

**Caroline (Piskun) Wood, DVM PhD**

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**CURRENT POSITIONS****Clinical Associate**

July 2020 – current

Southwest Veterinary Oncology; Tucson AZ

**Assistant Professor of Veterinary Medicine, Career-Track**

February 2021 – current

University of Arizona, College of Veterinary Medicine; Oro Valley, AZ

**EDUCATION/TRAINING****Medical Oncology Resident**

June 2017 – July 2020

University of Minnesota, Veterinary Medical Center, St Paul, MN

**Small Animal Medicine and Surgery Intern**

June 2016 – June 2017

University of Missouri, Veterinary Health Center, Columbia, MO

**Doctor of Veterinary Medicine**

Aug 2008 - May 2010;

University of Wisconsin, School of Veterinary Medicine, Madison, WI

Fall 2014 – May 2016

**Doctor of Philosophy**

Aug 2010 - July 2014

Dept. of Comparative Biomedical Sciences,

University of Wisconsin, Graduate School, Madison, WI

**Bachelor of Arts**

Aug 2004 - May 2008

Dept. of Chemistry &amp; Chemical Biology and Dept. of Biological Sciences;

Cornell University, College of Arts and Sciences, Ithaca, NY

**RESEARCH****Clinical Trial Location Co-Investigator**

July 2020 - current

Southwest Veterinary Oncology, Tucson, AZ

*Animal Clinical Investigations: OV-CLIN-1A, TYM-OSA***Residency Research Project**

Fall 2017 - current

Department of Veterinary Clinical Sciences, University of Minnesota, St Paul, MN

Principal Investigator: Jaime Modiano, VMD PhD

*Defining unique DNA methylation patterns for specific dog lymphocyte subsets*

- Dissertator (Research Assistant)** Fall 2012 - Summer 2014  
 Department of Comparative Biomedical Sciences, Graduate School,  
 University of Wisconsin-Madison, Madison, WI  
 Principal Investigator: Timothy Stein, DVM PhD DACVIM (Oncology)  
*Impact of Wnt signaling activation in canine osteosarcoma pathogenesis*
- Research Fellow (Trainee)** Fall 2011 - Fall 2012  
**ICTR TL1 Scholar (NIH CTSA Grant)**  
 School of Medicine and Public Health, University of Wisconsin-Madison, Madison, WI  
 Principal Investigator: Timothy Stein, DVM PhD DACVIM (Oncology)  
*Impact of  $\beta$ -catenin inhibition on canine osteosarcoma pathogenesis*
- Student Researcher (Trainee)** Fall 2010 - Fall 2011  
**12-month Mentored Research Program (NIH T32 Grant)**  
 School of Veterinary Medicine, University of Wisconsin-Madison, Madison, WI  
 Principal Investigator: Timothy Stein, DVM PhD DACVIM (Oncology)  
*Wnt/  $\beta$ -catenin signaling and differential serum ALP expression in canine osteosarcoma*
- Visiting Fellow (Trainee)** Summer 2010  
**Veterinary Student Summer Research Fellowship Program (NIH T35 Grant)**  
 Department of Comparative Medicine, Stanford University School of Medicine, Stanford CA  
 Principal Investigator: Stefanie Jeffrey, MD  
*Rapamycin treatment in a patient-derived orthotopic xenograft model of triple negative breast cancer*
- Visiting Research Intern** Summer 2009  
 Siyafunda Makalali Wildlife and Conservation Program,  
 Greater Makalali Private Game Reserve; Hoedspruit, Limpopo Province, South Africa  
 Supervisor: Michael Job, B.Soc.Sc, MBA; Andrews Mtshali  
*Wildlife Conservation and Population Management*
- Research Assistant** Fall 2005 - Spring 2008  
 Department of Molecular Biology and Genetics, Cornell University, Ithaca NY  
 Principal Investigator: Tudorita Tumber, PhD  
*Impact of modulating hair follicle stem cells on epithelial tumorigenesis*

## TEACHING

- Veterinary Student and Rotating Intern Teaching** July 2020 – current  
 Curriculum Contributions: College of Veterinary Medicine, University of Arizona  
 Didactic Rounds and Clinical Instruction: Southwest Veterinary Oncology
- Resident Teaching** Summer 2018 – July 2020  
 Department of Veterinary Clinical Sciences, School of Veterinary Medicine,  
 University of Minnesota  
 Classes: fourth year oncology rotation, clinical sciences and small animal skills labs

**Teaching Assistant** Summer 2014  
Institute of Clinical and Translational Research, School of Medicine and Public Health,  
University of Wisconsin - Madison  
Class: Nursing 705 Seminar in Interdisciplinary Clinical Research

**Seminar Leader** Summer 2014  
Department of Surgical Sciences, School of Veterinary Medicine,  
University of Wisconsin - Madison  
Class: Summer Scholar Ethics Seminars, Subject: Conflict of Interest

**Student Tutor** Spring 2010 – Spring 2013  
School of Veterinary Medicine, University of Wisconsin, Madison, WI  
Classes: Molecular and Metabolic Basis of Medicine;  
Introduction to Veterinary Immunology

**Teaching Assistant** Spring 2008  
Department of Biological Sciences, Cornell University, Ithaca NY  
Class: BIOAP 3190 Animal Physiology Experimentation

**Student Tutor** Fall 2007 – Spring 2008  
Department of Biological Sciences, Cornell University, Ithaca NY  
Classes: Introduction to Biology, Genetics

## PUBLICATIONS

Hoi, C.S., Lee, S.E., Lu, SY., McDermitt D.J, Osorio, K.M., Piskun C.M., Peters R.M., Paus R, and T. Tumar. Runx1 Directly Promotes Proliferation of Hair Follicle Stem Cells and Epithelial Tumor Formation in Mouse Skin. Mol Cell Bio. 30(10); 2518. 2010. PMID: 20308320

Piskun, C.M., Muthuswamy, A., Huelsmeyer M.K., Thompson, V., Stein, T.J. Wnt/ $\beta$ -catenin expression does not correlate with serum alkaline phosphatase concentration in canine osteosarcoma patients. PLoS One. 2011;6(10):e26106. Epub 2011 Oct 11. PMID: 22022527

Holmes KE, Thompson V, Piskun CM, Kohnken RA, Huelsmeyer MK, Fan TM, Stein TJ. Canine osteosarcoma cell lines from patients with differing serum alkaline phosphatase concentrations display no behavioral differences in vitro. Vet Comp Oncol. 2013. Epub. PMID:23489774

Szigetvari N, Imai DM, Piskun CM, Rodrigues LCS, Chon E, Stein TJ. Wnt5a expression in canine osteosarcoma. Vet Comp Oncol. Article first published online: 2013 Oct 28.

Piskun, CM., Stein TJ. B-catenin transcriptional activity is minimal in canine osteosarcoma and its targeted inhibition results in minimal changes to cell line behavior. Vet Comp Oncol. 2013 Nov 21. PMID: 24256430

Zhang H, Cohen AL, Krishnakumar S, Wapnir IL, Veeriah S, Deng G, Coram MA, Piskun CM, Longacre TA, Herrler M, Frimannsson DO, Telli ML, Dirbas FM, Matin AC, Dairkee SH, Larijani B, Glinsky GV, Bild AH, Jeffrey SS. Patient-derived xenografts of triple-negative breast cancer reproduce molecular features of patient tumors and respond to mTOR inhibition. Breast Cancer Res. 2014 Apr 7;16(2):R36. PMID: 24708766

Chon E, Flanagan B, de Sá Rodrigues LC, Piskun C, Stein TJ. 6-Bromoindirubin-3'oxime (BIO) decreases proliferation and migration of canine melanoma cell lines. Vet J. 2014 Jul 31. PMID: 25130776

Rodrigues LC, Holmes KE, Thompson V, Piskun CM, Lana SE, Newton MA, Stein TJ. Osteosarcoma tissues and cell lines from patients with differing serum alkaline phosphatase concentrations display minimal differences in gene expression patterns. Vet Comp Oncol. 2015 Feb 3. PMID: 25643733

## ABSTRACTS

C. Hoi, C. Piskun, D. J. McDermitt, R. Peters, R. Paus, T. Tumber. Epithelial Runx1 loss impairs skin tumorigenesis. Meeting Abstract, 2009 ASCB Meeting, San Diego, CA

Piskun CM, Zhang H, Bild AH, Jeffrey SS. Patient-derived tumor xenograft model of triple negative breast cancer suggests sensitivity to mTOR inhibitors. Poster presentation, 2010 NIH Comparative Biomedical Scientists Training Program Symposium, Bethesda, MD

Piskun, C.M., Muthuswamy, A., Huelsmeyer M.K., Thompson, V., Stein, T.J. Wnt/ $\beta$ -catenin expression does not correlate with serum alkaline phosphatase concentration in canine osteosarcoma patients. Poster presentation, 2011 ACVIM Forum, Denver, CO.

Rodrigues LCR, Piskun CM, Thompson V, Stein TJ. Multidrug resistance gene expression by real time PCR in canine osteosarcoma cell lines from dogs with normal and increased serum alkaline phosphatase concentration. Poster Presentation. 2012 ACVIM Forum, New Orleans, LA.

Piskun CM, Thompson V, Hueslmeyer M, Stein TJ. Examining the Canonical Wnt Signaling Pathway in Canine Osteosarcoma. Oral Presentation, 2012 VCS Conference, Las Vegas, NV.

Piskun CM, Thompson V, Hueslmeyer M, Stein TJ. GSK3 $\beta$  Inhibition Reduces Proliferation and Migration in Canine and Human Osteosarcoma. Poster Presentation, 2013 School of Veterinary Medicine/Phi-Zeta Research Day, Madison, WI.

Piskun CM, Thompson V, Hueslmeyer M, Stein TJ. Inhibition of GSK3 $\beta$  Reduces Proliferation and Migration in Canine Osteosarcoma. Oral Presentation, 2013 Veterinary Cancer Society Annual Conference, Minneapolis, MN.

Piskun CM, Huelsmeyer MK, Thompson V, Stein TJ. Treatment with 6BIO produces a less aggressive osteosarcoma phenotype that is not mediated by resultant  $\beta$ -catenin transcriptional activation or GSK3 $\beta$  inhibition. Oral Presentation, 2014 Veterinary Cancer Society Annual Conference, St. Louis MO.

Wood CM, Modiano JM. Defining a unique epigenetic signature for canine immune cell populations. Poster Presentation, Masonic Cancer Center 8th Annual (2018) Cancer Research Symposium, Minneapolis, MN.

## SUPPORT

### Active

**580** (PI: Wood, Modiano)

Small Companion Animal Grant, University of Minnesota

*Defining unique DNA methylation patterns for specific dog lymphocyte subsets*

Spring 2018 – current

**2655-E** (PI: Wood, Modiano) Jan 2019 – current  
American Kennel Club Canine Health Foundation Clinician Scientist Fellowship  
*Defining a unique epigenetic signature for canine immune cell populations*

Past

**T35OD010989** (NIH, Office of the Director) Summer 2010  
Stanford University School of Medicine Veterinary Student Summer Research Fellowship Program  
*Rapamycin treatment in a patient-derived orthotopic xenograft model of triple negative breast cancer*

**T32RR17503** (CTSA-NCRR, institutional) Fall 2010 - Fall 2011  
UW School of Veterinary Medicine 12-month Mentored Research Program  
*Wnt/ $\beta$ -catenin signaling and differential serum ALP expression in canine osteosarcoma*

**1UL1RR025011** (CTSA-NCATS, institutional) Fall 2011 - Fall 2012  
UW Institute for Clinical and Translational Research TL1 Scholars Fellowship  
*Impact of  $\beta$ -catenin inhibition on canine osteosarcoma pathogenesis*

**unspecified** (PI: Piskun) Fall 2013  
Ruth Dickie Grant-in-Aid Award, Graduate Women in Science, Beta Chapter  
*Determining the effects of specific Wnt/ $\beta$ -catenin activation on canine, human and mouse osteosarcoma cell behavior*

## AWARDS & HONORS

Wisconsin Scholar, Cornell University	Fall 2006
Wisconsin Scholar, Cornell University	Spring 2008
Latin Honors, Department of Biological Sciences, Cornell University	Spring 2008
Alice Uhrig Boese Scholarship for Academic Excellence, UW-SVM	Fall 2008
Scholarship for Career Exploration, UW-SVM	Spring 2009
Travel Grant, 2010 NIH Comparative Biomedical Scientists Training Program	Fall 2010
Association for Women Veterinarians Foundation Student Scholarship	Spring 2011
UW School of Veterinary Medicine Veterinary Student Research Award	Spring 2012
Martha E. Pavcek Scholarship	Fall 2013
Martha E. Pavcek Scholarship	Spring 2014
Martha E. Pavcek Scholarship	Fall 2014
The Tobin Scholarship	Spring 2015
UW- Madison Advanced Opportunity Fellowship	Spring 2015
The Dorothy B Kynaston Scholarship	Spring 2015
Martha E. Pavcek Scholarship	Spring 2015
UW- Madison Advanced Opportunity Fellowship	Fall 2015
School of Veterinary Medicine Oncology Award	Spring 2016

## LEADERSHIP & PROFESSIONAL ASSOCIATIONS

Representative of Class of 2012 Fall 2008 – Spring 2010  
Faculty Student Liaison Committee

Student Representative Wisconsin Veterinary Medicine Association, Executive Committee	Fall 2008 – Spring 2010
Scholarship Coordinator Sigma Delta Epsilon – Graduate Women in Science (Beta Chapter)	Fall 2013 – Spring 2014
Resident Member-at-Large Veterinary Cancer Society	Jan 2019 – Dec 2020
Reviewer for: Veterinary and Comparative Oncology Journal of Veterinary Internal Medicine	Spring 2019 - current

**Current Memberships**

Veterinary Cancer Society  
American College of Veterinary Internal Medicine  
American Association for Cancer Research  
American Veterinary Medical Association  
Southern Arizona Veterinary Medical Association