-275, p. 530, 2004.
207. Haisenleder DJ, Burger LL, Aylor KW, Dalkin AC, Walsh H, Shupnik MA, Marshall JC. Differential regulation of MAP kinase phosphatase 1 and 2 mRNAs by testosterone and pulsatile GnRH in the rat pituitary, Proc 86th Mtg of the Endocrine Society, New Orleans, Abs P3-274, p. 530, 2004.

John C. Marshall, M.D., Ph.D.

208. Marshall JC, McCartney CR, Prendergast KA, Chhabra SK, Chopra C. Early programming of reproductive dysfunction: evidence from human clinical studies, Proc Soc Study Reproduction 37th Annual Meeting, Vancouver, British Columbia, Abs MS-6, p. 83, 2004. [To be published in Special Issue, Biol Reprod.]
209. McCartney CR, Chhabra S, Marshall JC. Adolescent obesity and androgen excess: a forerunner of polycystic ovarian disease? Proc. NICHD-SCCPRR Research Meeting, Chicago, Abs 13, p. 15, 2005.
210. Chhabra S, McCartney CR, Yoo RY, Eagleson CA, Chang JA, Marshall JC. Hispanic adolescents with hyperandrogenemia: testosterone does not impair progesterone action in the hypothalamic GnRH pulse generator in girls of Hispanic descent. Proc NICHD-SCCPRR Research Meeting, Chicago, Abs 14, p. 16, 2005.
211. Walsh HE, Ferris H, Kowase T, Haisenleder DJ, Marshall JC, Shupnik MA. Cooperation of androgens and GnRH to regulate gonadotrope signaling and gene transcription. Proc. NICHD-SCCPRR Research Meeting, Chicago, Abs 30, p. 32, 2005.
212. Haisenleder DJ, Aylor KW, Burger LL, Dalkin AC, Marshall JC. Stimulation of FSH beta transcription by blockade of endogenous follistatin production: efficacy of adenoviral-delivered anti-sense oligonucleotides in the rat. Proc 87th Annual Meeting of the Endocrine Society, San Diego, Abs P2-104, p. 381, 2005.
213. Marshall JC, McCartney CR, Chhabra SK, Prendergast KA. Testosterone, puberty and abnormal GnRH regulation in PCOS. Proc 87th Annual Meeting of the Endocrine Society, San Diego, Abs S29-3, p. 39, 2005.
214. McCartney CR, Chhabra S, Prendergast KA, Yoo RY, Huerta M, Foster CM, Chang RJ, Marshall JC. Hyperandrogenemia in obese peripubertal girls: evidence that hyperandrogenism contributes to marked hyperandrogenemia early in puberty. Proc 87th Annual Meeting of the Endocrine Society, San Diego, Abs P2-358, p. 443, 2005.
215. Burger LL, Wotton G, Aylor KW, Haisenleder DJ, Dalkin AC, Marshall JC. Differential regulation of pituitary Smad mRNAs after steroid treatment in GnRH-deficient rats is not related to increased FSH beta transcription. Proc 87th Annual Meeting of the Endocrine Society, San Diego, Abs P2-103, p. 381, 2005.
216. Marshall JC, McCartney CR, Blank SK, Chhabra SK. Testosterone, GnRH frequency and the evolution of PCOS. Proc. New Horizons in GnRH Research, National Institutes of Health, Bethesda, MD, Abs 28, p. 56, 2005.
217. Blank SK, Chhabra S, McCartney CR, Yoo RY, Eagleson CA, Chang RJ, Marshall JC. Reduced sensitivity of the hypothalamic GnRH pulse generator during pubertal maturation in adolescent girls with and without hyperandrogenemia. Proc 88th Annual Meeting of the Endocrine Society, Boston, Abs P2-622, p. 555, 2006.
218. McCartney CR, Blank SK, Chhabra S, Prendergast KA, Yoo RY, Caprio S, Foster CM, Chang RJ, Marshall JC. Hyperandrogenemia in prepubertal and early pubertal obese girls. Proc 88th Annual Meeting of the Endocrine Society, Boston, Abs P2-603, p. 549, 2006.
219. Okonkwo QL, McCartney CR, Blank SK, Barrett EJ, Marshall JC. Hyperinsulinemia does not acutely enhance adrenal androgen production in women or men. Proc 88th Annual Meeting of the Endocrine Society, Boston, Abs P2-604, p. 549, 2006.

220. Haisenleder DJ, Burger LL, Aylor KW, Dalkin AC, Marshall JC. Jun N-terminal kinase (JNK) mediates the LH beta transcriptional response to pulsatile GnRH in the rat pituitary. Proc 88th Annual Meeting of the Endocrine Society, Boston, Abs P3-259, p. 702, 2006.
221. Burger LL, Haisenleder DJ, Aylor KW, Dalkin AC, Marshall JC. P38 mitogen activated protein kinase (p38 MAPK) does not mediate gonadotropin beta subunit transcriptional responses to pulsatile GnRH in the rat pituitary. Proc 88th Annual Meeting of the Endocrine Society, Boston, Abs P3-260, p. 703, 2006.
222. Marshall JC, McCartney CR, Blank SK, Helm K, Lamberts-Okonkwo Q. Pubertal and prepubertal precursors of polycystic ovarian syndrome. Proc 88th Annual Meeting of the Endocrine Society, Boston, Abs S18-3, p. 32, 2006.
223. McCartney CR, Blank SK, Helm KD, Marshall JC. Regulation of nocturnal LH (GnRH) pulse secretion is altered in obese peripubertal girls: does altered progesterone negative feedback play a role. Proc. NICHD-SCCPIR Research Meeting. Portland (OR) Abs 26, p. 33, 2007.
224. Bahar A, Cameron JL, Hess DL, Slaydon OD, Chang RJ, Marshall JC, Herold D, Stouffer, RL. Raising testosterone levels in peripubertal female macaques: A prospective study to evaluate the role of hyperandrogenemia in the pathogenesis of PCOS. Proc. NICHD-SCCPIR Research Meeting. Portland (OR) P-11, p. 59, 2007.
225. Helm KD, Blank SK, McCartney CR, Cutchins C, Marshall JC. LH secretion in obese adolescents and adults: absence of LH suppression in adolescents. Proc. NICHD-SCCPIR Research Meeting. Portland (OR) P-13, p. 62, 2007.
226. McCartney CR, Blank SK, Helm KD, Marshall JC. Slow LH (GnRH) pulse frequencies indicated by estradiol and progesterone are not reversed by subsequent mifepristone with estradiol. Proc. NICHD-SCCPIR Research Meeting. Portland (OR) P-26, p. 75, 2007.
227. Haisenleder DJ, Burger LL, Aylor KW, Marshall JC. Jun N-terminal kinase (JNK) mediates the Egr-1 transcription response to pulsatile GnRH in the rat pituitary. Proc 89th Annual Meeting of the Endocrine Society. Toronto, Abs P1-384, p. 254, 2007.
228. Burger LL, Haisenleder DJ, Aylor KW, Marshall JC. GnRH stimulates Egr-1 transcription in the rat pituitary. Proc 89th Annual Meeting of the Endocrine Society. Toronto, Abs P1-389, p. 255, 2007.
229. Helm KD, Blank SK, McCartney CR, Cutchins C, Marshall JC. Obesity is not associated with the suppression of LH secretion in hyperandrogenemic adolescents. Proc 89th Annual Meeting of the Endocrine Society. Toronto, Abs P3-278, p. 567, 2007.
230. McCartney CR, Blank SK, Helm KD, Marshall JC. Mifepristone suppresses LH but does not reverse slow frequency LH secretion following suppression by Estradiol and Progesterone. Proc. 89th Meeting of the Endocrine Society. Toronto, Abs P2-321, p. 408, 2007.
231. McCartney CR, Blank SK, Helm KD, Marshall JC. Nocturnal LH pulse secretion and progesterone in non-obese and obese peripubertal girls: evidence for altered regulation of GnRH pulse frequency in adolescent obesity. Proc 89th Meeting of the Endocrine Society. Toronto, Abs P2-322, p. 409, 2007.
232. Marshall JC. GnRH pulses: Obesity, hyperandrogenemia and the etiology of PCOS. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs L1-1, p. 13, 2008.

233. McCartney CR, Blank SK, Helm KD, Caprio S, Chang RJ, Marshall JC. Varied degrees of hyperandrogenemia in obese peripubertal girls: the relative roles of insulin and LH across pubertal maturation. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs OR 55-5, p. 172, 2008.
234. Bahar A, Cameron JL, Bernuci MP, Chang RJ, Marshall JC, Stouffer RL. Metabolic parameters in female monkeys chronically exposed to a hyperandrogenic milieu. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs P3-559, p. 744, 2008.
235. Blank SK, Chhabra S, McCartney CR, Helm KD, Eagleson CA, Chang RJ, Marshall JC. Effects of androgens on hypothalamic GnRH pulse generator sensitivity: further evidence of variable sensitivity in hyperandrogenic adolescent girls. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs P1-600, p. 334, 2008.
236. McCartney CR, Blank SK, Helm KD, Marshall JC. The absence of sleep related slowing of GnRH secretion in PCOS: evidence for a role of hyperandrogenemia. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs P1-599, p. 334, 2008.
237. McCartney CR, Blank SK, Helm KD, Marshall JC. Evidence that sex steroid feedback milieu influences daytime more than nighttime GnRH frequency. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs P1-739, p. 370, 2008.
238. Haisenleder DJ, Burger LL, Aylor KW, Marshall JC. The regulation of intracellular signaling cascades by GnRH pulse frequency in the rat: roles for CaMKII, ERK and JNK activation. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs P2-668, p. 567, 2008.
239. Haisenleder DJ, Burger LL, Aylor KW, Marshall JC. Regulation of rat LH beta transcription by GnRH pulse frequency: evidence that Egr-1 does not play a significant role. Proc 90th Meeting of the Endocrine Society. San Francisco, Abs P2-670, p. 567, 2008.
240. McCartney CR, Blank SK, Knudsen K, Burt-Salorzano C, Marshall JC. Progesterone and androgens as determinants of GnRH pulse frequency changes across early puberty. Proc 91st Meeting of the Endocrine Society. Washington DC, Abs P2-263, 2009.
241. Haisenleder DJ, Burger LL, Aylor KW, Marshall JC. Characterization of an adenoviral delivery system for a rat GnRH receptor expression vector in gonadotrope-derived cell lines and rat primary pituitary cells. Proc 91st Meeting of the Endocrine Society, Washington DC, Abs. P3-227, 2009.
242. Burger LL, Haisenleder KA, Marshall JC. Role of early growth response-1 (Egr-1) in GnRH stimulated LH beta transcription – Discordant temporal effects of GnRH pulse frequency on Egr-1 and LH beta gene expression. Proc 91st Meeting of the Endocrine Society, Washington DC, Abs. P3-230, 2009.
243. McCartney CR, Blank SK, Knudsen K, Burt-Salorzano C, Marshall JC. Evolution of day-night GnRH secretion across early puberty: Evidence for role of progesterone and androgens in regulating early pubertal maturation. In Proc. NICHD—SCCPIR Meeting, Chicago, Abs.7, P11, 2009.
244. Knudsen KL, Burt-Solorzano CM, Blank SK, Marshall JC, McCartney CR. Hyperandrogenemia in obese peripubertal girls:—correlates and potential etiological determinants: In Proc. NICHD—SCCPIR Meeting Chicago. Abs.10, P42, 2009.
245. McGee WK, Bishop C, Bahar A, Chang J, Marshall JC, Stouffer RL, Cameron JL. Slight elevation in circulating androgen levels:a possible model for PCOS. Northwest Reproductive Sciences Symposium, Oregon National Primate Research Center, Oregon, 2009.

246. McGee W, Bishop C, Bahar A, Pohl C, Chang RJ, Marshall JC, Stouffer RL, Cameron JL. Slight elevation in circulating androgen levels in pubertal monkeys increases central drive to the reproductive axis as seen in polycystic ovary syndrome. Proc. Soc. For Neuroscience Abs. 863.13/CC60, 2009.
247. Blank SK, Chhabra S, McCartney CR, Eagleson CA, Chang RJ, Marshall JC. Mechanisms for varied hypothalamic progesterone sensitivity in hyperandrogenemic adolescent girls: role of androgen receptor CAG repeat polymorphism length. Proc. 92nd Meeting of the Endocrine Society. San Diego. Abs, P1-352, 2010.
248. Haisenleder DJ, Burger LL, Marshall JC. GnRH pulse frequency regulates SF-1, DAX-1 and SRF gene expression in vivo in the rat. Proc. 92nd Meeting of the Endocrine Society. San Diego. Abs. P3-207, 2010.
249. Knudsen K, Collins J, Marshall JC, McCartney CR. Hyperinsulinemia throughout 24h relates to hyperandrogenemia more closely than insulin resistance in obese peripubertal girls. Proc. 92nd Meeting of the Endocrine Society. San Diego. Abs. P3-395, 2010.
250. McCartney CR, Knudsen K, Beller JP, Collins JS, Abshire M, Burt-Solorzano C, Marshall JC. Etiologic determinants of hyperandrogenemia in peripubertal girls with obesity. In Proc. NICHD-SCCPIR Meeting, Chicago. Abs. P25, 2011.
251. McGee WK, Bishop CV, Bahar A, Pohl CR, Chang RJ, Marshall JC, Pau FK, Stouffer RL, Cameron JL. Elevated androgens during puberty lead to increased neuronal drive to the reproductive axis. Proc. 93rd Meeting of the Endocrine Society, Boston. Abs. P1-254, 2011.
252. Collins J, Abshire M, Beller J, Burt-Solorzano C, Marshall J, McCartney C. Reduced sleep quality is associated with higher sleep related LH pulse frequency in peripubertal girls. Proc. 93rd Meeting of the Endocrine Society, Boston. Abs. P3-193, 2011.
253. Beller J, Knudsen K, Collins J, Abshire M, Burt-Solorzano C, Marshall J, McCartney C. Free testosterone concentration in peripubertal girls with obesity: relationships to estimated 24 hour LH and insulin concentrations. Proc. 93rd Meeting of the Endocrine Society Boston. Abs. P2-240, 2011.
254. Burt-Solorzano CM, Collins J, Beller, J, Abshire M, McCartney C, Marshall J. Adrenal contribution to hyperandrogenemia in peripubertal girls with obesity. Proc. 93rd Meeting of the Endocrine Society, Boston. Abs. OR45-4, 2011.
255. Haisenleder DJ, Burger L, Marshall JC. Pituitary adenylate cyclase activating peptide (PACAP) mediates the GnRH stimulatory effect on LH beta transcription in the rat. Proc. 93rd Meeting of the Endocrine Society, Boston. Abs. P1-374, 2011.
256. Abshire MY, Blank SK, Chhabra S, McCartney CR, Eagleson CA, Chang RJ, Marshall JC. Contribution of androgen receptor CAG repeat polymorphism length to hypothalamic progesterone sensitivity in hyperandrogenic adolescent girls. NICHD—SCCPIR Meeting, Chicago, Abs. P36, 2011.
257. Collins J, Abshire M, Beller J, Burt-Solorzano C, Marshall J, McCartney C. Sleep efficiency is inversely correlated with nocturnal LH pulse frequency in adolescent girls. NICHD—SCCPIR Meeting, Chicago, Abs. P38, 2011.
258. Burt-Solorzano CM, Shayya RF, Collins J, Beller J, Abshire M, McCartney CR, Chang RJ, Marshall JC. Adrenal androgen overproduction in overweight girls throughout puberty. NICHD—SCCPIR Meeting, Chicago, Abs. P35, 2011.

259. McGee WK, Bishop CV, Bahar A, Pohl CR, Chang RJ, Marshall JC, Paaou FK, Stouffer RL, Cameron JL. Hyperandrogenemia during puberty in female rhesus monkeys leads to increased neuronal drive to the reproductive axis: a possible component of Polycystic Ovary Syndrome. NICHD—SCCPIR Meeting, Chicago, Abs. P37, 2011.
260. Marshall JC, Abshire MY, Beller J, Burt-Solorzano C, Collins JJ, McCartney CR. Neuroendocrine Dysfunction in PCOS. Proc. 9th Annual Meeting Androgen Excess and PCOS Society, Orlando. P.30, 2011.
261. Beller JP, Abshire MY, Burt-Solorzano C, Collins JP, McCartney CR, Marshall JC. Developmental resistance to progesterone negative feedback in hyperandrogenemic adolescent girls: evidence for the evolution of GnRH pulse patterns through puberty. Proc 94th Meeting of The Endocrine Society, Houston, Abs. SUN-35, 2012.
262. Collins JP, Abshire MY, Beller JP, Burt-Solorzano C, Chang RJ, Marshall JC, McCartney CR. Blunted day night changes in luteinizing hormone pulse frequency in postmenarchal girls with obesity: potential role of hyperandrogenemia. Proc. 94th Meeting of The Endocrine Society, Houston, Abs. OR 47- 2, 2012.
263. Haisenleder DJ, Aylor KW, Marshall JC. The efficacy of adenovirus delivery systems to investigate the role of CREB and ICER in GnRH regulation of LH β and FSH β transcription in primary gonadotropes. Proc. 94th Meeting of The Endocrine Society, Houston, Abs. SAT-664, 2012.
264. Marshall JC. Role of Postnatal exposure - p 20, Proc NIH Evidence based workshop on polycystic ovary syndrome. NIH, Bethesda, MD, 2012.
265. Bhabhra R, Anderson AD, Collins JP, Burt Solorzano C, McCartney CR, Marshall JC. Role of testosterone in the regulation of progesterone-mediated diurnal GnRH pulsatility during pubertal progression. NICHD—SCCPIR Meeting (Directors), Bethesda, 2013.
266. Bagchi D, Santos C, Andrade J, Shupnik M. Dax1 functions as a co-activator of LH β transcription. NICHD—SCCPIR Meeting (Directors), Bethesda, 2013.
267. Anderson AD, Collins JP, Burt Solorzano C, Bhabhra R, Gabel A, Marshall JC, McCartney CR. Hyperandrogenemia in obese girls: relationship with hyperinsulinemia vs. insulin resistance. NICHD—SCCPIR Meeting, Bethesda, 2013.
268. Anderson AD, Collins JP, Bhabhra R, Burt Solorzano C, Marshall JC, McCartney CR. Acute increase in androgen production is not seen following short-term hyperinsulinemia in obese pubertal girls. NICHD—SCCPIR Meeting, Bethesda, 2013.
269. Anderson AD, Collins JP, Bhabhra R, Burt Solorzano C, Marshall JC, McCartney CR. Acute augmentation of androgen production does not accompany short-term hyperinsulinemia in obese pubertal girls. NICHD—SCCPIR Meeting, Bethesda, 2013.
270. Bhabhra, R, Anderson AD, Collins JP, Burt Solorzano C, Marshall JC, McCartney CR. Progesterone regulation of diurnal GnRH pulse frequency in girls across puberty - the impact of physiological increase in androgens. Proc. 95th Meeting of the Endocrine Society, San Francisco, Abs. MON 560, 2013.
271. Burt Solorzano, C, Collins JP, Beller J, Anderson AD, Bhabhra R, Chang J, Marshall JC, McCartney CR. Identifying sources of hyperandrogenemia in girls with obesity. Proc. 95th Meeting of the Endocrine Society, San Francisco, Abs. MON 558, 2013.

John C. Marshall, M.D., Ph.D.

272. Burt Solorzano C, Collins JP, Beller J, Anderson AD, Bhabhra R, McCartney CR, Marshall JC. Metformin improves hypothalamic progesterone insensitivity in hyperandrogenic girls. Proc. 95th Meeting of the Endocrine Society, San Francisco, Abs. MON 559, 2013.
273. Anderson AD, Burt Solorzano C, Bhabhra R, Gabel A, Marshall JC, McCartney CR. The role of hyperinsulinemia vs. insulin resistance in obese girls with hyperandrogenemia. Proc. 95th Meeting of the Endocrine Society, San Francisco, Abs. SUN 505, 2013.
274. Anderson AD, Collins JP, Bhabhra R, Burt Solorzano C, Marshall JC, McCartney CR. Short-term hyperinsulinemia does not acutely increase androgen production in pubertal girls with obesity. Proc. 95th Meeting of the Endocrine Society, San Francisco, Abs. SUN 504, 2013.
275. Bhabhra, R, Anderson AD, Collins, JP, Burt-Solorzano C, Marshall JC, McCartney CR Testosterone regulates the evolution of daytime GnRH pulse secretion during pubertal maturation in girls? Proc 96th Meeting of the Endocrine Society, Chicago. Abs OR 04 -3, 2014.
276. Burt-Solorzano C, Collins JP, Bhabhra R, Anderson AD, Marshall JC, McCartney CR Day-night GnRH pulse generator sensitivity to suppression after extended administration of progesterone in girls across puberty. Proc 96th Meeting of the Endocrine Society. Chicago Abs SUN - 0161, 2014.
- 277 EG Hutchens, AD. Anderson, JSP Collins, CBurt Solorzano, ACGabel, JCMarshall, CRMCCartney. LH and insulin independently predict androstenedione responses to exogenous hCG, but not ACTH, in obese adolescent girls . Proc 97th Meeting of the Endocrine Society. San Diego. Abs THR-110, 2015.
- 278 Burt-Solorzano CM, Hutchins E, Chang RJ, MacCartney CR, Marshall JC, Sources of androgen excess in Pubertal girls –acute androgen responses are not increased in overweight girls. Proc 97th Meeting of the Endocrine Society. San Diego. Abs OR27-2, 2015.
- 279 Hutchins EG, Anderson AD, Collins JSP, Burt Solorzano C, Gabel AC, J.C. Marshall, C.R. McCartney. In late pubertal adolescent girls with obesity LH and insulin concentrations independently predict androstenedione responses to recombinant hCG, but not to ACTH. Proc. NCTRI Research Meeting, Bethesda, Abs, p20, 2015.
- 280 Burt-Solorzano CM, Hutchins E, Chang RJ, MacCartney CR, Marshall JC, Obesity-related sources of androgen excess in during puberty – Acute responses do not explain basal differences. Proc. NCTRI Research Meeting, Bethesda, Abs , p22, 2015.
281. Burt-Solorzano CM, Hutchins EG, Kim SH, Marshall JC, McCartney CM, Increasing Testosterone to Progesterone ratio is associated with evolution of daytime GnRH pulse secretion during puberty in girls. Proc 98th Meeting of the Endocrine Society, Boston. Abs OR08-4, 2016.
- 282 Marshall JC, McCartney CR, Burt-Solorzano CM, Pubertal Origins of PCOS. Proc 17th ICE/CSE Meeting, Abs S08-02, p81. Beijing, 2016.
- 283 Kim SuHee, Lundgren JA, Burt-Solorzano C, Marshall JC, McCartney CR, Differential sleep-wake sensitivity of LH pulse secretion to progesterone inhibition across puberty: potential influence of testosterone. Proc 99th Meeting of the Endocrine Society, Orlando. Abs MON 080, 2017.
- 284 Lundgren JA, Kim SuHee, Burt-Solorzano C, McCartney CR, Marshall JC. In adolescent girls with hyperandrogenemia and overweight, short-term metformin improves hyperandrogenemia but does not alter hypothalamic sensitivity to progesterone negative feedback. Proc 99th Meeting of the Endocrine Society, Orlando. Abs SUN 090, 2017.

- 285 Christine M. Burt Solorzano, Jessica Lundgren, Su Hee Kim, R. Jeffrey Chang, John C. Marshall, Christopher R. McCartney. Fasting Insulin Predicts Elevated Free Testosterone Levels after Recombinant Human Chorionic Gonadotropin in Overweight Girls. Proc 10th International Meeting of Pediatric Endocrinology, Abs Washington DC, 2017
- 286 Kim SuHee, Lundgren JA, Burt-Solorzano CM, Marshall JC, McCartney CR. Progesterone-mediated inhibition of the GnRH pulse generator in late puberty: differential sensitivity as a function of sleep status and the potential role of androgen. Proc NCTRI Research Meeting, NIH, Session I, p 13, Bethesda, MD. 2017
- 287 Burt Solorzano CM, Lundgren JA, Kim SuHee, Chang RJ, Marshall JC, McCartney CR. Elevated free testosterone levels after recombinant human chorionic gonadotropin in overweight girls are predicted by fasting insulin. Proc NCTRI Research Meeting, NIH, Session V, abs 21, p 62, Bethesda, MD. 2017
- 288 Jessica A. Lundgren, Su Hee Kim, Christine M. Burt Solorzano, Christopher R. McCartney, John C. Marshall. Short-Term Metformin Improves Hyperandrogenemia in Adolescents with Hyperandrogenism and Obesity/Overweight, but Does Not Increase GnRH Pulse Generator Sensitivity to Progesterone Negative Feedback. Proc NCTRI Research Meeting, NIH, Session V, abs 19, p 60, Bethesda, MD. 2017
- 289 Kim SuHee, Lundgren JA, Burt-Solorzano CM, Patrie JT, Marshall JC, McCartney CR. Differential suppression of LH pulse frequency by exogenous progesterone in girls – a function of sleep status. Proc 100th Meeting of the Endocrine Society, Chicago. Abs 6065, 2018.
- 290 Burt Solorzano CM, Lundgren JA, Kim SuHee, Marshall JC, McCartney CR. In Peripubertal girls, ovarian 17-OH Progesterone response to recombinant human chorionic gonadotropin predicts free testosterone levels, but adrenal response to ACTH does not. Proc 100th Meeting of the Endocrine Society, Chicago. Abs MON-286, 2018.