



U.S. Food and Drug Administration

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Curriculum Vitae

Personal Data

Katrina L. Mealey
Department of Veterinary Clinical Sciences
College of Veterinary Medicine
Washington State University
Pullman, WA 99164-6610

Birthdate/place

Marital Status

Education Undergraduate: B. S. (Pharmacy); University of New Mexico, 1986
 Professional: D.V.M.; Colorado State University, 1990
 Graduate: Ph.D.; Texas A&M University, 1998

Professional Training

Internship: Small Animal Medicine and Surgery; University of Minnesota, 1990-1991
Residency: Texas A & M University, 1991-1994
Board Certification: Diplomate, American College of Veterinary Clinical Pharmacology
 Diplomate, American College of Veterinary Internal Medicine (Small
 Animal Internal Medicine)

Employment

Assistant Professor, Washington State University, August 1998-present
Adjunct Assistant Professor, Washington State University, October 1997-August 1998
Research Associate, Washington State University, September 1996-1997
Assistant Research Scientist, Texas A&M University, August 1994-August 1996
Veterinary Clinical Associate, College of Veterinary Medicine, TAMU; July 1994-July 1995
Residency in Clinical Pharmacology, Texas A & M University; July 1991-July 1994
Internship in Small Animal Medicine and Surgery, University of Minnesota; 1990-1991
Pharmacist (part-time), Colorado State University, Fort Collins CO; 1986-90
Pharmacist (fill-in), Burke's Pharmacy, Albuquerque, NM; 1986-1989
Pharmacy Intern, New Mexico Poison Center, UNM Hospital and Trauma Center; 1984-1986

Honors and Awards

Wescott Clinical Teaching Scholar, 1999
Phi Zeta (Eta Chapter) Research Manuscript Award, 1998
College of Veterinary Medicine Graduate Student Travel Award, 1996
National Cancer Institute Physician Scientist Award; 1995
Phi Zeta (Veterinary Honor Society); 1995
Hoechst-Rousel Graduate Student Travel Award; 1994
Merck Foundation Resident in Veterinary Clinical Pharmacology; 1991-1994
Rho Chi (National Honor Society, Colleges of Pharmacy); 1985-1986
Eli Lilly Award (Scholarship, Ethics and Leadership); 1986
Who's Who Among America's Colleges and Universities; 1985
Most Distinguished Presidential Scholar; 1986

Research Support

Winn Feline Foundation, 2001-2002
Bioavailability of Topically Administered Drugs in Cats;

Role: Principal Investigator

National Cancer Institute Mentored Clinical Scientist Award, 1999-2001
Role of Glucocorticoids in Regulating MRP Expression;
Role: Principal Investigator; Howard Hosick, sponsor

American Cancer Society Institutional (WSU) Grant, 1998
Characterization of the *MDR1* Gene in an Intermediate Tumor Model
Role: Principal Investigator

National Cancer Institute Physician Scientist Award, 1995-1998
Novel Approaches to MDR Induction and Modulation;
Role: Principal Investigator; Steve Safe, sponsor

Texas A&M University, College of Veterinary Medicine OSP Intramural Grant, 1995
Role of Calcineurin in P-glycoprotein-mediated MDR
Role: Principal Investigator

Texas A&M University, College of Veterinary Medicine Graduate Student Minigrant, 1994
Novel Approaches to Induction and Modulation of P-glycoprotein
Role: Principal Investigator

Publications and Abstracts

Refereed

Mealey KL, Bentjen SA. Sequence and structural analysis of the downstream promoter of the canine *mdr1* gene, *Veterinary Pathology*, submitted.

Mealey KL, Bentjen SA, Gay JM, Hosick HL. Dexamethasone treatment of canine osteosarcoma cells increases chemoresistance independent of P-glycoprotein and MRP expression, *Cancer Chemotherapy and Pharmacology*, submitted.

Fransson B, Peck K, Mealey KL. Pharmacokinetics of topically applied liposome-encapsulated lidocaine gel in cats, *American Journal of Veterinary Research*, accepted.

Fransson B, Mealey KL, Dutta S. Clozapine intoxication in a dog. *Journal of the American Animal Hospital Association*, accepted.

Shinozaki JK, Cantor GH, Besser TE, Mealey KL, Vaden SL, Sellon RK. Fecal polymerase chain reaction using 16S primers can detect intestinal, but not gastric, *Helicobacter* in dogs. *Journal of Veterinary Internal Medicine*, accepted.

Mealey KL, Bentjen SA, Waiting D. Frequency of the mutant *MDR1* allele associated with ivermectin sensitivity in a sample population of Collies from the northwestern United States. *American Journal of Veterinary Research*, 2002;63:479-481.

Lahmers S, Mealey KL, Martinez S, Sellon RK, Halderson GJ, Cambridge AJ. Synovial T-cell lymphoma of the stifle in a dog. *Journal of the American Animal Hospital Association*, 2002; 38:165-168.

Mealey KL, Barhoumi R, Burghardt B, Safe S, Kochevar DT. Doxycycline induces expression of P-glycoprotein as effectively as doxorubicin in MCF-7 breast carcinoma cells. *Antimicrobial Agents and Chemotherapy*, 2002;46:755-761.

Mealey KL. Clinically significant drug interactions. *Compendium of Continuing Education for Practicing Veterinarians*, 2002; 24:10-22.

Peck K, Matthews NS, Taylor T, Mealey KL. Comparative pharmacokinetics of trimethoprim and sulfamethoxazole in horses, donkeys, and mules. *American Journal of Veterinary Research*, 2002;63:349-353.

Mealey KL, Bentjen SA, Gay J, Cantor GH. Ivermectin sensitivity in Collies is associated with a deletion mutation of the *mdr1* gene. *Pharmacogenetics*, 2001;11:727-733.

Hofmeister E, Kippenes K, Mealey KL (corresponding author), Cantor G. Functional giant thyroid cyst in a cat. *Journal of the American Veterinary Medical Association*, 2001;219:190-193.

Mealey KL. Beta-lactamase inhibitors. *Journal of the American Veterinary Medical Association*, 2001;218:1893-1896.

Peck K, Hines MT, Mealey KL (corresponding author), Mealey RH. Pharmacokinetics of imipramine in narcoleptic horses. *American Journal of Veterinary Research*, 2001;62:783-786.

Matthews NS, Peck KE, Taylor TS, Mealey KL. Pharmacokinetics of phenylbutazone and its major metabolite, oxyphenbutazone in miniature donkeys. *American Journal of Veterinary Research*, 2001;62:673-675.

Mealey KL. Systemic absorption of topically administered drugs. *Compendium of Continuing Education for Practicing Veterinarians*, 2000; 22:649-657.

Mealey KL, Barhoumi R, Burghardt RC, McIntyre BS, Sylvester PW, Hosick HL, Kochevar DT. Immunosuppressant inhibition of P-glycoprotein function is independent of drug-induced suppression of peptide-prolyl isomerase and calcineurin activity. *Cancer Chemotherapy and Pharmacology* 1999; 44:152-158.

Coakley M, Peck KE, Taylor TS, Matthews NS, Mealey KL. Pharmacokinetics of flunixin meglumine in donkeys, mules, and horses. *American Journal of Veterinary Research* 1999;60:1441-1444.

Mealey KL, Willard M, Nagode, L, Helman HG. Hypercalcemia associated with granulomatous disease in a cat. *Journal of the American Veterinary Medical Association* 1999; 215:959-962.

Mealey KL, Matthews NS. Drug interactions in anesthesia. *Veterinary Clinics of North America; Small Animal Practice* 1999;29:629-643.

Mealey KL, Barhoumi R, Rogers K, Kochevar DT. Doxorubicin induced expression of P-glycoprotein in a canine osteosarcoma cell line. *Cancer Letters* 1998; 126:187-192.

Martinez EA, Woolridge AA, Hartsfield SM, Mealey KL. Neuromuscular effects of doxacurium chloride in isoflurane-anesthetized dogs. *Veterinary Surgery* 1998;27:279-283.

Kochevar DT and Mealey KL. Principles of cancer chemotherapy. *Veterinary Medicine*. 1997;92:336-349.

Peck K, Mealey KL, Matthews NS, Taylor TS. Comparative pharmacokinetics of caffeine and three metabolites in clinically normal horses and donkeys. *American Journal of Veterinary Research*. 1997;58:881-883.

Matthews NS, Peck KE, Mealey KL, Taylor TS. Pharmacokinetics and cardiopulmonary effects of guaifenesin in donkeys. *Journal of Veterinary Pharmacology and Therapeutics* 1997; 20:442-446.

Martinez EA, Mealey KL, Woolridge AA, et al. Pharmacokinetics, effects on renal function, and potentiation of atracurium-induced neuromuscular blockade after administration of a high dose of gentamicin in isoflurane-anesthetized dogs. *American Journal of Veterinary Research*. 1996;57:1623-1630.

Mealey KL, Matthews NS, Peck KE, Ray AC, Taylor TS. Comparative pharmacokinetics of phenylbutazone and its metabolite oxyphenbutazone in clinically normal horses and donkeys. *American Journal of Veterinary Research*. 1996;58:53-55.

Welfare RE, Mealey KL, Matthews NS and Taylor TS. Pharmacokinetics of gentamicin in donkeys. *Journal of Veterinary Pharmacology and Therapeutics*. 1996;19:167-170.

Kochevar DT, Middendorf D, Mealey KL, et al. Pharmacokinetics and haematological effects of a single intravenous dose of mitoxantrone in cats. *Journal of Veterinary Pharmacology and Therapeutics* 1995;18:471-475.

Mealey KL, Boothe DM. Bioavailability of benzodiazepines following rectal administration of diazepam in dogs. *Journal of Veterinary Pharmacology and Therapeutics*. 1995;18:72-74.

Miller SM, Matthews NS, Mealey KL, et al. Pharmacokinetics of gentamicin in mammoth asses. *Journal of Veterinary Pharmacology and Therapeutics*. 1994;17:403-406.

Mealey KL, Boothe DM. Nephrotoxicosis associated with topical administration of gentamicin in a cat. *Journal of the American Veterinary Medical Association* 1994;204:1919-1921.

Non-refereed

Mealey KL. Body surface area: Historical justifications, limitations, and alternatives. *Veterinary Cancer Society Newsletter* 1993 17(3):12-15.

Mealey KL, Boothe DM. Use of glucocorticoids in the dog and cat. *Veterinary Learning Systems Clinical Classroom, Continuing Education*, 1995.

Mealey KL. Invited commentary: Administration of diazepam rectally. *Advances in Small Animal Medicine and Surgery* 1995 8(8):6.

Book Chapters

Boothe DM, Mealey KL. Glucocorticoid therapy in the dog and cat. In: DM Boothe (ed.) *Small Animal*

Clinical Pharmacology and Therapeutics. WB Saunders, Philadelphia, pp313-329, 2000.

Martinez EA, Mealey KL. Muscle relaxants. In: DM Boothe (ed) *Small Animal Clinical Pharmacology and Therapeutics*. WB Saunders, Philadelphia, pp473-481, 2000.

Kochevar DT, Mealey KL. Antineoplastic Agents. Merck Veterinary Manual, 8th edition; National Publishing, Inc., Philadelphia, 1998.

Abstracts

Mealey KL. Doxorubicin does not increase MRP expression in canine osteosarcoma cells. *Proceedings, Veterinary Cancer Society, October, 2000*.

Mealey KL, Bentjen S, Cantor G. Canine MDR1 promoter. *Proceedings, American College of Veterinary Internal Medicine, 2000*.

Shinozaki J, Cantor G, Besser T, Mealey K, Vaden S, Sellon RK. Fecal PCR identifies intestinal but not gastric Helicobacter in dogs. *Proceedings, American College of Veterinary Internal Medicine, 2000*.

Matthews NS, Keck K, Taylor T, Mealey KL. Pharmacokinetics of phenylbutazone in miniature donkeys. *Proceedings, American College of Veterinary Anesthesiology, 2000*.

Mealey KL, Barhoumi R, Burghardt RC, McIntyre BS, Sylvester PW, Hosick HL, Kochevar DT. Immunosuppressant inhibition of P-glycoprotein function is independent of drug-induced suppression of peptide-prolyl isomerase and calcineurin activity. *Proceedings of American Association for Cancer Research, 38, 1998*

Mealey KL, Barhoumi R, Burghardt R, Safe S, Kochevar DT. Doxycycline induces expression of P-glycoprotein as effectively as doxorubicin in MCF-7 breast carcinoma cells. *Proceedings of the American Association for Cancer Research, 38, 1997*.

Matthews NS, Mealey KL, Peck K. Comparative pharmacokinetics of caffeine and metabolites in horses and donkeys. *Proceedings, American College of Veterinary Anesthesiology, 1997*.

Peck K, Mealey KL, Matthews NS. Comparative pharmacokinetics of guaifenesin in horses and donkeys. *Proceedings, American College of Veterinary Anesthesiology, 1997*

Martinez E, Hartsfield S, Mealey KL. Neuromuscular effects of doxacurium chloride in isoflurane-anesthetized dogs. *Proceedings, American College of Veterinary Anesthesiology, 1997*.

Mealey KL, Barhoumi R, Burghardt R, Kochevar DT. Can drugs other than antineoplastic agents induce multidrug resistance? *Proceedings, Veterinary Cancer Society, 1997*

Mealey KL, Botos JJ, Barton CL, Kochevar DT. Doxorubicin-induced expression of P-glycoprotein in a canine osteosarcoma cell line. *Proceedings, American College of Veterinary Internal Medicine, 1996*.

Mealey KL, Barhoumi R, Rogers KS, Kochevar DT. Induction of P-glycoprotein mediated multiple drug resistance in a canine osteosarcoma cell line. *Proceedings, Veterinary Cancer Society, 1996*.

Mealey KL, Silva EG, Kochevar DT. Heat shock protein expression in doxorubicin-treated MCF-7

breast cancer cells. *Proceedings, College of Veterinary Medicine Graduate Student Association*, 1995 pp4.

Martinez E, Mealey KL, Effect of a single daily dose of gentamicin on neuromuscular blockade induced by atracurium in isoflurane-anesthetized dogs. *Proceedings, American College of Veterinary Anesthesiology*, 1995.

Mealey KL, Kochevar DT. Pharmacologic reversal of multiple drug resistance (MDR) in a human breast cancer cell line: proposed role of calcineurin. *Proceedings, Eighth Annual Graduate Research Symposium (Baylor College of Medicine and Texas A&M University)*, 1995.

Matthews NS, Mealey KL, Peck KE, Taylor TS, Ray AC. Pharmacokinetics of phenylbutazone in donkeys: Comparison to the horse. *Proceedings, American College of Veterinary Anesthesiology*, 1995.

Matthews NS, Peck KE, Mealey KL, Taylor TS, Ray AC. Pharmacokinetics and pharmacodynamics of guaifenesin in donkeys. *Proceedings, American College of Veterinary Anesthesiology*, 1995.

Matthews NS, Taylor TS, Mealey KL, et al. Pharmacokinetics of gentamicin, ketamine, and phenylbutazone in donkeys, mules, mammoth asses. *Proceedings of Second International Colloquium on Working Equines*, 1994 pp5.

Miller SM, Matthews NS, Mealey KL, et al. Pharmacokinetics of gentamicin in mammoth asses. *Proceedings of the World Equine Veterinary Association Congress*, 1993 pp192.

Teaching

COURSE/TITLE

VM 522 (WSU) Small Animal Medicine II, 11 hours, Fall semester, 2000

VM 522 (WSU) Pharmacology; 1 hour, Fall semester, 2000

Gen/CB 572 (WSU) Fundamentals of Oncology; Fall semester 2000

VM 521 (WSU) Small Animal Medicine I, 5 hours, Spring semester, 2000

VM 522 (WSU) Small Animal Medicine II, 10 hours, Fall semester, 1999

VM 521 (WSU) Small Animal Medicine I, 4 hours, Spring semester, 1999

VM 522 (WSU) Pharmacology; 1 hour, Fall semester, 1998

VM 552 (WSU) Small Animal Medicine II, 13 hours, Fall semester, 1998

VM 522 (WSU) Pharmacology; 2 hours, Fall semester 1997

VMID 912 (TAMU) Clinical Correlations; 8 hours Fall semester 1995

VTPP 924 (TAMU) Pharmacology; 1 hour Fall semester 1995

VTPP 924L (TAMU) Pharmacology Lab; 8 hours Fall semester 1995

VMID 912 (TAMU) Clinical Correlations; 8 hours Spring semester 1995

VTPP 925 (TAMU) Pharmacology; 2 hours Spring semester; 1993-5

VTPP 924L (TAMU) Pharmacology Lab; 3 hours/semester; 1991-1995

VTPP 925L (TAMU) Pharmacology Lab; 6 hours/semester; 1991-1995

VMID 951 (TAMU) Physical Diagnosis; 6 hours/semester; 1991-1994

Fourth year (TAMU; University of Minnesota) Clinical Rotations; 1990-1994

Pharmacy 486 (Compounding Lab, U.N.M.); 3 hours/week 1985-1986

Continuing Education

Wild West Veterinary Conference 11 hours

ACVIM 2001

WSU Spring Conference (

WSU Boise CE Conference (3 hours), Boise, ID, 2001

Calgary Veterinary CE Conference (6 hours), Calgary, Alberta, Canada, 2001

Clinical Pharmacology (1.5 hours) WSU Spring Conference, Pullman, WA, 2000

Endocrinology (6 hours) WSU Spring Conference, Pullman, WA, 2000

Internal Medicine (6 hours) Okanagan Veterinary Medical Association, Kelowna, British Columbia, Canada, 2000

Clinical Pharmacology (9 hours) Arizona Veterinary Medical Association, Phoenix, Arizona, 2000

Clinical Pharmacology (6 hours) WSVMA Annual Conference, Yakima, WA, 1999

Respiratory Diseases (6 hours) WSU Spring Conference, Pullman, WA, 1999

Clinical Pharmacology (6 hours) Western States Veterinary Conference, Las Vegas, Nevada, 1998

Topical Drug Administration: Texas Veterinary Medical Association Summer Showcase, 1995

Basic Principles in Pharmacology: Texas Veterinary Technicians Association, 1995

Analgesics: Brazos County Veterinary Medical Association, 1995

Pharmacology Update: Texas Veterinary Medical Association Summer Showcase, 1994

Professional Organizations

American College of Veterinary Internal Medicine; 1999-present

American Association for Cancer Research; 1995-present

Veterinary Cancer Society; 1994-present

American College of Veterinary Clinical Pharmacology; 1995-present

American Veterinary Medical Association; 1990-present

Scientific Review

United States Pharmacopeia Drug Information (USPDI) monographs (Veterinary)—Glucocorticoids; 1998-present

American Journal of Veterinary Research-Ad hoc reviewer

1999-2 manuscripts

2000-1 manuscript

Journal of the American Veterinary Medical Association-Ad hoc reviewer

1999-1 manuscript

2000-1 manuscript

Service

Departmental (2000)

Search Committees

WSU Department of Veterinary Clinical Sciences: Department Chair, Small Animal Surgeon

WSU Department of Veterinary Comparative Anatomy, Physiology and Pharmacology: Muscle Molecular Biologist

WSU Vetstar Ad Hoc Committee

WSU DIRC Committee

Research Committee

Departmental (1999)

Search Committees

WSU Department of Veterinary Clinical Sciences: Department Chair, Small Animal Surgeon

WSU Department of Veterinary Comparative Anatomy, Physiology and

Pharmacology: Muscle Molecular Biologist

Departmental (1995-1996)

Pharmacy and Therapeutics Committee (Texas A&M University)

College (2000)

Curriculum Committee (WSU)

College (1999)

Curriculum Committee (WSU)

National (2000)

Examination Committee, American College of Veterinary Clinical Pharmacology

Credentials Committee, American College of Veterinary Internal Medicine

National (1999)

Examination Committee, American College of Veterinary Clinical Pharmacology

American Association for Cancer Research, Associate Member Council (Co-chairman)

National (1995-1998)

Credentials Committee, American College of Veterinary Clinical Pharmacology

Examination Appeals Ad Hoc Committee, ACVCP (1997)