

CURRICULUM VITAE

Vicki N. Meyers-Wallen

EDUCATION

- 1970 B.S. University of Maryland
 Honors in Zoology
- 1976 V.M.D. University of Pennsylvania
 Graduated in top 25% of class
- 1980-1982 Resident: Genetics, Pediatrics, and Reproduction.
 Section of Medical Genetics, Department of Clinical Studies-Philadelphia,
 School of Veterinary Medicine, University of Pennsylvania
- 1983-1986 Ph.D. Comparative Medical Sciences, College of Arts and Sciences,
 University of Pennsylvania, Thesis Title: "The Anatomy,
 Endocrine Function of the Testis, and Genetics of XX Sex Reversal in the Dog"
- 1986 Board Certification in Veterinary Reproduction (Theriogenology):
 Diplomate, American College of Theriogenologists

PROFESSIONAL POSITIONS

- 1970-1972 Laboratory Scientist I (Clinical Laboratory Technician)
 Great Oaks Center, Silver Spring, Maryland
- 1976-1977 Associate Veterinarian.
 Butler Animal Hospital, Charlotte, NC
- 1977-1980 Associate Veterinarian.
 Rothman Animal Hospital, Collingswood, NJ
- 1982-1983 Instructor: Genetics, Pediatrics, and Reproduction.
 Section of Medical Genetics, Department of Clinical Studies-Philadelphia,
 School of Veterinary Medicine, University of Pennsylvania
- 1983-1986 Postdoctoral Fellow, School of Veterinary Medicine, University of Pennsylvania
 National Research Service Award 1 F32 HD06396
- 1986-1989 Assistant Professor of Reproduction,
 Section of Medical Genetics, Department of Clinical Studies-Philadelphia
 Secondary Appointment: Section of Reproduction, Department of Clinical Studies-
 New Bolton Center, School of Veterinary Medicine, University of Pennsylvania
- 1989-1994 Assistant Professor of Theriogenology,
 Department of Clinical Sciences,
 Chief, Small Animal Fertility and Infertility Service, Cornell University Hospital for
 Animals, College of Veterinary Medicine, Cornell University
 (50% research appointment)

PROFESSIONAL POSITIONS (continued)

- 1994-2003 Associate Professor of Genetics and Reproduction,
Department of Anatomy (Biomedical Sciences) and Baker Institute for Animal Health.
Chief, Small Animal Fertility and Infertility Service, Cornell University Hospital for
Animals, College of Veterinary Medicine, Cornell University
(50% research appointment)
- 2003-present Associate Professor of Genetics and Reproduction,
Department of Biomedical Sciences and Baker Institute for Animal Health,
College of Veterinary Medicine, Cornell University
(70% research appointment)

PUBLICATIONS (81 total)

- Meyers VN.** 1982. Medical treatment of canine pyometra. Purebred Dogs.
American Kennel Club Gazette 99:48.
- Meyers VN, Jezyk PF, Aguirre GD, Patterson DF.** 1983. Short-limbed dwarfism and ocular defects in the
Samoyed dog. J Am Vet Med Assoc 183:975-979.
- Meyers-Wallen VN, Haskins ME, Patterson DF.** 1984. Hematologic values in healthy neonatal,
weanling, and juvenile kittens. Am J Vet Res 45:1322-1327.
- Meyers-Wallen VN, Goldschmidt MH, Flickinger GL.** 1986. Prostaglandin F_{2a} treatment of canine
pyometra. J Am Vet Med Assoc 189:1557-1561.
- Meyers-Wallen VN.** 1986. The anatomy, endocrine function of the testis, and genetics of XX sex
reversal in the dog. PhD thesis. University of Pennsylvania Graduate School of Arts and Sciences.
- Meyers-Wallen VN and Patterson DF.** 1986. Disorders of sexual development. In: Morrow DA, Current
Therapy in Theriogenology. WB Saunders Co., Philadelphia, p. 567-574.
- Meyers-Wallen VN, Donahoe PK, Manganaro T, Patterson D.** 1987. Mullerian Inhibiting Substance in
sex-reversed dogs. Biol Reprod 37:1015-1022.
- Meyers-Wallen VN.** 1987. Disorders of canine sexual development. Proc. Annual Conference, Society
for Theriogenology, p. 229-234.
- Meyers-Wallen VN, Patterson DF.** 1988. XX sex reversal in the American cocker spaniel dog:
Phenotypic expression and inheritance. Human Genetics 80:23-30.
- Giger U, Amador A, **Meyers-Wallen V**, Patterson DF. 1988. Inherited stomatocytosis in miniature
schnauzers. Proc ACVIM, Washington, D.C., p. 754.
- Patterson DF, Haskins ME, Jezyk PF, Giger U, **Meyers-Wallen VN**, Aguirre G, Fyfe JC, Wolfe JH.
1988. Research on genetic diseases: Reciprocal benefits to animals and man. J Am Vet Med Assoc
193:1131-1144.

- Meyers-Wallen VN**, Wilson JD, Griffin JE, Fisher S, Moorhead PH, Goldschmidt MH, Haskins ME, Patterson DF. 1989. Testicular feminization in a cat. *J Am Vet Med Assoc* 195:631-634.
- Meyers-Wallen VN**, Donahoe PK, Ueno S, Manganaro T, Patterson DF. 1989. Mullerian Inhibiting Substance is present in testes of dogs with Persistent Mullerian Duct Syndrome. *Biol Reprod* 41:881-888.
- Meyers-Wallen VN**, Patterson DF. 1989. Sexual differentiation and inherited disorders of sexual development in the dog. *J Reprod Fert Suppl* 39:57-64.
- Meyers-Wallen VN**, Patterson DF. 1989. Disorders of sexual development in dogs and cats. In: Kirk RW and Bonagura JD, *Current Veterinary Therapy X*, W. B. Saunders Co., Phila., pp. 1261-1269.
- Meyers-Wallen VN**. 1989. Managing a stud dog. *International Canine Genetics News* 3:1.
- Meyers-Wallen VN**. 1989. Diagnostic approach to infertility in the stud dog. *Proc. Annual Conference, Society for Theriogenology*, p. 327-334.
- Meyers-Wallen VN**. 1990. Reproductive problems of the breeding bitch. *International Canine Genetics News* 4:1.
- Sommer MM, **Meyers-Wallen VN**. 1991. XX True hermaphroditism in a dog. *J AmVet Med Assoc* 198:435-438.
- Concannon PW, **Meyers-Wallen VN**. 1991. Current and proposed methods for contraception and termination of pregnancy in dogs and cats. *J Am Vet Med Assoc* 198:1214-1225.
- Meyers-Wallen VN**. 1991. Clinical approach to infertile male dogs with sperm in the ejaculate. In: *Veterinary Clinics of North America* 21(3):609-633.
- Meyers-Wallen VN**, Manganaro TF, Kuroda T, Concannon PW, MacLaughlin DT, Donahoe PK. 1991. The critical period for Mullerian duct regression in the dog embryo. *Biol Reprod* 45:626-633.
- Yeager AE, Mohammed HO, **Meyers-Wallen VN**, Vannerson L, Concannon PW. 1992. Ultrasonographic appearance of the uterus, placenta, fetus, and fetal membranes throughout accurately timed pregnancy in Beagles. *Am J Vet Res* 53:342-351.
- Meyers-Wallen VN**. 1992. Persistent estrus in the bitch. In: RW Kirk and J Bonagura (eds.), *Current Veterinary Therapy XI*, WB Saunders Co., Phila., PA, pp. 963-966.
- Meyers-Wallen VN**. 1993. Genetics of sexual differentiation and anomalies in dogs and cats. *J Reprod Fertil, Suppl* 47, pp.441-452.
- Ellington JE, Varner DD, Burghardt RC, **Meyers-Wallen VN**, Barhoumi R, Brinsko SP, Ball BA. 1993. Cell-to-cell communication of equine uterine tube (oviduct) cells as determined by anchored cell analysis in culture. *Animal Reprod Sci* 30:313-324.
- Ellington JE, Ignatz GG, Ball BA, **Meyers-Wallen VN**, Currie WB. 1993. De novo protein synthesis by bovine uterine tube (oviduct) epithelial cells changes during co-culture with bull spermatozoa. *Biol Reprod* 48:851-856.

Ellington JE, **Meyers-Wallen VN**, Suess R, Rendano V, Surman V, Schlafer D. 1993. Unilateral bacterial epididymitis in the dog. *J Am An Hosp Assoc* 29:315-319.

Meyers-Wallen VN, Lee MM, Manganaro TF, Kuroda T, McLaughlin D, Donahoe PK. 1993. Mullerian Inhibiting Substance is present in embryonic testes of dogs with Persistent Mullerian Duct Syndrome. *Biol Reprod* 48:1410-1418.

Ellington JE, Scarlett J, **Meyers-Wallen VN**, Mohammed HO, Surman V. 1993. Computer assisted analysis of canine spermatozoa motility measurements. *Theriogenology* 40:725-733.

Rivas AL, Tintle L, **Meyers-Wallen VN**, Scarlett J, van Tassell C, Quimby FW. 1993. The genetic basis for renal amyloidosis and recurrent fevers of unknown origin in Chinese Shar-pei dogs. *J Hered* 84:438-442.

Meyers-Wallen VN. 1994. Semen analysis, artificial insemination, and infertility in the male dog. In: Ettinger SJ and Feldman EC (eds), *Textbook of Veterinary Internal Medicine*, WB Saunders Co., Phila., PA, pp. 1649-1662.

Meyers-Wallen VN. 1994. Selecting breeding stock and screening for genetic diseases in catteries. In: August J (ed), *Feline Int Med*, 2nd ed., W.B. Saunders Co., Phila., PA, pp.607-614.

Wilker C, **Meyers-Wallen VN**, Schlafer D, Dykes N, Kovacs A, Ball B. 1994. Sex reversal in a llama. *J Am Vet Med Assoc* 204:112-115.

Meyers-Wallen VN, MacLaughlin D, Palmer V, Donahoe PK. 1994. Mullerian Inhibiting Substance secretion is delayed in XX sex reversed dog embryos. *Molec Reprod Dev* 39:1-7.

Moise NS, **Meyers-Wallen VN**, Flahive WJ, Valentine BA, Scarlett JM, Brown CA, Chavkin MJ, Dugger DA, Renaud-Farrell S, Kornreich B, Schoenborn WC, Sparks JR, Gilmour RF. 1994. Inherited ventricular arrhythmias and sudden death in German shepherd dogs. *J Am Coll Cardiol* 24:233-243.

Meyers-Wallen VN, Palmer VL, Acland GM, Hershfield B. 1995. *Sry*-negative XX Sex Reversal in the American cocker spaniel dog. *Mol Reprod Dev* 41:300-305.

Meyers-Wallen VN, Bowman L, Acland GM, Palmer VL, Schlafer D, Fajt V. 1995. *Sry*-negative XX Sex Reversal in the German shorthaired pointer dog. *J Hered* 86:369-374.

Brittain D, Concannon PW, Flanders JA, Flahive WJ, Lewis BL, **Meyers-Wallen VN**, Moise NS. 1995. Use of surgical intrauterine insemination to manage infertility in a colony of research German shepherd dogs. *Laboratory Animal Science* 45:404-407.

Ellington JE, **Meyers-Wallen VN**, Ball BA. 1995. Establishment of a coculture system for canine sperm and uterine tube epithelial cells. *Vet Record* 136:542-543.

Meyers-Wallen VN. 1995. The Elective Caesarean section. In: RW Kirk and J Bonagura (eds.), *Current Veterinary Therapy XII*, WB Saunders Co., Phila., PA, pp 1085-1089.

Meyers-Wallen VN, Hurtgen J, Schlafer D, Tulleners E, Cleland WR, Ruth GR, Acland GM. 1997. *Sry*-negative XX true hermaphroditism in a Pasa Fino Horse. *Eq Vet J* 29:404-408.

Lyle, SK and **Meyers-Wallen VN**. 1997. Sexual Development Disorders. In: Tilley LP and Smith FWK (eds). The 5 minute Veterinary consult, Williams and Wilkins, Baltimore, p. 1-58-1059.

Meyers-Wallen VN. 1998. XX sex reversal in the domestic dog. J Exp Zool 281:516.

Meyers-Wallen VN, Schlafer D, Barr I, Lovell-Badge R, Keyzner A. 1999. *Sry*-negative XX sex reversal in purebred dogs. Molec Reprod Dev 53:266-273.

Hubler M, Hauser B, **Meyers-Wallen VN** and Arnold S. 1999. *Sry*-negative XX true hermaphrodite in a Basset Hound. Theriogenology 51:1391-1403.

Drew WL, **Meyers-Wallen VN**, Acland GM, Guyer CL and Steinheimer DN. 1999. Presumptive *Sry*-negative XX sex reversal in a llama with multiple congenital anomalies. J Am Vet Med Assoc 215:1134-1139.

Meyers-Wallen VN. 1999. Inherited disorders in sexual development. J. Hered 90:93-95.

Kutzler MA, Mohammed HO, Yeager AH, **Meyers-Wallen VN**. 1999. Accuracy of whelping date prediction using ultrasonography. Proc. Annual Conference, Society for Theriogenology, pp. 37.

Meyers-Wallen VN. 2000. CVT Update: Inherited Disorders of the Reproductive Tract in Dogs and Cats. In: Bonagura J (ed), Current Veterinary Therapy XIII, W.B. Saunders Co., Phila., pp. 904-909.

Schweizer CM and **Meyers-Wallen VN**. 2000. Medical Management of Dystocia and Indications for Cesarean Section in the Bitch. In: Bonagura J (ed), Current Veterinary Therapy XIII, W.B. Saunders Co., Phila., pp. 933-939.

Lyle SK and **Meyers-Wallen VN**. 2000. Sexual Development Disorders. In: Tilley LP and Smith FWK (eds), The 5-Minute Veterinary Consult, Canine and Feline, 2nd ed., Lippincott Williams & Wilkins, Phila., pp.1192-1193.

Meyers-Wallen V.N. 2001. Inherited abnormalities of sexual development in dogs and cats. International Veterinary Information Service, New York.

Meyers-Wallen V.N. 2001. Relevance of the canine genome project to Veterinary medical practice. International Veterinary Information Service, New York.

Kutzler MA, Mohammed HO, Lamb SV, and **Meyers-Wallen VN**. 2003. Accuracy of canine parturition date prediction from the initial rise in preovulatory progesterone concentration. Theriogenology 60:1187-1196.

Kutzler MA, Yeager AE, Mohammed HO, and **Meyers-Wallen VN**. 2003. Accuracy of canine parturition date prediction using fetal measurements obtained by ultrasonography to estimate gestational age. Theriogenology 60:1309-1317.

Meyers-Wallen, VN. 2003. *Sry* and *Sox9* expression during canine gonadal sex determination assayed by quantitative reverse-transcription polymerase chain reaction. Molec Reprod Dev 65: 373-381.

Kothapalli K, Kirkness E, Natale L, and **Meyers-Wallen VN**. 2003. Exclusion of PISRT1 as a candidate locus for canine *Sry*-negative XX sex reversal. Animal Genetics 34:467-469.

- Meyers-Wallen, VN.** 2003. Ethics and genetic selection in purebred dogs. *Reprod Dom Anim* 38:73-76.
- Kothapalli KSD, Kirkness EF, Pujar S, **Meyers-Wallen, VN.** 2004. Exclusion of *WT1* as a candidate gene for canine *SRY*-negative XX sex reversal. *Animal Genetics* 35:466-467.
- Meyers-Wallen, VN.** 2005. *Sfl* and *Mis* expression: Molecular milestones in the canine sex determination pathway. *Molec Reprod Dev* 70:383-389.
- Pujar S, Kothapalli K.S.D, Kirkness EF, VanWormer RH, **Meyers-Wallen VN.** 2005. Exclusion of *Lhx9* as a candidate gene for *Sry*-negative XX sex reversal in the American cocker spaniel model. *J Hered* 96:452-454.
- Kothapalli K, Kirkness E, Pujar S, Van Wormer R, and **Meyers-Wallen VN.** 2005. Exclusion of Candidate Genes for Canine *Sry*-negative XX sex reversal. *J Hered* 96:759-763.
- Kothapalli K, Kirkness EF, VanWormer R, **Meyers-Wallen VN.** 2006. Exclusion of *DMRT1* as a candidate gene for canine *SRY*-negative XX sex reversal. *Vet J* 171(3):559-561.
- Meyers-Wallen VN.** 2006. Sex Chromosomes, Sexual Development, and Sex Reversal in the Dog. In: Ostrander EA, Giger U, and Lindblad-Toh K (eds), *The Dog and Its Genome*. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, pp. 383-405.
- Meyers-Wallen, VN.** 2006. Genetics, genomics, and molecular biology of sex determination in small animals. *Theriogenology*. 66:1655-8.
- Pujar S, Kothapalli KSD, Göring HHH, **Meyers-Wallen VN.** 2007. Linkage to CFA29 detected in a Genome Wide Linkage Screen of a Canine Pedigree Segregating *Sry*-negative XX sex reversal. *J Hered* 98:438-444. PMID:17591608
- Kim YH, Travis A, **Meyers-Wallen V.N.** 2007. Parturition prediction and timing of canine pregnancy. *Theriogenology* 68:1177-1182. PMID:PMC2099502
- Meyers-Wallen VN.** 2007. Unusual and abnormal canine estrous cycles. *Theriogenology* 68:1205-1210. PMID:17915307
- De Lorenzi L, Groppetti D, Arrighi S, Pujar S, Nicoloso L, Molteni L, Pecile A, Cermonesi F, Parma P, **Meyers-Wallen VN.** 2008. Mutations in the *RSPO1* coding region are not the main cause of canine *SRY*-negative XX sex reversal in several breeds. *Sex Dev* 2:84-95. PMID:18577875
- Wu X, Wan S, Pujar S, Haskins ME, Schlafer DH, Lee MM, **Meyers-Wallen VN.** 2009. A Single Base Pair Mutation Encoding a Premature Stop Codon in the MIS type II receptor is Responsible for Canine Persistent Mullerian Duct Syndrome. *J Androl* 30:46-56. PMID: PMC2593750
- Travis AJ, Kim Y, and **Meyers-Wallen VN.** 2009. Development of new stem cell-based technologies for carnivore reproduction research. *Reprod Dom Anim* 44 (Suppl 2), 22-28. PMID:19754531b
- Meyers-Wallen VN.** 2009. Review and Update: Genomic and Molecular Advances in Sex Determination and Differentiation in Small Animals. *Reprod Dom Anim* 44 (Suppl 2), 40-46. PMID: 19754534

Meyers-Wallen VN. 2009. CVT Update: Inherited Disorders of the Reproductive Tract in Dogs and Cats. In: Kirk's Current Veterinary Therapy XIV. Bonagura, JD, and Twedt, DC (Eds), WB Saunders, Phila., pp. 1034-1040.

Pujar S, **Meyers-Wallen VN.** 2009. A molecular diagnostic test for Persistent Mullerian Duct Syndrome in miniature schnauzer dogs. Sex Dev 3:326-328. PMID: 20051676

Schlafer DH, Valentine B, Fahnstock G, Froenicke L, Grahn RA, Lyons LA, **Meyers-Wallen VN.** 2011. A case of SRY-positive 38,XY true hermaphroditism (XY sex reversal) in a domestic cat. Vet Pathol 48: 822-827. PMID: 20861501

O'Connor CL, Schweizer C, Gradil C, Schlafer D, Lopate C, Prociuk U, **Meyers-Wallen VN,** Casal ML. 2011. Case Report: Trisomy-X with estrus cycle anomalies in the bitch. 2011. Theriogenology. 76:374-380. PMID: 21550105

Christensen, B. and **Meyers-Wallen, VN.** 2011. Chapter 228: Sex Determination and Differentiation. In: Equine Reproduction, 2nd edition. McKinnon, A.O., Squires, E., Vaala, W., Varner, D.D. (eds). Wiley Blackwell, pp. 2211-2221.

Meyers-Wallen, V.N. 2012. Gonadal and sex differentiation abnormalities of dogs and cats. Sexual Development. 6:46-60. (Epub 2011 Oct 14) PMID:22005097.

Pujar S, **Meyers-Wallen VN.** 2012. Sequence variations in equine candidate genes for XX and XY disorders of sexual development. Reprod Dom Anim 47:827-34. doi: 10.1111/j.1439-0531.2011.01976.x. PMID:22239239

Meyers-Wallen, VN. 2012. Application of Genomic and Molecular Methods to Fundamental Questions in Canine and Feline Reproductive Health. Reprod Dom 47 Suppl 6, 309-12. doi: 10.1111/rda.12043. PMID:23279526

Meyers-Wallen, VN. 2014. Chapter 217: Inherited Disorders of the Reproductive Tract in Dogs and Cats. In: Kirk's Current Veterinary Therapy XV. Bonagura, JD, and Twedt, DC (Eds), WB Saunders, Philadelphia, pp. 993-999.

Abstracts/Posters: 25

RESEARCH SUPPORT

Active: *Identification of XX DSD Mutations by RNA-seq and Comparative Genomics*
National Institutes of Health, R03 HD077119
08/01/13-07/31/15
Total Direct Costs \$100,000
PI: **Meyers-Wallen VN.** Collaborator: A Sinclair
Goal: Identify the cause and mechanism of altered gene expression associated with XX DSD in canine and human XX DSD.

Self-boosting pathogen-like particle multi-antigen vaccine for female feline immunosterilization

Found Animals Foundation, Michelson Grants in Reproductive Biology #D1112-S14
06/01/13-05/31/15

Total Direct Costs \$352,365

Consultant: **Meyers-Wallen VN**, PI: David Putnam

Goal: Determine whether an outer membrane vesicle (OMV) multi-valent approach induces immune responses in rats, and second, if the poly-(lactic-co-glycolic acid) (PLGA) microparticle method can then simulate a vaccine booster response

Completed: *Viral particle-based display of multiple antigens for feline immunosterilization*

Cornell University, Feline Health Center

09/01/2011-08/31/2013

Total Direct Costs \$50,000

PI: **Meyers-Wallen VN**, Co-PI S Coonrod, Co-investigators: D. Antczak, J. Appleton, C. Parrish, D. Putnam, J. Scarlett, D. Schlafer, A. Travis.

Goal: Produce immunosterilant vaccines and test immune responses in mice.

America's Dogs and Cats: Providing Essential Genetic Health Data to Veterinarians and Researchers

American Humane Association

7/1/11-9/1/11

Total Direct Costs \$4000

Meyers-Wallen VN (PI)

Goal: A veterinary student performed literature searches, collected clinical information on inherited disorders on dogs and cats, and entered them in a public database (OMIA in NCBI website).

Canine XX Sex Reversal: The Molecular Basis and Its Effect on Key Gene Expression during Sex Determination

Cornell University, CU-ADVANCE Research Initiation Award

04/01/2010-06/30/2012

Total Direct Costs \$50,000

PI: **Meyers-Wallen VN**.

Goal: To identify the causative mutation for canine XX sex reversal and to generate preliminary data demonstrating the mutation's effect on expression of a key gene during sex determination.

Genetics of Portosystemic Vascular Anomalies (PSVA) and Microvascular dysplasia (MVD) in small breed dogs

Morris Animal Foundation

02/01/2009-06/30/2012

Total Direct Costs \$99,027

PI: Center SA, Co-PIs: Acland GA, **Meyers-Wallen VN**, Todhunter R, Sutter N.

Goal: Identify a candidate gene within a chromosomal region linked to PSVA/MVD in Cairn terriers.

Canine Model of Centronuclear Myopathy for Gene and Stem Cell Therapy
Internal Collaborative Research Grants Program, College of Veterinary Medicine,
Cornell University
10/01/2010-09/30/2011
Total direct costs \$20,000
PI: **Cerda-Gonzales**, Co-Invs: Todhunter RJ, Meyers-Wallen VN.
Goal: Developing and establishing a canine model of Centronuclear Myopathy (CNM)

Generation of a Molecular Resource to Identify Gene Mutations Causing Inherited Equine Sterility and Infertility
Harry M. Zweig Memorial Fund for Equine Research
01/01/2010-12/31/2010
Total direct costs \$48,000
PI: **Meyers-Wallen VN**, Co-Inv: **Pujar S**.
Goal: Develop a DNA-based test panel to screen cases of inherited equine sterility and infertility.

Candidate gene expression: Validation of directly sequenced canine cDNA library databases and in silico screening
Collaborative Research Program, College of Veterinary Medicine, Cornell University
08/01/2008-12/31/2010
Total direct costs \$25,000
PI: **Meyers-Wallen VN**, Co-PIs: Center SA, Todhunter RJ, Acland GM.
Goal: Produce transcriptomes from rare canine tissue that can be *in silico* screened multiple times and validate them by real time PCR.

Genetic background and efficient generation of induced pluripotent stem (iPS) cells
New York State Department of Health and Empire State Stem Cell Board
01/01/2009-12/31/2011
Total Direct Costs \$190,700
PI: Fortier LA, Co-PIs: Schimenti JC, **Meyers-Wallen VN**, Todhunter RJ, Travis A.
Goal: Assess efficiency of transformation and culture to generate iPS cells from multiple strains of mice and breeds of dogs, test the karyotypic stability and pluripotentiality of mouse iPS clones by chimera generation, and generate a chimeric dog.

Fine Scale Genotyping Small Breed Dogs with Portosystemic Vascular Anomalies (PSVA) and Microvascular Dysplasia (MVD)
Canine Health Foundation, American Kennel Club
06/01/2008-05/31/2011
Total Direct Costs \$107,604;
PI: Center SA, Co-PI: Acland GA, **Meyers-Wallen VN**, Todhunter R.
Goal: Fine map a chromosomal region linked to the PSVA/MVD trait in seven dog breeds and develop a diagnostic test using disease-risk markers.

Autosomal Mechanisms of Testis Induction
National Institutes of Health, R01 HD 40351
04/01/2001-03/31/2007
Total Direct Costs \$810,000
PI: **Meyers-Wallen VN** (50% effort), Collaborator: Lovell-Badge R.

Genetics of Cryptorchidism in Dogs
American Kennel Club, ACORN grant
01/01/2007-6/30/2007
Total Direct Costs: \$12,000
PI: Agoulnik A, Co-PIs: Lindblad-Toh K, **Meyers-Wallen VN**, Schelling C.

Anomalous Hepatic Portal Vasculature in Tibetan Spaniels: Initial Genotype Investigation
College of Veterinary Medicine, Collaborative Research in Preclinical and Clinical Sciences Grant Program competition
07/01/2005-06/30/2006
Total Direct Costs \$19,820
Co-PIs: Center SA, **Meyers-Wallen VN**

Anomalous Hepatic Portal Vasculature in Tibetan Spaniels
National Heart, Lung and Blood Institute
Mammalian Genotyping Service, Marshfield Medical Research Foundation
01/2005-12/2005
Total Direct Costs N/A (genotyping performed at no cost)
Co-PIs: Center SA, **Meyers-Wallen VN**.

Genetic basis of cryptorchidism: canine model
National Heart, Lung and Blood Institute
Mammalian Genotyping Service, Marshfield Medical Research Foundation
01/2005-12/2005
Total Direct Costs N/A (genotyping performed at no cost)
PI: Agoulnik A, Co-PIs: **Meyers-Wallen VN**, Schelling C

Preparation of Canine Embryonic Stem Cells
Cornell Center for Vertebrate Genomics
01/01/2001-06/30/2005
Total Direct Costs \$14,000
PI: Travis A, Co-PI: **Meyers-Wallen VN**

Social Enrichment in a Breeding Colony
Johns Hopkins University
03/01/2004-02/28/2005
Total Direct Costs \$6,000
PI: **Meyers-Wallen VN**, Collaborators: Houpt K, Scarlett J, Perry P, Gourdon J.

Towards reproductive diagnostics in mammals: extent of sequence variation among dogs at the sperm-receptor protein ZP3 on the egg
Cornell Biotechnology and Life Science Technologies, New Innovations Grant Program
07/01/2001-06/30/2003
Total Direct Costs \$100,000
PI: Aquadro C, Co-PIs: **Meyers-Wallen VN**, Wolfner M, Swanson W.

Canine model of XX sex reversal

National Heart, Lung and Blood Institute
Mammalian Genotyping Service, Marshfield Medical Research Foundation
01/2002-12/2002
Total Direct Costs N/A (genotyping performed at no cost)
PI: **Meyers-Wallen VN**

Genetic Mechanisms in Testis Differentiation

National Institutes of Health, R03 HD35896-01
12/15/97-12/14/00
Total Direct Costs \$100,000
PI: **Meyers-Wallen VN.**

Award from the Alumni Fund

College of Veterinary Medicine, Cornell University,
1998-1999
Total Direct Costs \$10,000
PI: **Meyers-Wallen VN**

Matching Funds to the Alumni Award,

Baker Institute, College of Veterinary Medicine, Cornell University,
1998-1999
Total Direct Costs \$10,000
PI: **Meyers-Wallen VN**

The Donnelley Award

Baker Institute, College of Veterinary Medicine, Cornell University
1996-1997
Total Direct Costs \$25,000
PI: **Meyers-Wallen VN**

Genetic Mechanisms of Testis Differentiation

Parke-Davis and Cambridge University (U.K.) Exchange Fellowship
08/96-03/97
Total Direct Costs \$8,600
PI: **Meyers-Wallen VN.**

Autosomal Testis Determining Gene: Identity, Expression

National Institutes of Health, Fogarty Senior International Fellowship, F06 TW02210-01
06/96-06/97
Total Direct Costs \$45,150
PI: **Meyers-Wallen VN.**

The Simpson Award

Baker Institute for Animal Health, Cornell University,
1995-1996
Total Direct Costs \$25,000
PI: **Meyers-Wallen VN**

Defects in Mullerian Duct Regression
National Institutes of Health, R01 HD19393
1988-1995
Total Direct Costs \$668,614
PI: **Meyers-Wallen VN**, Co-PI: MacLaughlin D.

Sudden Death in Young Dogs with Ventricular Arrhythmias
National Institutes of Health, R01 HD28938
1991-1996
Total Direct Costs \$637,966
PI: S. Moise, Co-PI: R.F. Gilmour, Consultant **Meyers-Wallen VN**.

Genetic control of testis development in embryos having a female chromosome constitution
Biotechnology Program, New Investigator Award
1990-1992
Total Direct Costs \$45,000
PI: **Meyers-Wallen VN**

National Referral Center - Animal Models of Human Genetic Disease
National Institutes of Health, RR 02512
1988-1992
Total Direct Costs \$987,448
PI: Patterson DF, Co-PIs: **Meyers-Wallen VN** and several others.

Sudden cardiac death in German shepherd dogs
Consolidated Research Award, College of Veterinary Medicine
1989-1990
Total Direct Costs \$10,000
PI: Moise S, Co-PI: Gilmour RF, Consultant: **Meyers-Wallen VN**

Field Trial of a Diagnostic Test Kit
Ben Franklin Partnership Grant with International Canine Genetics, Inc.
1988-1989
Total Direct Costs \$15,384
PI: **Meyers-Wallen VN**.

Defects in Mullerian Duct Regression
National Institutes of Health, R01 HD19393
1985-1988
Total Direct Costs \$138,181
PI: Patterson DF, Co-PI: **V. Meyers-Wallen VN**.

National Referral Center - Animal Models of Human Genetic Disease
National Institutes of Health RR 02512
1985-1988
Total Direct Costs \$275,293;
PI: Patterson DF, Co-PIs: **Meyers-Wallen VN** and several others

Anti-Mullerian Hormone Activity in Persistent Mullerian Duct Syndromes
National Institutes of Health, National Research Service Award F32 HD06396
1983-1986
Total Direct Costs \$76,608
PI: **Meyers-Wallen VN.**

AWARDS, HONORS AND MEMBERSHIP IN HONORARY SOCIETIES

2008 Senior Investigator Award for Excellence in Basic Research
European Veterinary Society of Small Animal Reproduction
1975 Phi Zeta
1970 Phi Beta Kappa, Phi Kappa Phi, Phi Sigma

NATIONAL CLINICAL SPECIALTY

2012 Plenary Lecture, 7th International Symposium on Canine and Feline Reproduction
2008 Plenary Lecture, 6th International Symposium on Canine and Feline Reproduction
2004 Plenary Lecture, 5th International Symposium on Canine and Feline Reproduction
1999-2000 Chair, Diplomate Examination Committee, American College of Theriogenologists
1999 Program Chair, Small Animal Sessions, Annual Conference, Society for Theriogenology
1993-1999 Member, Diplomate Examination Committee, American College of Theriogenologists
1998 Plenary Lecture, Annual Conference, Society for Theriogenology
1990-1993 Executive Board Member-at-Large, American College of Theriogenologists
1992 Plenary Lecture, 2nd International Symposium on Canine and Feline Reproduction
1991 Program Chair, Small Animal Sessions, Annual Conference, Society for Theriogenology
1986 Board Certification: Diplomate, American College of Theriogenologists

STATE VETERINARY PRACTICE LICENSURES

1975 to present Pennsylvania and Virginia

MEMBERSHIPS IN GRADUATE FIELDS AT CORNELL

1989 to present Graduate Field of Comparative Biomedical Sciences
1989 to present Graduate Field of Molecular and Integrative Physiology

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

American Society of Human Genetics
American Association for the Advancement of Science
American Genetics Association
Society for the Study of Reproduction
American College of Theriogenologists
Society for Theriogenology
American Veterinary Medical Association

EDITORIAL RESPONSIBILITIES

Curator: Online Mendelian Inheritance in Animals, <http://www.ncbi.nlm.nih.gov/>

Reviewer for professional journals:

Genomics, Journal of Andrology, Molecular and Cellular Endocrinology, Molecular Reproduction and Development, Sexual Development, Journal of Heredity, Journal of the American Veterinary Medical Association, Journal of Veterinary Internal Medicine, Theriogenology, Reproduction in Domestic Animals, Canadian Veterinary Journal, Journal of Feline Medicine and Surgery, The Journal of Veterinary Medical Science (Japan), Veterinary Practice, Journal of American Veterinary Medical Association in specialties of Theriogenology and Genetics, Veterinary Pathology in specialties of Theriogenology and Reproductive Tract.

Grant Review: USDA, Genetics and Reproduction

Consulting Editor: Current Veterinary Therapy,
Editions XI, XII, XIII, WB Saunders Co., Phila. (1992, 1995, 2000)

PROFESSIONAL DEVELOPMENT

- 2013 Sabbatical: Comparative Genomics of Testicular and Ootesticular XX Disorder of Sexual Development in Human patients and a Canine model; in the laboratory of Andrew Sinclair, Murdoch Children's Research Institute, Parkville, Australia. Comparative analysis of the murine, human and canine testis enhancer for *SOX9*; in the laboratory of Vince Harley, Prince Henry's Institute, Monash Medical Centre, Clayton, Australia.
- 2006 Basic Linkage Analysis Course, Rockefeller University, NY, NY, Jurg Ott *et al.*
- 2002 Audit, Biometrics 694: Association Mapping, Cornell University, Rasmus Nielsen.
- 1997 Human Linkage Analysis Course, The Sanger Centre, Hinxton, UK.
- 1996-1997 Sabbatical: Gene cloning, linkage analysis, and embryonic expression; laboratories of Robin Lovell-Badge, National Institute for Medical Research (MRC), London, and Peter N. Goodfellow, Cambridge University, Cambridge, UK.
- 1993 Problem based learning workshop, College of Medicine, University of New Mexico, Albuquerque, NM.
- 1992 Molecular Biology and Biotechnology Summer Workshop, Smith College and New England Biolabs
- 1991 Curriculum seminar in case-based tutorial teaching,

Harvard Medical School, Boston, MA

UNIVERSITY SERVICE

FACULTY GOVERNANCE, Cornell University

- 1996-2015 University Faculty Senate, Elected by Department Faculty
- 2008-2013 University Appeals Panel, Elected by Faculty of the Veterinary College
- 2007-2010 University Faculty Committee (Executive Committee of the Faculty Senate), under Deans of the Faculty C. Walcott and W. Fry
- 2004-2007 University Faculty Committee, Academic Freedom and Professional Status of the Faculty (Chair 2006-2007)
- 2002-2005 University Club Task Force
- 1997-2003 University Faculty Committee under Deans of the Faculty: P. Stein and J.R. Cooke
- 1999-2000 University Assembly, Member
- 1991-1993 Faculty Council of Representatives

MISCELLANEOUS UNIVERSITY COMMITTEES, Cornell University

- 2013-2015 Cornell Institutional Biosafety Committee (IBC)
- 2004- present Member, Center for Vertebrate Genomics (VERGE), Cornell University
- 2000-2003 Genomics Task Force Committee, Biomedical Sciences Representative
- 2001-2002 Responsible Conduct of Research Subcommittee of the Provost's Federal Research Compliance Advisory Task Force

COMMITTEES, College of Veterinary Medicine, Cornell University

- 2010 to present VERGE, Membership Committee
- 2009-2010 Bicknese Prize, Review Committee, Baker Institute
- 2009-2012 College Research Council
- 2001 Faculty search, Biomedical Sciences Department (D. Lin appointed)
- 1998 Futures Committee, Biomedical Sciences Department
- 1994-1998 Affirmative Action Committee
- 1997 Faculty search, Biomedical Sciences Department (M. Kotlikoff appointed, Chair)

- 1995 Faculty search, Microbiology and Immunology Department (G. Whittaker appointed)
- 1990-1992 Committee on Research Animal Use and Care
- 1992 Faculty search, Anatomy Department (S. Suarez appointed).
- 1992 Reproductive Physiology Seminar Series Committee,
Departments of Clinical Sciences (CVM) and Animal Science (CALs)
- 1992 Selection Committee, Leadership Training Program for Veterinary Students
- 1991 Baker Institute and Biomedical Sciences Department (J. MacLeod appointed)

COMMITTEES, School of Veterinary Medicine, University of Pennsylvania

- 1986-1989 Chair, Residency Training and Postdoctoral Committee,
Dept. Clinical Studies-Philadelphia

PROFESSIONAL SERVICE, VETERINARY MEDICINE

- 2009-2017 Chair, Canine Committee, The Seeing Eye, Morristown, NJ
- 2009-2017 Board of Trustees, The Seeing Eye, Morristown, NJ
- 1990-2003 Chief of Service, Small Animal Fertility and Infertility Service (SAFIS), Cornell University Hospital for Animals (CUHA), College of Veterinary Medicine. Supervised 2 board certified theriogenologists, 5 residents, 1 technician, and numerous fourth year veterinary students. Received outpatients 3 times/week year round and performed weekly rounds with students and residents. Provided daily Theriogenology telephone consultation to small animal practitioners (referring and nonreferring) and non-client breeders of cats and dogs throughout the U.S.A., ranged from 5-15 calls/week.
- 1997 Breeding Program Evaluation Committee, Member
The Seeing Eye, Morristown, NJ
- 1994 Chair, External Evaluation Committee on the Breeding Program,
The Seeing Eye, Morristown, NJ
- 1986-1989 Attending Clinician, Small Animal Reproduction Clinic,
Veterinary Hospital of the University of Pennsylvania (VHUP), Philadelphia, PA. Supervised 3 residents and numerous fourth year veterinary students. Provided daily Theriogenology telephone consultation to small animal practitioners (referring and nonreferring) and non-client breeders of cats and dogs throughout the U.S.A., ranged from 5-15 calls/week.
- 1986-1989 Clinical Reproduction Service, canine and feline research breeding colonies,
Section of Medical Genetics, Department of Clinical Studies - Philadelphia,
School of Veterinary Medicine, University of Pennsylvania. Included supervision of 2-4 veterinary work study students and 1 technician.

- 1985-1989 Clinical Reproduction Consultant to canine research breeding colonies of the Retinitis Pigmentosa Foundation, under NIH contract to G. Aguirre.
- 1982-1983 Primary clinician, Small Animal Reproduction Clinic, VHUP, Philadelphia, PA.

TEACHING

COURSES, Professional (Veterinary Medicine), Cornell University

- 2010-present VTMED 5100 The Animal Body, Foundation Course I, (Tutor 26 hrs, 12 credit course)
Tutor for a 6-7 student group.
- 2004-present VTMED 6222 Canine & Feline Medical Genetics (Yearly: 32 hours, 2 credit course)
I created this lecture course, which integrates the molecular, cellular, and clinical aspects of inherited disorders. It includes guest lectures by research and clinical experts in specific disorders. I present ≥ 10 hrs/28 hrs lecture, and prepare and grade exams.
- 1991-2003 VTMED 5200 Foundation Course II: Genetics and Development
Yearly. Tutor for a 4-6 student group (44 tutor hours/course).
Responsible for sex determination week for the course: 2 wet labs (5-6 hrs),
1 dry lab (2 hr), 1 minicase (1.5-2 hr), and lecture (1 hr).
- 1991-1999 VTMED 5200 Foundation Course II: Genetics and Development
Yearly. Member of Course Design Group (CDG): authored and developed two Problem Based Learning cases (out of 7 total for the course) that remained in the course from its introduction. Also prepared and graded essay exams each year.
- 1994-1995 VETCS677 Special Problems in Theriogenology
Independent study in Canine Reproduction, S. Kochis
- 1989-1994 VETCS562 Theriogenology II, Canine and Feline Reproduction
6-10 hrs lecture, 16-20 hrs lab
- 1990-1992 VETCS584 Small Animal Medicine and Surgery
Lectures on Canine and Feline Pediatrics, 1-2 hrs
- 1991 VETCS677 Special Problems in Theriogenology
Independent study in Canine Reproduction, V. Surman

COURSES, Professional (Veterinary Medicine), Other Universities

- 2009 SCS562 Veterinary Medical Genetics, "Inherited Disorders of the Reproductive System,"
College of Veterinary Medicine, Michigan State University, E. Lansing, MI, March 16.
- 2006 VMED604 Veterinary Medical Genetics, "Inherited Disorders of the Reproductive System,"
School of Veterinary Medicine, University of Pennsylvania, October 6.
- 2005 VMED604 Veterinary Medical Genetics, "Inherited Disorders of the Reproductive System,"
School of Veterinary Medicine, University of Pennsylvania, September 15.

- 2001 VMED604 Veterinary Medical Genetics, "Genetics of Mammalian Sex Determination & Differentiation," School of Veterinary Medicine, University of Pennsylvania, April 18.
- 2001 VCSP641 Small Animal Pediatrics, "Abnormalities of Sexual Development," School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, April 19.
- 1980-1989 Small Animal Genetics, Pediatrics, and Reproduction Clinical Rotation
Fourth year students, University of Pennsylvania, Philadelphia, PA
- 1987-1989 7041 Core Reproduction, Canine and Feline Reproduction
Lecture 2-8 hrs, University of Pennsylvania, Philadelphia, PA
- 1987-1988 7002 Infectious and Metabolic Diseases, Canine Brucellosis & Canine and Feline Herpesvirus, Lecture 1 hr, University of Pennsylvania, Philadelphia, PA
- 1986-1987 7080 Physical Examination and Animal Management, Physical exam of the reproductive tract in dogs and cats, Lecture 1 hr, University of Pennsylvania, Philadelphia, PA
- 1983-1987 7541 Small Animal Reproduction, Canine and Feline Reproduction
Lecture 8-13 hrs/16 hrs, University of Pennsylvania, Philadelphia, PA
- 1987 Independent study in Canine Reproduction, Mark Lutschaunig
University of Pennsylvania, Philadelphia, PA
- 1982 Independent study in Canine Reproduction, Amy Worrell
University of Pennsylvania, Philadelphia, PA
- 1981-1982 7041 Core Reproduction, Canine and Feline Reproduction
Lecture 2-8 hrs, University of Pennsylvania, Philadelphia, PA
- 1980-1981 Small Animal Pediatrics, Case presentations of pediatric disorders
Lecture 2 hrs, University of Pennsylvania, Philadelphia, PA

COURSES, Graduate

- 1991-2013 BIOAP757/VETMED692 Current Concepts in Reproductive Biology,
Offered every other year: 1 hr seminar, and prepare and grade exam questions
- 1989 VETPA706 Pathobiology of Disease: Advanced Reproductive Pathology,
"Abnormalities of sexual differentiation," 1 hr seminar.

COURSES, Undergraduate

- 2012 Fall: Dalton McLean
Introduction to Research Methods in Biology
BIOG 2990, RSC 706I

- 2011 Fall: Sara Asman
Introduction to Research Methods in Biology
BIOG 2990, RSC 706I
- 2008-2013 ANSC4050 Molecular and Cellular approaches to Reproductive Physiology,
“Abnormalities of Sexual Development in Veterinary Medicine,”
Yearly, 1 hr lecture.
- 2001 ANSC222 Canine Genetics, “Sexual Development Disorders,” Distance learning course
- 2001 ANSC497 Seminars on Inherited Diseases in Companion Animals,
“Sexual Development Disorders,” Distance learning course
- 1998 Animal Breeding Seminar, Animal Science

STUDENTS, Professional (Veterinary Medicine)

Residents in Theriogenology, Cornell University:

- 1990-1991 Dr. Clynn Wilker, ACT Board certified 1993
1992-1994 Dr. Christine Schweizer, ACT Board certified 1995
1995-1997 Dr. Carlos Gradil, ACT Board certified 1998
1997-1999 Dr. Michelle Kutzler, ACT Board certified 1999
2000-2002 Dr. Richard Wheeler, ACT Board certified 2002

Residents in Genetics, Pediatrics and Reproduction, University of Pennsylvania:

- 1987-1989 Dr. Carla Chieffo
1985-1987 Dr. John Fyfe
1983-1985 Dr. Mary Louise Martin

Veterinary Students:

- 2001 Leadership Training Program for Veterinary Students, J. Cohen
- 1998 Independent Research in Molecular Genetics, S. Sanders
- 1996 Externship in Small Animal Theriogenology, T. Krieger
College of Veterinary Medicine, University of Prince Edward Island, Canada
- 1996 Senior Seminar, S. Kochis, “Male Pseudohermaphroditism in the Feline”
- 1995 Leadership Training Program for Veterinary Students, D. Greenberg
- 1995 Independent Research in Molecular Genetics, K. Clingerman
College of Veterinary Medicine, Virginia Polytechnic Institute
- 1994 Senior Seminar, L. Tully, "An Unusual Case of Stump Pyometra in a Bitch"
- 1994 Leadership Training Program for Veterinary Students, L. Bowman

- 1991 Leadership Training Program for Veterinary Students, V. Fajt
- 1992 Senior Seminar, V. Surman, "An Unusual Case of Persistent Estrus in the Dog"

STUDENTS, Postdoctoral fellows

- 2003 -2007 Shashikant Pujar, Ph.D.
- 2001-2004 Kumar Kothapalli, Ph.D.
- 1990-1992 Joanna Ellington, DVM, Ph.D.

STUDENTS, Graduate

- 2010-2013 PhD thesis committee, Orly Goldstein, Chair: G. Acland
- 2005 -2008 Chair, PhD thesis committee, Linda Hunter
- 2003-2006 PhD thesis committee, William Beltran, Chair: G. Aguirre
- 2001-2003 Field appointed member, PhD thesis committee, Xing-he Weng, Chair: K. Beyenbach
- 1999-2005 PhD thesis committee, Linda Hunter, Chair: G. Aguirre
- 1995-1999 PhD thesis committee, Weiquan Wang, Chair: G. Aguirre
- 1994-1995 Field appointed member, PhD Thesis committee, Haiqun Lin, Chair: B. Pauli
- 1988-1989 PhD thesis committee, Cynthia Ward, Chair: B. Storey
Dept. Reproductive Biology, School of Medicine, University of Pennsylvania

STUDENTS, Undergraduate

- 2013-2014 Volunteer worker in my laboratory: Devon England
- 2011-2012 Volunteer workers in my laboratory: Devon England, Dalton McLean, Timothy Nessel
- 2009-2011 Shana Mintz, Independent Undergraduate Research, Honors Program, College of Arts and Sciences, Cornell University, Received 2011 CALS Academic Excellence Award in Animal Science and 2011 CALS Research Honors Program Award.
- 2001-2002 Kristin Vyhnal, Independent Research study, honors thesis: "Persistent Mullerian duct syndrome in the dog: MISRII as a candidate gene."
- 1998 Alla Keyzner, Independent Research study

LECTURES BY INVITATION

Program Speaker, International

- 2013 “Mutation hunt in the Canine Model of XX Disorder of Sexual Development (XX DSD),” to the Faculty of Veterinary Science, The University of Sydney, Sydney, Australia, July 11.
- 2013 “The canine model of XX DSD,” to Department of Anatomy and Developmental Biology, Monash University, Melbourne, Clayton, Australia, June 28.
- 2012 “Application Of Genomic And Molecular Methods To Fundamental Questions In Canine and Feline Reproductive Health,” **Plenary Session**, International Symposium on Canine and Feline Reproduction VII in conjunction with EVSSAR, Whistler, British Columbia, Canada, July 26-29.
- 2012 **Session Chair**, “Interface of basic and applied reproduction research,” International Symposium on Canine and Feline Reproduction VII in conjunction with EVSSAR, Whistler, British Columbia, Canada, July 26-29.
- 2012 “GWAS and Resequencing Identifies a Region Associated with Canine Testicular and Ovocellular XX Disorder of Sexual Development,” 6th International Conference on Advances in Canine and Feline Inherited Diseases 2012, Visby, Sweden, May 28-June 1.
- 2012 “GWAS and Resequencing Identifies a Region Associated with Canine Testicular and Ovocellular XX Disorder of Sexual Development,” 6th International Symposium on Vertebrate Sex Determination, Kona, Hawaii, April 23-27.
- 2008 “Review and Update: Genomic and Molecular Advances in Sex Determination and Differentiation in Small Animals,” **Plenary session**, 6th International Symposium on Canine and Feline Reproduction and 6th Biannual EVSSAR Congress, European Society of Small Animal Reproduction, Vienna, Austria, July 9-11.
- 2008 **Session Chair**, Infertility, 6th International Symposium on Canine and Feline Reproduction and 6th Biannual EVSSAR Congress, European Society of Small Animal Reproduction, Vienna, Austria, July 10.
- 2006 “Canine *Sry*-negative XX sex reversal: Linkage Disequilibrium Analysis,” 4th International Symposium on the Biology of Vertebrate Sex Determination, Kona, Hawaii, USA, Apr 10-14.
- 2004 “Genetics, genomics, and molecular biology of sex determination in small animals,” Ontario Veterinary College, University of Guelph, Guelph, Canada, Oct 26.
- 2004 “Genetics, genomics, and molecular biology of sex determination in small animals,” 5th International Symposium on Canine and Feline Reproduction, **Plenary session**, Sao Paulo, Brazil, Aug 4-6.
- 2003 “Expression of testis pathway genes in the canine model,” Third International Symposium on the Biology of Vertebrate Sex Determination, Kona, Hawaii, USA, Mar 24-28.
- 2002 “Ethics and genetic selection in purebred dogs,” Third Congress of the European Veterinary Society of Small Animal Reproduction, Liege, Belgium, May 10-12.

- 2001 "Canine Testis Gene Expression," 26th World Congress of The World Small Animal Veterinary Association, Vancouver, Canada, Aug 10.
- 1996 "Disorders of Gender Determination," International Workshop Canine Genetics: The Map, The Genes, The Diseases, Baker Institute for Animal Health, Cornell University, Ithaca, NY, USA, July 12.
- 1997 XX Sex Reversal in the Domestic Dog, First International Symposium on the Biology of Vertebrate Sex Determination, Honolulu, Hawaii, USA, Apr 7-11.
- 1992 "Abnormalities of Sexual Differentiation." Ontario Veterinary College, Guelph, Ontario, Canada, Oct 16.
- 1992 "Genetics of Sexual Differentiation and Anomalies in Dogs and Cats." **Plenary Lecture.** 2nd International Symposium on Canine and Feline Reproduction, Liege, Belgium, Aug 20-23.
- 1992 **Session Chair**, Reproductive Pathology and Tumors. 2nd International Symposium on Canine and Feline Reproduction, Liege, Belgium, Aug 22.
- 1992 "Approche pratique des problemes d'infertilite chez le male reproducteur." 3rd Annual Conference of the Academie de medecine veterinaire du Quebec, Montreal, Canada, May 31.
- 1992 Canada: "Approche pratique des problemes d'infertilite chez la chienne." 3rd Annual Conference of the Academie de medecine veterinaire du Quebec, Montreal, Canada, May 31.
- 1989 "Diagnosis of Inherited Disorders" and "Inherited Disorders of the Reproductive System." Exchange program sponsored by Washington State University and Nihon University, Osaka and Tokyo, Japan, Oct 22 & 26.
- 1987 "Disorders of Canine Sexual Development." 1st International Symposium on Canine and Feline Reproduction, Dublin, Ireland, July 1.

Program Speaker, National

- 2012 "Pedigree analysis and inherited canine and feline reproductive diseases, M. Casal and V. Meyers-Wallen, SFT/ACT Annual Conference and Symposium, Baltimore, MD, August 20-25.
- 2012 Inherited diseases of the reproductive tract in dogs and cats," SFT/ACT Annual Conference and Symposium, Baltimore, MD, August 20-25.
- 2007 "Unusual and Abnormal Canine Estrous Cycles," Annual Conference, Society for Theriogenology, Monterey, CA, Aug 7-11.
- 2007 "Parturition Prediction and Timing of Canine Pregnancy," Annual Conference, Society for Theriogenology, Monterey, CA, Aug 7-11.
- 2007 "Management of Unusual and Abnormal Canine Estrous Cycles and Elective Cesarean Section," Annual Meeting, American Veterinary Medical Association, Washington, D.C., July 14.
- 2007 "Canine ovulation timing, breeding management, and accurate prediction of parturition date," Annual Meeting, American Veterinary Medical Association, Washington, D.C., July 14.

- 2002 "Breeding Management of the Bitch." Western Veterinary Conference, Las Vegas, NV, Feb 13.
- 2002 "Ovulation Timing in Bitches with Infertility Problems." Western Veterinary Conference, Las Vegas, NV, Feb 13.
- 2002 "Monitoring Pregnancy and Electing Caesarean Section Delivery." Western Veterinary Conference, Las Vegas, NV, Feb 13.
- 2002 "Infertility in the Dog." Western Veterinary Conference, Las Vegas, NV, Feb 13.
- 2000 "Canine Breeding Management I & II," (2 hrs. lecture) Annual Meeting, American Veterinary Medical Association, Salt Lake City, UT, July 24.
- 2000 "Management of Canine Whelping." Annual Meeting, American Veterinary Medical Association, Salt Lake City, UT, July 24.
- 2000 "Canine Male Infertility." Annual Meeting, American Veterinary Medical Association, Salt Lake City, UT, July 24.
- 2000 Metallinos D and Meyers-Wallen VN. "New Advances in Genetics and Genetic Testing for the Small Animal." Annual Conference, Society for Theriogenology, San Antonio, TX, Dec 1.
- 1998 "Normal sexual development and intersex conditions in domestic animals," lecture and laboratory presentations, Pathology Symposium, American College of Theriogenologists & Society for Theriogenology, Montreal, Canada, Sept 15.
- 1998 **Plenary speaker:** "Genetic Testing Programs for Small Animal Theriogenology," Annual Conference, Society for Theriogenology, Montreal, Canada, Sept 19.
- 1995 Canine and feline reproduction (12 hrs of lecture), Western Regional Meeting, American Animal Hospital Association, Colorado Springs, CO, Aug 25-27.
- 1994 "Breeding Soundness Examination of the Male Dog." The Hudson Walker Conference on Theriogenology, College of Veterinary Medicine, Auburn University, Auburn, AL, Mar 6.
- 1994 "Canine Male Infertility." The Hudson Walker Conference on Theriogenology, College of Veterinary Medicine, Auburn University, Auburn, AL, Mar 6.
- 1994 "The Use of Progesterone ELISA kits in Canine Breeding and Elective Cesarean Section." Annual Meeting, American Veterinary Medical Association, San Francisco, CA, July 10.
- 1994 "Canine Male Infertility and Management." Annual Meeting, American Veterinary Medical Association, San Francisco, CA, July 10.
- 1994 "Mismating Options." Annual Meeting, American Veterinary Medical Association, San Francisco, CA, July 10.
- 1993 "Mismating Options." Canine Symposium, American College of Theriogenologists and the Society for Theriogenology, Jacksonville, FL, Aug 15.

- 1992 "Semen Collection and Evaluation." Technician seminar, Western Veterinary Conference, Las Vegas, NV, Feb 11.
- 1992 "Feline Neonatal Isoerythrolysis," Western Veterinary Conference, Las Vegas, NV, Feb 9.
- 1992 "Progesterone ELISA Tests." Continuing Education for Veterinarians, Western Veterinary Conference, Las Vegas, NV, Feb 10.
- 1992 "Infertile Male Dogs, Part I and II." (2 hrs. lecture) Continuing Education for Veterinarians, Western Veterinary Conference, Las Vegas, NV, Feb 10.
- 1992 "Inherited Abnormalities in Dogs." Continuing Education for Veterinarians, Western Veterinary Conference, Las Vegas, NV, Feb 10.
- 1989 "Diagnosis of Inherited Disorders, Parts I-IV." Western States Veterinary Conference, Las Vegas, NV, Feb 20.
- 1989 "Feline Pyometra." Western States Veterinary Conference, Las Vegas, NV, Feb 21.
- 1989 "Diagnostic Approach to Infertility in the Stud Dog." Annual Meeting, Society for Theriogenology, Coeur d'Alene, ID, Sept 30.
- 1988 "Genetic Factors Influencing Neonatal Mortality." Annual Meeting, Society for Theriogenology, Orlando, FL, Sept 17.
- 1987 "Disorders of Canine Sexual Development." Annual Meeting, Society for Theriogenology, Austin, TX, Sept 17.

Program Speaker, State

- 2003 "Breeding Management of the Bitch." Annual Conference for Veterinarians, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, Jan 30.
- 2003 "Ovulation Timing in Bitches with Infertility Problems." Annual Conference for Veterinarians, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, Jan 30.
- 2003 "Monitoring Pregnancy and Electing Caesarean Section Delivery." Annual Conference, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, Jan 30.
- 1994 "Use of Progesterone ELISA tests in Breeding Management." The Animal Medical Center, New York, NY, Sept 21.
- 1992 "Infertility in Male Dogs, Part I and II." (2 hrs lecture) Cornell Conference for Veterinarians, College of Veterinary Medicine, Cornell University, Ithaca, NY, Jan 8.
- 1991 "Canine Reproduction: A Review for Veterinarians." Lecture and Wet Labs, College of Veterinary Medicine, Cornell University, Ithaca, NY, Nov 8 & 9.

1984 "Medical Management of Pyometra." Annual Conference for Veterinarians, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, Jan 26.

Program Speaker, Local

- 2013 "The canine model of XX DSD," to Laboratory of Molecular Development, Department of Cell Biology, Murdoch Children's Research Institute, Parkville, Australia, February 11.
- 2012 "GWAS & Resequencing Identifies a Region Associated with Canine Testicular and Ovocystic XX Disorder of Sexual Development," Co-sponsored by the Center for Research on Reproduction and Women's Health and the Center for Animal Transgenesis and Germ Cell Research, University of Pennsylvania, Philadelphia, PA, March 6.
- 2011 "GWAS in a canine model of XX ovotesticular disorder of sexual development (XX DSD), Cornell University Vertebrate Genomics Club (VERGE), June 14.
- 2009 "Molecular Advances in Sex Determination and Differentiation in Companion Animals," Department of Clinical Sciences, College of Veterinary Medicine, Michigan State University, E. Lansing, MI, Mar 16.
- 2003 "Ovulation Timing in Bitches and Electing Caesarean Section Delivery." Catskill Mountain Veterinary Medical Association, Oneonta, NY, Apr 26.
- 1998 "Sry-Negative XX Sex Reversal in Purebred Dogs." Baker Institute for Animal Health Seminar Series, Cornell University, Mar 24.
- 1997 "Genetics of Mammalian Sex Determination." Medical Genetics Focus Group Seminar, Baker Institute for Animal Health, Sept.
- 1996 "PMDS in Miniature Schnauzers." Medical Genetics Seminar Series for Fourth Year Veterinary Students, Community Practice Service, Jan.
- 1996 "Sex Determination in Mammals." Reproductive Physiology/Endocrinology Seminars, Depts. of Clinical Sciences & Physiology, CVM, and Dept. of Animal Science, CALS, Jan 17.
- 1994 "Male Dog Infertility." Continuing Education, Canine Series, College of Veterinary Medicine, Cornell University, May 1.
- 1993 "Canine Persistent Mullerian Duct Syndrome- A Receptor Defect?" Seminar Series, Dept. of Physiology, College of Veterinary Medicine, Cornell University, Feb 23.
- 1993 "XX Sex Reversal in the American Cocker Spaniel." Seminar Series, Baker Institute for Animal Health, College of Veterinary Medicine, Cornell University, Mar 11.
- 1992 "Persistent Mullerian Duct Syndrome: an MIS Receptor Defect?" Departments of Anatomy and Cell Biology, Georgetown University Medical Center, Washington, DC, May 14.
- 1992 "Use of Progesterone ELISA Tests in Private Practice," Greater Syracuse Veterinary Academy, Syracuse, NY, Apr 9.

- 1992 "A New Mismatching Regimen for the Bitch." Greater Syracuse Veterinary Academy, Syracuse, NY, Apr 9.
- 1992 "Canine Persistent Mullerian Duct Syndrome- A Receptor Defect?" Cell Pathology Seminar Series, College of Veterinary Medicine, Cornell University, Dec 17.
- 1990 "Overview of Sexual Differentiation in Mammals", Reproductive Physiology/Endocrinology Seminars, Depts. of Clinical Sciences and Physiology (CVM) and Dept. of Animal Science (CALS), Cornell University, Mar 7.
- 1990 "Canine Reproduction: New Diagnostics and Therapeutics," Southern Tier Veterinary Medical Association, Ithaca, NY, Nov 1.
- 1985 "Normal Reproductive Physiology of the Bitch and Implications for Breeding Management," South Jersey Veterinary Medical Association, Mt. Laurel, NJ, Sept 18.
- 1982 "The Medical Use of PGF 2 Alpha in Canine and Feline Reproductive Disorders." Bucks-Montgomery Veterinary Medical Association, Warminster, PA, May 12.
- 1982 "The Medical Use of PGF 2 Alpha in Canine and Feline Reproductive Disorders." Local chapter of the American Veterinary Medical Association, Toms River, NJ, Nov 18.

Program Speaker, International Conferences for Laymen/Animal Owners:

- 1989 "Genetic Disease in the Dog" and "Disorders of Sexual Development in the Dog." For dog breeders, sponsored by Washington State University and Nihon University, Osaka and Tokyo, Japan, Oct 24 and 30.
- 1984 "Canine Reproduction and Reproductive Diseases." World Congress of Kennel Clubs, Philadelphia, PA, USA, Nov 13.

Program Speaker, National Conferences for Laymen/Animal Owners:

- 2012 "Ethics and Genetic Selection for Breeders," Breeders Conference in conjunction with the SFT/ACT Annual Conference and Symposium, Baltimore, MD, August 25.
- 2005 "Ovulation Timing in Bitches," Baker Institute Sky Box, Westminster Kennel Club Dog Show, New York, NY, Feb 13.
- 1995 "Feline Reproduction" and "Selecting Breeding Stock and Screening for Genetic Diseases" (2.75 hours), Short Course for Cat Breeders, Cornell Feline Health Center and Ralston Purina, Parsippany, NJ, Oct 7.
- 1995 "Feline Reproduction" and "Selecting Breeding Stock and Screening for Genetic Diseases" (2.75 hours), Short Course for Cat Breeders, Cornell Feline Health Center and IAMS, Los Angeles, CA, July 15.
- 1993 "Feline Reproduction," Cornell Feline Health Center and Texas Cat Breeders Clubs, Houston, TX, May 8.

1983 "Medical Treatment of Pyometra." The German Shepherd Dog Club of America, National Specialty Show, Philadelphia, PA, Oct 5.

Program Speaker, State Conferences for Laymen/Animal Owners:

- 1990 "Reproduction of cats and dogs." Cornell Adult University, Ithaca, NY, Aug 2.
- 1988 "Feline Reproduction," Feline Breeders Conference, University of Pennsylvania, Philadelphia, PA, Apr 16.
- 1982 "Your Veterinarian and Your Dogs: Reproductive Disorders, Including Breeding Management," 12th Annual Symposium for Dog Breeders, University of Pennsylvania, Philadelphia, PA, Jan 30.
- 1982 "Reproductive Disorders, Including Breeding Management." 3rd Annual Breeders Seminar, Pittsburgh, PA, Oct 23.
- 1981 "Reproductive Disorders, Including Breeding Management." Second Virginia Symposium, Old Dominion Kennel Club of Northern Virginia, Oct 17.

Program Speaker, Local Conferences for Laymen/Animal Owners:

- 2010 "Unusual and abnormal cycles in the bitch," (1.5 hrs lecture) at the Wine Country Regional Dog Show, sponsored by the Finger Lakes Tibetan Spaniel Association, October 1
- 2010 "Canine Reproduction," (2 hrs lecture) at the Breeders Conference sponsored by the American Kennel Club, March 13
- 2008 "Canine breeding management- male and female" and "Canine Genetics," (4 hrs lecture) presented to Western NY Federation of Hunting Dog Clubs, Mar 1.
- 2007 "Inherited Disorders of the Reproductive Tract in Dogs," Advisory Council of Baker Institute, Cornell University, New York, NY, Sept 28.
- 2004 "Undescended Testes," Wine Country Circuit Dog Show, representing Cornell University, Sampson State Park, NY, Sept 25.
- 2004 "Ovulation Timing in Bitches," Wine Country Circuit Dog Show, Sampson State Park, NY, Sept 25.
- 2004 "Ovulation Timing in Bitches," Elmira Kennel Club, Ithaca, NY, June 15.
- 1996 "Estrus in Dogs and Cats," Animal Instincts, Radio Broadcast, Ithaca, NY.
- 1994 "Male Dog Infertility." Canine Reproduction Short Course, School of Continuing Education and Summer Sessions, Cornell University, Ithaca, NY, May 1.
- 1994 "Breeding Management" and "Genetics for Dog Breeders," (2 hrs lecture) Lackawanna Kennel Club, Scranton, PA, May 4.
- 1994 "Feline Reproduction." Comprehensive Seminar for Cat Breeders, School of Continuing Education and Summer Sessions, Cornell University, Ithaca, NY, June 25.

- 1994 "Canine Artificial Insemination." The Canine Club, Cornell Veterinary Student Seminars, Cornell University, Ithaca, NY, Oct 5.
- 1994 "Breeding Management" and "Genetics for Dog Breeders" (2 hrs lecture), Pocono Mountain Kennel Club, Shawnee-on-the-Delaware, PA, Oct 20.
- 1993 "Feline Reproduction," Cornell Feline Health Center and the Baltimore Cat Breeders Clubs, Baltimore, MD, June 5.
- 1993 "Prevention of Reproductive Disease in Dogs," Cornell Adult Education Summer Seminar Series, Cornell University, Ithaca, NY, June 20.
- 1992 "Feline Neonatal Isoerythrolysis," Genesee Valley Cat Breeders, Rochester, NY, Mar 4.
- 1988 "Reproductive Problems in the Bitch," Joint Seminar, Burlington and Gloucester County Kennel Clubs, Sewell, NJ. Feb 20.
- 1988 "Canine Parvovirus Enteritis in a Breeding Colony," University Lab Animal veterinarians and husbandry staff, University of Pennsylvania, Philadelphia, PA, Aug 25.
- 1982 "Reproductive Disorders," The York Kennel Club, York, PA, Mar 17.
- 1982 "Canine Reproductive Disorders" and "Medical Treatment of Pyometra," Rockland County Kennel Club, West Nyack, NY, Apr 21.