TONY M. PLANT PhD CURRICULUM VITAE

Emeritus Professor, University of Pittsburgh

BIOGRAPHICAL

Name:	Tony M. Plant	BirthPlace: Citizenship:	Guildford, England UK/USA
Business Address:	P.O. Box 300 Reidsville NC 27323 USA	E-Mail Address: Telephone:	Tony.Plant@QualityScientificSolutions.com

PERSONAL SCIENTIFIC SYNOPSIS

I received my PhD from the University of London with Richard P. Michael, a pioneer in the field of primate behavioral neuroendocrinology. My post-doctoral studies were conducted with Ernst Knobil at the University of Pittsburgh, where as a key member of the Knobil team, we discovered that pulsatile GnRH stimulation of the pituitary was essential for driving sustained LH and FSH secretion (Belchetz et al., 1978). I was appointed to the Faculty at the University of Pittsburgh in 1978 and rose through the academic ranks to Full Professor in 1989. From 1985 until 2013 I served as Director of a multi-investigator NIH funded Center to study the physiology of reproduction. I also served as President of the International Neuroendocrine Federation from 2007-2010 and I was Co Editor in Chief of the recent 4th Edition of Knobil and Neill's Physiology of Reproduction, considered by many as the bible of the field. For the last 35 years I have utilized non-human primate models to better understand human reproduction resulting in more than 150 peer reviewed publications. I am particularly interested in the neurobiology of puberty onset (Plant et al., 1989; Shahab et al., 2005; Plant, 2015), the neuroendocrine control of the menstrual cycle and testis (Knobil et al., 1980; Majumdar et al., 1995), the post-natal development of the testis (Simorangkir et al., 2012), the endocrine control of spermatogenesis (Simorangkir et al., 2009) and the cell biology underlying spermatogonial differentiation (Ramaswamy et al., 2017). My research on development has underlined the concept that puberty is triggered by a reawakening of pulsatile hypothalamic GnRH release; a mode of secretion that has been held in check since infancy by a neurobiological brake imposed upon the upstream network of kisspeptin neurons in the arcuate nucleus that drive pulsatile secretion from the GnRH neuron (Plant, 2015).

EDUCATION AND TRAINING

UNDERGRADUATE:

1963-1966	Chelsea College of Science and Technology University of London, UK	B.Sc. - 1966 (upper 2nd Class Honors)	Physiology

GRADUATE:

1966-1969	Institute of Psychiatry University of London, UK	Ph.D. - 1971	Dr. Richard P. Michael Physiology

POST GRADUATE:

1974-1976	Ford Foundation Postdoctoral Research Fellow University of Pittsburgh School of Medicine	Dr. Ernst Knobil Reproductive Endocrinology
1976-1978	NICHHD Postdoctoral Research Fellow University of Pittsburgh School of Medicine	Dr. Ernst Knobil Reproductive Endocrinology
1995-1996	Senior International Fogarty Fellow INSERM U.378 Laboratoire de Neuroendocrinologie Morphofonctionnele Universite de Bordeaux II Bordeaux, France	Dr. Dionysia Theodosis Neuromorphology

APPOINTMENTS AND POSITIONS

1969-1972	Institute of Psychiatry University of London, UK	Research Assistant
1972-1974	Emory University School of Medicine Atlanta, GA	Research Associate
1978-1984	University of Pittsburgh School of Medicine Pittsburgh, PA	Assistant Professor of Physiology
1984-1989	University of Pittsburgh School of Medicine Pittsburgh, PA	Associate Professor of Physiology
1985-2015	University of Pittsburgh	Director, Center for

	School of Medicine Pittsburgh, PA	Research in Reproductive Physiology
1989-1993	University of Pittsburgh School of Medicine Pittsburgh, PA	Professor of Physiology
1993-2015	University of Pittsburgh School of Medicine Pittsburgh, PA	Professor of Cell Biology and Physiology
2000-2013	University of Pittsburgh School of Medicine Pittsburgh, PA	Director, Specialized Cooperative Centers Program in Reproduction Research
2001-2009	Morehouse School of Medicine Atlanta, GA and University of Pittsburgh School of Medicine Pittsburgh, PA	Co-Director, Cooperative Reproductive Science Research Centers at Minority Institutions
2002-2016	University of Pittsburgh School of Medicine Pittsburgh, PA	Professor of Obstetrics, Gynecology and Reproductive Sciences
2016-Present	University of Pittsburgh	EmeritusProfessor of Obstetrics, Gynecology and Reproductive Sciences

MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

1971-1997	Society for Endocrinology
1978-Present	Endocrine Society
1978-Present	Society for the Study of Reproduction
1979-2008	American Physiological Society

1979-2000	Pittsburgh Neuroscience Society
1980-2013	Society for Neuroscience
1989-2000	International Society for Neuroendocrinology
1999-2016	American Neuroendocrine Society
2000-Present	International Neuroendocrine Federation
2001-2008	American Society of Andrology
2017-Present	Pan American Neuroendocrine Society

MAJOR HONORS AND AWARDS

Serono Lectureship, American Society of Andrology Annual Meeting, Montreal, "The GnRH Pulse Generator and the Testis"	1991
Keynote Lecturer, Eighth Annual Reproductive Biology Retreat, Johns Hopkins University and University of Maryland, Baltimore "Human Puberty, A Mysterious Reawakening: Lessons from the Monkey"	2006
President, International Neuroendocrine Federation	2007-2010
Keynote Lecturer, Symposium on Recent Trends in Endocrinology and Reproductive Sciences, Lahore, "Kisspeptin Signaling in the Hypothalamus: A Novel and Major Regulator of the Reproductive Axis"	2007
Elected as Foreign Fellow, Pakistan Academy of Sciences	2007
Dozor Visiting Scholar, Ben-Gurion University of the Negev	2010
Elected Honorary Member, Polish Neuroendocrine Society	2010
International Neuroendocrine Federation Geoffrey Harris Lecturer, 8th International Congress of Neuroendocrinology, Sydney	2014
Elected Honorary Member, British Society for Neuroendocrinology	2014
Lecturer, Julie Betschart Symposium, West Virginia University, "Physiological and Neuroendocrine Control of Puberty in Higher Primates"	2016

PUBLICATIONS (highlighted publication indicates cited in scientific synopsis above)

A. Refereed Journal Articles:

1. Ramaswamy S, Walker WH, Aliberti P, Sethi R, Marshall GR, Smith A, Nourashrafeddin S, Belgorosky A, Chandran UR, Hedger MP, **Plant TM.** The testicular transcriptome associated with spermatogonia differentiation initiated by gonadotrophin stimulation in the juvenile rhesus monkey (*Macaca mulatta).* Hum Reprod 2017; 32: 2088-2100.

2. Vargas Trujillo M, Kalil1 B, Ramaswamy S, **Plant TM.** Estradiol up-regulates kisspeptin expression in the pre-optic area of both the male and female rhesus monkey (*Macaca mulatta*): implications for the hypothalamic control of ovulation in highly evolved primates. Neuroendocrinology 2017; 105: 77-89.

3. Lomniczi A, Wright H, Castellano JM, Matagne M, Toro CA, Ramaswamy S, **Plant TM** and Ojeda SR. Epigenetic regulation of puberty via Zinc-finger protein-mediated transcriptional repression. Nature Commun 2015; Dec16;6:10195. doi: 10.1038/ncomms10195.

4. Kalil B, Ramaswamy S, **Plant TM**. The Distribution of Substance P and Kisspeptin in the Mediobasal Hypothalamus of The male Rhesus Monkey and a Comparison of Intravenous Administration of These Peptides to Release GnRH as Reflected by LH Secretion. Neuroendocrinology 2016; 103:711-723.

5. Kalil B, Ribeiro AB, Leite CM, Uchôa ET, Carolino RO, Cardoso TS, Elias LL, Rodrigues JA, **Plant TM**, Poletini MO, Anselmo-Franci JA. The increase in signaling by kisspeptin neurons in the pre-optic area and associated changes in clock gene expression that trigger the LH surge in female rats are dependent on the facilitatory action of a noradrenaline input. Endocrinology 2016; 157:323-325.

6. Fraser GL, Hoveyda HR, Clarke IJ, Ramaswamy S, **Plant TM**, Rose C and Millar RP. The NK3 receptor antagonist ESN364 interrupts pulsatile LH secretion and moderates levels of ovarian hormones throughout the menstrual cycle. Endocrinology 2015; 156:4214-4225.

7. Shahab M, Vargas Trujillo M, **Plant TM.** A re-evaluation of the question - is the pubertal resurgence in pulsatile 1 GnRH release in the male rhesus monkey (*Macaca mulatta*) associated with a gonad-independent augmentation of GH secretion? Endocrinology 2015; 156: 3717-3724.

8. Verhagen I, Ramswamy S, Teerds KJ, Keijer J, **Plant TM.** Time course and role of luteinizing hormone and follicle-stimulating hormone in the expansion of the Leydig cell population at the time of puberty in the rhesus monkey (*Macaca Mulatta*). Andrology 2014; 6:924-930. PMID 25269763

9. Ramaswamy S, Razack BS, Roslund RM, Suzuki H, Marshall GR, Rajkovic A, **Plant TM**. Spermatogonial SOHLH1 nucleocytoplasmic shuttling associates with initiation of spermatogenesis in the rhesus monkey (*Macaca mulatta*). Mol Hum Reprod 2014; 20: 350-357. PMID: 24324034

10. Ramaswamy S, Dwarki K, Ali B, Gibbs RB, **Plant TM**. The decline in pulsatile GnRH release, as reflected by circulating LH concentrations, during the infant-juvenile transition in the agonadal male rhesus monkey (*Macaca mulatta*) is associated with a reduction in kisspeptin content of KNDy neurons of the arcuate nucleus in the hypothalamus. Endocrinology 2013; 154:1845-1853. PMCID: PMC3628021

11. Alçin E, Sahu A, Ramaswamy S, Hutz ED, Keen KL, Terasawa E, Bethea CL, **Plant TM**. Ovarian regulation of kisspeptin neurons in the arcuate nucleus of the rhesus monkey (*Macaca mulatta*). J Neuroendocrinol 2013; 25:488-496. PMID: 23331967; PMCID: PMC3928808

12. Majumdar SS, Sarda K, Bhattacharya I and **Plant TM**. Insufficient androgen and FSH signaling may be responsible for the azoospermia of the infantile primate testes despite exposure to an adult-like hormonal milieu. Hum Reprod 2012; 27:2515-2525. PMCID: PMC3398678

13. Simorangkir SR, Ramaswamy S, Marshall GR, Roslund R and **Plant TM**. Sertoli cell differentiation in rhesus monkey (*Macaca mulatta*) is an early event in puberty and precedes attainment of the adult complement of undifferentiated spermatogonia. Reproduction 2012; 143:513-522. PMID: 22232743

14. Conley A, **Plant TM**, Abbott D, Moeller B and Stanley S. Adrenal androgen concentrations increase during infancy in male rhesus macaques (*Macaca mulatta*). Am J Physiol Endocrinol Metab 2011; 301:E1229-1235. PMCID: PMC3274962

15. Mattison DR, **Plant TM**, Lin H-M, Chen H-C, Chen JJ, Twaddle NC, Doerge D, Slikker, Jr. W, Patton RE, Hotchkiss CE, Callicott RJ, Schrader SM, Turner TW, Kesner JS, Vitiello B, Petibone DM, Morris SM. Pubertal delay in male non-human primates (*Macaca mulatta*) treated with methylphenidate. Proc Natl Acad Sci, USA 2011; 108:16301-16306. PMCID: PMC3182701.

16. Simpkins JW, Swenberg JA, Weiss N, Brusick D, Eldridge JC, Stevens JT, Handa RJ, Hovey RC, **Plant TM**, Pastoor TP and Breckenridge CB. Atrazine and breast cancer. A framework assessment of the toxicological and epidemiological evidence. Toxicol Sci 2011; 123:441-459. PMCID: PMC3179673.

17. Ramaswamy S, Seminara SB and **Plant TM**. Evidence from the agonadal juvenile male rhesus monkey (*Macaca mulatta*) for the view that the action of neurokinin B to trigger gonadotropin-releasing hormone release is upstream from the kisspeptin receptor. Neuroendocrinology 2011; 94:237-245. PMCID: PMC3238032.

18. Ramaswamy S, Seminara SB, Ali B, Ciofi P, Amin NA and **Plant TM**. Neurokinin B stimulates GnRH release in the male monkey (*Macaca mulatta*) and is colocalized with kisspeptin in the arcuate nucleus. Endocrinology 2010; 151: 4494-4503. PMCID: PMC2940495.

19. Ramaswamy S, Gibbs RB and **Plant TM**. Studies of the localisation of kisspeptin within the pituitary of the rhesus monkey (*Macaca mulatta*) and the effect of kisspeptin on the release of non-gonadotropic pituitary hormones. J Neuroendocrinol 2009; 21:795-804. PMCID: PMC2760459.

20. Albrecht ED, Lane MV, Marshall GR, Merchenthaler I, Simorangkir DR, Pohl CR, **Plant TM** and Pepe GJ. Estrogen promotes germ cell and seminiferous tubule development in the baboon fetal testis. Biol Reprod 2009; 81:406-414. PMCID: PMC2767192.

21. Hermann BP, Sukhwani M, Simorangkir DR, **Plant TM** and Orwig KE. Molecular dissection of the male germ cell lineage identifies putative spermatogonial stem cells in rhesus macaques. Hum Reprod 24:1704–1716, 2009. PMCID: PMC2698327

22. Simorangkir DR, Marshall GR and **Plant TM**. A re-examination of proliferation and differentiation of type A spermatogonia in the adult rhesus monkey (*Macaca mulatta*). Hum Reprod 24:1596-1604, 2009. PMCID: PMC2698324

23. Simorangkir DR, Ramaswamy S, Marshall GR, Pohl CR and **Plant TM**. A selective monotropic elevation of FSH, but not that of LH, amplifies the proliferation and differentiation of spermatogonia in the adult rhesus monkey (*Macaca mulatta*). Hum Reprod 24:1584-1595, 2009. PMCID: PMC2698325

24. **Plant TM**, Ramaswamy S, Bhat GK, Stah CD, Pohl CR and Mann DR. Effect of transient hypothyroidism during infancy on the postnatal ontogeny of luteinising hormone release in the agonadal male rhesus monkey (*Macaca mulatta*): implications for the timing of puberty in higher primates. J Neuroendocrinol 20:1203-1212, 2008. PMCID: PMC2981787

25. Ramaswamy S, Guerriero KA, Gibbs RB and **Plant TM**. Structural interactions between kisspeptin and GnRH neurons in the mediobasal hypothalamus of the male rhesus monkey (*Macaca mulatta*) as revealed by double immunofluorescence and confocal microscopy. Endocrinology 149: 4387-4395, 2008. PMCID: PMC2553371

26. Mann DR, Bhat GK, Ramaswamy S, Stah CD and **Plant TM**. Regulation of circulating leptin and its soluble receptor during pubertal development in the male rhesus monkey (*Macaca mulatta*). Endocrine 31:125-129, 2007. PMID17873322

27. Ramaswamy S, Seminara SB, Pohl CR, DiPietro MJ, Crowley, Jr. WF and **Plant TM**. Effect of continuous intravenous administration of human metastin 45-54 on the neuroendocrine activity of the hypothalamic-pituitary-testicular axis in the adult male rhesus monkey (*Macaca mulatta*). Endocrinology 148:3364-3370, 2007. PMID17412800

28. Shibata M, Friedman RL, Ramaswamy S and **Plant TM**. Evidence that down regulation of hypothalamic KiSS-1 expression is involved in the negative feedback action of testosterone to regulate LH secretion in the adult male rhesus monkey (*Macaca mulatta*). J Neuroendocrinol 19:432-438, 2007. PMID17504437

29. Hild SA, Marshall GR, Attardi BJ, Hess RA, Schlatt S, Simorangkir DR, Ramaswamy S, Koduri S, Reel JR and **Plant TM**. Development of *l*-CDB-4022 as a nonsteroidal male oral contraceptive: Induction and recovery from severe oligospermia in the adult male cynomolgus monkey (*Macaca fascicularis*). Endocrinology 148:1784-1796, 2007. PMID17218411

30. Mann DR, Bhat GK, Stah CD, Pohl CR and **Plant TM**. Induction of a hypothyroid state during juvenile development delays pubertal reactivation of the neuroendocrine system governing luteinizing hormone secretion in the male rhesus monkey (*Macaca mulatta*). J Neuroendocrinol 18:662-671, 2006. PMID16879165

31. Seminara SB, DiPietro MJ, Ramaswamy S, Crowley Jr. WF and **Plant TM**. Continuous human metastin 45-54 infusion desensitizes G protein-coupled receptor 54-induced gonadotropin-releasing hormone release monitored indirectly in the juvenile male rhesus monkey (*Macaca mulatta*): A finding with therapeutic implications. Endocrinology 147:2122-2126, 2006. PMID16469799

32. **Plant TM**, Ramaswamy S and DiPietro MJ. Repetitive activation of hypothalamic G protein-coupled receptor 54 with intravenous pulses of kisspeptin in the juvenile monkey (*Macaca mulatta*) elicits a sustained train of gonadotropin-releasing hormone discharges. Endocrinology 147:1007-1013, 2006. PMID16282350

33. Simorangkir DR, Marshall GR, Ehmcke J, Schlatt S and **Plant TM**. Prepubertal expansion of dark and pale type A spermatogonia in the rhesus monkey (*Macaca mulatta*) results from proliferation during infantile and juvenile development in a relatively gonadotropin independent manner. Biol Reprod 73:1109-1115, 2005. PMID16079304

34. Shahab M, Cunningham MJ, Steiner RA and **Plant TM**. Galanin-like peptide elicits a robust discharge of growth hormone in the monkey (*Macaca mulatta*). Neuroendocrinology 81:254-258, 2005. PMID16113587

35. Marshall GR, Ramaswamy S and **Plant TM**. Gonadotropin independent proliferation of the pale type A spermatogonia in the adult rhesus monkey (*Macaca mulatta*). Biol Reprod 73:222-229, 2005. PMID15758149

36. Bhat GK, **Plant TM** and Mann DR. Relationship between serum concentrations of leptin, soluble leptin receptor, testosterone and IGF-I, and growth during the first year of postnatal life in the male rhesus monkey, *Macaca mulatta*. Eur J Endocrinol 153:153-158, 2005. PMID15994757

37. Shahab M, Mastronardi C, Seminara SB, Crowley WF, Ojeda SR and **Plant TM**. Increased hypothalamic GPR54 signaling: a potential mechanism for initiation of puberty in primates. Proc Natl Acad Sci USA 102:2129-2134, 2005. PMCID: PMC548549.

38. Fraser MO, Arslan M and **Plant TM**. Androgen and estrogen treatment, alone or in combination, differentially influences bone maturation and hypothalamic mechanisms that time puberty in the male rhesus monkey (*Macaca mulatta*). Ped Res 57:141-148, 2005. PMID15557106

39. Bernard DJ, Woodruff TK and **Plant TM**. Cloning of a novel inhibin alpha cDNA from rhesus monkey testis. Reprod Biol Endocrinol 2:71-81, 2004. PMCID: PMC526212

40. Simorangkir DR, Ramaswamy S, Marshall GR and **Plant TM**. In the adult male rhesus monkey (*Macaca mulatta*), unilateral orchidectomy in the face of unchanging gonadotropin stimulation results in partial

compensation of testosterone secretion by the remaining testis. Endocrinology 145:5115-5210, 2004. PMID15308611

41. Ramaswamy S, Pohl CR, Marshall GR and **Plant TM**. A switch from continuous to episodic testicular testosterone release in response to pulsatile LH stimulation in juvenile rhesus monkeys (*Macaca mulatta*). J Endocrinol 183:61-68, 2004. PMID15525574.

42. Barker-Gibb M, **Plant TM**, White C, Lee PA and Witchel SF. Genotype analysis of the neuropeptide Y (NPY) Y1 and NPY Y5 receptor genes in gonadotropin-releasing hormone-dependent precocious gonadarche. Fertil Steril 82:491-494, 2004. PMID15302312

43. Cunningham MJ, Shahab M, Grove KL, Scarlett JM, **Plant TM**, Cameron JL, Smith SM, Clifton DK and Steiner RA. Galanin-like peptide as a possible link between metabolism and reproduction in the macaque. J Clin Endocrinol Metab 89:1760-1766, 2004. PMID15070942

44. Goldsmith LT, Weiss G, Palejwala S, **Plant TM**, Wojtczuk A, Lambert WC, Ammur N, Heller D, Skurnick JH, Edwards D and Cole DM. Relaxin regulation of endometrial structure and function in the rhesus monkey. Proc Nat Acad Sci 101:4685-4689, 2004. PMCID: PMC384807

45. Simorangkir DR, Marshall GR and **Plant TM**. Sertoli cell proliferation during prepubertal development in the rhesus monkey (*Macaca mulatta*) is maximal during infancy when gonadotropin secretion is robust. J Clin Endocrinol Metab 88:4984-4989, 2003. PMID14557484

46. Shahab M, Balasubramaniam A, Sahu A and **Plant TM**. Central nervous system receptors involved in mediating the inhibitory action of neuropeptide Y on luteinizing hormone secretion in the male rhesus monkey (*Macaca mulatta*). J Neuroendocrinol 15:965-970, 2003. PMID12969241

47. Ramaswamy S, Marshall GR, Pohl CR, Friedman RL and **Plant TM**. Inhibitory and stimulatory regulation of testicular inhibin B secretion by luteinizing hormone and follicle-stimulating hormone, respectively, in the rhesus monkey (*Macaca mulatta*). Endocrinology 144:1175-1185, 2003. PMID12639898

48. Barker-Gibb ML, Sahu A, Pohl CR and **Plant TM**. Elevating circulating leptin in prepubertal male rhesus monkeys (*Macaca mulatta*) does not elicit precocious gonadotropin-releasing hormone release, assessed indirectly. J Clin Endocrinol Metab 87:4976-4983, 2002. PMID12414861

49. Ravindranath N, Ioffe SL, Marshall GR, Ramaswamy S, **Plant TM** and Dym M. Androgen depletion activates telomerase in the prostate of the nonhuman primate, *Macaca mulatta*. Prostate 49:79-89, 2001. PMID11550213

50. Winters SJ, Kawakami S, Sahu A and **Plant TM**. Pituitary follistatin and activin gene expression, and the testicular regulation of FSH in the adult rhesus monkey (*Macaca mulatta*). Endocrinology 142: 2874-2878, 2001. PMID11416006

51. El Majdoubi M, Sahu A and **Plant TM**. Changes in hypothalamic gene expression associated with the arrest of pulsatile gonadotropin-releasing hormone release during infancy in the agonadal male rhesus monkey (*Macaca mulatta*). Endocrinology 141:3273-3277, 2000. PMID10965898

52. Ramaswamy S, **Plant TM** and Marshall GR. Pulsatile stimulation with recombinant single chain human luteinizing hormone elicits precocious Sertoli cell proliferation in the juvenile male rhesus monkey (*Macaca mulatta*). Biol Reprod 63:82-88, 2000. PMID10859245

53. El Majdoubi M, Sahu A, Ramaswamy S and **Plant TM**. Neuropeptide Y: A hypothalamic brake restraining the onset of puberty in primates. Proc Natl Acad Sci,USA 97:6179-6184, 2000. PMID 10811877

54. El Majdoubi M, Ramaswamy S, Sahu A and **Plant TM**. Effects of orchidectomy on levels of the mRNAs encoding gonadotropin-releasing hormone and other hypothalamic peptides in the adult male rhesus monkey (*Macaca mulatta*). J Neuroendocrinol 12:167-176, 2000. PMID10718912

55. Ramaswamy S, Marshall GR, McNeilly AS and **Plant TM**. Dynamics of the follicle-stimulating hormone (FSH)-inhibin B feedback loop and its role in regulating spermatogenesis in the adult male rhesus monkey (*Macaca mulatta*) as revealed by unilateral orchidectomy. Endocrinology 141:18-27, 2000. PMID10614619

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57. Durrant AR and **Plant TM**. A study of the gonadotropin releasing hormone neuronal network in the median eminence of the rhesus monkey (*Macaca mulatta*) using a post-embedding immunolabelling procedure. J Neuroendocrinol 11:813-821, 1999. PMID10520131

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59. Suter KJ, Pohl CR and **Plant TM**. Indirect assessment of pulsatile gonadotropin-releasing hormone release in agonadal prepubertal rhesus monkeys (*Macaca mulatta*). J Endocrinol 160:35-41, 1999. PMID9854174

60. Ramaswamy S, Pohl CR, McNeilly AS, Winters SJ and **Plant TM**. The time course of follicle-stimulating hormone suppression by recombinant human inhibin A in the adult male rhesus monkey (*Macaca mulatta*). Endocrinology 139:3409-3415, 1998. PMID9681490

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64. **Plant TM** and Durrant AR. Circulating leptin does not appear to provide a signal for triggering the initiation of puberty in the male rhesus monkey (*Macaca mulatta*). Endocrinology 138:4505-4508, 1997. PMID9322973

65. **Plant TM**, Padmanabhan V, Ramaswamy S, McConnell DS, Winters SJ, Groome N, Midgley Jr. AR and McNeilly AS. Circulating concentrations of dimeric inhibin A and B in the male rhesus monkey (*Macaca mulatta*). J Clin Endocrinol Metab 82:2617-2621, 1997. PMID9253343

66. Perera AD and **Plant TM**. Ultrastructural studies of neuronal correlates of the pubertal reaugmentation of hypothalamic gonadotropin-releasing hormone (GnRH) release in the rhesus monkey (*Macaca mulatta*). J Comp Neuro 385:71-82, 1997. PMID9268117

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69. Majumdar SS, Mikuma N, Ishwad PC, Winters SJ, Attardi BJ, Perera AD and **Plant TM**. Replacement with recombinant human inhibin immediately after orchidectomy in the hypophysiotropically clamped male rhesus monkey (*Macaca mulatta*) maintains follicle-stimulating hormone (FSH) secretion and FSHß messenger ribonucleic acid levels at precastration values. Endocrinology 136:1969-1977, 1995. PMID7720645

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65. Knobil E and **Plant TM**. Neuroendocrine control of gonadotropin secretion in the female rhesus monkey. In: WF Ganong and Martini L, editors. Frontiers in Neuroendocrinology. Vol. 5. New York: Raven Press; 1978. p. 249-264.

66. Knobil E and **Plant TM**. The hypothalamic regulation of LH and FSH secretion in the rhesus monkey. In: Reichlin S, Baldessarini RJ, Martini JB, editors. The Hypothalamus. New York: Raven Press; 1978. p. 359-372. PMID414314

67. Knobil E, **Plant TM**, Hess DL and Nakai Y. On the neuroendocrine control of ovarian function in the rhesus monkey. In: Scholler, R, editor. Endocrinology of the Ovary, editions SEPE; 1978. p. 155-161.

68. Knobil E, , Hess DL and Nakai Y, **Plant TM**. The neuroendocrine control of the ovarian cycle in the rhesus monkey. In: Tyndale-Biscoe CH, Calaby JH, editors. Reproduction and Evolution. Proceedings of the Fourth Symposium on Comparative Biology of Reproduction; 1977. Australian Academy of Science. P. 221-223.

69. Michael RP, **Plant TM** and Wilson MI. Preliminary studies on the effects of cyproterone acetate on sexual activity and testicular function in adult male rhesus monkeys (*Macaca mulatta*). Ad Biosciences. 1973;10:197-208. PMID4805851

70. Michael RP, **Plant TM** and Wilson M. Sexual behavior of male primates and the role of testosterone. In: RP Michael and JH Crook, editors. Comparative Ecology and Behavior of Primates. London: Academic Press; 1973. p. 235-3

D. Other:

1999 Citation for the 1999 Roy O. Greep Lecture Award of The Endocrine Society to Dr. Ernst Knobil, 81st Annual Meeting of The Endocrine Society, San Diego, Endocrinology 140:3871-3871, 1999. PMID10453365

2001 **Plant TM**. Leptin, growth hormone, and the onset of primate puberty. J Clin Endocrinol Metab 86: 458-460, 2001 (Letter to the Editor). PMID11232044

2014 **Plant TM**. Richard Michael remembered. The Endocrinologist Issue 112, 28 (Summer 2014).

2015 **Plant TM.** Ernst Knobil: A Doyen in Neuroendocrinology. A podcast for NeuroEndoNow <http://neuroendonow.org/>

PATENTS, SOFTWARE DEVELOPMENT, OTHER CONTRIBUTIONS

1. Patents:

Use of GPR54 ligands for treatment of reproductive disorders, proliferative disorders, and for contraception. (Provisional Application, 00786/481002).

2. Seminars and Invited Lectureships Related to Research:

1973 Testicular Control of Copulatory Activity in the Rhesus Monkey, Department of Physiology, Emory University

1975 The Neuroendocrine Control of Gonadotropin Secretion in the Rhesus Monkey, Georgia Mental Health Institute, Atlanta

1977 The Neuroendocrine Control of Gonadotropin Secretion in the Female Rhesus Monkey, Oregon Regional Primate Center

1979 The Neuroendocrine Control of Testicular Testosterone Secretion in the Rhesus Monkey, 6th NICHHD Workshop on the Testis in Houston

1979 Studies on the Neuroendocrine Control of Testicular Function in the Rhesus Monkey, College of Physicians and Surgeons of Columbia University, New York

1980 Role of the Central Nervous System in the Control of Gonadotropin Secretion in the Female Rhesus Monkey, 6th International Congress of Endocrinology, Melbourne

1980 The Ontogeny of the Neuroendocrine Control of Testicular Function in the Rhesus Monkey, The Yerkes Regional Primate Research Center, Emory University

1980 The Neuroendocrine Control of Testicular Function in the Rhesus Monkey, Hospital of the University of Pennsylvania

1980 Control of Gonadotropin Secretion in the Male Rhesus Monkey, Universitats Frauenklinik, Bonn
1980 Neuroendocrine Control of Testicular Function in the Rhesus Monkey, Universitats Frauenklinik, Munster

1980 Neuroendocrine Control of Gonadotropin Secretion in the Male Rhesus Monkey, McGill University and the Royal Victoria Hospital, Montreal

1981 Ontogeny of Pulsatile LHRH Secretion in the Male Rhesus Monkey, Harvard Medical School and the Massachusetts General Hospital

1981 Neuroendocrine Control Systems Governing Ontogeny of Gonadal Function, XV Biennial Symposium on Animal Reproduction, Raleigh

1982 Control of Gonadotropin Secretion in the Male Primate, Ferring Symposium on Brain and Pituitary Peptides II, Kiel

1982 The Ontogeny of Gonadotropin Secretion in the Rhesus Monkey, University of Washington School of Medicine

1982 Neuroendocrine Mechanisms Governing the Ontogeny of Gonadotropin Secretion in the Male Rhesus Monkey, 2nd ORPRC Symposium on Primate Reproductive Biology, Beaverton

1983 The Neuroendocrine Control System Governing the Ontogeny of Gonadotropin Secretion in the Monkey, University of Cambridge

1984 Neuroendocrine Mechanism Underlying the Ontogeny of Gonadotropin Secretion in the Monkey, Massachusetts Institute of Technology

1984 Ontogeny of the GnRH Pulse Generator in the Rhesus Monkey, Satellite Symposia (Developmental Endocrinology of the 7th International Congress of Endocrinology, Montreal

1984 Control of Gonadotropin Secretion in the Male Rhesus Monkey, APS Symposia on Current Topics in Neuroendocrine Control of Gonadotropin Secretion, Kentucky

1985 Neuroendocrine Mechanism Underlying the Timing of Puberty in the Monkey, Developmental Endocrine Branch NICHD

1985 The Ontogeny of Pulsatile GnRH Release in the Male Rhesus Monkey, 3rd Ferring Symposium, Noordwijk

1985 Intermittent Hypothalamic Neurosecretion and Gonadal Function, Workshop on Brain-Hypothalamic Interaction in the Regulation of Neuroendocrine Function, Center for Neuroscience, University of Pittsburgh

1986 Pulsatile Gonadotropin Secretion in Sub-Human Primates, Harvard Medical School and the Massachusetts General Hospital, Boston

1986 Neuroendocrine Mechanisms Underlying the Ontogeny of Gonadotropin Secretion in the Monkey, 68th Annual Meeting of the Endocrine Society, Anaheim

1986 The Neuroendocrine Mechanisms that Determine the Timing of Puberty in Primates, College of Physicians & Surgeons of Columbia University, New York

1986 Neuroendocrine Control of Gonadotropin Secretion and Puberty in the Monkey, West Virginia University, Morgantown

1986 Puberty in the Rhesus Monkey, University of Maryland, Baltimore

1987 Neuroendocrine Mechanisms Timing the Onset of Puberty in Primates, The Mount Sinai Medical Center, New York

1987 The Neuroendocrine Control of Testicular Function: Anatomical and Physiological Considerations, American Society of Andrology, Postdoctoral Course, Denver

1987 Puberty in Primates: A Reawakening of the GnRH Pulse Generator, The University of Texas Medical School, Houston

1987 Neuroendocrine Basis of Puberty in the Monkey, Neuro-Endocrinology of Reproduction, VIth Reinier De Graaf Symposium, Nijmegen

1988 Testicular Inhibin and the Regulation of FSH in the Monkey, Contraceptive Development Branch, Workshop on LHRH Analogs and Reproductive Polypeptides, National Institutes of Health, Bethesda Maryland

1988 Brain Control of the GnRH Pulse Generator, Lawson Wilkins Pediatric Endocrine Society, Reproductive Biology Symposium, Washington, DC

1988 Ontogeny of GnRH Pulse Generator in the Rhesus Monkey, The 8th International Congress of Endocrinology, Kyoto

1988 The Ontogeny of LHRH Pulse Generator Activity in the Monkey, Progress in the Endocrine Chronobiology, Satellite Symposium of the 8th International Congress of Endocrinology, Sapporo

1988 The Neurobiology of the Onset of Puberty in Primates, Northwestern University, Evanston

1988 Neuroendocrine Mechanisms Controlling the Onset of Puberty in the Monkey, Emory University, Atlanta

1988 Ontogeny of Gonadotropin Secretion in the Monkey, Summer School of the European Pediatric Society for Endocrinology, Copenhagen

1989 Neuroendocrine Mechanisms Controlling the Onset of Puberty in Primates, University of Washington, Seattle

1989 Neuroendocrine Basis of Onset of Puberty in Primates, Cornell University, Ithaca

1989 The Neuroendocrine Control of the Onset of Puberty in Primates, Hungarian Academy of Sciences, Budapest

1989 The Ontogeny of Hypothalamic GnRH Secretion in the Rhesus Monkey, 3rd International Conference on the Control of the Onset of Puberty, Amsterdam

1990 The Neurobiology of Puberty in Primates, University of Virginia, Charlottesville

1990 The Neuroendocrine Mechanisms Governing the Onset of Puberty in Primates, McGill University, Montreal

1990 The Neuroendocrine Regulation of the Onset of Puberty, Serono Symposium on Reproduction, Growth and Development, Acapulco

1990 The Hypothalamic Control of Puberty in the Rhesus Monkey, A Representative Higher Primate, The Endocrine Society, Atlanta

1990 The Ontogeny of the GnRH Pulse Generator in Higher Primates, European Society for Paediatric Endocrinology, Vienna

1990 Neuroendocrine Control of the Onset of Puberty in Primates, Harvard Medical School, Boston

1990 Control of FSH Secretion in the Male Rhesus Monkey, Serono Symposium on the Regulation and Actions of Follicle Stimulating Hormone, Chicago

1991 The Neuroendocrine Regulation of Testicular Function in the Monkey, Massachusetts General Hospital, Boston

1991 Neuroendocrine Control of Puberty in the Rhesus Monkey, a Representative Higher Primate, Henri-Pierre Klotz d'Endocrinologie Clinique Symposium on the Endocrinology of Puberty, Paris

1991 Neuroendocrine Regulation of Puberty and Testicular Function in the Monkey, Hôpital de Bicêtre, Le Kremlin-Bicêtre, France

1991 The Neuroendocrine Control of the Onset of Puberty in Primates, Ciba Foundation Symposium No. 168, Budapest

1991 The Neuroendocrine Mechanisms Controlling the Onset of Puberty in the Primate, The University of Western Ontario, London, Canada

1991 The GnRH Pulse Generator, The Magee-Womens Hospital, Pittsburgh

1992 Neuroendocrine Control of Puberty and Testicular Function in the Monkey, NIH Interinstitute Endocrine Grand Rounds, Bethesda

1992 Regulation of Gonadotropin Secretion in the Male Monkey, Satellite Symposium on Gonadotropins, GnRH, GnRH Analogs and Gonadal Peptides, Paris

1992 The Neuroendocrine Regulation of Testicular Function in the Monkey, Ferring Symposium on the Central Control of Gonadal Function, Frankfurt

1993 Neuroendocrine Control of Testicular Function in the Monkey, Georgetown University Medical Center, Washington

1993 Inhibin in the Male, University of Bristol, Bristol

1993 The Neurobiology of the Initiation of Puberty, Advances in Growth, Fiuggi

1993 The Neurobiology of Puberty in the Monkey, The Center for Reproductive Research, Tufts University, Boston

1993 The Neuroendocrine Control of Gonadal Function in Primates, Center for Reproductive Research Seminar, Kansas City University Medical Center, Kansas City

1993 An Operational FSH-Testicular Inhibin Feedback Loop in the Adult Rhesus Monkey, II International Symposium on Inhibin and Inhibin-Related Proteins, Siena

1994 The Onset of Puberty in Non-Human Primates, International Symposium on Puberty: Basic and Clinical Aspects, Buenos Aires

1994 Closing Remarks, Fourth International Conference on the Control of the Onset of Puberty, Pittsburgh

1995 Neuroendocrine Control of Reproduction in Male Primates, Universite de Liége, Liége

1996 Neuroendocrine Control of Reproduction in the Monkey, Universite de Genéve, Geneva

1996 Puberty in the Monkey, Universite Hôpital Gent, Gent

1996 Environmental Factors and Puberty in Non-human Primates, 21st International Symposium, Growth Hormones and Growth Factors in Endocrinology and Metabolism, Venice

1996 Control of Testicular Function in the Monkey, Hôpital Antoine, Paris

1997 Plasticity in the Hypothalamic GnRH Neuronal Network and Primate Puberty, University of Texas-Houston Medical Center, Texas

1997 The Control of Pubertal Development, 11th European Scientific Symposium, Reproduction in Nonhuman Primates, Münster

1997 Neuronal Plasticity and Pituitary Gonadal Axis, The Ares-Serono Foundation, International Workshop on Paracrine Mechanisms in Female Reproduction, Seville

1997 Puberty in Primates, Tokyo Women's Medical College, Tokyo

1997 The Neuroendocrine Control of Puberty in the Monkey, Japan Neuroendocrine Society, Tokyo

1997 The Pubertal Initiation of Testicular Function in the Monkey: Neurobiology and Endocrinology, Prince Henry's Institute of Medical Research, Melbourne

1998 Neuroendocrine Control of the Onset of Puberty in Primates, 2nd Congreso Argentino de Endocrinologia Ginecologica Y Reproductiva, Buenos Aires

1998 The Role of Inhibin in the Regulation of FSH Secretion in Higher Primates, 2nd Congreso Argentino de Endocrinologia Ginecologica Y Reproductiva, Buenos Aires

1998 Functional Organization of the Hypophysiotropic Hypothalamus Driving the Pituitary-Gonadal Axis in the Rhesus Monkey, 41èmes Journees Internationales D'Endocrinologie Clinique, Paris

1998 Pubertal Changes in GnRH Secretion and Gene Expression in the Monkey, Seoul Satellite Symposium of the 4th International Congress of Neuroendocrinology, Seoul

1998 Pubertal Changes in Hypothalamic Gene Expression in the Monkey, University of Milan, Milan

1998 Neuroendocrine Control and Development of Gonadotropin Pulsatility, 4th International Congress, "The Young Woman at the Rise of the 21st Century: Gynecological and Reproductive Issues in Health and Disease", Athens

1998 Experimental Non-Human Primate Models Employing GnRH and GnRH Analogs, 4th International Congress, "The Young Woman at the Rise of the 21st Century: Gynecological and Reproductive Issues in Health and Disease", Athens

1999 The FSH-Inhibin B Feedback Control System in Male Primates, 1999 North American Inhibin and Activin Congress, Evanston

1999 Hypothalamic Gene Expression During Puberty in the Monkey, 81st Annual Meeting of The Endocrine Society, San Diego

1999 The GnRH Pulse Generator and Gonadal Function: New Developments, Serono International Symposium on Gonadal Failure: New Perspectives, Cortina

1999 Ontogeny of GnRH Gene Expression and Secretion in Primates, The 5th International Conference on the Control of the Onset of Puberty, Liège

2000 The Postnatal Ontogeny of the Hypothalamic-Pituitary-Gonadal Axis in the Rhesus Monkey, 55th Meeting of the Midwest Teratology Association, Greenfield

2000 The Effects of Sex Hormones on the Initiation of Puberty in Primates. XIV Meeting of the Latin American Pediatric Endocrinology Society, Ushuaia

2000 Circulating Leptin as a Signal for Triggering the Initiation of Puberty. XIV Meeting of the Latin American Pediatric Endocrinology Society, Ushuaia

2000 The Role of Testicular Inhibins in the Control of FSH in Primates, Ares-Serono Foundation International Workshop on Inhibins, Activins and Follistatins. Melbourne

2000 Puberty, Ares-Serono Foundation International Conference on Reproductive Competence: Pathology and Therapeutic Interventions, Santiago

2001 Hypothalamic Plasticity and Our Adulthood, National Institute of Immunology, New Delhi

2001 The Neurobiology of Primate Puberty, Indian Institute of Science, Bangalore

2001 The Role of Inhibin in Regulating the Male Reproductive Axis, Institute for Research in Reproduction, Bombay

2001 The Neurobiology of the Onset of Puberty, Pakistan Academy of Sciences, Islamabad

2001 The Hypothalamic Pituitary Testicular Axis in the Monkey: Ongoing Studies, Massachusetts General Hospital, Boston

2001 The Operation of the FSH-Inhibin Feedback Loop in Regulating Spermatogenesis in the Monkey, Bioqual, Inc., Rockville

2001 The Control of the Onset of Primate Puberty, 83rd Annual Meeting of The Endocrine Society, Denver

2001 Regulation of Primate Spermatogenesis by the FSH-inhibin Feedback Loop, 34th Annual Meeting of the Society for the Study of Reproduction, Ottawa

2002 A New Look at a Classical Subject: the Role of Gonadotropins in the Control of Spermatogenesis, Johns Hopkins School of Hygiene and Public Health, Baltimore

2002 Neurobiology of Puberty in the Male Monkey, University of Maryland, Baltimore

2002 Neuroendocrine Regulation of Gonadotropin Secretion in the Monkey, Workshop: Progress in Reproductive Physiology, Hannover

2002 Physiology of Inhibins, Activins and Follistatin in Primates, XXEME Congres de la Societe Francaise D'Endocrinologie, Tours

2003 Neurobiology of the Onset of Puberty in Higher Primates, University of Virginia, Charlottesville

2003 Neurobiology of the Onset of Puberty in Primates, Morehouse School of Medicine

2003 Are Neurogenomics Underlying the Pubertal Reawakening of the GnRH Pulse Generator? 4th Annual GeNeSIS Symposium and Investigators' Meeting, Vancouver

2004 Novel Concepts in the Control of the Onset of Puberty, Updates in Infertility Treatment 2004, Marco Island

2004 Is GPR 54 a Puberty Gene? Studies of the Rhesus Monkey. Edinburgh University, Edinburgh

2005 Pubertal Onset of Spermatogenesis, XXVIII North American Testis Workshop, Seattle

2005 The Male Monkey as a Model for the Study of the Neurobiology of Puberty Onset in Man, 6th International Conference on the Control of the Onset of Puberty, Evian

2006 The Rhesus Monkey as an Experimental Model to Understand the Neurobiology of Human Puberty, University of Washington Health Sciences

2006 The Neurobiology of the Onset of Puberty in the Monkey, Northwestern University, Center for Reproductive Science, Evanston

2006 Is Puberty Triggered by a Kiss?, Northwestern University, Grand Rounds, Division of Endocrinology, Metabolism and Molecular Medicine, Chicago

2006 The Role of *KiSS-1* in the Regulation of Puberty, 4th Ferring Pharmaceuticals International Paediatric Endocrinology Symposium, Paris

2006 Neurobiological Mechanisms Underlying the Pubertal Activation of the HPG Axis at Puberty in Higher Primates, 6th International Congress of Neuroendocrinology, Pittsburgh

2006 New Factors (Kisspeptins, GPR54) Regulating GnRH Release 1, 39th Annual Meeting of the Society for the Study of Reproduction, Omaha

2006 Human Puberty, A Mysterious Reawakening: Lessons from the Monday, 8th Annual Reproductive Biology Retreat, Johns Hopkins University and University of Maryland, Maryland

2006 Is Puberty Triggered by a KiSS?, Bioqual, Inc. Maryland

2006 The Neurobiology of Puberty, 8th Journées KIGS KIMS, Paris

2007 Postnatal and Pubertal development of the Primate Testis, University of Health Sciences, Lahore

2007 Kisspeptin Signaling in the Hypothalamus: A Novel and Major Regulator of the Reproductive Axis, Pakistan Academy of Sciences, Islamabad

2007 The Role of Kisspeptin Signaling at GPR54 in Triggering Primate Puberty, 17th Annual Meeting of the Indian Society for the Study of Reproduction and Fertility, New Delhi

2007 Developmental and Hormonal Determinants of Spermatogenic Ceiling in the Monkey, Center for Research on Reproduction and Women's Health, The University of Pennsylvania Medical Center, Philadelphia

2007 Role of Kisspeptin in Triggering Puberty in the Monkey, INSERM U413, Institut Fédératif de Recherches Multidisciplinaries sur les Peptides (IFRMP 23), University of Rouen, Rouen

2007 Role of Kisspeptin in Triggering Puberty in the Monkey, UMR 6175 INRA, University of Tours, Tours

2007 Endocrine and Neuroendocrine Mechanisms Underlying the Onset of Puberty in Higher Primates, 6th Congress of the Asia and Oceania Society for Comparative Endocrinology (ASOCE), University of North Bengal

2008 The Hypothalamic Regulation of Fertility in Primates, The Physiological Society Symposium, Cambridge

2008 Hypothalamic Kisspeptin Signaling: A Neurobiologic Trigger for the Onset of Primate Puberty, The First IBRO/LARC Iberian, LatinAmerican and Caribbean Congress of Neuroscience – I NEUROLATAM, Búzios

2008 Kisspeptin and Puberty in the Monkey, 1st World Conference on Kisspeptin Signaling in the Brain, Cordoba

2009 The Role of Kisspeptin in Triggering Puberty in Primates, Department of Physiology, Morehouse School of Medicine, Atlanta

2009 Kisspeptin and the Control of GnRH Pulsatility Throughout Postnatal Development in the Monkey, Ericyes University, Kayseri

2009 Neuroendocrine Mechanisms Controlling the Timing of Puberty in Primates, Neuroendocrinology Symposium & Workshop, Turkish Neuroendocrine Society, Istanbul

2009 Non-Human Primate Models of Human Reproduction: Advantages and Disadvantages, Neuroendocrinology Symposium & Workshop, Turkish Neuroendocrine Society, Istanbul

2009 Kisspeptin Signaling and the Initiation of Puberty in Primates, University of Massachusetts, Amherst

2009 Postnatal Regulation of Pulsatile GnRH Release in the Monkey. 91st Annual Meeting of The Endocrine Society, Washington, June 2009. Symposium S2-1.

2009 Is Puberty in Primates Triggered by a *KiSS* Alone? Festschrift Symposium in Honor of Professor John A. Russell

2009 Kisspeptin and the Onset of Puberty in the Monkey, XXXVI International Congress of Physiological Sciences, Kyoto

2009 The Neurobiology of Puberty in the Monkey, National Center for Toxicological Research, Little Rock

2010 Neuroendocrine Determinants of Sexual Maturity in Nonhuman Primates, 18th Primate Symposium, Münster

2010 Neuroendocrine Control of the Menstrual Cycle, Department of Obstetrics and Gynecology, Ben-Gurion University of the Negev, Beer-Sheva

2010 Postnatal Development of Spermatogonial Stem Cell and their Niches in the Monkey, Department of Microbiology and Immunology, Ben-Gurion University, Beer-Sheva

2010 Neuroendocrine Mechanisms Controlling the Onset of Puberty in Primates, Department of Virology and Development and Molecular Genetics, Ben-Gurion University, Beer-Sheva

2010 Neuroendocrine Mechanisms Controlling the Onset of Puberty in the Rhesus Monkey, IIIrd Congress of the Polish Neuroendocrine Society, Krakow

2010 The Neurobiology of Puberty, Pediatric and Adolescent Gynecology Research Think Tank Panel Meeting, NICHD, Bethesda

2010 The Neurobiology of Puberty Onset in the Monkey, Plenary Speaker, Summer Academy of the Center for Reproduction and Andrology, Münster

2011 A History of Neuroendocrinology, 3rd INF Summer School in Neuroendocrinology – Brazil, Ribeirão Preto

2011 The Generation of GnRH Rhythms, First Brazilian International Symposium on Integrative Neuroendocrinology, Dourado

2011 Modeling Neuroendocrine Control Systems Governing Reproduction in Non-Human Primates, New York Academy of Sciences Animal Models and Their Value in Predicting Drug Efficacy and Toxicity, New York

2011 Role of Hypothalamic KNDy Neurons in the Control of Puberty Onset in the Male Monkey. The 8th Annual Gilbert S. Greenwald Symposium on Reproduction, Kansas City

2012 Kisspeptin: A GnRH Pulse Generating or Puberty Initiating Neuropeptide? 16th Annual Meeting of the Society for Behavioral Neuroendocrinology, Madison

2012 The neurobiology of GnRH pulsatility: a mode of hypothalamic activity essential for folliculogenesis, ovulation and spermatogenesis. 45th Annual Meeting of the Society for the Study of Reproduction, State College

2012 Principles and Some History of Neuroendocrinology. 27th Argentina Society for Neuroscience Course for Young Investigators Sculpting the Architecture and Physiology of the Brain: Hormones Have a Lot to Say, Cordoba

2012 Neurobiological Mechanisms of Puberty Onset in Higher Primates. 27th Argentina Society for Neuroscience Course for Young Investigators Sculpting the Architecture and Physiology of the Brain: Hormones Have a Lot to Say, Cordoba

2012 Kisspeptin: a GnRH Pulse Generating or Puberty Initiating Neuropeptide. Juan P. Garrahan Pediatric Hospital, Buenos Aires

2012 Postnatal Development of the Testis in the Monkey. Juan P. Garrahan Pediatric Hospital, Buenos Aires

2014 Timing and Progression of Puberty: Fundamental Neuroendocrine Mechanisms. Society of Toxicology 53rd Annual Meeting; Abstract 379, 2014 Mar 24; Phoenix

2014 The Neuroendocrine Control of the Onset of Puberty. 8th International Congress of Neuroendocrinology, Sydney

2015 Physiology and Clinical Implications of the Midcycle Gonadotropin Surge. 7th World Congress on Ovulation Induction, Bologna.

2015 Neuroendocrine Control of Puberty in Highly Evolved Primates. 60th Annual Meeting Argentinian Society of Clinical Investigation, Mar del Plata.

2016 Neuroendocrine Control of Puberty Onset in Primates. Department of Assisted Reproductive Medicine, The Ninth People's Hospital, Shanghai Jiaotong University Medical School, Shanghai.

2016 Minipuberty: what is driven by the brain, by the gonad and by sex? European Society of Endocrinology Postgraduate PhD course: Regulation of the Pituitary-Gonadal Axis in Childhood, Adolescence and Adults; Minipuberty and Puberty. Rigshospitalet, Copenhagen.

2017 The control of the pre-ovulatory LH surge of the menstrual cycle. Department of Assisted Reproductive Medicine, The Ninth People's Hospital, Shanghai Jiaotong University Medical School, Shanghai.

2017 The mystery of puberty – why has it been such a tough nut to crack? Annual Society for Endocrinology BES Conference. Harrogate.

2018 The role of kisspeptin in the hypothalamic-pituitary-gonadal axis. International Conference on Molecular Signaling. The University of Hyderabad.

3. Other Research Related Activities:

Served on a large number of review panels for both intra- and extra-mural grants and programs sponsored by the National Institutes of Health (NIH) and National Science Foundation, and also for proposals submitted to other governmental and non-governmental institutions around the world. External consultant for the National Primate Research Centers Program (NIH). Held senior executive positions in the International Neuroendocrine Federation, including President from 2007 to 2010. Organized several international meetings on neuroendocrine control systems in the US and Europe. Frequent member of Program Organizing Committees for national and international meetings on endocrinology, neuroendocrinology and reproduction. Co-editor in Chief on major text

on the physiology of reproduction. Member of several editorial boards of internationally recognized scientific journals with high impact factors.

MAJOR FUNDING HISTORY

Grant Number	Grant Title	Role in Project	Years Inclusive	Source $ Amount
2P50 HDRR08610	The Neuroendocrine Control of Gonadotropin Secretion in the Male Rhesus Monkey (Project 3-Center for Research in Primate Reproduction)	PI	1979-1982	NIH
R01 HD13254	The Ontogeny of Gonadotropin Secretion in the Monkey (Later The Role of Neuronal Plasticity In Primate Puberty or Molecular and Structural Basis for Puberty)	PI	1980-2012	NIH $2,820,600
R01 HD16851	Testicular Control of LH and FSH Secretion in the Monkey	PI	1982-2000	NIH $450,145
1R01 HD32473	Role of FSH in Spermatogenesis G.R. Marshall, PI, University of Pittsburgh	Co-PI	1995-2000	NIH $165,563
P30 HD08610	Center for Research in Reproductive Physiology	PI	1985-2000	NIH $1,085,334
U54 HD08610 (Indo-US Joint)	Primate Sertoli Cell Factors and Germ Cell Proliferation	PI	2000-2004	NIH $136,133
Bioqual, Inc.	Antispermatogenic Activity of CDB-4022D in Adult Male Cynomolgus Monkeys: Confirmation and Extension of DVS-80 Study	PI	2004-2006	Bioqual, Inc. $216,261
U54 HD41749	Cooperative Reproductive Science Research Centers at Minority Institutions: Development and Differentiation in Reproductive Axis	Co-Director;	2001-2009	NIH $520,275
U54 HD36207	Specialized Cooperative Center for Reproduction Research:	PI	2004-2009	NIH $70,391

	Development of Baboon Fetal Testis			
R01 HD072189-01	Molecular Bases Committing Primate Spermatogonia to a Pathway of Differentiation	PI	2012-2017	NIH $1,951,364
U54 HD08610	Specialized Cooperative Center for Reproduction and Infertility Research: Physiology and Pathophysiology of the Primate Gonad	PI	2006-2013	NIH $2,043,799

STUDENTS AND TEACHING

Major contributor to medical and graduate school curriculae for 35 years. Established and co-directed a graduate student course - Neuroendocrinology: Classical and Contemporary Perspectives (1987-1993). Served as primary mentor for undergraduate and graduate students (8), postdoctoral fellows (20), clinical fellows (5) and visiting scholars (8).