

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.

During 2009-2010 Dr. Moore presented at three separate meetings, published two peer reviewed manuscripts 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:

## **Publications:**

Villafuerte BC, Barati MT, Song Y, **Moore JP**, Epstein PN, Portillo J. Transgenic Expression of Insulin-Response Element Binding Protein-1 in β-cells Reproduces Type 2 Diabetes. Endocrinology, 2009 Jun;150(6):2611-7. Epub 2009 Feb 12.

**Moore JP**, Villafuerte BC, Unick CA, and Winters SJ. Developmental Changes in Pituitary PACAP Expression during the Perinatal Period: Possible Role in Fetal Gonadotroph Regulation. Endocrinology, 2009 Oct;150(10):4802-9. Epub 2009 Jul 2

## **External Professional Activities:**

Grant reviewer for the General Directorate for Research of the Italian Ministry of Health

## Reviewer for the following peer reviewed journals:

- Journal of Andrology
- · Journal of Ovarian Research
- · Regulatory Peptides
- Biology of Reproduction

