



## Joseph Patrick Moore Jr., Ph.D.

### Assistant Professor

Department of Anatomical Sciences  
and Neurobiology  
School of Medicine

### Research Activities:

Dr. Moore's laboratory is interested in the regulation of pituitary hormones, particularly the sex regulating hormones, the gonadotropins. The gonadotropins, luteinizing hormone (LH) and follicle stimulating hormone (FSH), are both produced and secreted from the same cell type however, the secretion of one gonadotropin often predominates. He has previously observed that the neuropeptide pituitary adenylate cyclase activating peptide (PACAP) differentially affects LH and FSH secretion and subunit gene expression in vitro. He has proposed that PACAP may be important in the normal maturation and function of the pituitary-gonadal axis. He is presently performing investigations designed to evaluate possible roles for PACAP in the development, maintenance and aging of the mammalian reproductive system.

Additional research in Dr. Moore's laboratory is directed toward elucidating the effects of maternal offspring interaction on the onset of puberty in the male. Recent work from his laboratory has determined that manipulations of the transition from suckling to independent feeding for male rats results in differential timing of the initiation of puberty. The change in feeding behavior and/or environment is somehow translated into growth and development of the testes and increased production of the gonadotropins. Future studies are proposed to examine the influences of social interactions and milk borne products on the timing of puberty in the male.

In August of 2007, Dr. Moore was awarded his first R01 grant from the National Institutes of Child Health and Development entitled "Role of PACAP in the Male Fetal Pituitary". The preliminary data presented in his application was obtained through direct funding through the COBRE previously awarded to the Birth Defects Center. In July of 2007, Dr. Moore accepted a faculty position in the Department of Anatomical Sciences and Neurobiology at the University of Louisville School of Medicine and maintains a joint appointment in the Department of Medicine, Division of

Endocrinology and Metabolism. In addition, Dr. Moore has been actively involved in presenting his research locally as well as at scientific meetings and through manuscript publications. During 2007-2008 he presented at four separate meetings, published several peer reviewed manuscript and gave several seminars on his research interests.

### Grants Funded:

**Role:** Principal Investigator

**Title:** Role of PACAP in the Male Fetal Pituitary

**Funding Agency:** NIH/NICHD

**Total Direct Costs Funded:** \$209,500

### Peer-reviewed Publications:

S.J. Winters, D. Ghooray, Y. Fujii, **J. P. Moore, Jr.**, J. R. Nevitt, and S.S. Kakar. Transcriptional Regulation of Follistatin Expression by GnRH in Mouse Gonadotroph Cells: Evidence of a Role for cAMP Signaling. *Mol Cell Endocrinol.* 2007 Jun 15;271(1-2):45-54. Epub 2007 Apr 4. *Erratum in: Mol Cell Endocrinol.* 2007 Sep 30;276(1-2):88-9.

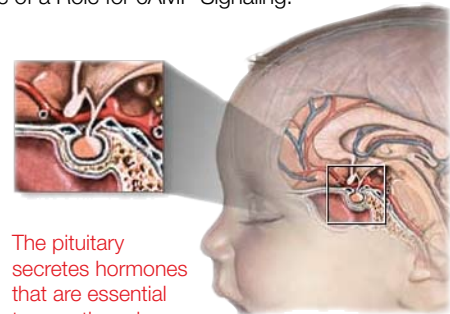
El-Naggar SM, Malik MT, Martin A, **Moore JP**, Proctor M, Hamid T, Kakar SS. Development of cystic glandular hyperplasia of the endometrium in Mullerian inhibitory substance type

II receptor-pituitary tumor transforming gene transgenic mice. *J Endocrinol.* 2007 Jul;194(1):179-91.

Chen YC, Cochrum RK, Tseng MT, Ghooray DT, **Moore JP**, Winters SJ, Clark BJ. Effects of CDB-4022 on Leydig Cell Function in Adult Male Rats. *Biol Reprod.* 2007 Dec;77(6):1017-1026. Epub 2007 Aug 22.

**J.P. Moore, Jr.**, and S.J. Winters. Weaning and the Developmental Changes in Follicle-Stimulating Hormone, Pituitary Adenylate Cyclase-Activating Polypeptide, and Inhibin B in the Male Rat. *Biol Reprod.* 2008 Apr;78(4):752-60.

J. Chanal, C-C Chen, M.J. Rane, **J.P. Moore, Jr.**, M.T. Barati, Y. Song, B.C. Villafuerte. Regulation of Insulin-Response Element Binding Protein-1 in Obesity and Diabetes: Potential Role in Impaired Insulin-Induced Gene Transcription. *Endocrinology.* 2008 149:4829-36 Epub Jun 19.



The pituitary secretes hormones that are essential to growth and reproduction.

