

**David John Waters**  
Curriculum Vitae

**SECTION A: GENERAL INFORMATION**

Professor of Surgery and Comparative Oncology  
Department of Veterinary Clinical Sciences  
School of Veterinary Medicine  
Purdue University  
West Lafayette, IN 47907

July 2001-Present

**Academic Record**

University of Minnesota	Ph. D.	1992
American College of Veterinary Surgeons	Diplomate	1990
University of Minnesota	Residency Certificate (Small Animal Surgery)	1989
Cornell University	D. V. M.	1984
Cornell University	B. S.	1980

**Personal Data**

**Address:** 3518 Woodfield  
West Lafayette, IN 47906  
(765) 497-3931

**Birth Date:** May 31, 1958

**Marital Status:** Married, Kathleen Celecki Waters

**Children:** Mallory A. Waters November 15, 1985  
Lane S. Waters March 13, 1990

**Previous Experience**

Resident, Small Animal Surgery  
University of Minnesota  
St. Paul, MN  
July 1986-June 1989

Intern/Staff Clinician  
Metropolitan Veterinary Hospital  
Akron, OH  
July 1984-June 1986

**Academic Appointments**

Professor of Surgery and Comparative Oncology  
Department of Veterinary Clinical Sciences  
Purdue University  
West Lafayette, IN  
July 2001-Present

Associate Professor of Surgery and Comparative Oncology  
Department of Veterinary Clinical Sciences  
Purdue University  
West Lafayette, IN  
July 1996-June 2001

Adjunct Assistant Professor of Orthopaedic Surgery  
Indiana University School of Medicine  
Indianapolis, IN  
June 1995-Present

Assistant Professor of Small Animal Surgery  
Department of Veterinary Clinical Sciences  
Purdue University  
West Lafayette, IN  
October 1991-June 1996

Instructor, General Surgery  
Department of Companion Animal and Special Species Medicine  
North Carolina State University  
Raleigh, NC  
July 1990-August 1991

Clinical Instructor, Small Animal Surgery  
Department of Small Animal Clinical Sciences  
University of Minnesota  
St. Paul, MN  
July 1989-June 1990

## **Licenses, Registrations, and Certifications**

### ***Licenses:***

Active Status—New York  
Inactive Status—Ohio

### ***Board Certification:***

American College of Veterinary Surgeons, 1990

## **Awards and Honors**

Fellow, Gerontology Society of America (Biological Sciences Section), 2012

Friend of the Rottweiler Award, American Rottweiler Club, 2011; award is to person who has done the most for the Rottweiler breed in the United States in the past year

American Federation for Aging Research (AFAR) Research Committee, 2009 – 2010

Glenn Award for Research in Biological Mechanisms of Aging, Glenn Foundation for Medical Research, 2009

Editorial Board, Mutation Research Reviews, 2008 - 2013

Invited Scientist, Department of Defense Prostate Cancer Research Program IMPACT (Innovative Minds in Prostate Cancer Today) – Top researchers of the decade, 2007

Invited Scientist, National Academies of Sciences – Keck Future Initiatives: “The Future of Human Healthspan,” 2007

Teachers for Tomorrow Award to Senior Faculty, Purdue University, 2005

Great Teacher Award for Exceptional Interdisciplinary Teaching, Purdue University Center on Aging and the Life Course, 2005

Fellow, Brookdale Institute of Aging, 2003

Editorial Board, The Prostate, 1998-2001

Brookdale National Fellowship to Support Leadership in Gerontology, 1999

Award for the Best Scientific Publication using Veterinary Medical Data Base (awarded to G. Patronek, DJ Waters, LT Glickman), 1998

Pfizer Award for Research Excellence at Purdue University School of Veterinary Medicine, April 1998

Purdue University's Nominee for Brookdale National Fellowship, 1998 and 1999

John Caffey Award from The Society for Pediatric Radiology for the best scientific paper presented at the annual meeting, May 1996

Outstanding Teaching Award for Faculty Member of the Department of Companion Animal and Special Species Medicine, North Carolina State University, 1991

Award for the Best Research Paper presented at the Resident's Forum, 24th Annual Meeting of the American College of Veterinary Surgeons, 1989

Hill's Award for Excellence in Clinical Nutrition, Cornell University, 1983

American Animal Hospital Association Award for Outstanding Clinical Proficiency in Small Animal Medicine and Surgery, Cornell University, 1984

Hill's Award for Excellence in Clinical Nutrition, Cornell University, 1984

### **Memberships in Academic, Professional, and Scholarly Societies**

#### ***Professional:***

American Veterinary Medical Association  
American College of Veterinary Surgeons

#### ***Scholarly:***

American Association for Cancer Research  
American Association for Advancement of Science  
American Society of Nutritional Sciences  
American Society for Preventive Oncology  
Gerontology Society of America  
Institute of General Semantics  
Media Ecology Association  
New York Academy of Sciences  
The Wallace Stevens Society  
The Emerson Society  
The Endocrine Society

### **Institutes and Other Programs Attended**

Advances in Geroscience: Impact on Healthspan and Chronic Disease. National Institutes of Health, Bethesda, MD, Oct. 2013.

From Unicellularity to Multicellularity and Back Again. 2<sup>nd</sup> International Biannual Evolution and Cancer Conference. University of California San Francisco, San Francisco, CA, June 2013.

How Can We Get Our Students to Write? Center for Instructional Excellence College Teaching Workshops, Purdue University, West Lafayette, IN, February 2012.

Making Ideas Happen – Executing Creativity, New York City, NY, May 2011.

National Institute on Aging (NIA) Systems Biology of Aging Workshop, Baltimore, MD, December 2009.

NCI Biospecimen Best Practices Forum, Boston, MA, November 2007.

Leadership Conference Rotman School of Business, Toronto, ON, Canada, May 2007.

Workshop on Breaking Through the Barriers to Writing Proposals, Purdue University, West Lafayette, IN, November 2001.

Patent Primer for the Life Sciences, Purdue University, West Lafayette, IN, November 2001.

Workshop on Grantsmanship, Purdue University, West Lafayette, IN, 1999.

Aging and Wellness, Purdue University, West Lafayette, IN, May 1998.

Discipline Without Punishment, Supervisory Development Program Series, Purdue University, West Lafayette, IN, April 1997.

Principles of Pharmacokinetics and Toxicokinetics for the Industrial Scientist, University of Arizona, Tucson, AZ, May 1996.

Workshop on Grantsmanship, Purdue University, West Lafayette, IN, 1995.

Workshop on Concept Mapping, Katherine Edmondson (Cornell University), Purdue University, West Lafayette, IN, December 1994.

Indiana University Musculoskeletal Tumor Review Course, Indiana University School of Medicine, Indianapolis, IN, June 1994.

Translational Research at Purdue University and Indiana University School of Medicine, October 1993.

Critical Issues in Tumor Microcirculation, Angiogenesis and Metastasis, Harvard Medical School, Boston, MA, June 1993.

Microvascular Surgery Course, North Carolina State University, Raleigh, NC, February 1991.

Externship in Neurosurgery, New York University, New York, NY, September 1989.

Externship in Neurosurgery, Case Western Reserve University, Cleveland, OH, May 1989.

Advanced ASIF Orthopedic Course, The Ohio State University, Columbus, OH, March 1987.

**SECTION B: EXCELLENCE OF TEACHING**

**Courses Taught**

(\* Professor of Record)

*Purdue University, School of Veterinary Medicine:*

**VCS 441 Small Animal Medicine** (Oncology) 1994-97. *Taught 3% of 2.5 credit course.*

**VCS 453 Small Animal Surgery II** (lecture; coaptation, neurosurgery) 1992-98. *Taught 20% of 2-credit course.*

**VCS 454 Small Animal Surgery Laboratory** 1991-92. *Taught 10% of 1 credit course.*

**VCS 455 Small Animal Surgery Laboratory** 1992-98. *Taught 25% of 1 credit course.*  
PROFESSOR OF RECORD 1993-1995.

**VCS 457 Small Animal Surgery Laboratory** 1992-95. *Taught 25% of 1 credit course.*  
PROFESSOR OF RECORD 1993-95.

**VCS 459 Small Animal Surgery Laboratory** 1992-95. *Taught 25% of 1 credit course.*  
PROFESSOR OF RECORD 1993-95.

**VCS 472 Small Animal Surgery Basic** 1991-97. *Taught 15% of 5-credit course.*

**VCS 482 Small Animal Surgery Clerkship** 1991-97. *Taught 15% of 5-credit course.*

**VCS 490 Clinical Investigations in Oncology** 1995. *Taught 50% of 5-credit course.*  
PROFESSOR OF RECORD 1995.

**VCS 502 Small Animal Surgery Rotation** (ECVFG students) 1992-97.

**VCS 506 Small Animal and Medicine Surgery I** 1999, 2000. *Taught 10% of 3.5 credit course.*

**VCS 507 Small Animal and Medicine Surgery II** 1999. *Taught 3% of 2-credit course.*

**VCS 547 Advanced Small Animal Medicine** 2000, 2001, 2002, 2003, 2004, and 2005.  
*Taught 3% of 2 credit course.*

**VCS 601 Clinical Residency** (graduate student, individual and small group teaching, surgery cases) 1991-97.

**VCS 602 Directed Readings in Cancer Biology** 1993. *Taught 100% of 1 credit course.*  
PROFESSOR OF RECORD 1993.

**VCS 602 Problems in Clinical Medicine and Surgery: Neurosurgery** 1993, 1996. *Taught 100% of 2-credit course.* PROFESSOR OF RECORD 1993, 1996.

**VCS 602 Surgical Physiology** 1994. *Taught 10% of 2-credit course.* PROFESSOR OF RECORD 1994.

**VCS 602 Cancer Biology** 1995. *Taught 100% of 3-credit course.* PROFESSOR OF RECORD 1995.

**VCS 602 Angiogenesis** 1995. *Taught 100% of 1 credit course.* PROFESSOR OF RECORD 1995.

**VCS 602 Carcinogenesis, Cancer Risk and Chemoprevention** 1997. *Taught 80% of 1.5 credit course.* PROFESSOR OF RECORD 1997.

**VCS 602 Comparative Skeletal Oncology** 1998. *Taught 100% of 2-credit course.* PROFESSOR OF RECORD 1998.

**VCS 602 Cancer Risk and Chemoprevention** 2001. *Taught 100% of a 2-credit course.* PROFESSOR OF RECORD 2001.

**VCS 602 Selenium in Health and Disease** 2004, *Taught 100% of 3-credit course.* PROFESSOR OF RECORD 2004.

**VCS 602 Lifestyle and Age-related Disease in the News** 2004, 2005. *Taught 100% of 2 credit course.* PROFESSOR OF RECORD 2004, 2005.

**VCS 602 Seminar on Aging and the Life Course** 2005, *Taught 60% of 1 credit course.* PROFESSOR OF RECORD 2005.

**VCS 602 Tocandtoes** 2007, 2008, 2009. *Taught 100% of 2-credit course.* PROFESSOR OF RECORD 2007, 2008, 2009.

**VCS 602 Directed Readings in Aging and Cancer** 2008. *Taught 100% of 2 credit course.* PROFESSOR OF RECORD 2008.

**VCS 60200 Endocrinology of Aging** 2011. *Taught 100% of 2 credit course.* PROFESSOR OF RECORD 2011.

**VCS 60200 Special Problems – More Effective & Opportunistic Writing** 2014. *Taught 100% of 1 credit course.* PROFESSOR OF RECORD 2014.

**VCS 621 Advanced Topics in Medicine** (neurology, oncology) 1992-94. *Taught 10% of 2-credit course.*

**VCS 650 Biology of Aging** 1999, 2000, 2002 - 2005, 2008, 2010, 2012, 2013. *Taught 90% of a variable credit course (1-3 credits).* PROFESSOR OF RECORD 1999, 2000, 2002, 2003, 2004, 2005, 2008, 2010, 2012, 2013.



**VCS 80600 Small Animal Medicine and Surgery I** 2009. *Taught 3 % of 3.5 credit course.*

**VCS 82400 Small Animal Theriogenology** 2011, 2012, 2013. *Taught 15% of 0.5 credit course.*

**VCS 84700 Small Animal Medicine and Surgery** 2009. *Taught 3% of 3.5 credit course.*

**VM 102 Careers in Veterinary Medicine** 1998. *Taught 8% of 1 credit course.*

**MDCH 401 Nature of Cancer** 1996. *Taught 5% of 3-credit course.*

**CDFS 565 Multidisciplinary Perspectives on Aging** 1999, 2001, 2003, 2004, 2005. *Taught 4% of 3-credit course.*

**F&N 580 Geriatric Nutrition** 2006, *Taught 4% of 3-credit course.*

**F&N 615 Mineral Metabolism** 2000. *Taught 2% of 3-credit course.*

**BIOL 441 Senior Seminar in Genetics** 2000, 2001, 2003, 2004. *Taught 2% of a 3-credit course.*

***North Carolina State University, College of Veterinary Medicine:***

**Small Animal Surgery Clinics** 1990, 1991.

**VMC 852 Small Animal Surgery Laboratory** (Juniors) (suturing, diaphragmatic hernia, ovariohysterectomy, exploratory celiotomy) 1990.

***University of Minnesota, College of Veterinary Medicine:***

**SACS 5002-03 Small Animal Surgery Clinics** (Seniors) 1989, 1990.

**SACS 5350 Principles of Small Animal Surgery** (Juniors) (lecture, coaptation, stifle) 1989-90.

**SACS 5351 Small Animal Surgery Laboratory** (Juniors) (bandaging, stifle) 1989, 1990.

**SACS 8410 Surgical Physiology** (Graduate Students) (course organization, lecture--bone cell biology) 1990.

### **Educational Grants and Awards Received**

The use of simulated patients to develop integrative and evaluative clinical skills in veterinary students. PI: Bill P. CoI: Newby T, MacDougall M, Levy M, Waters D (0.05 FTE for 12 months), Adams L. MSD AgVet Creativity in Veterinary Medical Education Award (\$1,000) 1993.

### **Educational Proposals Submitted But Not Funded**

Development of a model for integrating factual knowledge into complex problem solving using an immersion simulation. PI: Bill P. CoI: Newby T, Levy M, Waters D (0.05 FTE for 12 months). Purdue University Instructional Computing Development Grant (\$9,950) 1992.

### **Student Counseling and Advisement**

#### Residency Advisory Committee member

Sean Aiken, 1991-92  
Kevin Clarke, 1991-93  
Karen Cornell, 1991-94  
Michael Ringle, 1992-94  
Keith Allen, 1992-95  
Tim Munjar, 1993-96  
Tina Owen, 1994-97  
Sarit Dhupa 1995-98  
Julia Hawthorne 1996-99  
Liz Lafond 1997-99  
Jeffrey Philibert 1996-99  
Dawn Cooley 1997-2000  
Tony Mutsaers 1999-2002  
Lisa DiBernardi 2000-2003

#### Graduate Degree Committee Member

Susan Wang (PhD), Dept of Chemistry, 1996  
Kristen Feldhaus (MS), Dept of Biological Sciences, 1997  
Maria deGuzman (PhD), Civil Engineering, 1997  
Yingjuan Lu (PhD), Dept of Chemistry, 2000  
Jennifer Walker-Daniels (PhD), Dept of BMS, 2001  
Mary Jo Turk (PhD), Dept of Chemistry, 2001  
Hugh Lippman (PhD), Dept of Food Science, 2003  
Loren Noblitt (MS), Dept of Veterinary Pathobiology, 2003  
Dan Ritchie (PhD), Dept of Health and Kinesiology, 2008  
Marquita Dill (MS), Dept of Health and Kinesiology, 2009  
John Spruill (PhD), Dept of Audiology and Speech Sciences, 2010  
Rong Fu (PhD), Dept of Child Development and Family Studies

#### Graduate Degree Advisor (Major Professor)

Andrea Ritmeester (MS), Dept. Veterinary Clinical Sciences, 1997

Karen Cornell (PhD), Co-Major Professor with Paul Robinson, Dept. Basic Medical Sciences, PhD, 1998  
D. Keith Allen (MS), Dept Veterinary Clinical Sciences, 1998  
Karen T. Coffman (MS), Dept. Veterinary Clinical Sciences, 2001  
Emily Chiang (PhD), Dept. of Foods and Nutrition, 2011  
Naomi Kariuki (MS), Dept. Veterinary Clinical Sciences, 2013

**Intern Advisor**

Adam Honeckman, 1992-93  
Nivia Martinez, 1993-94

**DVM Student Advisor**

Bruce Nwadike, 1992-94  
Jennifer Waggoner, 1994-96  
Ulli Klotz, 1994-97

**Mentor for Student Research Fellows**

Dawn Tandus, SVM Research Fellowship, Summer 1995 and 1996  
Sarah Nielsen, Purdue University Cancer Center Undergraduate Research Fellowship, Summer 1995  
Ben Beranek, Research Project, Lafayette Jefferson High School, 1999-2002; Winner, Gerontology Category at the International INTEL Science & Technology Fair, Detroit, Michigan, May 2000

**SECTION C: EXCELLENCE IN RESEARCH, SCHOLARSHIP AND/OR CREATIVE ENDEAVOR**

**Publications**

*Refereed Scientific Journals:*

PUBLISHED

Waters DJ. Longevity in pet dogs: Understanding what's missing. *Vet J* 2014; 200: 3-5.

Waters DJ, Chiang EC. Fostering the self-renewal of teachers: An underutilized approach to innovating interdisciplinary education. *J Systemics, Cybernetics, Informatics* 2013; 11(5): 52-55.

Kengeri SS, Maras AH, Suckow CL, Chiang EC, Waters DJ. Exceptional longevity in female Rottweiler dogs is not encumbered by investment in reproduction. *AGE* 2013; 35(6): 2503-13.

Chiang EC, Bostwick DG, Waters DJ. Homeostatic housecleaning effect of selenium: Evidence that noncytotoxic oxidant-induced damage sensitizes prostate cancer cells to organic selenium-triggered apoptosis. *BioFactors* 2013; 39(5): 575-588.

Waters DJ. The paradox of tethering: Key to unleashing creative excellence in the research-education space. *Informing Science* 2012; 15: 229-245.

Waters DJ, Shen S, Kengeri SS, Chiang EC, Combs GF, Morris JS, Bostwick DG. Prostatic response to supranutritional selenium supplementation: Comparison of the target tissue potency of selenomethionine vs. selenium-yeast on markers of prostatic homeostasis. *Nutrients* 2012; 4: 1650-1663.

Combs GF, Jackson MI, Watts JC, Johnson LK, Zeng H, Idso J, Schomburg L, Hoeg A, Hoefig C, Chiang EC, Waters DJ, Davis CD, Milner JA. Differential responses to selenomethionine supplementation by sex and genotype in healthy adults. *Br J Nutr* 2012; 107: 1514-1525.

Morris JS, Spate VL, Ngwenyama RA, Waters DJ. Determination of selenium status using the nail biologic monitor in a canine model. *J Radioanal Nucl Chem* 2011; 291(2): 439-444.

Waters DJ. In search of a strategic disturbance: Some thoughts on the timing of spaying. *Clin Theriogenol* 2011; 3: 433-437.

Waters DJ, Kengeri SS, Maras AH, Chiang EC. Probing the perils of dichotomous binning: How categorizing female dogs as spayed or intact can

misinform our assumptions about the lifelong health consequences of ovariectomy. *Theriogenol* 2011; 76: 1496-1500.

Waters DJ, Waters LS. On the self-renewal of teachers. *J Vet Med Educ* 2011; 38(3): 235-241.

Waters DJ. Aging research 2011: Exploring the pet dog paradigm. *ILAR Journal* 2011; 52(1): 97-105.

Smith BH, Gazda LS, Conn BL, Jain K, Asina S, Levine DM, Parker TS, Laramore MA, Martis PC, Vinerean HV, David EM, Qiu S, North AJ, Couto CG, Post GS, Waters DJ, Cordon-Cardo C, Hall RD, Gordon BR, Diehl CH, Stenzel KH, Rubin AL. Hydrophilic agarose macrobead cultures select for outgrowth of carcinoma cell populations that can restrict tumor growth. *Cancer Res* 2011; 71(3): 725-735.

Waters DJ, Chiang EC. It's a U-shaped world: A Batesonian prescription for promoting public health. *ETC* 2010; 67: 218-226.

Chiang EC, Shen S, Kengeri SS, Xu H, Combs GF Jr., Morris SJ, Bostwick DG, Waters DJ. Defining the optimal selenium dose for prostate cancer risk reduction: Insights from the U-shaped relationship between selenium status, DNA damage, and apoptosis. *Dose Response* 2010; 8: 285-300.

Waters DJ, Kengeri SS, Clever B, Booth JA, Maras AH, Schlittler DL, Hayek MG. Exploring mechanisms of sex differences in longevity: Lifetime ovary exposure and exceptional longevity in dogs. *Aging Cell* 2009; 8: 752-755.

Legette LL, Martin BR, Shahnazari M, Lee WH, Helferich WG, Qian J, Waters DJ, Arabshahi A, Barnes S, Welch J, Bostwick DG, Weaver CM. Supplemental dietary racemic equol has modest benefits to bone but has mild uterotrophic activity in ovariectomized rats. *J Nutr* 2009; 139(10): 1908-13.

Hillman RB, Kengeri SS, Waters DJ. Reevaluation of predictive factors for complete recovery in dogs with nonambulatory tetraparesis secondary to cervical disk herniation. *J Am Anim Hosp Assoc.* 2009; 45(4): 155-63.

Rayman MP, Combs GF Jr, Waters DJ. Selenium and vitamin E supplementation for cancer prevention. *JAMA* 2009; 301(18): 1876.

Waters DJ, Chiang EC, Bostwick DG. The art of casting nets: Fishing for the prize of personalized cancer prevention. *Nutr Cancer* 2008; 60:1-6.

Bostwick DG, Waters DJ, Farley ER, Meiers I, Rukstalis D, Cavanaugh WA, Ragde H, Dineen MK, Bahn D, Scionti S, Babian R, Ellis DS, Rewcastle JC, Burke HB, Andriole GL, Onik G, Barqawi AE, Maksem J, Barzell WE. Group consensus reports from the Consensus Conference on Focal Treatment of Prostatic Carcinoma, Celebration, Florida, February 24, 2006. *Urology* 2007;

70(6 Suppl): 42-44.

Meiers I, Waters DJ, Bostwick DG. Preoperative prediction of multifocal prostate cancer and application of focal therapy. *Urology* 2007; 70(6 Suppl): 3-8.

Waters DJ, Shen S, Xu H, Kengeri SS, Cooley DM, Chiang EC, Chen Y, Schlittler D, Oteham C, Combs GF Jr, Glickman LT, Morris JS, Bostwick DG. Noninvasive prediction of prostatic DNA damage by oxidative stress challenge of peripheral blood lymphocytes. *Cancer Epidemiol Biomarkers Prev* 2007; 16: 1906-1910.

Waters DJ, Wildasin K. Cancer clues from pet dogs. *Scientific American* 2006; 295: 94-101.

Mohammed SI, Dhawan D, Abraham S, Snyder PW, Waters DJ, Craig BA, Lu M, Wu L, Zheng R, Stewart J, Knapp DW. Cyclooxygenase inhibitors in urinary bladder cancer: In vitro and in vivo effects. *Mol Cancer Ther* 2006; 5: 329-336.

Hay RV, Cao B, Skinner RS, Su Y, Zhao P, Gustafson MF, Qian CN, Teh BT, Knudsen BS, Resau JH, Shen S, Waters DJ, Gross MD, Vande Woude GF. Nuclear imaging of Met-expressing human and canine cancer xenografts with radiolabeled monoclonal antibodies (MetSeek). *Clin Cancer Res*. 2005; 11: 7064s-7069s.

Waters DJ, Shen S, Glickman LT, Cooley DM, Bostwick DG, Qian J, Combs GF Jr, Morris JS. Prostate cancer risk and DNA damage: Translational significance of selenium supplementation in a canine model. *Carcinogenesis* 2005; 26(7): 1256-1262.

Bostwick DG, Adolfsson J, Burke HB, Damber JE, Huland H, Pavone-Macaluso M, Waters DJ. Epidemiology and statistical methods in prediction of patient outcome. *Scand J Urol Nephrol Suppl* 2005; (216):94-110.

Shinomiya N, Gao CF, Xie Q, Gustafson M, Waters DJ, Zhang YW, Vande Woude GF. RNA interference reveals that ligand-independent met activity is required for tumor cell signaling and survival. *Cancer Res* 2004; 64:7962-7970.

Bostwick DG, Burke HB, Djakiew D, Euling S, Ho SM, Landolph J, Morrison H, Sonawane B, Shifflett T, Waters DJ, Timms B. Human prostate cancer risk factors. *Cancer* 2004; 101(10 Suppl):2371-2490.

Turk MJ, Waters DJ, Low PS. Folate-conjugated liposomes preferentially target macrophages associated with ovarian carcinoma. *Cancer Lett* 2004; 213:165-172.

Waters DJ, Chiang EC, Cooley DM, Morris JS. Making sense of sex and supplements: Differences in the anticarcinogenic effects of selenium in men and women. *Mutat Res* 2004; 551:91-107.

Cooley DM, Schlittler DL, Glickman LT, Hayek M, Waters DJ. Exceptional longevity in pet dogs is accompanied by cancer resistance and delayed onset of major diseases. *J Gerontol Biol Sci* 2003; 58:B1078-1084.

Mathias CJ, Lewis MR, Reichert DE, Laforest R, Sharp TL, Yang ZF, Waters DJ, Snyder PW, Low PS, Welch MJ, Green M. Preparation of <sup>66</sup>Ga- and <sup>68</sup>Ga-labeled Ga(III)-deferoxamine-folate as potential folate-receptor-targeted PET radiopharmaceuticals. *Nuclear Med Biol* 2003; 30:725-731.

Helpap B, Schmitz-Drager BJ, Hamilton PW, Muzzonigro G, Galosi AB, Kurth KH, Lubaroff D, Waters DJ, Droller MJ. Molecular pathology of non-invasive urothelial carcinomas (part I). *Virchows Arch* 2003; 442:309-316.

Waters DJ, Shen S, Cooley DM, Bostwick DG, Qian J, Combs GF Jr, Glickman LT, Oteham C, Schlittler DL, Morris JS. Effects of dietary selenium supplementation on DNA damage and apoptosis in canine prostate. *J Natl Cancer Inst* 2003; 95:237-241.

Philibert JC, Snyder PW, Glickman N, Glickman LT, Knapp DW, Waters DJ. Influence of host factors on survival in dogs with malignant mammary gland tumors. *J Vet Intern Med* 2003; 17:102-106.

Cooley DM, Beranek BC, Schlittler DL, Glickman NW, Glickman LT, Waters DJ. Endogenous gonadal hormone exposure and bone sarcoma risk. *Cancer Epidemiol Biomarkers Prev* 2002; 11:1434-1440.

Pirie-Shepherd SR, Coffman KT, Resnick D, Chan R, Kisker O, Folkman J, Waters DJ. The role of angiostatin in the spontaneous bone and prostate cancers of pet dogs. *Biochem Biophys Res Comm* 2002; 292:886-891.

Shen S, Cooley DM, Glickman LT, Glickman N, Waters DJ. Reduction in DNA damage in brain and peripheral blood lymphocytes in elderly dogs after treatment with dehydroepiandrosterone (DHEA). *Mutat Res* 2001; 480-481:153-162.

Mohammed SI, Coffman K, Glickman NW, Hayek MG, Waters DJ, Schlittler D, DeNicola DB, Knapp DW. Prostaglandin E2 concentrations in naturally occurring canine cancer. *Prostaglandins, Leukotrienes and Essential Fatty Acids* 2001; 64:1-4.

Hawthorne JC, Wallace LJ, Fenner WR, Waters DJ. Fibrocartilaginous embolic myelopathy (FCEM) in miniature schnauzers. *J Am Anim Hosp Assoc* 2001; 37: 374-383.

Cornell KK, Bostwick DG, Cooley DM, Hall G, Harvey HJ, Hendrick MJ, Pauli BU, Render JA, Stoica G, Sweet D, Waters DJ. Clinical and pathologic aspects of spontaneous canine prostate carcinoma: A retrospective analysis of 76 cases. *Prostate* 2000; 45:173-183.

Waters DJ, Shen S, Glickman LT. Life expectancy, antagonistic pleiotropy, and the testis of dogs and men. *Prostate* 2000; 43:272-277.

Walker-Daniels J, Coffman K, Azimi M, Rhim JS, Bostwick DG, Snyder P, Kerns BJ, Waters DJ, Kinch MS. Overexpression of the EphA2 tyrosine kinase in prostate cancer. *Prostate* 1999; 41:275-280.

Waters DJ. High grade prostatic intraepithelial neoplasia in dogs. *Eur Urol* 1999; 35:456-458.

Hayden DW, Klausner JS, Waters DJ. Prostatic leiomyosarcoma in a dog: Clinicopathologic and immunohistochemical findings. *J Vet Diag Invest* 1999; 11: 283-286.

Mathias CJ, Wang S, Low PS, Waters DJ, Green MA. Receptor-mediated targeting of <sup>67</sup>Ga-deferoxamine-folate to folate receptor positive human KB tumor xenografts. *Nucl Med Biol* 1999; 26:23-25.

Reynolds JS, Troy TL, Mayer RH, Thompson AB, Waters DJ, Cornell KK, Snyder PW, Sevick-Muraca EM. Imaging of spontaneous canine mammary disease using fluorescent contrast agents. *Photochem Photobiol* 1999; 70:87-94.

Borgens RB, Toombs JP, Breur G, Widmer WR, Waters DJ, Harbath AM, March P, Adams LG. An imposed oscillating electrical field improves the recovery of function in neurologically complete paraplegic dogs. *J Neurotrauma* 1999; 16: 639-657.

Dhupa S, Glickman N, Waters DJ. Reoperative neurosurgery in dogs with thoracolumbar disc disease. *Vet Surg* 1999; 28:421-428.

Dhupa S, Glickman NW, Waters DJ. Functional outcome in dogs after surgical treatment of caudal lumbar intervertebral disk herniation. *J Am Anim Hosp Assoc* 1999; 35:323-331.

Hawthorne JC, Blevins WE, Glickman N, Wallace LJ, Waters DJ. Cervical vertebral fractures in 56 dogs: A retrospective study. *J Am Anim Hosp Assoc* 1999; 35:135-146.

Waters DJ. Spontaneous prostate cancer in dogs. *Cancer Research Therapy and Control* 1998; 7:239-242

Aquilina JW, McKinney L, Pacelli A, Richman LK, Waters DJ, Thompson I, Burghardt Jr. WF, Bostwick DG. High-grade prostatic intraepithelial neoplasia in military working dogs with and without prostate cancer. *Prostate* 1998; 36:189-193.



Waters DJ, Coakley FV, Cohen MD, Davis MM, Karmazyn B, Gonin R, Hanna MP, Knapp DW, Heifetz SA. The detection of pulmonary metastases by helical CT: A clinicopathological study. *J Comput Assist Tomogr* 1998; 22:235-240.

Waters DJ, Bostwick DG, Murphy GP. Conference summary: First international workshop on animal models of prostate cancer. *Prostate* 1998; 36:47-48.

Waters DJ, Sakr WA, Hayden DW, Lang CM, McKinney L, Murphy GP, Radinsky R, Ramoner R, Richardson RC, Tindall DJ. Workgroup 4: Spontaneous prostate carcinoma in dogs and nonhuman primates. *Prostate* 1998; 36:64-67.

Mathias CJ, Wang S, Waters DJ, Turek JJ, Low PS, Green MA. Indium - 111 In-DTPA-Folate as a potential folate receptor-targeted radiopharmaceutical. *J Nucl Med* 1998; 39:1579-1585.

Cooley DM, Waters DJ. Skeletal metastasis as the initial clinical manifestation of metastatic carcinoma in 19 dogs. *J Vet Intern Med* 1998; 12:288-293.

Waters DJ, Honeckman A, Cooley DM, DeNicola D. Skeletal metastasis in feline mammary carcinoma: Case report and literature review. *J Am Anim Hosp Assoc* 1998; 34:103-108.

Cornell KK, Waters DJ. The cat is not a small dog: Ten issues in feline oncology. *Kleintierpraxis* 1998; 43:17-24.

Waters DJ, Hayden DW, Bell FW, Klausner JS, Qian J, Bostwick DG. Prostatic intraepithelial neoplasia in dogs with spontaneous prostate cancer. *Prostate* 1997; 30:2-97.

Waters DJ and Bostwick DG. Prostatic intraepithelial neoplasia occurs spontaneously in the canine prostate. *J Urol* 1997; 157:713-716.

Cooley DM, Waters DJ. Skeletal neoplasms of small dogs: A retrospective study and literature review. *J Am Anim Hosp Assoc* 1997; 33:11-23.

Coakley FV, Cohen MD, Waters DJ, Davis MM, Karmazyn B, Gonin R, Hanna MP. The detection of pulmonary metastases with pathological correlation: Effect of breathing on the accuracy of spinal CT. *Pediatric Radiology* 1997; 27:576-579.

Wang S, Luo J, Lantrip DA, Waters DJ, Mathias CJ, Green MA, Fuchs PL, Low PS. Design and synthesis of 111 In-DTPA-Folate for use as a tumor-targeted radiopharmaceutical. *Bioconjugate Chemistry* 1997; 7:56-62.

Waters DJ, Bostwick DG. The canine prostate is a spontaneous model of intraepithelial neoplasia and prostate cancer progression. *Anticancer Res* 1997; 17:1467-1470.

Patronek GJ, Waters DJ, Glickman LT. Comparative longevity of pet dogs and humans: implications for gerontology research. *J Gerontology* 1997; 52A:B171-B178.

Hawthorne JC, Cooley DM, Waters DJ. Malignant skeletal neoplasms of dogs. *Kleintierpraxis* 1997; 42:809-824.

Helpap B, Bonkhoff H, Cockett A, Montironi R, Troncoso P, Waters DJ, Bostwick DG. Relationship between atypical adenomatous hyperplasia (AAH), prostatic intraepithelial neoplasia (PIN) and prostatic adenocarcinoma. *Pathologica* 1997; 89:288-300.

Cooley DM, Allen DK, Waters DJ. Vascular neoplasms of dogs. *Kleintierpraxis* 1997; 42:859-870.

Knapp DW, Waters DJ. Naturally occurring cancer in pet dogs: Important models for developing improved cancer therapy for humans. *Molecular Medicine Today* 1997; 3(1): 8-11.

Waters DJ, Patronek GJ, Bostwick DG, Glickman LT. Comparing the age of prostate cancer diagnosis in humans and dogs. *J Natl Cancer Inst* 1996; 88:1686-1687.

Mathias CJ, Lee RJ, Wang S, Waters DJ, Low PS, Green MA. Tumor-selective radiopharmaceutical targeting via receptor-mediated endocytosis of gallium-67 deferoxamine-folate. *J Nucl Med* 1996; 37: 1003-008.

Allen DK, Waters DJ, Knapp DW, Kuczek T. High urine concentrations of basic fibroblast growth factor in dogs with bladder cancer. *J Vet Intern Med* 1996; 10: 231-234.

Montironi R, Bostwick DG, Bonkhoff H, Cockett ATK, Helpap B, Troncoso P, Waters DJ. Origins of prostate cancer. *Cancer* 1996; 78:362-365.

Chang C-j, Ashendel CL, Geahlen RL, McLaughlin JL, Waters DJ. Oncogene signal transduction inhibitors from medicinal plants. *In Vivo* 1996; 10:185-190.

Waters DJ, Janovitz EB, Chan TCK. Spontaneous metastasis of PC-3 cells in athymic mice after implantation in orthotopic or ectopic microenvironments. *Prostate* 1995; 26:227-234.

Waters DJ. Tumor metastasis: Current biological concepts and their implications for control of residual disease. *Vet Clin North Am* 1995; 25:231-247.

Cornell K and Waters DJ. Impaired wound healing in the cancer patient: Effects of cytotoxic therapy and pharmacologic modulation by growth factors. *Vet Clin North Am* 1995; 25:111-131.

Waters DJ, Wallace LJ, Roy RG. Myelopathy in a dog secondary to scar tissue (cicatrix) formation: A late complication of vertebral articular facet fracture. *Prog Vet Neurol* 1994; 5:105-108.

Cornell KK, Jakovljevic S, Waters DJ, Prostedny J, Salisbury SK, DeNicola DB. Extrahepatic biliary obstruction secondary to diaphragmatic hernia in two cats. *J Am Anim Hosp Assoc* 1993; 29:502-507.

Waters DJ, Breur GJ, Toombs JP. Treatment of common forelimb fractures in miniature and toy breeds. *J Am Anim Hosp Assoc* 1993; 29:442-448.

Waters DJ, Bowers LD, Cipolle RJ, Caywood DD, Bill R. Plasma salicylate concentrations in immature dogs following aspirin administration: Comparison with adult dogs. *J Vet Pharmacol Therapeutics* 1993; 16:275-282.

Hayden DW, Waters DJ, Burke BA, Manivel JC. Disseminated malignant histiocytosis in a Golden Retriever: Clinicopathologic, ultrastructural and immunohistochemical findings. *Vet Pathol* 1993; 30:256-264.

Waters DJ, Roy RG, Stone EA. A retrospective study of inguinal hernia in 35 dogs. *Vet Surg* 1993; 44-49.

Simpson RM, Waters DJ, Gebhard DH, Casey HW. Massive thymoma with medullary differentiation in a dog. *Vet Pathol* 1992; 29:416-419.

Roy RG, Post GS, Waters DJ, Hardy RM. Portal vein thrombosis as a complication of portosystemic shunt ligation in 2 dogs. *J Am Anim Hosp Assoc* 1992; 28:53-58.

Waters DJ, Caywood DD, Turner RT. Effect of tamoxifen citrate on canine immobilization (disuse) osteoporosis. *Vet Surg* 1991; 20:392-396.

Sweet DC, Waters DJ. Role of surgery in the management of dogs with pathologic conditions of the thorax II. *Compend Contin Educ Pract Vet* 1991; 13: 1671-1676.

Waters DJ, Sweet DC. Role of surgery in the management of dogs with pathologic conditions of the thorax I. *Compend Contin Educ Pract Vet* 1991; 13: 1545-1555.

Waters DJ, Caywood DD, Trachte GJ, Turner RT, Hodgson SF. Immobilization increases bone prostaglandin E: Effect of aspirin on disuse osteoporosis studied in dogs. *Acta Orthop Scand* 1991; 62:238-243.

Waters DJ, Hayden DW. Intramedullary spinal cord metastasis in the dog. *J Vet Intern Med* 1990; 4:207-215.

Smith FWK, Buoen LC, Weber AF, Johnston SD, Randolph JF, Waters DJ. X-Chromosomal monosomy (77, XO) in a Doberman Pinscher with gonadal dysgenesis. *J Vet Intern Med* 1989; 3:90-95.

Waters DJ, Hayden DW, Walter PA. Intracranial lesions in dogs with hemangiosarcoma. *J Vet Intern Med* 1989; 3:222-230.

Waters DJ. Non-ambulatory tetraparesis secondary to cervical disc disease in the dog. *J Am Anim Hosp Assoc* 1989; 25:647-653.

Waters DJ, Caywood DD, Hayden DW, Klausner JS. Metastatic pattern in dogs with splenic haemangiosarcoma: Clinical implications. *J Small Anim Pract* 1988; 29:805-814.

Baker JL, Waters DJ, DeLahunta A. Tetanus in two cats. *J Am Anim Hosp Assoc* 1988; 24:159-164.

Waters DJ, Prueter JC. Secondary polycythemia associated with renal disease in the dog: Two case reports and review of literature. *J Am Anim Hosp Assoc* 1988; 24:109-114.

UNPUBLISHED

***Non-Refereed Scientific Journals:***

PUBLISHED

Waters DJ. Your selenium intake, Your prostate, and “U”. *Uro Today* 2013; published online 11 Nov. 2013; [www.urotoday.com/Prostate-Cancer/your-selenium-intake-your-prostate-and-u-beyond-the-abstract-by-david-j-waters-phd-dvm.html](http://www.urotoday.com/Prostate-Cancer/your-selenium-intake-your-prostate-and-u-beyond-the-abstract-by-david-j-waters-phd-dvm.html).

Knapp DW, Waters DJ. Naturally occurring cancer in pet dogs: Important models for developing improved cancer therapy for humans. *Molecular Medicine Today* 1997; 3:8-11.

Waters DJ, Dean PW. Lung abscess secondary to foreign body aspiration in a cat. What is your diagnosis? *J Am Vet Med Assoc* 1985; 186:1111-1112.

***Book Chapters:***

PUBLISHED

Waters DJ, Chiang EC. Caught in an act of convenience: Disentangling our thinking about the influence of ovariohysterectomy (spaying) on health longevity in dogs. In: Cohen DM, Diaz LR, eds. *Dogs: Domestication History, Genetics, Behavior and Implications for Health*. New York: Nova Science, 2013; 115-120.

Waters DJ, Kariuki NN. The Biology of Successful Aging: Watchful Progress at Biogerontology's Known-Unknown Interface. In: Wilmoth JM, Ferraro KF, eds. *Gerontology: Perspectives and Issues*, 4<sup>th</sup> edition. New York: Springer Publishing Co., 2013; 19-48.

Waters DJ. Cellular and Organismal Aspects of Senescence and Longevity. In: Wilmoth JM, Ferraro KF, eds. *Gerontology: Perspectives and Issues*, 3<sup>rd</sup> edition. New York: Springer Publishing Co., 2006.

Waters DJ, Jeffreys-Borgatti A. Endocrine System. In: Hudson LC, Hamilton WP, eds. *Atlas of Feline Anatomy for Veterinarians*, 2<sup>nd</sup> edition. Philadelphia: WB Saunders Co., 2006.

Waters DJ, Cooley DM, Kawamura S. Neoplasms of the Urinary System. In: Nagai T, Iwasaki, Kawamura, Naitoh, Tsujimoto, eds. *Textbook of Veterinary Internal Medicine*. Buneido Publishing Co., Ltd. Tokyo, Japan 2004.

Toombs JP, Waters DJ. Intervertebral Disk Disease. In: Slatter DH, ed. *Textbook of Small Animal Surgery, Third Edition*. Philadelphia: W.B. Saunders Co., 2003.

Waters DJ. Host : Tumor Cell Interaction as a Determinant of Tumor Cell Behavior. In: Morrison W, ed. *Cancer in Dogs and Cats: Medical and Surgical Management Second Edition*. Jackson, Wyoming: Teton NewMedia, 2002;39-47.

Waters DJ, Cooley DM. Skeletal Neoplasms. In: Morrison W, ed. *Cancer in Dogs and Cats: Medical and Surgical Management Second Edition*. Jackson, Wyoming: Teton NewMedia, 2002;611-625.

Cooley DM and Waters DJ. Neoplasms of the Male Reproductive Tract. In: Withrow SJ and MacEwen EG, eds. *Small Animal Clinical Oncology*, 3<sup>rd</sup> edition. Philadelphia: W.B. Saunders Co., 2001;478-489.

Knapp DW, Waters DJ, Schmidt BR. Tumors of the Urogenital System and Mammary Glands. In: Ettinger and Feldman, eds. *Textbook of Veterinary Internal Medicine*, 5<sup>th</sup> edition. Philadelphia: WB Saunders Co., 1999;541-546.

Waters DJ, Cooley DM. Skeletal Neoplasms. In: Morrison W, ed. *Cancer in Dogs and Cats: Medical and Surgical Management*. Baltimore: Williams and Wilkins, 1998;639-654.

Waters DJ. Host : Tumor Cell Interaction as a Determinant of Tumor Cell Behavior. In: Morrison W, ed. *Cancer in Dogs and Cats: Medical and Surgical Management*. Baltimore: Williams and Wilkins, 1998; 43-51.

Chang C-j, Ashendel CL, Geahlen RL, Hung M-c, McLaughlin JL, Waters DJ. Oncogene-modulated Signal Transduction Inhibitors from Plants. In: Wrigley S, Hayes M, Thomas R, Chrystal E, eds. *Phytochemical Diversity: A Source of New Industrial Products*. London: The Royal Society of Chemistry, 1997; 170-178.

Waters DJ. Spinal Surgery. In: Lipowitz AJ, Caywood DD, Newton CD, Schwartz A, eds. *Complications in Small Animal Surgery*. Philadelphia: Lea and Febiger, 1996; 541-562.

Langan-Fahey SM, Jordan VC, Fritz NF, Robinson SP, Waters DJ, Tormey DC. Clinical Pharmacology and Endocrinology of Long Term Tamoxifen Therapy. In: Jordan VC, ed. *Long Term Tamoxifen Treatment for Breast Cancer*. Madison: University of Wisconsin Press, 1994; 27-56.

Waters DJ. Oncology: Musculoskeletal System. In: Slatter DH, ed. *Textbook of Small Animal Surgery*, 2<sup>nd</sup> edition. Philadelphia: WB Saunders Co., 1993; 2213-2230.

Waters DJ. Endocrine system. In: Hudson LC, Hamilton WP, ed. *Atlas of Feline Anatomy for Veterinarians*. Philadelphia: WB Saunders, 1993; 127-34.

UNPUBLISHED

***Doctor of Philosophy Thesis***

Waters DJ. Immobilization (disuse) osteoporosis: Studies using a unilateral hindlimb model in immature dogs. 1992, 130 pages.

***Refereed Scientific Abstracts***

PUBLISHED

Waters DJ, Maras AH, Xu H, Kengeri SS, Chiang EC, Kariuki NN. Stress response and exceptional longevity: Clues from the HPA axis of centenarian Rottweiler dogs. *J Nutrition, Health & Aging* 2013; 17: S474.

Chiang EC, Kengeri SS, Maras AH, Suckow CL, Waters DJ. Exceptional longevity in female Rottweiler dogs is not encumbered by investment in reproduction. *J Nutrition, Health & Aging* 2013; 17: S474.

**Refereed Scientific Abstracts (1987 – 2005):**

PUBLISHED

Waters DJ, Jeffreys-Borgatti A, Cooley DM. A new PATH to Progress<sup>®</sup>: unleashing the pet population as a national resource to study aging and cancer. *The Gerontologist* 2005;45:501.

Jeffreys-Borgatti A, Cooley DM, Waters DJ. Tarnished youth: can the study of pet dogs provide a better understanding of why younger adults have a poorer cancer prognosis than older adults? *The Gerontologist* 2005;45:601.

Shen S, Cooley DM, Schlittler DL, Chen Y, Chiang EC, Kengeri SS, Xu HP, Bostwick DG, Morris JS, Glickman LT, Waters DJ. Can peripheral blood lymphocytes provide a window to assess the extent of genotoxicity within the prostate? *Environmental and Molecular Mutagenesis* 2005;157:49.

Chiang EC, Shen S, Bostwick DG, Waters DJ. Prostate cancer cell susceptibility to oxidative DNA damage is influenced by cell attachment. *Environmental and Molecular Mutagenesis* 2005;48:15.

Chen Y, Shen S, Waters DJ. Effect of selenium on the fate of MCF-7 cells after doxorubicin-induced DNA damage. *Environmental and Molecular Mutagenesis* 2004;44:192.

Shen S, Cooley DM, Schlittler D, Oteham C, Chen Y, Chiang EC, Morris JS, Glickman LT, Bostwick DG, Waters DJ. Effect of dietary selenium intake on androgen levels within the aging prostate. *Cancer Epidemiology Biomarkers & Prevention* 2004;13:1836s.

Hay R, Cao B, Skinner S, Su Y, Gustafson M, Resau J, Knudsen B, Qian M, The B, Shen S, Waters DJ, Gross M, Vande Woude G. Uptake of radiolabeled anti-MET monoclonal antibodies by canine and human prostate cancer xenografts. *Cancer Biotherapy & Radiopharmaceuticals* 2004;19(4):521.

Waters DJ, Shen S, Cooley DM, Bostwick DG, Qian J, Glickman LT, Morris JS. Relationship between toenail concentration of selenium and the level of genotoxic stress within the aging prostate. *Environmental and Molecular Mutagenesis* 2002;39:58.

Shen S, Cooley DM, Glickman LT, Oteham C, Combs Jr GF, Waters DJ. Extent of DNA damage in prostate of elderly dogs is abrogated by selenomethionine supplementation. *Environmental and Molecular Mutagenesis* 2001;37:69.

Shen S, Cooley DM, Glickman LT, Oteham C, Combs Jr GF, Waters DJ. Reduction in DNA damage in prostate of elderly dogs supplemented with selenomethionine. *J Nutrition* 2001 Suppl;131:198S.

Waters DJ, Shen S, Oteham C, Cooley DM, Glickman LT. Life expectancy, antagonistic pleiotropy, and the testis of dogs and men. *The Gerontologist* 2000; 40:251.

Coffman KT, Waters DJ, Jablonski L, Knapp DW. Urine bFGF in a canine model of human invasive bladder cancer. *Proceedings of the American Association for Cancer Research* 2000;42:270.

Cooley DM, Hayden DW, Waters DJ. Host age influences the histologic spectrum and biological behavior of spontaneous neoplasms in pet dogs. *The Gerontologist* 1999;39:138.

Pirie-Shepherd S, Coffman KT, Folkman J, Waters DJ. Do endogenous angiogenesis inhibitors modulate the biological behavior of spontaneous canine tumors? *Intl J Biol Markers* 1999;Volume 14.

Coffman KT, Ritmeester AM, Allen DK, Waters DJ. Basic fibroblast growth factor in spontaneous canine prostate cancer. *Proceedings of the American Association for Cancer Research* 1999;40:237.

Ke C-y, Mathias CJ, Yang, Z-f, Luo J, Low PS, Waters DJ, Green MA. Synthesis and evaluation of folate-bis(thiosemicarbazone) and folate-CYCLAM conjugates for possible use as folate-receptor-targeted copper radiopharmaceuticals. *J Labelled Compounds & Radiopharmaceuticals* 1999;42:S821-S823.

Cooley DM, Hayden DW, Waters DJ. Association between host age and the relative frequency of canine hemangioma and hemangiosarcoma. *Proceedings of Veterinary Cancer Society* 1999;24.

Philibert JC, Snyder PW, Glickman N, Glickman LT, Knapp DW, Waters DJ. Influence of host factors and biomarker expression on prognosis in canine malignant mammary tumors. *Proceedings of Veterinary Cancer Society* 1999;27.

Jay EE, Waters DJ. Does diabetes mellitus influence risk for cancer development? *Proceedings of Veterinary Cancer Society* 1999;38.

Bennett FP, DeNicola DB, Hawthorne JC, Lafond E, Laverty P, Waters DJ. Osteosarcoma of the spinal canal in 3 dogs and 1 cat. *Proceedings of Veterinary Cancer Society* 1999;49.

Philibert JC, Allen DK, Snyder PW, Cooley DM, Glickman N, Glickman LT, Waters DJ, Knapp DW, Honkomp A, Bonney P. Influence of host factors and biomarker expression on prognosis in canine malignant mammary tumors. *Proceedings of Veterinary Cancer Society* 1998;15.



Cornell K, Waters DJ, Watkins Robinson JP. Differential inhibition of canine prostate cancer cells in vitro by conjugated linoleic acid. *Proceedings of Veterinary Cancer Society* 1998;39.

Waters DJ. Use of dogs with spontaneous cancers to evaluate new tumor imaging modalities. *Anticancer Res* 1998;18:4971.

Waters DJ. Use of pet dogs in the evaluation of cancer chemopreventive agents. *Anticancer Res* 1998;18:4971.

Waters DJ, Cooley DM, Allen DK, Glickman N, Glickman LT. Host age influences the biological behavior of cancer: studies in pet dogs with naturally occurring malignancies. *The Gerontologist* 1998;8:110.

Mathias CJ, Turek MJ, Waters DJ, Low PS, Green MA. Uptake of indium-111-DTPA-Folate in human tumor xenografts with measured folate receptor density. *J Nucl Med* 1998;39:232P.

Ritmeester AR, Coffman KT, Wang J, Henkin J, Waters DJ. Urokinase plasminogen activator is differentially expressed by canine prostate cancer cells. *Proceedings American Association for Cancer Research* 1998;39:53.

Cornell KK, Waters DJ, Watkins B, Robinson JP. Conjugated linoleic acid exhibits differential inhibition of canine prostate cancer cells in vitro. *Proceedings American Association for Cancer Research* 1998;39:53.

Mathias CJ, Wang S, Waters DJ, Turek JJ, Low PS, Green MA. Indium-111-DTPA-Folate as a radiopharmaceutical for targeting tumor-associated folate binding protein (FBP). *J Nucl Med* 1997;38:133P-134P.

Mathias CJ, Hubers D, Trump DP, Wang S, Luo J, Waters DJ, Fuchs PL, Low PS, Green MA. Synthesis of Tc-99m-DTPA-Folate and preliminary evaluation as a folate-receptor-targeted radiopharmaceutical. *J Nucl Med* 1997;38: 87P.

Mathias CJ, Waters DJ, Wang S, Low PS, Green MA. Indium-111 labeled indium (III)-DTPA-Folate as a radiopharmaceutical for targeting tumor-associated folate receptors: the effect of tumor size on targeting selectivity and radiochemical analysis of excreted tracer. *J Labelled Compounds & Radiopharmaceuticals* 1997;40:365-367.

Cornell KK, Waters DJ, Coffman KT, Robinson JP, Watkins BA. Conjugated linoleic acid inhibited the in vitro proliferation of canine prostate cancer cells. *FASEB* 1997;11:A579.

Waters DJ, Coakley FV, Davis MM, Hanna MP, Gonin R, Karmazan B, Knapp DW, Michels G, Cooley DM, Downing S, Coffman K, Cohen MD. Accuracy of

spiral CT in the detection of pulmonary metastases in osteosarcoma. Abstracts of the 2<sup>nd</sup> *Osteosarcoma Research Conference*, Bologna, Italy, 1996;20.

Waters DJ, Bostwick DG, Xian J, Hayden DW, Sweet D, Hendrick MJ, Klausner JS, Bell FW. Skeletal metastases in dogs with spontaneous prostate cancer. *Abstract of the American Association of Cancer Research* 1997;38:492.

Mathias CJ, Wang S, Waters DJ, Low PS, Green MA. Ga 67 and In 111 labeled folate-chelate conjugates for targeting tumor associated folate binding protein (FBP). *J Nucl Med* 1996;37:347-348P.

Waters DJ, Hayden DW, Bell FW, Klausner JS, Render J, Sweet DW, Hendrick MJ, Pauli BU, Cornell KK, Cooley DM, Xian J, Bostwick DG. Skeletal metastases in dogs with prostate carcinoma. *Proceedings of Veterinary Cancer Society* 1997;5-6.

Cooley DM, Waters DJ. Skeletal metastasis as the initial clinical manifestation of metastatic carcinoma in 20 dogs. *Proceedings of Veterinary Cancer Society* 1997; 39.

Allen DK, Waters DJ, Cooley DM, Kuczek T, Hayden DW, Bostwick DG. Tumor microvessel density as a prognostic factor in dogs with mammary carcinoma. *Proceedings of Veterinary Cancer Society* 1997;75.

Cornell KK, Waters DJ, Cooley DM, Pauli B, Harvey HJ, Hall G, Render J, Hendrick M, Sweet D, Stoica G. Canine prostate carcinoma: clinicopathologic findings in 168 cases. *Proceedings of Veterinary Cancer Society* 1997;86.

Waters DJ, Ashendel C, Chan T, Chang C-t, Geahlen RJ, Kuczek T, Chang C-j. In vivo antitumor efficacy of a novel polythiophene against ras-transformed human bronchial epithelial cells. *Proceedings of the American Association of Cancer Research* 1996;37:396.

Downing S, Waters DJ, Cohen MD, DeNicola DB. Detection of pulmonary nodules at initial presentation in dogs with appendicular osteosarcoma using thoracic radiography and computerized tomography. *Proceedings of Veterinary Cancer Society*, 1996;60.

Chang C-j, Ashendel CL, Geahlen RL, McLaughlin JL, Waters DJ. Oncogene signal transduction inhibitors from medicinal plants. *Anticancer Res* 1995;15: 1740-41.

Waters DJ, Hayden DW, Bell FW, Klausner JS, Qian J, Bostwick DG. Is prostatic intraepithelial neoplasia the precursor of invasive carcinoma in dogs with spontaneous prostate cancer? *Anticancer Res* 1995;15:1736.

Cooley DM, Waters DJ. Skeletal neoplasms of small dogs. *Abstract of the Veterinary Cancer Society 15<sup>th</sup> Annual Conference* 1995;19-20.

Allen DK, Waters DJ, Knapp DW, Kuczek T. Urine basic fibroblast growth factor in canine bladder cancer. *Abstract of the Veterinary Cancer Society 15<sup>th</sup> Annual Conference* 1995;19-20.

Downing S, Ashendel CL, Waters DJ. LACZ gene transfection of canine prostatic carcinoma cells. *Abstract of the Veterinary Cancer Society 15<sup>th</sup> Annual Conference* 1995;3-4.

Waters DJ, Allen DK, Kreisler RA. Elevated levels of basic fibroblast growth factor in the urine of dogs with spontaneous prostate cancer. *Abstract of the American Association of Cancer Research* 1995;36:89.

Mathias CJ, Lee RJ, Wang S, Waters DJ, Low PS, Green MA. Tumor-selective radiopharmaceutical targeting via receptor-mediated endocytosis: evaluation of a gallium-67 labeled folate-deferoxamine conjugate. *J Nucl Med* 1996;36:68P.

Waters DJ, Hayden D, Bell FW, Klausner J, Qian J, Bostwick DG. Intraepithelial neoplasia and carcinoma of the canine prostate. *Abstract of the Veterinary Cancer Society 14<sup>th</sup> Annual Conference* 1994;72.

Chang CJ, Ashendel CL, Chan TCK, Geahlen RL, McLaughlin JL, Waters DJ. Discovery of antitumor agents: modulation of oncogene signal transduction. *Abstract of the Joint Annual Meeting of the Korean Society of Applied Microbiology and the Microbiological Society of Korea* 1994;19-25.

Rashmir-Raven AM, Waters DJ, Hammerberg B, DeYoung DJ. Inhibition of the canine complement and clotting cascades by polysulfated glycosaminoglycans. *American College of Veterinary Internal Medicine*, 1993.

Simpson RM, Waters DJ, Gebhard DH, Casey HW. Thymoma with medullary differentiation in a dog. *Abstract of the 42<sup>nd</sup> Annual Meeting of American College of Veterinary Pathologists*, 1991.

Waters DJ, Hayden DW. Intramedullary spinal cord metastasis in the dog. *Abstract of the 9<sup>th</sup> Annual Meeting of the Veterinary Cancer Society*, 1989;66-67.

Waters DJ, Hayden DW, Walter PA. Intracranial lesions in dogs with hemangiosarcoma. *Abstract of the 8<sup>th</sup> Annual Meeting of the Veterinary Cancer Society*, 1988;26.

Waters DJ, Caywood DD. Canine hemangiosarcoma. *Abstract of the 7<sup>th</sup> Annual Meeting of the Veterinary Cancer Society, Veterinary Cancer Newsletter*, 1987.

***Refereed Scientific Proceedings (1994-2002):***

Waters DJ, Cooley DM. Aging, Cancer Risk, and Cancer Lethality: Implications for Effective Cancer Prevention and Treatment. *Pre-Symposium World Small Animal Veterinary Congress Proceedings* 2002.

Waters DJ, Cooley DM. Cancer in the elderly dog. *Pre-Symposium World Small Animal Veterinary Congress Proceedings*, 2001.

Waters DJ, Cooley DM. A comparative approach to mammalian aging and cancer risk. *Recent Advances in Canine and Feline Nutrition, Vol. III: 2000 Iams Nutrition Symposium Proceedings*; 415-426.

Knapp DW, Mohammed SI, Waters DJ, Hayek MG. Prostaglandin E<sub>2</sub> concentrations in naturally-occurring canine cancer and in canine cancer cell lines. *Recent Advances in Canine and Feline Nutrition, Vol. III: 2000 Iams Nutrition Symposium Proceedings*; 565-571.

Waters DJ, Shen S, Oteham C, Glickman, LT. Selenium and prostate cancer: studies using the spontaneous dog model of prostate carcinogenesis. *Proceedings of the 1999 Cornell Nutrition Conference for Feed Manufacturers*; 55-57.

Chang CJ, Ashendel CL, Chan TCK, Geahlen RL, Mclaughlin JL, Waters DJ, Xu WC. Discovery and development of antitumor agents from medicinal plants. *Proceedings of International Symposium on Natural Products Sciences, Korean Society of Pharmacognosy*, 1999.

Waters DJ. Reoperative neurosurgery in dogs with thoracolumbar disc disease. *Proceedings of the American College of Veterinary Surgeons* 1997;225-226.

Waters DJ. The other major neurosurgical diseases. *Proceedings of the American College of Veterinary Surgeons* 1997;227-228.

Toombs JP, Waters DJ, Fingerroth JM, Kraus KH, Tomlinson J. Controversial issues and critical assessment of what we really know about the diagnosis, prognosis, and treatment of intervertebral disc disease. *Proceedings of the American College of Veterinary Surgeons* 1997;229.

Waters DJ. Host: tumor cell interaction as a determinant of tumor cell behavior. *Spontaneous Animal Tumors: A Survey — Proceedings of the First World Conference on Spontaneous Animal Tumors*, 1997;201-204.

Waters DJ. Abdominal tumors I and II. *Proceedings of the American College of Veterinary Surgeons* 1996;427-428.

Waters DJ. The biology of cancer metastasis: implications for antimetastatic therapy. *Proceedings of the American College of Veterinary Surgeons* 1995;447-449.

Waters DJ. New targets: cancer therapy in the 21<sup>st</sup> century. *Proceedings of the American College of Veterinary Surgeons* 1995;445-456.

Waters DJ. Tumor markers: early diagnosis and more. *Proceedings of the American College of Veterinary Surgeons* 1995;453-454.

Waters DJ. Veterinary cancer literature update. *Proceedings of the American College of Veterinary Surgeons* 1995;463.

Waters DJ. The role of the veterinarian in the human cancer epidemic. *Proceedings of the American college of Veterinary Surgeons* 1995;464.

Waters DJ. Malignant skeletal neoplasms of dogs and cats. *Proceedings of the American College of Veterinary Surgeons* 1995;457-459.

Waters DJ. Cancer biology and control of residual disease. *Proceedings of the American College of Veterinary Surgeons* 1994;300-302.

Waters DJ. Musculoskeletal tumors. *Proceedings of the American College of Veterinary Surgeons* 1994;315-317.

***Non-Refereed Scientific Proceedings:***

Waters DJ. Important concepts in cancer biology: implications for effective antitumor therapy. *Proceedings of the Atlantic Coast Veterinary Conference* 1995.

Waters DJ. Tumor markers and early cancer diagnosis. *Proceedings of the Atlantic Coast Veterinary Conference* 1995.

Waters DJ. Malignant skeletal neoplasms of dogs. *Proceedings of the Atlantic Coast Veterinary Conference* 1995.

Waters DJ. The role of the veterinarian in the human cancer epidemic. *Proceedings of the Atlantic Coast Veterinary Conference* 1995.

Cooley DM, Waters DJ. Urogenital neoplasms of dogs. *Proceedings of the Atlantic Coast Conference* 1995.

Waters DJ. The cat is not a small dog: ten issues in feline oncology. *Proceedings of the Atlantic Coast Veterinary Conference* 1995.

Waters DJ. An inside look at cancer research. *Proceedings of the Fall Conference for Veterinary Technicians* 1995.

**Presentations**

*Posters Presented at National and International Meetings:*

Oxidative Stress Challenge of Peripheral Blood Lymphocytes Provides a Non-Invasive Predictor of Brain DNA Damage. Oxygen Club of California World Congress on Oxidants and Antioxidants in Biology, Santa Barbara, CA, March 2008.

Do Androgens Contribute to the Extent of Genotoxic Damage Within the Prostate? American Association for Cancer Research Conference on Frontiers in Cancer Prevention Research, Philadelphia, PA, December 2007.

Personalized Cancer Prevention: Looking for Non-Invasive Predictors of Prostate Cancer Risk. MD Anderson 60<sup>th</sup> Annual Symposium on Cancer Research, Houston, TX, October 2007

Sex Differences in the Anti-Cancer Effects of Selenium. First Annual Meeting of the Organization for the Study of Sex Differences, Washington, DC, May, 2007.

Looking for Windows to the Aged Prostatic Microenvironment: Non-invasive Predictors of Genetic Damage Within the Prostate. American Association for Cancer Research, Philadelphia, PA, November 2006.

Evidence that Androgens Contribute to Steady State Levels of DNA Damage in the Aging Brain. International Conference on Andrology, Shanghai, China, October 2006.

A New PATH to Progress<sup>®</sup>: Unleashing the Pet Population as a National Resource to Study Aging and Cancer. Gordon Research Conferences on the Biology of Aging, Ventura, CA, January 2006.

A New PATH to Progress<sup>®</sup>: Unleashing the Pet Population as a National Resource to Study Aging and Cancer. The Gerontological Society of America 58<sup>th</sup> Annual Scientific Meeting, Orlando, FL, November 2005.

Multivariate Analysis of Non-invasive Biomarkers to Optimize the Prediction of High DNA Damage within the Aging Dog Population. The American Association for Cancer Research Frontiers in Cancer Prevention Research 4<sup>th</sup> Annual Meeting, Baltimore, MD, October 2005.

Response of Peripheral Blood Lymphocytes to Oxidative Challenge: A Simple Test that Predicts the Extent of DNA Damage within the Aging Prostate. The American Association for Cancer Research Frontiers in Cancer Prevention Research 4<sup>th</sup> Annual Meeting, Baltimore, MD, October 2005.

Can Peripheral Blood Lymphocytes Provide a Window to Assess the Extent of Genotoxicity Within the Prostate? Environmental Mutagens 9<sup>th</sup> International Conference & Environmental Mutagen Society 36<sup>th</sup> Annual Meeting, San Francisco, CA, September 2005.

Prostate Cancer Cell Susceptibility to Oxidative DNA Damage is Influenced by Cell Attachment. Environmental Mutagens 9<sup>th</sup> International Conference & Environmental Mutagen Society 36<sup>th</sup> Annual Meeting, San Francisco, CA, September 2005.

Effect of Selenium on the Fate of MCF-7 Cells After Doxorubicin-Induced DNA Damage. Environmental Mutagen Society 35<sup>th</sup> Annual Meeting, Pittsburgh, PA, October 2004.

Effect of Dietary Selenium Intake on Androgen Levels Within the Aging Prostate. The American Association for Cancer Research Frontiers in Cancer Prevention Research 3<sup>rd</sup> Annual Meeting, Seattle, WA, October 2004.

Is the Anti-Trophic Effect of the 5 $\alpha$ -Reductase Inhibitor Finasteride on the Aging Prostate Influenced by Selenium Status? The American Association for Cancer Research Frontiers in Cancer Prevention Research 2<sup>nd</sup> Annual Meeting, Phoenix, AZ, October 2003.

Exceptional Longevity in Pet Dogs is Accompanied by Cancer Resistance and Delayed Onset of Other Major Diseases. The Gerontological Society of America 55<sup>th</sup> Annual Scientific Meeting, Boston, MA, November 2002.

Toenail Selenium Concentration is Inversely Associated with the Extent of Prostatic DNA Damage in the Dog Model of Spontaneous Prostate Carcinogenesis, American Association for Cancer Research Frontiers in Cancer Prevention Research Meeting Boston, MA, October 2002.

Influence of Sex Hormones on Physiological Stress and Cerebral DNA Damage in Elderly Male Brown-Norway Rats, American Association for Laboratory Animal Science, San Antonio, TX, October 2002.

Relationship between Toenail Concentration of Selenium and the Level of Genotoxic Stress within the Aging Prostate. Environmental Mutagen Society 33<sup>rd</sup> Annual Meeting, Anchorage, Alaska, May 2002.

Effect of Selenium Supplementation on Apoptosis of Prostatic Epithelial Cells in Elderly Dogs. American Association for Cancer Research New Discoveries in Prostate Cancer Biology and Treatment Meeting, Naples, FL, December 2001.

Extent of DNA Damage in The Brain of Elderly Rats is Influenced by Castration or Testosterone Supplementation. The Gerontological Society of America 54<sup>th</sup> Annual Scientific Meeting, Chicago, IL, November 2001.

Extent of DNA Damage in Prostate of Elderly Dogs is Abrogated by Selenomethionine Supplementation. Environmental Mutagen Society Annual Meeting, San Diego, CA, March 2001.

Reduction in DNA Damage in Brain and Peripheral Blood Lymphocytes of Elderly Dogs Supplemented with Dehydroepiandrosterone (DHEA). International Conference on

Mechanisms of Antimutagenesis and Anticarcinogenesis, Grand Rapids, MI, September 2000.

Reduction in DNA Damage in Prostate of Elderly Dogs Supplemented with Selenomethionine. American Institute for Cancer Research 10<sup>th</sup> Annual Research Conference, Washington, DC, August 2000.

The Testis Contributes to the Accumulation of DNA Damage in the Aging Mammalian Brain. 29<sup>th</sup> Annual Meeting of American Aging Association, Boston, MA, June 2000.

Urine bFGF in a Canine Model of Human Invasive Bladder Cancer. American Association for Cancer Research, 91<sup>st</sup> Annual Meeting, San Francisco, CA, April 2000.

Do Endogenous Angiogenesis Inhibitors Modulate the Biological Behavior of Spontaneous Canine Tumors? Biological Basis for Antiangiogenic Therapy, Milan, Italy, November 1999.

Reduction in DNA Damage in Brain and Peripheral Blood Lymphocytes of Elderly Dogs Supplemented with DHEA. The Gerontological Society of America 52<sup>nd</sup> Annual Scientific Meeting, San Francisco, CA, November 1999.

Host Age Influences the Histologic Spectrum and Biological Behavior of Spontaneous Neoplasms in Pet Dogs. The Gerontological Society of America 52<sup>nd</sup> Annual Scientific Meeting, San Francisco, CA, November 1999.

Reduction in DNA Damage in Peripheral Blood Lymphocytes of Elderly Male Dogs Receiving DHEA Supplementation or Orchiectomy. Sero Symposium on Endocrinology of Aging, Tempe, AZ, October 1999.

Dose-dependent Reduction in DNA Damage in Peripheral Blood Lymphocytes of Dogs by Dietary Selenium Supplementation. American Institute for Cancer Research 9<sup>th</sup> Annual Research Conference, Washington, DC, September 1999.

Pet Dogs as a Mammalian Model to Study the Association between Aging and Spontaneous Cancer Development. American Aging Association (AGE) 28<sup>th</sup> Annual Meeting, Seattle, WA, June 1999.

Basic Fibroblast Growth Factor in Spontaneous Canine Prostate Cancer. American Association for Cancer Research, 90<sup>th</sup> Annual Meeting, Philadelphia, PA, April 1999.

Host Age Influences the Biological Behavior of Cancer: Studies in Pet Dogs with Naturally Occurring Malignancies. Gerontology Society of America Annual Scientific Meeting, Philadelphia, PA, December 1998.

Non-surgical Treatment of Atlantoaxial Instability: a Retrospective Study. American College of Veterinary Surgeons Annual Meeting, Chicago, IL, November 1998.



Prognosis for Dogs after Surgical Treatment of Caudal Lumbar Intervertebral Disc Herniation. American College of Veterinary Surgeons Annual Meeting, Chicago, IL, November 1998.

Urokinase Plasminogen Activator is Differentially Expressed by Canine Prostate Cancer Cells. American Association for Cancer Research, 89<sup>th</sup> Annual Meeting, New Orleans, LA, March 1998.

Conjugated Linoleic Acid Exhibits Differential Inhibition of Canine Prostate Cancer Cells In Vitro. American Association for Cancer Research, 89<sup>th</sup> Annual Meeting, New Orleans, LA, March 1998.

The Role of Basic FGF in Spontaneous Canine Prostate Cancer. American Association for Cancer Research Special Conference on Angiogenesis, Orlando, FL, January 1998.

Multiparametric In Situ Hybridization for Metastasis-related Genes in Spontaneous Canine Prostate Carcinoma. Molecular Determinants of Metastasis, University of Texas MD Anderson Cancer Center, Houston, TX, October 1997.

Skeletal Metastases in Dogs with Spontaneous Prostate Cancer. American Association of Cancer Research 88<sup>th</sup> Annual Meeting, San Diego, CA, April 1997.

Conjugated Linoleic Acid Inhibits the In Vitro Proliferation of Canine Prostate Cancer cells. FASEB, New Orleans, LA, February 1997.

Accuracy of Spiral CT in the Detection of Pulmonary Metastases in Osteosarcoma. 2<sup>nd</sup> Osteosarcoma Research Conference, Bologna, Italy, November 1996.

Prostatic Intraepithelial Neoplasia Occurs Spontaneously In The Canine Prostate. International Symposium on Biology of Prostate Growth, Washington DC, May 1996.

In Vivo Antitumor Efficacy Of A Novel Polythiophene Against Ras-Transformed Human Bronchial Epithelial Cells. American Association of Cancer Research 87<sup>th</sup> Annual Meeting, Washington DC, April 1996.

Elevated Levels of Basic Fibroblast Growth Factor in Urine of Dogs with Spontaneous Prostate Cancer. American Association of Cancer Research 86<sup>th</sup> Annual Meeting, Toronto, Ontario, Canada, March 1995.

Intraepithelial Neoplasia in Dogs with Spontaneous Prostate Carcinoma. Basic and Clinical Aspects of Prostate Cancer, AACR Special Conference in Cancer Research, Palm Springs, CA, December 1994.

Canine Immobilization Osteoporosis. First Combined Meeting of the International Conference on Calcium Regulating Hormones and the American Society for Bone and Mineral Research, Montreal, Canada, September 1989.

*Invited Lectures—Paper Delivered:*

INTERNATIONAL

Stress Response and Exceptional Longevity: Clues from the HPA Axis of Centenarian Rottweiler Dogs. 20<sup>th</sup> International Association of Gerontology and Geriatrics (IAGG) World Congress of Gerontology and Geriatrics, Seoul, Korea, June 2013.

The Paradox of Tethering: Key to Unleashing Creative Excellence in the Research-Education Space. Keynote Address International Symposium on Interdisciplinary Research, Education, and Communication, Orlando, FL, March 2012.

How the Deep-Rooted Metaphor “More is Better” Compromises Interdisciplinary Communication and Jeopardizes Public Health. International Symposium on Interdisciplinary Research, Education, and Communication, Orlando, FL, March 2012.

Fostering the Self-Renewal of Teachers: An Underutilized Approach to Innovating Interdisciplinary Education. International Symposium on Interdisciplinary Research, Education, and Communication, Orlando, FL, March 2012.

Healthy Longevity: Applying a Life Course Perspective to the Study of Successful Aging. North American Veterinary Conference, Orlando, FL, January 2012.

Communicating Health Research to the Public: The Challenge of Promoting Health in a U-Shaped World. 10<sup>th</sup> Annual International Conference on Dose-Response 2011: Implications for Toxicology, Medicine, and Risk Assessment, Amherst, MA, April 2011.

Defining the Optimal Dose of Selenium for Prostate Cancer Risk Reduction. 10th International Conference on Environmental Mutagens, Florence, Italy, August 2009.

Pet Dogs As Sentinels Of Environmental Cancer Risk. 10<sup>th</sup> International Conference on Environmental Mutagens, Florence, Italy, August 2009.

More is Not Necessarily Better: Preventing Cancer in a U-Shaped World. BIT Life Sciences, 2<sup>nd</sup> World Cancer Congress, Beijing, China, June 2009.

Selenium, Apoptosis, and DNA Damage: Defining the Optimal Selenium Dose for Human Prostate Cancer Prevention. 8<sup>th</sup> Annual International Conference on Dose-Response 2009: Implications for Toxicology, Medicine, and Risk Assessment, Amherst, MA, April 2009.

When More is Not Necessarily Better: Interdisciplinary Inquiry into the Implications of U-shaped Dose Responses for Personalizing Anticancer Interventions. Ehrlich II – 2<sup>nd</sup> World Conference on Magic Bullets, Nürnberg, Germany, October 2008.

The U-Shaped Curve for Cancer - Fighting Nutrients. International Conference on Environmental Mutagens, Puerto Rico, October 2008.

Aging Well: How the Science of Aging Informs the Practice of Wellness. North American Veterinary Conference, Orlando, FL, January 2008.

Keynote Address: Dogs Chasing Cancer Clues. Environmental Mutagen Society 38<sup>th</sup> Annual Meeting, Atlanta, GA, October 2007.

More is Not Always Better: Using the Dog Model to Identify What Dose of Selenium Provides the Best Protection Against Prostate Cancer. Department of Defense Prostate Cancer Research Program IMPACT (Innovative Minds in Prostate Cancer Today), Atlanta, GA, September 2007.

Looking for Non-Invasive Windows for Prostate Cancer Risk Stratification. Translational Research at the Aging-Cancer Interface. American Association on Cancer Research Special Conference, San Diego, CA, February 2007

Selenium DNA Damage and Apoptosis: Defining the Optimal Selenium Dose for Prostate Cancer Prevention. Environmental Mutagen Society Annual Meeting, San Diego, CA, September 2006.

Critical Issues in Aging and Cancer: Implications for Effective Cancer Prevention. The North American Veterinary Conference, Orlando, FL, January 2006.

Tarnished Youth: Can the Study of Pet Dogs Provide a Better Understanding of Why Younger Adults Have a Poorer Prognosis than Older Adults? The Gerontological Society of America, Orlando, FL, November 2005.

A Dog Model to Study the Mechanisms of Cancer Resistance in the Oldest-Old. Aging and Cancer at the Crossroads: 4<sup>th</sup> Geneva Aging Workshop, Geneva, Switzerland, October 2004.

Modeling the Aging Prostate: Implications for Prostate Cancer Prevention. Aging and Cancer Symposium of the 7<sup>th</sup> International Conference of Anticancer Research, Corfu, Greece, October 2004.

Training Biogerontologists for the Future. IBRI Symposium, Cividale, Italy, May 2004.

A Comparative Approach to Osteosarcoma: A New PATH to Progress. Future Directions in Childhood Cancer Research. Children's Oncology Group, Washington, D.C., March 2004.

Relationship Between Selenium Status and the Extent of Genotoxic Stress Within the Aging Prostate. International Conference on Mechanisms of Antimutagenesis and Anticarcinogenesis, Pisa, Italy, October 2003.

Relationship Between Toenail Concentration of Selenium and the Level of Genotoxic Stress within the Aging Prostate. Environmental Mutagen Society 3<sup>rd</sup> Annual Meeting, Miami Beach, FL, May 2003.

Aging, Cancer Risk, and Cancer Lethality: Implications for Effective Cancer Prevention and Treatment. World Small Animal Veterinary Congress, Granada, Spain, September 2002.

Cancer in the Elderly Dog. World Small Animal Veterinary Congress, Vancouver, BC, August 2001.

Life Expectancy, Antagonistic Pleiotropy, and the Testis of Dogs and Men. The Gerontological Society of America 53<sup>rd</sup> Annual Scientific Meeting, Washington DC, November 2000.

Pre-Clinical Animal Models in Prostate Cancer Research. American Urological Association Research Conference. Houston, TX, August 2000.

A Comparative Approach to Mammalian Aging and Cancer Risk. IAMS Nutrition Symposium, Chicago, IL, May 2000.

Reduction in DNA Damage in Peripheral Blood Lymphocytes of Elderly Male Dogs Receiving DHEA Supplementation or Orchiectomy. Sero Symposium on Endocrinology of Aging, Tempe, AZ, October 1999.

Spontaneous Tumors in Pet Dogs: Models for Cancer Biology, Prevention and Therapeutics. International Union for Cancer Cure Study Group Meeting, Woods Hole, MA, June 1999.

Prostatic Intraepithelial Neoplasia in Dogs. Strategies for the Chemoprevention of Prostate Cancer: International Symposium, Brussels, Belgium, October 1998.

Use of Pet Dogs with Spontaneous Cancers to Evaluate New Tumor Imaging Modalities. Symposium on Animal Models of Human Cancer, Sixth International Conference of Anticancer Research, Kallithea, Halkidiki, Greece, October 1998.

Use of Pet Dogs in the Evaluation of Cancer Chemopreventive Agents. Symposium on Animal Models of Human Cancer, Sixth International Conference of Anticancer Research, Kallithea, Halkidiki, Greece, October 1998.

Animal Models: Synopsis of the First International Workshop on Animal Models of Prostate Cancer. Presidential Symposium, Prostate Cancer 1998: Practical Applications of Immunohistochemistry and Molecular Biology, 5<sup>th</sup> Joint Meeting of United States and Japanese Histochemical Society, San Diego, CA, July 1998.

Spontaneous Prostate Cancer in Dogs and Primates. First International Workshop on Animal Models of Prostate Cancer. Purdue University, West Lafayette, IN, August 1997.

Canine Prostate Cancer. Fifth Annual Genitourinary Oncology Conference on The Advances in the Biology and Therapy of Prostate Cancer. University of Texas MD Anderson Cancer Center, Houston, TX, February 1997.

Musculoskeletal Neoplasms of Dogs. Berliner Klientiersymposium Oncologie, Berlin, Germany, November 1996.

Vascular Neoplasms of Dogs. Berliner Klientiersymposium Oncologie, Berlin, Germany, November 1996.

Spinal Neoplasms of Dogs. Berliner Klientiersymposium Oncologie, Berlin, Germany, November 1996.

Ten Issues in Feline Oncology. Berliner Klientiersymposium Oncologie, Berlin, Germany, November 1996.

Essential Concepts in Cancer Biology. Berliner Klientiersymposium Oncologie, Berlin, Germany, November 1996.

The Canine Prostate is a Spontaneous Model of Intraepithelial Neoplasia and Prostate Cancer Progression. Workshop on Clinical and Research Concepts in Prostatic Intraepithelial Neoplasia. National Cancer Institute, Bethesda, MD, July 1996.

Is Prostatic Intraepithelial Neoplasia the Precursor of Invasive Carcinoma in Dogs with Spontaneous Prostate Cancer? Fifth International Conference on Anticancer Research, Corfu, Greece, October 1995.

Host: Tumor Cell Interaction as a Determinant of Tumor Cell Behavior. First World Conference on Spontaneous Animal Tumors, Genoa, Italy, April 1995.

NATIONAL

Anti-Aging Medicine: You Can't Think Critically About Nothing. 150<sup>th</sup> American Veterinary Medical Association Annual Convention, Chicago, IL, July 2013.

Successful Aging: The Challenge of Promoting Health in a U-Shaped World. 150<sup>th</sup> American Veterinary Medical Association Annual Convention, Chicago, IL, July 2013.

Beyond Reproduction: Re-Conceptualizing Ovaries and Longevity. 150<sup>th</sup> American Veterinary Medical Association Annual Convention, Chicago, IL, July 2013.

Aging Facts or Unfinishedness: Embracing a Continuing Education of a Different Kind. 150<sup>th</sup> American Veterinary Medical Association Annual Convention, Chicago, IL, July 2013.

Stress Response and Highly Successful Aging: Clues from the HPA Axis of Centenarian Rottweiler Dogs. Gerontology Society of America 65<sup>th</sup> Annual Scientific Meeting. San Diego, CA, November 2012.

Healthy Longevity: Applying a Life Course Perspective to the Study of Successful Aging. American Veterinary Medical Association, San Diego, CA, August 2012.

Researching by Rabbit Light: Situating Wallace Stevens and Science Education. American Literary Association Conference, San Francisco, CA, May 2012.

Healthy Longevity: Applying a Life Course Perspective to the Study of Successful Aging. Western Veterinary Conference, Las Vegas, NV, February 2012.

In Search of a Strategic Disturbance: Some Thoughts on the Timing of Spaying. National Animal Interest Alliance, Harrisburg, PA, November 2011.

Anti-Aging Medicine: You Can't Think Critically About Nothing. American College Veterinary Internal Medicine Forum, Denver, CO, June 2011.

Biogerontology Researching: Re-Conceptualizing Ovaries and Longevity. American College of Theriogenology Annual Scientific Meeting, Seattle, WA, Aug.-Sept. 2010.

Communicating Health Research to the Public: The Challenge of Promoting Health in a U-Shaped World. American College of Theriogenology Annual Scientific Meeting, Seattle, WA, Aug.-Sept. 2010.

The Challenge of Promoting Health in a U-Shaped World. The 11<sup>th</sup> Annual Convention of the Media Ecology Association, University of Maine, Orono, Maine, June 2010.

It's a U-shaped World: A Batesonian Prescription for Promoting Public Health. International Institute of General Semantics Conference, Fordham University, New York City, NY, September 2009.

But They Say More is Better: How the Media Environment Makes it Difficult to Prevent Cancer and Promote Health in a U-Shaped World. Media Ecology Association 2009 Convention, St. Louis, MO, June 2009.

Aging and Cancer. American Aging Association, Boulder, CO, May/June 2008.

Aging Well: How the Science of Aging Informs the Practice of Wellness. North American Veterinary Conference, Orlando, FL, January 2008.

Lucky Number 13: Oldest-Old Rottweiler's as Guide Dogs to the Fountain of Youth. American Animal Hospital Association, Denver, CO, March 2007.

Prostate Cancer. Dogs, Genes, and Cancer: 3<sup>rd</sup> Annual Canine Cancer Conference, Seattle, WA, September 2003.

Dog Models in the Study of Prostatic Disease. American Urologic Association Summer Conference on Prostate Cancer, Houston, TX, August 2003.

Cancer and Aging. Tufts Small Animal Expo, Boston, MA, October 2001.

Novel Approaches to the Diagnosis and Treatment of Cancer. American Veterinary Medical Association Convention. Salt Lake City, UT, July 2000.

Role of Dietary Factors in the Development and Progression of Breast and Prostate Cancer Skeletal Metastases. Institute of Food Technologists Annual Meeting, Dallas, TX, June 2000.

The Frontiers of Comparative Biogerontology: Gateway to Discovery? The Brookdale Foundation Annual Meeting, New York, NY, April 2000.

Will Pet Dogs Become Biogerontology's New Workhorse? The Brookdale Foundation Millennium Retreat, Glen Cove, NY, October 1999.

Selenium and Prostate Cancer: Studies Using the Spontaneous Dog Model of Prostate Carcinogenesis. 1999 Cornell Nutrition Conference for Feed Manufacturers, Rochester, NY, October 1999.

Comparative Medicine and the Human Cancer Epidemic. National Pre-Vet Society Meeting, West Lafayette, IN, March 1999.

Skeletal Metastasis in Dogs with Spontaneous Prostate Cancer. Annual Veterinary Cancer Society Meeting, Chicago, IL, December 1997.

Spontaneous Canine Prostate Cancer: A Model for Androgen-Independent Disease. Cancer and Leukemia Group B Annual Conference, Orlando FL, November 1997.

Reoperative Neurosurgery In Dogs With Thoracolumbar Disc Disease. American College of Veterinary Surgeons Surgical Forum, Orlando, FL, October 1997.

The Other Major Neurosurgical Diseases. American College of Veterinary Surgeons Surgical Forum, Orlando, FL, October 1997.

Comparative Oncology: Implications for Anticancer Drug Discovery. American College of Veterinary Pathologists Annual Meeting, Seattle, WA, December, 1996.

Abdominal Tumors I. Abdominal Surgery Session, ACVS Surgical Forum, San Francisco, CA, November 1996.

Abdominal Tumors II. Abdominal Surgery Session, ACVS Surgical Forum, San Francisco, CA, November 1996.

Important Concepts in Cancer Biology: Implications for Effective Antitumor Therapy. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 1995.

Tumor Markers and Early Cancer Diagnosis. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 1995.

Malignant Skeletal Neoplasms of Dogs. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 1995.

The Role of the Veterinarian in the Human Cancer Epidemic. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 1995.

Urogenital Neoplasms of Dogs. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 1995.

The Cat is Not a Small Dog: Ten Issues in Feline Oncology. Atlantic Coast Veterinary Conference, Atlantic City, NJ, October 1995.

The Biology of Cancer Metastasis: Implications for Antimetastatic Therapy. Surgical Oncology Session, ACVS Surgical Forum, Chicago, IL, October 1995.  
New Targets: Cancer Therapy in the 21st Century. Surgical Oncology Session, ACVS Surgical Forum, Chicago, IL, October 1995.

Tumor Markers: Early Cancer Diagnosis and More. Surgical Oncology Session, ACVS Surgical Forum, Chicago, IL, October 1995.

Veterinary Cancer Literature Update. Surgical Oncology Session, ACVS Surgical Forum, Chicago, IL, October 1995.

The Role of the Veterinarian in the Human Cancer Epidemic. Surgical Oncology Session, ACVS Surgical Forum, Chicago, IL, October 1995.



Malignant Skeletal Neoplasms of Dogs and Cats. Surgical Oncology Session, ACVS Surgical Forum, Chicago, IL, October 1995.

A Basic Approach to Canine Prostate Cancer. 14th Annual Conference of Veterinary Cancer Society, Townsend, TN, October 1994.

Cancer Biology and Control of Residual Disease. Surgical Oncology Session, ACVS Surgical Forum, Washington, DC, October 1994.

Musculoskeletal Tumors. Surgical Oncology Session, ACVS Surgical Forum, Washington, DC, October 1994.

Effect of Tamoxifen on Canine Disuse Osteoporosis. Annual Meeting of the Association for Veterinary Orthopedic Research and Education, Redmond, OR, September 1990.

Intramedullary Spinal Cord Metastasis in the Dog. 9th Annual Veterinary Cancer Society Meeting, Raleigh, NC, October 1989.

The Effect of Aspirin Treatment on Bone Mass and Bone Prostaglandin E in Canine Immobilization (Disuse) Osteoporosis. 24th Annual Meeting of American College of Veterinary Surgeons, Reno, NV, February 1989.

Intracranial Lesions in Dog with Hemangiosarcoma. 8th Annual Veterinary Cancer Society Meeting, Estes Park, CO, October 1988.

Canine Hemangiosarcoma. 7th Annual Veterinary Cancer Society Meeting, Madison, WI, October 1987.

REGIONAL (1984-2006):

Exceptional Longevity in People and Pets: Genes, Environment or Chance? Keynote Speaker. Noah's Animal Hospital Colloquium, Indianapolis, IN, January 2006.

Dietary Supplements: Good, Bad or Neither? Rotary Club, Rockville, IN, November 2005.

Lifestyle, Health and the News. Rockville Woman's Club, Rockville, IN, October 2005.

Dietary Supplements: Good, Bad or Neither? Indiana Elks, Rockville, IN, October 2005.

Exceptional Longevity: Genes, Environment or Chance? Living To Be 100 Actively Conference. West Lafayette, IN, September 2005.

Perspectives in Health Promotion. Westminster Men's Club, West Lafayette, IN, September 2005.

Perspectives in Cancer Research. American Cancer Society Man to Man Prostate Cancer Support Group, Lafayette, IN, June 2005.

Dietary Supplements: Good, Bad or Neither? Rotary Club, West Lafayette, IN, March 2005.

Dietary Supplements: Good, Bad or Neither? Westminster Village, West Lafayette, IN, February 2005.

Dietary Supplements: Good, Bad or Neither? Kiwanis Club, Peru, IN, January 2005.

A New Path to Progress - Comparative Aspects of Bone and Prostate Cancer in Pets & People. Annual Fall Conference for Veterinary Technicians, Purdue University, September 2004.

Perspectives in Cancer Research. Us Too International Prostate Cancer Support Group, Seattle, WA, October 2004.

Perspectives in Cancer Research. American Cancer Society Man to Man Prostate Cancer Support Group, Indianapolis, IN, August 2004.

Perspectives in Cancer Research. American Cancer Society Man to Man Prostate Cancer Support Group, Lafayette, IN, 2004.

Cancer Prevention: What Do Cardiologists Know That We Don't? Kiwanis Club, Peru, IN, April 2004.

Solving the Enigma of Prostate Cancer. American Cancer Society Man to Man Prostate Cancer Support Group, Kokomo, IN, January 2004.

Domestication's Curse: New Research Confronting the Cancer Epidemic in Pets and People. Northeast Indiana Veterinary Medical Association, Fort Wayne, IN, September 2003.

New Ideas in Prostate Cancer Research II. American Cancer Society Man to Man Prostate Cancer Support Group, Indianapolis, IN, May 2003.

New Ideas in Prostate Cancer Research. American Cancer Society Man to Man Prostate Cancer Support Group, Seattle, WA, September 2002.

New Ideas in Prostate Cancer Research. American Cancer Society Man to Man Prostate Cancer Support Group, Indianapolis, IN, August 2002.

Can We Transform the Pet Dog Population into a Field Laboratory for Aging and Cancer Prevention Research? Purdue University Veterinary Teaching Hospital Open House, April 2002.

A Perspective on Prostate Cancer Research. American Cancer Society Man to Man Prostate Cancer Support Group, Bellevue, WA, October 2001.

A Perspective on Prostate Cancer Research. Us Too International Prostate Cancer Support Group, Seattle, WA, October 2001.

American Cancer Society Man to Man Prostate Cancer Support Group, Kokomo, IN, August 2001.

Tissue-Specific Aspects of Aging. Symposium on Mechanisms and Consequences of Aging, Purdue Gerontology Program, April 2001

Pizza Slows the Aging Process. Purdue University Veterinary Teaching Hospital Open House, April 2001

Prostate Cancer Research Update. American Cancer Society Man to Man Prostate Cancer Support Group, West Lafayette, IN, February 2001.

Contemporary Issues in Prostate Cancer Research. American Cancer Society Man to Man Prostate Cancer Survivor Group, Seattle, WA, December 2000.

Selected Topics in Comparative Oncology. Continuing Education for Veterinarians Program, Greenville, SC, November 2000.

Intervertebral Disc Disease. Continuing Education for Veterinarians Program, Greenville, SC, November 2000.

Comparative Oncology Comes of Age. Veterinary Technician Conference, Purdue University, October 2000.

1999 Study of Longevity and Cancer Risk in Rottweilers. Medallion Rottweiler Club, Wheaton, IL, October 2000.

A Comparative Approach to the Study of Aging and Cancer Risk. Purdue Elderhostel Program “Understanding Animals, Understanding Us”, West Lafayette, IN, June 2000.

Selenium and Prostate Cancer Chemoprevention. American Cancer Society Man to Man Prostate Cancer Survivor Support Group, Lafayette, IN, April 2000.

Selected Topics in Spinal Cord Disease. Buffalo Academy of Veterinary Medicine, Buffalo, NY, December 1999.

Selected Topics in Cancer Biology and Cancer Therapeutics. Buffalo Academy of Veterinary Medicine, Buffalo, NY, December 1999.

Selected Topics in Spinal Cord Disease. Veterinary Technicians of Western New York, Buffalo, NY, December 1999.

Selected Topics in Cancer Biology and Cancer Therapeutics. Veterinary Technicians of Western New York, Buffalo, NY, December 1999.

Regional Veterinary Medical Association, Harrisburg, PA, October 1999.

Purdue University Laboratory Animal Program, Purdue University, West Lafayette, IN, October 1999.

1999 Study of Longevity and Cancer Risk in Rottweilers. Medallion Rottweiler Club, Wheaton, IL, October 1999.

Comparative Oncology. PUSVM Road Show, Merrillville, IN, April 1999.

Selected Topics in Cancer Biology and Treatment. Westchester (NY) Veterinary Medical Association, March 1999.

Prognosis for Dogs after Surgical Treatment of Intervertebral Disk Disease. Westchester (NY) Veterinary Medical Association, March 1999.

Selected Topics in Cancer Biology and Treatment. Long Island (NY) Veterinary Medical Association, March 1999.

Prognosis for Dogs after Surgical Treatment of Intervertebral Disk Disease. Long Island (NY) Veterinary Medical Association, March 1999.

The Cancer Chemoprevention and Aging Research Initiative at Purdue University. Indiana Veterinary Medical Association, Indianapolis, IN, March 1999.

Comparative Oncology Meets Biogerontology. Regional Indiana Veterinary Medical Association, Liberty, IN, February 1999.

Comparative Oncology. Purdue Elderhostel Program “Understanding Animals-Understanding Us”, West Lafayette, IN, June 1998.

Chemoprevention of Prostate Cancer. Purdue University Interdepartmental Nutrition Program, West Lafayette, IN, February 1998.

Update on Breast and Prostate Cancer. Purdue Retirees. West Lafayette, IN, October 1997.

Comparative Oncology. Spouses of Mechanical Engineers Advisory Board, West Lafayette, IN, September 1997.

Cancer Research. Purdue University Laboratory Animal Medicine Program, West Lafayette, IN, August 1997.

Comparative Oncology. Indiana State Fair, Indianapolis, IN, August 1997.

Prostatic Neoplasia of Man and Dogs. North Central Veterinary Diagnosticians, West Lafayette, IN, June 1997.

New Horizons in Cancer Biology, Early Cancer Detection and Treatment. Central Indiana Veterinary Medical Association, Indianapolis, IN, March 1997.

An Agenda for Prostate Cancer Research. American Cancer Society Man to Man Prostate Cancer Survivor Support Group, Lafayette, IN, January 1997.

Comparative Oncology. Indiana State Fair, Indianapolis, IN, August 1996.

Comparative Aspects of Prostate and Bone Cancer. PUSVM Road Show, Merrillville, IN, March 1996.

Prostate Cancer. Westminster Village Men's Club, West Lafayette, IN, February 1996.

Priorities in Prostate Cancer Research: Prevention, Control, or Cure? American Cancer Society Man to Man Prostate Cancer Survivor Support Group, Lafayette, IN, February 1996.

The Athymic Mouse in Cancer Research. Purdue University Laboratory Animal Medicine Program, Lafayette, IN, October 1995.

An Inside Look at Cancer Research. Fall Conference for Veterinary Technicians, Purdue University, West Lafayette, IN, October 1995.

Searching for a Cancer Cure: What We're Up Against. Purdue Women's Club, Purdue University, West Lafayette, IN, April 1995.

Recent Advances in Cancer Research: Are We Winning the Battle? Open House at Purdue University School of Veterinary Medicine, West Lafayette, IN, April 1995.

Recent Advances in Cancer Research and the Role of the Veterinarian in the Human Cancer Epidemic. Michiana Veterinary Medical Association, West Lafayette, IN, April 1995.

The Role of the Veterinarian in the Human Cancer Epidemic. WCIVMA, West Lafayette, IN, January 1995.

Obstacles to Curative Cancer Therapy. Veterinary Physiology and Pharmacology Departmental Seminar, Purdue University, West Lafayette, IN, December 1994.

The Cat is Not a Small Dog: Ten Issues in Feline Oncology. North Suburban Chicago Veterinary Association, Chicago, IL, October 1994.

Musculoskeletal Neoplasia. North Suburban Chicago Veterinary Association, Chicago, IL, October 1994.

Introduction to Cancer Biology. North Suburban Chicago Veterinary Association, Chicago, IL, October 1994.

Obstacles to Curative Cancer Therapy. AAHA Veterinary Management Institute, Purdue University, West Lafayette, IN, October 1994.

Obstacles to Curative Cancer Therapy. Dean's Club Luncheon, Fall Conference at Purdue University School of Veterinary Medicine, West Lafayette, IN, September 1994.

Understanding Why Cancer Kills People and their Pets. Purdue University School of Veterinary Medicine Open House, West Lafayette, IN, April 1994.

Comparative Oncology: Cancer Research at the Purdue School of Veterinary Medicine. Rotary Club, West Lafayette, IN, April 1994.

Essentials of Cancer Biology: Why Cancer Kills Pets and their People. Summit County Veterinary Medical Association, Akron, OH, January 1994.

Cancer Research at Purdue University. PUSVM Road Show, Fort Wayne, IN, January 1994.

An Approach to Spinal Cord Disease in Small Animals. Student Chapter American Animal Hospital Association, Purdue University, West Lafayette, IN, October 1993.

Cancer: Insights Gained from the Study of Comparative Oncology. AAHA Veterinary Management Institute, Purdue University, West Lafayette, IN, October 1993.

Cancer Research at Purdue University. PUSVM Road Show, Evansville, IN, October 1993.

Update from the Purdue Oncology Program. Fall Conference at PUSVM, West Lafayette, IN, September 1993.

Small Animal Orthopedics and Oncology: Something Old, Something New. Calumet Area Veterinary Medical Association, Merrillville, IN, September 1993.

Does Dietary Fat Modulate the Metastatic Behavior of Tumor Cells?  
Interdepartmental Nutrition Program Seminar, Purdue University, West Lafayette, IN, April 1993.

Research Update: Prostate Cancer. Open House at PUSVM, West Lafayette, IN, April 1993.

Practical Small Animal Orthopedics. West Central Indiana Veterinary Medical Association, West Lafayette, IN, January 1993.

A Practical Approach to the Orthopedic Patient. Student Chapter American Animal Hospital Association, Purdue University, West Lafayette, IN, November 1992.

Clinical Pathology. Summit County Veterinary Technicians, Akron, OH, 1985.

Rabies and Toxoplasmosis. University of Akron Public Television, Akron, OH, 1985.

Introduction to Electrocardiography. Summit County Veterinary Technicians, Akron, OH, 1984.

Diabetes, Seizure Disorders, Heart Disease. University of Akron Public Television, Akron, OH, 1984.

### *Other Invited Presentations*

It Takes Imagination: Insights from the Process of Studying Highly Successful Aging in Pet Dogs. National Animal Interest Alliance, Orlando, FL, Nov. 2013.

Introduction to Cancer Biology. Arcadia University, Philadelphia, PA, July 2013.

Critical Issues in Biogerontology. Arcadia University, Philadelphia, PA, July 2013.

The Challenge of Cancer Avoidance and Successful Aging in a U-Shaped World. NCI Cancer Prevention Colloquia, Bethesda, MD, July 2013.

The Oldest Dogs as Our Greatest Teachers: Get the Words Out of Your Eyes. TEDx Purdue University, West Lafayette, IN, April 2013.

Generating Scientific Hypotheses from the Living Room: Some Thoughts on Aging, Language, and Barriers to Creative Discovery. University of Kentucky, Lexington, KY, March 2013.

Successful Aging Factors in Dogs & Humans. Louisville Dog Show, Louisville, KY, March 2013.

Animal Models in Cancer Control Research. NCI Cancer Prevention Colloquia, Bethesda, MD, August 2012.

Introduction to Cancer Biology. Arcadia University, Philadelphia, PA, August 2012.

Critical Issues in Biogerontology. Arcadia University, Philadelphia, PA, August 2012.

Anti-Aging Medicine: You Can't Think Critically About Nothing. Gerontology Plus: Exploring Successful Aging Program. Alabama Veterinary Medical Association – Georgia Veterinary Medical Association Conference, Destin, FL, June 2012.

Successful Aging: The Challenge of Promoting Health in a U-Shaped World. Gerontology Plus: Exploring Successful Aging Program. Alabama Veterinary Medical Association – Georgia Veterinary Medical Association Conference, Destin, FL, June 2012.

Beyond Reproduction: Re-Conceptualizing Ovaries and Longevity. Gerontology Plus: Exploring Successful Aging Program. Alabama Veterinary Medical Association – Georgia Veterinary Medical Association Conference, Destin, FL, June 2012.

The Aging-Cancer Connection: Implications for Cancer Prevention. Gerontology Plus: Exploring Successful Aging Program. Alabama Veterinary Medical Association – Georgia Veterinary Medical Association Conference, Destin, FL, June 2012.

Celebrating Unfinishedness: Some Thoughts on Personal/Personal Development. Gerontology Plus: Exploring Successful Aging Program. Alabama Veterinary Medical Association – Georgia Veterinary Medical Association Conference, Destin, FL, June 2012.

Beyond Reproduction: Re-Conceptualizing Ovaries and Longevity. Rose City Classic Breeder Symposium, Portland, OR, January 2012.

Beyond Reproduction: Re-Conceptualizing Ovaries and Longevity. Eukanuba Breeder Symposium, Orlando, FL, December 2011.

Successful Aging: The Challenge of Promoting Health in a U-Shaped World. Illinois State Veterinary Medical Association, Peoria, IL, November 2011.

Anti-Aging Medicine: You Can't Think Critically About Nothing. Illinois State Veterinary Medical Association, Peoria, IL, November 2011.



Beyond Reproduction: Re-Conceptualizing Ovaries and Longevity. Illinois State Veterinary Medical Association, Peoria, IL, November 2011.

Animal Models in Cancer Control Research. NCI Cancer Prevention Colloquia, Bethesda, MD, August 2011.

Critical Issues in Biogerontology. Arcadia University, Philadelphia, PA, August 2011.

Introduction to Cancer Biology. Arcadia University, Philadelphia, PA, August 2011.

Healthy Longevity and Cancer Prevention: How the Science of Aging Informs the Practice of Wellness. Elderhostel Senior Programs, Purdue University, West Lafayette, IN, June 2011.

Speculations on the Physiological Underpinnings of the Resilient Phenotype. Center on Aging and Life Course Spring Luncheon, Purdue University, West Lafayette, IN, March 2011.

Exploring the Pet Dog Paradigm: Will Pet Dogs Become Biogerontology's New Workhorse? Institute for Advanced Studies at Princeton University, Princeton, NJ, February 2011.

Biogerontology Researching: How the Science of Aging Informs the Practice of Wellness. P & G Pet Care Academy, Cincinnati, OH, August 2010.

Critical Issues in Biogerontology. Arcadia University, Philadelphia, PA, May 2010.

Introduction to Cancer Biology. Arcadia University, Philadelphia, PA, May 2010.

Defining the Optimal Selenium Dose for Prostate Cancer Risk Reduction. NCI Cancer Prevention Control Colloquia, Bethesda, MD, April 2010.

It's a U-Shaped World: A Batesonian Prescription for Promoting Public Health. The Third Science Journalism Laureates, Purdue University, West Lafayette, IN, November 2009.

Critical Issues in Biogerontology. Arcadia University, Philadelphia, PA, May 2009.

Introduction to Cancer Biology. Arcadia University, Philadelphia, PA, May 2009.

A Closer Look at the Aging and Cancer Connection. International Graduate Training Program in Aging Research, Jonkoping, Sweden, June 2008.

The Dog as a Model in Biogerontology Research. International Graduate Training Program in Aging Research, Jonkoping, Sweden, June 2008.

Embracing Paradox: How a Volvo is Like the Future of Prostate Cancer Prevention. Indiana Cancer Consortium, Indianapolis, IN, April 2008.

Critical Issues in Biogerontology. Arcadia University, Philadelphia, PA, April 2008.

Introduction to Cancer Biology. Arcadia University, Philadelphia, PA, April 2008.

A Closer Look at the Aging and Cancer Connection. First International Graduate Training Program in Aging Research, Jonkoping, Sweden, May 2007.

The Dog as a Model in Biogerontology Research. First International Graduate Training Program in Aging Research, Jonkoping, Sweden, May 2007.

Critical Issues in the Biology of Aging. Arcadia University, Philadelphia, PA, May 2007.

The Promise of Cancer Prevention. Arcadia University, Philadelphia, PA, May 2007.

Dogs Chasing Cancer Clues: Comparative Aspects of Cancer in Pets and People. USDA Human Nutrition Research Center, Grand Forks, ND, March 2007.

Critical Issues in the Biology of Aging. Arcadia University, Philadelphia, PA, May 2006.

The Promise of Cancer Prevention. Arcadia University, Philadelphia, PA, May 2006.

Comparative Aspects of Cancer and Aging in Pets and People. University of Montana, Missoula, MT, December 2005.

The Public Health Significance of Selenium and Cancer Prevention. University of Modena, Modena, Italy, June 2005.

Critical Issues in the Biology of Aging. Arcadia University, Philadelphia, PA, May 2005.

The Promise of Cancer Prevention. Arcadia University, Philadelphia, PA, May 2005.

Perspectives in Health Promotion: Does Pizza Slow the Aging Process? Cleveland Academy for Veterinary Continuing Education, Cleveland, OH, April 2005.

Understanding the Biology of Aging. Cleveland Academy for Veterinary Continuing Education, Cleveland, OH, April 2005.

Recent Advances in Cancer Prevention and Treatment. Cleveland Academy for Veterinary Continuing Education, Cleveland, OH, April 2005.

Selenium, DNA Damage and Prostate Cancer. Wake Forest University Center for Prostate Cancer Excellence, Winston-Salem, NC, April 2005.

Perspectives in Health Promotion: Does Pizza Slow the Aging Process? West Virginia Veterinary Medical Association Meeting, White Sulphur Springs, WV, February 2005.

Understanding the Biology of Aging. West Virginia Veterinary Medical Association Meeting, White Sulphur Springs, WV, February 2005.

Recent Advances in Cancer Prevention and Treatment. West Virginia Veterinary Medical Association Meeting, White Sulphur Springs, WV, February 2005.

Selenium, DNA Damage and Prostate Cancer. Work in Progress Seminar Series, Oklahoma Medical Research Foundation, Oklahoma City, OK, January 2005.

Comparative Oncology: A New PATH to Progress. Animal Models Initiative Seminar. National Cancer Institute, Bethesda MD, August 2004

Keynote Address: Mineral and Trace Element Hypotheses in Cancer and Other Chronic Diseases. The University of Missouri Research Reactor Research Day. Columbia, MO, May 2004.

Important Concepts in Cancer Biology. Kitasato University, Kitasato, Japan, November 2002.

Comparative Oncology at Purdue University. Kitasato University, Kitasato, Japan, November 2002.

Comparative Aspects of Prostate Cancer. Kitasato University, Kitasato, Japan, November 2002.

Skeletal Neoplasms of the Dog and Cat. Kitasato University, Kitasato, Japan, November 2002.

Comparative Aspects of Prostate Cancer. University of Chicago, Chicago, IL, April 2001.

Comparative Aspects of Prostate and Bone Cancer. Department of Urology, University of Virginia. Charlottesville, VA, July 1997.

The Dog as a Spontaneous Animal Model of Prostate Carcinogenesis. University of Texas MD Anderson Cancer Center, Department of Cell Biology Seminar Series, February 1997.

The Canine Prostate is a Spontaneous Model of Prostate Cancer Development and Progression. University of Michigan Cancer Center, Prostate Cancer SPORE Seminar Series, December 1996.

Comparative Aspects of Prostate Carcinogenesis. University of Saarland, Dept of Pathology, Homburg, Germany, October 1996.

***Other Invited Lectures:***

INTERDEPARTMENTAL SEMINAR SERIES

Veterinary Physiology and Pharmacology (VPH), December 1994  
Veterinary Pathobiology (VPB) Graduate Seminar Series, April 1996  
Vet Clin Sci Seminar, February 2013

JOURNAL CLUB PARTICIPATION

Surgery Resident-Faculty Journal Club, University of Minnesota, 1986-90  
Surgery Resident-Faculty Journal Club, North Carolina State University, 1990-91  
Oncology Journal Club, North Carolina State University, 1990-91  
Neurology Journal Club, North Carolina State University, 1990-91  
Surgery Resident-Faculty Journal Club, Purdue University, 1991-95  
Oncology Journal Club, Purdue University, 1993-94  
Medicine Journal Club, Purdue University, 1994-95  
Oncology Boards Preparation, Purdue University, 1999, 2000

**Professional Meetings Attended (1997-2006):**

*More than 30 since 2006.*

Gordon Research Conference on the Biology of Aging. Ventura, CA, February 2006.

The North American Veterinary Conference. Orlando, FL, January 2006.

The Gerontological Society of America 58<sup>th</sup> Annual Science Meeting. Orlando, FL, November 2005.

American Association for Cancer Research Frontiers in Cancer Prevention Research, Baltimore, MD, October 2005.

Southwest Oncology Group Meeting. Dallas, TX, October 2005.

Environmental Mutagen Society Annual Meeting, San Francisco, CA, September 2005.

International Biogerontology Research Institute Symposium, Cividale, Italy, June 2005.

Diet and Optimal Health, Linus Pauling Institute, Oregon State University, May 2005.

West Virginia Veterinary Medical Association Meeting, February 2005.

Environmental Mutagen Society Annual Meeting, Pittsburgh, PA, October 2004.

4<sup>th</sup> Geneva Aging Workshop, Geneva, Switzerland, October 2004.

American Association for Cancer Research Frontiers in Cancer Prevention Research.  
Seattle, WA, October 2004.

World Health Organization International Consultation on Urologic Oncology: Prognostic  
Factors in Human Prostate Cancer. Stockholm, Sweden, September 2004.

International Biogerontology Research Institute Symposium, Cividale, Italy, May 2004.

Children's Oncology Group National Scientific Meeting, Washington, DC, March 2004.

The Gerontological Society of America 56<sup>th</sup> Annual Science Meeting, San Diego, CA,  
November 2003.

8<sup>th</sup> International Conference on Mechanisms of Antimutagenesis and Anticarcinogenesis,  
Pisa, Italy, October 2003.

American Association for Cancer Research Frontiers in Cancer Prevention Research  
Phoenix, AZ, October 2003.

Dogs, Genes, and Cancer: 3<sup>rd</sup> Annual Canine Cancer Conference, Seattle, WA,  
September 2003.

American Urologic Association Summer Conference on Prostate Cancer, Houston, TX,  
August 2003.

American Aging Association Meeting, Baltimore, MD, June 2003.

Environmental Mutagen Society Annual Meeting, Miami Beach, FL, May 2003.

Keystone Symposium: Molecular Mechanisms of Apoptosis, Banff, Alberta, Canada,  
February 2003.

NIH Special Conference on Dietary Supplements in the Elderly, Bethesda, MD, January  
2003.

The Gerontological Society of America 55<sup>th</sup> Annual Science Meeting, Boston MA, November 2002.

American Association for Cancer Research Frontiers in Cancer Prevention Research Meeting Boston, MA, October 2002.

World Small Animal Veterinary Congress, Granada, Spain, September 2002.

Environmental Mutagen Society Annual Meeting, Anchorage, AK, May 2002.

American Association for Cancer Research New Discoveries in Prostate Cancer Biology and Treatment Meeting, Naples, FL, December 2001.

The Gerontological Society of America 54<sup>th</sup> Annual Scientific Meeting, Chicago, IL, November 2001.

American Institute for Cancer Research Meeting. Washington, DC, July 2001

Environmental Mutagen Society Annual Meeting, San Diego, CA, March 2001.

The Gerontological Society of America 53<sup>rd</sup> Annual Science Meeting, Washington DC, November 2000.

International Conference on Mechanisms of Antimutagenesis and Anticarcinogenesis, Grand Rapids, MI, September 2000.

NIA Workshop on Genetics of Longevity and Late-Life Traits in Mammals, Ann Arbor, MI, April 2000.

Keystone Symposium on Molecular Epidemiology, Taos, NM, February 2000.

Institute for International Research Workshop on Clinical Trials for Anti-Cancer Drugs, Philadelphia, PA, January 2000.

American Association for Cancer Research Special Conference on DNA Repair Defects, San Diego, CA, January 2000.

Biological Basis for Antiangiogenic Therapy, Milan, Italy, November 1999.

The Gerontological Society of America 52<sup>nd</sup> Annual Science Meeting, San Francisco, CA, November 1999.

The Brookdale Foundation Leadership in Gerontology Millennium Retreat, Glen Cove, NY, October 1999.

1999 Cornell Nutrition Conference, Ithaca, NY, October, 1999.

Summer Training Course in Experimental Aging Research, sponsored by National Institute of Aging, Ann Arbor, MI, June 1999.

Metabolic Mechanisms of Longevity: Divergent Models Convergent Pathways, Seattle, WA, June 1999.

Keystone Symposium on Aging: Genetic and Environmental Influences on Life Span. Keystone, CO, February 1999.

The Fourth Annual Santa Barbara Cancer Foundation Workshop: Evolutionary Insights into Cancer Hit Theory and the Population Biology of Cancer Cells. Santa Barbara, CA, January 1999.

National Foundation for Cancer Research: Basic Science Research for a Cure and Prevention. Georgetown University, Washington, DC, September 1998.

Second Workshop on Organisms with Negligible Senescence. Andrus Gerontology Center, University of Southern California, Los Angeles, CA, June 1998.

Aging Well: An Interdisciplinary Perspective. Purdue University, West Lafayette, IN, May 1998.

Cambridge Healthtech Institutes Conference on Prostate Cancer. McLean, VA, March 1998.

National Cancer Institute Workshop on Endogenous Estrogens as Carcinogens. Chantilly, VA, March 1998.

AACR Special Conference on Angiogenesis, Orlando, FL, January 1998.

Oxidative Damage and Age-related Diseases, Las Vegas, NV, December 1997.

New York Academy of Sciences Workshop: Morphogenesis. Bethesda, MD, October 1997.

Molecular Determinants of Metastasis, University of Texas, MD Anderson Cancer Center, Houston, TX, October 1997.

Skeletal Complications of Malignancy, National Institutes of Health, Bethesda, MD, April 1997.

### **Research Grants and Awards Received**

#### *Extramural:*

T32 Interdisciplinary Research on Aging and the Life Course. PI: Ferraro, K. National Institute on Aging Institutional Training Awards. Waters DJ is Program Co-Director

(\$132,000) 2009-2011.

BMW LR Foundation Fellowship in Comparative Biogerontology and Oncology. CoPI: Glickman LT, HoganEsch H, Waters DJ. (\$409,537), 2005.

Botanical Center for Age-Related Diseases. PI: Weaver CM. Waters DJ is Co-Leader of In Vivo Bioavailability Core. NIH (\$6,250,000) 2004.

Botanicals Center for Age-Related Diseases (support for Post-doctoral Associate). PI: Waters DJ (0.0 FTE). NIH Supplement (\$69,637), 2004.

Botanicals Center for Age-Related Diseases (support for Post-doctoral Associate). PI: Waters DJ (0.0 FTE). NIH Supplement (\$69,637), 2003.

Botanicals Center for Age-Related Diseases (support for Post-doctoral Associate). PI: Waters DJ (0.0 FTE). NIH Supplement (\$69,637), 2002.

Do Phytochemicals Used to Promote Prostate Health Have Beneficial or Detrimental Effects on Lethal Cancer Progression? PI: Waters DJ (0.05 FTE). NIH Botanicals Center for Age-Related Disease (\$29,946), 2002.

Evaluation of a New Anticancer Agent. PI: Waters DJ (0.0 FTE). Gerald P. Murphy Cancer Foundation (\$7,250), 2001.

Botanicals Center for Age-Related Diseases. PI: Waters DJ (0.0 FTE). NIH Supplement (support for Post-doctoral Associate) (\$37,000), 2001.

Effect of Selenium Supplementation on Molecular Biomarkers of Carcinogenesis in the Aged Dog Prostate. PI: Waters DJ (0.15 FTE x 24 months). CoI: Bostwick DG, Combs GF Jr, Glickman LT. Department of Defense (\$720,766) 2000.

Center for Enhancing Foods to Protect Health. PI: Watkins BA CoI: Waters DJ (0.05 FTE x 24 months), et al. 21<sup>st</sup> Century Research & Technology Fund (\$2,000,000) 2000.

Botanical Center for Age-Related Diseases. PI: Weaver CM. Waters DJ is Co-Leader of In Vivo Bioavailability Core (60 months). NIH (\$7,823,234) 2000.

Effects of Conjugated Linoleic Acid, Gamma Linolenic Acid, an Eicosapentaenoic Acid on Expression of Cyclooxygenase-1 and -2, Prostaglandin E2 Synthesis, and Proliferation of Cancer cells. PI: Knapp DW, CoI: Mohammed SI, Waters DJ (0.05 FTE), Glickman NW. The Iams Company (\$103,730), 2000.

Validation of the Dog as a Mammalian Model to Evaluate Genetic and Environmental Determinants of Aging and to Develop Strategies for the Prevention of Human Prostate Cancer. PI: Waters DJ (0.60 FTE x 24 months). Brookdale Foundation (\$127,500) 1999.

Aging and Chemoprevention Research Initiative. PI: Waters DJ (0.10 FTE x 60 months). CoI: Knapp DW, Glickman LT. IAMS Company (\$1,077,930) 1999.



Radiopharmaceuticals Targeted to Tumor Folate Receptors. PI: Green MA. CoI: Low PS, Waters DJ (0.05 FTE x 60 months). National Cancer Institute (\$1,343,085) 1999.

Cancer Center Support Grant. PI: Borch RF. CoI: Harrison ML, Bergstrom DE, Stauffacher C, Taparowky EJ, Beussman DJ, Bolin JT, Konieczny SF, Post CB, Robinson JP, Waters DJ (0.10 FTE x 60 months), Weith HL. National Cancer Institute (\$694,371) 1999.

*In Vivo* Testing of Chemopreventive Agents Using the Dog Model of Spontaneous Prostate Carcinogenesis. PI: Waters DJ (0.10 FTE X 30 months). CoI: Glickman LT, Bostwick, DG, Mason AK. Department of Defense Prostate Cancer Research Program (\$448,199) 1998.

Phase II Clinical Trial of Piroxicam in Humans with Carcinoma *In Situ* of the Urinary Bladder: Determination of Tumor Response and Effects on Cycooxygenase 1 and 2, and Prostaglandiin E<sub>2</sub> Concentrations. PI: Knapp DW. CoI: Foster RS, Waters DJ, Roth BJ. Walther Cancer Institute (\$40,000) 1998.

Phase I-II Clinical Trial of Cisplatin-Piroxicam in Canine Oral Cancer. PI: Knapp DK. CoI: Waters DJ (0.05 FTE x 36 months), Snyder PW, Glickman NW. Morris Animal Foundation (\$65,955) 1998.

Phase II Clinical Trial of Piroxicam in Humans with Carcinoma *In Situ* of the Urinary Bladder. PI: Knapp DW. CoI: Foster RS, Waters DJ, Roth BJ. Walther Cancer Institute (\$50,000) 1998.

Investigation of the Mechanisms of Synergistic Antitumor Activity Between Piroxicam and Cisplatin Against Canine Transitional Cell Carcinoma of the Urinary Bladder. PI: Knapp DW. CoI: Waters DJ, Lin TL, Snyder P. Morris Animal Foundation (\$59,000) 1998.

*In Vivo* Antitumor Efficacy of Novel Polyselenophenes. PI: Chang C-j. CoI: Waters DJ (0.05 FTE for 12 months). Creative Biomolecules, Inc (\$21,204) 1998.

Epidemiology of Prostatic Intraepithelial Neoplasia and Carcinoma in Pet Dogs. PI: Waters DJ (0.15 FTE for 36 months). CoI: Glickman LT, Bostwick DG. American Cancer Society (\$156,000) 1997.

Mechanisms of Synergistic Antitumor Activity of Piroxicam and Cisplatin in Canine Cancer. PI: Knapp DW. CoI: Waters DJ (0.05 FTE for 36 months), Lin TL, Snyder PW, Widmer WR, Glickman NW. Morris Animal Foundation (\$59,000) 1997.

Measurement of PGE<sub>2</sub> Concentrations in Canine Tumors and in Canine Tumor Cell Lines. PI: Knapp DW. Co-I: Waters DJ (0.05 FTE). Iams Company (\$47,000) 1997.

Photon Migration Imaging of Normal and Malignant Tissue. PI: Waters DJ (0.15 FTE for 12 months). CoI: Sevick-Muraca, E. Malincrodt Medical, Inc. (\$53,000) 1997.

Radiopharmaceuticals Targeted to Tumor Folate Receptors. PI: Green MA. CoI: Low PS, Waters DJ (0.05 FTE for 36 months). RO1 National Cancer Institute (NIH) (\$580,000) 1996.

Elevated Levels of Basic Fibroblast Growth Factor (b FGF) in Urine as a Marker for Canine Prostate and Bladder Cancer. PI: Waters DJ (0.05 FTE for 12 months). CoI: Knapp DW. Ohio Animal Health Foundation (\$5,280) 1995.

Evaluation of Positron Emission Tomography (PET) in the Non-invasive Assessment of Percent Tumor Necrosis in Spontaneous Canine Osteosarcoma. PI: Waters DJ (0.05 FTE 12 months). CoI: Hutchins GD, Rougraff BT, Breitfeld PP, Heifetz SA. Indiana University Physiologic Imaging Research Center (\$30,500) 1995.

Magnetic Targeted Drug Delivery. PI: Richardson RC. CoI: Knapp DW, Waters DJ (0.5 FTE for 12 months), Blevins WE. Magnetic Delivered Therapeutics, Inc. (\$226,100) 1994.

Comparison of Breath Hold and Nonbreath Hold Helical and Nonhelical Computerized Tomography Techniques for the Detection of Lung Metastases in Dogs with Osteosarcoma. PI: Cohen MD. CoI: Waters DJ (0.05 FTE for 12 months), Kopecky KK, Zhou A, Heifetz SA. The Society for Pediatric Radiology (\$5,000) 1994.

Evaluation of Tumor Microvessel Density as a Predictor for Survival in Dogs and Cats with Breast Cancer. PI: Waters DJ (0.05 FTE for 12 months). CoI: Knapp DW, Sledge GW Jr. Ohio Animal Health Foundation (\$3,125) 1994.

Effect of Doxycycline on Growth and Metastasis of Osteosarcoma. PI: Rougraff BT. CoI: Fife RS, Waters DJ (0.10 FTE for 24 months). Orthopaedic Research and Education Foundation(\$100,000) 1993.

The Metastatic Behavior of Prostate Carcinoma Cell Lines Established From Dogs With Spontaneous Prostate Carcinoma. PI: Waters DJ (0.05 FTE for 24 months). Indiana Elks Grants for Cancer Research (\$10,000) 1992.

The Effect of Tamoxifen on Canine Immobilization (Disuse) Osteoporosis. PI: Waters DJ (0.05 FTE for 12 months). CoI: Caywood DD, Turner RT. Association for Veterinary Orthopedic Research and Education (\$4,766) 1989.

The Effect of Tamoxifen on Canine Immobilization (Disuse) Osteoporosis. PI: Waters DJ (0.05 FTE for 12 months). CoI: Caywood DD, Turner RT. American College of Veterinary Surgeons, Surgeon-In-Training Research Grant (\$2,800) 1989.

*Intramural:*

Support for PhD student Christine Keller. PI: Waters, DJ (0.0 FTE). Lynn Fellowship (Administered by Purdue Center on Aging and the Life Course) 2009.

Purdue Research Foundation International Travel Grant. PI: Waters, DJ. (\$1200) 2004.

Dietary Supplement Use Behavior in Elderly Men: Motivational Factors and Biological Consequences of Self-Medicating with the Anticancer Trace Mineral Selenium.

PI: Waters DJ (0.05 FTE), CoI: Hyner G. Kinley Trust (\$20,000) 2003.

Purdue Research Foundation International Travel Grant. PI: Waters, DJ. (\$800) 2003.

Support for PhD student Emily Chiang. PI: Waters, DJ (0.0 FTE). Lynn Fellowship (Administered by Purdue Gerontology Program) 2002.

The Testis Regulates the Accumulation of DNA Damage in the Aged Brain. PI: Waters DJ (0.0 FTE x 12 months). Purdue Gerontology Program (\$22,525) 2001.

Whole Animal Cancer Research Initiative. Co-PI: Borch RF, Konieczny SF, Waters DJ, Weaver CM. Purdue Academic Reinvestment Program (\$381,648) non-recurring, and (\$32,000) recurring per year, 1999.

Interdisciplinary Gerontology Program, Phase II. PI: Ferraro KF. CoI: Hyner G, Waters DJ (0.10 FTE for 36 months). Purdue University Academic Reinvestment Program (\$170,096) 1998.

Use of Pet Dogs to Study Biomarkers of Aging, Cancer Risk, and the Development of Novel Therapies Against Skeletal Neoplasms. PI: Waters DJ. Purdue Research Foundation Research Grant (support for DM Cooley, PhD Candidate) (\$11,666) 1998, 1999.

Phase II Clinical Trial of Piroxicam in Humans with Carcinoma in situ (CIS) of the Urinary Bladder: Determination of Tumor Response and Effects on Cyclooxygenase-1, Cyclooxygenase-2, and Prostaglandin E2 Concentrations. PI: Knapp DW. CoI: Foster RS, Waters DJ, Roth BJ. Purdue Cancer Center Translational Grant Program (\$25,000) 1997.

Second International Conference on Osteosarcoma. PI: Waters DJ. Purdue Research Foundation International Travel Grant (\$842) 1996.

Does Excision of the Primary Tumor Accelerate the Progression of Metastatic Disease? PI: Waters DJ (0.05 FTE for 24 months). CoI: Janovitz EB. Purdue University School of Veterinary Medicine Competitive Research Funds (\$7,160) 1995.

Discovery of New Antimetastatic Agents. PI: Waters DJ. CoI: Chang C-j. Andrews Fellowship (support for Jorge Allen, PhD Candidate) (\$20,000) 1995-1996.

First World Conference on Spontaneous Animal Tumors. PI: Waters DJ. Purdue Research Foundation International Travel Grant (\$683) 1995.

Laminar Flow Workbench for Athymic Mouse Facility. PI: Waters DJ. SVM Internal Research Funds, Purdue University (\$8,000) 1994.

Modulation of Metastasis by Prostatic Fibroblasts. PI: Waters DJ (0.0 FTE for 12 months). Purdue Research Foundation Research Grant (Support for Karen Cornell, PhD Candidate) (\$20,000) 1994-1995.

Library Scholars Grant. PI: Waters DJ (0.05 FTE for 12 months). Purdue University (\$200) 1994.

Xenotransplantation Studies with Human and Canine Prostate Carcinoma. PI: Waters DJ (0.20 FTE for 12 months). PUSVM Start-up Funds, (\$15,000) 1992.

Regional Differences in Polyamine Metabolism in Oral Mucosa of Normal Dogs and Dogs with Spontaneous Oral Neoplasms. PI: Sweet, DC. CoI: Miller MW, Kazarinoff MM, Waters DJ (0.05 FTE for 12 months). NCSU-VTH Dept CASS (\$1,600) 1991.

Inhibition of the Canine Complement and Clotting Cascades by Polysulfated Glycosaminoglycan. PI: Rashmir-Raven AM. CoI: Waters DJ (0.05 FTE for 12 months). NCSU-VTH Dept CASS (\$3,000) 1990.

Effect of Tamoxifen on Phorbol Ester-Induced Viral Replication in Cells Chronically Infected with Feline Immunodeficiency Virus (FIV). PI: Waters DJ (0.05 FTE for 12 months). CoI: Tompkins M, Tompkins W. NCSU-VTH Dept CASS (\$2,850) 1990.

### **Research Proposals Submitted But Not Funded**

T32 Interdisciplinary Research on Aging and the Life Course. PI: Ferraro, K. National Institute on Aging Institutional Training Awards. Waters DJ is Program Co-Director (\$1,229,958) 2010.

T32 Interdisciplinary Research on Aging and the Life Course. PI: Ferraro, K. National Institute on Aging Institutional Training Awards. Waters DJ is Program Co-Director (\$1,042,706) 2005.

T32 Interdisciplinary Research on Aging and the Life Course. PI: Ferraro, K. National Institute on Aging Institutional Training Awards. Waters DJ is Program Co-Director (\$1,042,706) 2004.

Meeting the Challenge of Cancer Prevention: Use of Animal and Cellular Models to Develop Nutritional Strategies to Prevent Prostate Cancer. PI: Waters DJ. Showalter Trust (\$50,000) 2003.

Nonhuman and Human Adenovirus Vectors for Gene Therapy. PI: Mittal SK. CoI: Waters, DJ (0.05 FTE). National Institutes of Health (\$1,000,000) 2002.

Nonhuman and Human Adenovirus Vectors for Gene Therapy. PI: Mittal SK. CoI: Waters, DJ (0.05 FTE). National Institutes of Health (\$1,000,000) 2001.

Using Pet Dogs to Prospect for Mechanisms of Mammalian Aging Predicted by Long-lived Worms and Flies PI: Waters DJ. Ellison Medical Foundation (\$600,000) 2002.

Optimizing Selenium as a Practical Prostate Cancer Prevention Strategy. PI: Waters DJ. Showalter Trust (\$40,000) 2002.

Detection of Breast Cancer Using Sequential Infrared Imaging. PI: Xu LX. CoI: Waters DJ (0.10 FTE x 36 months). National Institutes of Health (\$663,780) 2000.

Beef Fat Conjugated Linoleic Acid to Reduce Prostate Cancer and Metastasis to Bone. PI: Watkins BA. CoI: Waters DJ (0.02 FTE x 18 months). National Cattlemen's Beef Association (\$74,772) 2000.

Two Photon Imaging of Drug Uptake, Efflux, and Modulation in Multidrug Resistant Human Tumors In Vivo. PI: Erickson LC. CoI: Montrose M, Sledge G, Zhang JT, Dunn K, Starling J, Dantzig A, Waters DJ (0.10 FTE x 24 months). 21<sup>st</sup> Century Research and Technology Fund (\$160,566) 2000.

Angiogenesis Inhibitors in New Pre-Clinical Tumor Models. PI: Pirie-Shepherd S. CoI: Waters DJ (0.10 FTE x 12 months). National Institutes of Health (\$76,000) 1999.

Targeting of EphA2 in Metastatic Breast Cancer Cells. PI: Kinch MS. CoI: Waters DJ (0.05 FTE x 24 months). The Susan G. Komen Breast Cancer Foundation (\$240,818) 1999.

Exploiting the Profound Breed-specific Life Span Differences in Pet Dogs: Novel Approaches to Elucidate Important Determinants of Mammalian Aging. PI: Waters DJ (0.10 FTE x 48 months). Ellison Medical Foundation (\$899,000) 1999.

Evaluation of a Novel Dose Schedule of Doxoubicin or Taxotere to Inhibit Tumor Angiogenesis and Induce Sustained Suppression of Pulmonary Micrometastases in a Murine Model for Osteosarcoma. CoPI: Waters DJ, Murry DJ. Walther Innovative Research Program (\$30,360) 1999.

Targeting of EphA2 in Prostate Cancer Metastases. PI: Kinch MS. CoI: Waters DJ (0.05 FTE x 36 months). U.S. Army Medical Research and Material Command (\$540,989) 1999.

Comparative Oncology Research. PI: Waters DJ. International Travel Grant, \$1000, 1999.

**Forty-seven (47) others not funded since 1999.**

**Patent**

U.S. Patent Number 5,741,811. Polythiophene Anti-tumor Agents. April 21, 1998.  
Chang CJ et al.

**Current Research Interests**

Oncology

Cancer Chemoprevention  
Prostate Carcinoma and Prostatic Intraepithelial Neoplasia  
U-Shaped Dose Responses  
Optimizing Selenium for Cancer Risk Reduction

Gerontology

Biological Basis for Aging and Cancer Risk  
Biomarkers of Successful Aging  
Animal Models of Human Healthspan  
Cancer Resistance in the Oldest-Old

**SECTION D: EXTENSION, SERVICE AND UNIVERSITY OUTREACH ACTIVITIES**

**University, SVM, and Departmental Committee Assignments**

***University:***

Purdue Cancer Center, Experimental Therapeutics and Diagnostics Program Area, 1993-Present

Osteosarcoma Study Group, Indiana University School of Medicine--Purdue University School of Veterinary Medicine, 1993-1996

Purdue National Cooperative Natural Products Drug Discovery Group (NCNPDDG), 1993-1996

Indiana University-Purdue University Physiologic Imaging Committee (Oncology), 1994-1996

Committee on Interdisciplinary Research, Purdue University, 1999

Interdepartmental Graduate Program in Nutritional Sciences, January 1992-present  
(Executive Committee 2001-present; Chairman, Research Committee 2001)

Committee on the Use of Human Research Subjects, Purdue University, 2000-2003.

Committee on Interdisciplinary Graduate Programs, Purdue University, 2003.

Faculty Search Committee, Department of Foods & Nutrition, Purdue University, 2003 - 2004.

***School of Veterinary Medicine:***

SVM Research Advisory Board, 1994-2008  
SVM Grievance Committee, 1993-1997  
Search Committee, Toxicologic Pathologist, 1994-95  
Search Committee, Nutrition-Oncology, 1995-96  
Internal Grant Review Board, Purdue Cancer Center, 1996-1998  
Search Committee, Cancer Pharmacologist, Dept. Basic Medical Sciences, 1998  
Search Committee, Dept. Head Veterinary Clinical Sciences, 1999  
Task Force for Implementation of a School-wide Graduate Program in Clinical and Comparative Biomedical Sciences (L.T. Glickman, chair), 2000  
Interdepartmental Graduate Program Committee, 2001  
Search Committee, Clinical Oncologist, Dept Veterinary Clinical Sciences, 2002

***Departmental:***

PURDUE UNIVERSITY

Small Animal Surgery Residency Committees, October 1991-1999  
(Aiken S, Clarke K, Cornell K, Allen K, Munjar T, Owen T, Dhupa S, Hawthorne J, Lafond L)  
Ophthalmology Residency Committee, January 1992-94  
(Ringle M)  
Small Animal Surgery Resident Selection Committee, 1992-97  
Technical Standards Committee, 1992-Present  
Intern Committee, 1992-94  
Emergency Procedures Orientation, June 1992, June 1993  
AdHoc Committee on Evaluation of Blocks and Rotations in Senior Year, 1992  
Technical Standards Evaluation, 1992  
Awards Committee, 1993-94  
Ologist Committee, 1993  
Faculty-Student Liason Committee, 1995-96  
Primary Promotions Committee, 2001-present

NORTH CAROLINA STATE UNIVERSITY

Small Animal Intern Selection Committee, 1991

**Other Service**

***To the University:***

Teachers for Tomorrow Program, Senior Faculty Mentor to Promote Excellence in Teaching at Purdue University, 2005.

Chairperson, CALC Symposium on the Biology of Aging, Purdue University, April 2004.

Associate Director, Purdue Center on Aging and the Life Course, 2003 – present.

Associate Director, Medical & Biological Sciences, Purdue Gerontology Program, 1998-2003.

Investigator, Northern Indiana Cancer Research Consortium Community Clinical Oncology Program, 2002-2009.

Member, Scientific Advisory Committee, American Federation for Aging Research, 2001-present.

Co-Chairperson, Symposium on Mechanisms and Consequences of Aging, Purdue University, 2001.

Executive Committee, Interdepartmental Nutrition Program, 2001-2010

Co-Core Leader, Purdue Botanicals Center for Age-Related Diseases, 2000-2010

Director, Drug Development Shared Resource, Purdue University Cancer Center, 1998-2001.

Director, Purdue University Athymic Mouse Facility, supported by Animal Resources Core Grant from National Cancer Institute to Purdue Cancer Center, 1994-1998.

***To the School of Veterinary Medicine:***

Presidential Academic Review, 1998.

American Veterinary Medical Association Site Visit (research), 1997.

American Cancer Society Dog Walk, Merrillville, IN, 1994.

Interviewer for DVM Candidates, 1993, 1994, 2000.

“Ask the Specialist”, IVMA Meeting, Indianapolis, IN, 1993, 1994.

Surgery Exhibition, Indiana State Fair, Indianapolis, IN, 1994, 1995, 1996, 1997, 1998.

Emergency Procedures Orientation, 1992, 1993.

WBAA “Expert Connection”, 1996, 1998, 1999, 2000, 2001, 2002.

Oncology Core Research Presentation to USDA-CSREES Research-Review Team, 2002

***Service Outside School of Veterinary Medicine and Purdue University:***

Biological Sciences Executive Committee, Gerontology Society of America, 2013-present.



Publications Committee, Gerontology Society of America, 2013-present.

Chairperson, Symposium on Antimutagenesis and Chemoprevention in a U-Shaped World, 10<sup>th</sup> International Conference on Environmental Mutagens, Florence, Italy, August 2009.

Co-Chairperson, Symposium on Environmental Pollution: The Role of Sentinel Species and Biomarkers, 10<sup>th</sup> International Conference on Environmental Mutagens, Florence, Italy, August 2009.

Chairperson, Symposium on When More Is Not Better: U-Shaped Dose-Responses and Health, International Conference on Environmental Mutagens, Puerto Rico, October 2008.

Editorial Board, Mutation Research Reviews, 2008-2013.

Member, External Advisory Committee, NIH P01 Phytoestrogens and Aging, PI: William Helferich, University of Illinois, 2005.

Scientific Advisory Committee, American Federation of Aging Research, 2001-present

Organizing Committee, International Consultation on the Diagnosis of Non-invasive Urothelial Neoplasms, Ancona, Italy, May 2001.

Executive Director, Gerald P. Murphy Cancer Foundation, 2000-present.

Member, Study Section, (Biomedical A), California Cancer Research Grant Review Program, San Francisco, CA, 2000, 2002.

Board of Directors, Animal Cancer Foundation, 1999 – 2005.

Member, Study Section, (Clinical and Experimental Therapeutics – 1), Department of Defense Prostate Cancer Research Program, 1998, 1999.

Chairperson, Symposium on Animal Models of Human Cancer, 6th International Conference on Anticancer Research, Kallithea, Halkidiki, Greece, October 1998.

Research Grant Review. Canine Health Foundation, 1998.

Chairperson, Workshop on Animal Models of Prostate Cancer, Purdue University, August 1997. Sponsored by World Health Organization, American Urological Association, College of American Pathologists, International Union for Cancer Cure.

Member, NCI's Prostate Cancer Progress Review Group; appointed by Dr. Richard Klausner, Director of the National Cancer Institute; Mission: formulate scientific focus and direction of prostate cancer research in the United States, June 1997.

Editorial Board, *Prostate*, 12 papers reviewed, 1998-2001.

Editorial Board, *Veterinary Surgery*, 9 papers reviewed, 1997-1999.

Ad hoc Manuscript Reviewer

*AGE*, 2009  
*Analytical and Quantitative Cytology and Histology*, 2005  
*Brain Research*, 2002  
*Breast Cancer Research & Treatment*, 2003  
*Cancer*, 2000  
*Cancer Letters*, 2004  
*Cancer Research*, 1993, 1997  
*Clinical Cancer Research*, 2005  
*Clinical Experimental Metastasis*, 2001  
*Free Radical Biology and Medicine*, 2010, 2011  
*Handbook on the Biology of Aging*, 2009  
*International Journal of Cancer*, 2004, 2005  
*Journal of Veterinary Medicine*, 2006  
*Mutation Research*, 2001  
*Neurobiology of Aging*, 2001  
*Prostate*, 1997, 2002, 2003  
*Science*, 2012  
*Theriogenology*, 2006  
*Trends in Neurosciences*, 2004  
*Urology*, 1998

Co-Chairperson, Small Animal Neurosurgery Session, ACVS Symposium, Orlando, FL, October 1997.

Discussant, Scientific Paper at American College of Veterinary Surgeons Symposium, October 1996, 1997.

Chairperson, Surgical Oncology Session, American College of Veterinary Surgeons Symposium, Chicago, IL, October 1995.

Co-Chairperson, Surgical Oncology Session, American College of Veterinary Surgeons Symposium, Washington, DC, October 1994.

Chairperson, Small Animal Orthopedic Surgery Scientific Meeting, 28th Annual American College of Veterinary Surgeons Symposium, San Francisco, CA, October 1993.