Revised 8/2016

AMERICAN COLLEGE OF VETERINARY RADIOLOGY
RECOGNIZED VETERINARY SPECIALTY OF RADIATION ONCOLOGY (ACVR-RO)

RESIDENCY TRAINING PROGRAM RE-APPROVAL APPLICATION

NOTE: Some questions in this form are included for data collection purposes. The inclusion of an item does not necessarily imply that the item is a program requirement for ACVR-RO residency program. Please refer to the current Radiation Oncology Training Program Guidelines for comprehensive residency training requirements. This document may be downloaded from Members Only Downloads section of the ACVR website at http://www.acvr.org.

APPLICATION INSTRUCTIONS:

Training program directors wishing to have their programs evaluated should submit this electronic form and appropriate attachments electronically to the Chair of the Residency Standards and Evaluation Committee (RSEC) and to the Assistant Executive Director of the ACVR. The application must be received by January 31st of the third year following initial program approval / last re-approval. The RSEC will evaluate the application, a vote will be taken, and the results of the vote and the majority recommendation of the committee forwarded to the President of the Recognized Veterinary Specialty for consideration at Executive Council at one of the two annual meetings.

For the required ACVR and ACVIM Diplomates providing consultation in medical oncology and imaging, that are new to the program, please provide a brief 2-page curriculum vitae and specify the number of weeks each year that the individual will be available to actively support the radiation oncology resident.

ACVR-RO RESIDENCY STANDARD TRAINING PROGRAM RE-APPROVAL APPLICATION

1. Date of Application

January 12, 2017

Date of Initial Program Approval

2008

Date of Last Re-approval

January 1, 2014

2. Program Director(s): (Must be a Diplomate of ACVR Recognized Veterinary Specialty of Radiation Oncology)

Eric M Green, DVM, DACVR (Radiology & Radiation Oncology)

Program Director's Contact Information:

Work Phone:	614-292-3551 ext 48697
Fax:	614-292-3191
E-mail:	green.689@osu.edu

Additional ACVR-RO Diplomates supporting the program (not Program Directors)

Noopur Desai, B.V.Sc, M.V.Sc Dr. Desai completed her RadOnc residency at UW-Madison 7/16. She passed 3 of the 4 sections on the board examination in 9/16 and will take the Clinical portion in 9/17.

Numbers of weeks per year an ACVR-RO Diplomate is available to resident on a daily basis.

45: Green (45 weeks) Desai (35 weeks)

3. Do you have a radiation oncology resident in training at this time?

Yes	No
	X

Name of resident(s)

NA

Is/are the resident(s) in an approved Standard program or an Alternative program:

Standard	Alternative

4. Dates of training program (Please list only those dates of the actual training program. Time spent by the resident at your facility prior to beginning or following the completion of the actual training program should not be included.)

Dates of training program for resident (1) (mm/dd/yy)

NA

Dates of training program for resident (2) (mm/dd/yy)

NA

Dates of training program for resident (3) (mm/dd/yy)

NA

5. Location of Primary Institution

Primary Site:

The Ohio State University, College of Veterinary Medicine

Department

Veterinary Clinical Sciences

Hospital/University

Veterinary Medical Center

Address

601 Vernon L Tharp St, Columbus OH 43210

6. Cooperating Institution(s) (If applicable):

NA

Department

Hospital/University

Address

For cooperating institutions, attach **current letters of agreement signed on behalf of the institution(s) by appropriate individual(s).

7. Length of Training Program (months):

24

If greater than 2 years, will this period include 24 months of continuous training in radiation oncology?

Yes	No	N/A
		X

Number of months dedicated solely to radiation oncology training (excluding time on Medical Oncology service, Radiology/Imaging, etc.)

18

8. Advanced Degree:

	Yes	No	Optional
Masters:		X	
PhD:		X	

9. Essential Program Faculty:
*If dual-boarded, individual faculty member may serve in only one capacity
*Please list all qualified faculty in support of program

a. Diagnostic Radiologist(s): (Must be Diplomate(s) of the ACVR or ECVDI)

Tod Drost (25 weeks), Eric Hostnik (25 weeks), Amy Schkeeper (39 weeks)

Number of weeks per year a boarded radiology diplomate is available to resident on a daily basis.

52

Faculty member on site?

Yes	No
X	

If off site, please explain relationship.

NA

b. Medical Oncologist(s): (must be Diplomate(s) of ACVIM, Specialty of Oncology)

Bill Kisseberth (13 weeks), Joelle Fenger (13 weeks), Megan Brown (39 weeks)

Number of weeks per year an ACVIM-Oncology Diplomate is available to resident on a daily basis.

52

Faculty member on site?

Yes	No
X	

If off site, please explain relationship

NA

c. Surgeon(s): (must be Diplomate(s) of the ACVS)

Mary McLoughlin, Vincent Wavreille, John Dyce, Nina Kieves, Stephen Jones

Number of weeks per year an ACVS faculty member is available to resident on a daily basis.

52

Faculty member on site?

Yes	No
X	

If off site, please explain relationship.

NA

d. Pathologist(s): (must be Diplomate(s) of the ACVP)
**Please specify if certification is in anatomic or clinical pathology.

Mary Jo Burkhard (Clinical), Rachel Cianciolo (Anatomic), Ryan Jennings (Anatomic), Sue Knoblaugh (Anatomic), Krista La Perle (Anatomic), Judith Radin (Clinical), Maxey Wellman (Clinical), Chris Premanadan (Anatomic)

Number of weeks per year an ACVP faculty member is available to resident on a daily basis.

52

Faculty member on site?

Yes	No
X	

If off site, please explain relationship.

NA

10. Please list all additional board certified specialists in direct support of the program. If offsite, please explain relationship.

Name	Certifying College / Board (including subspecialty if applicable)
Juillian Guillamin	ACVECC
Ed Cooper	ACVECC
Page Yaxley	ACVECC
Ronaldo daCosta	ACVIM (Neurology)
Sarah Moore	ACVIM (Neurology)
Laurie Cook	ACVIM (Neurology)
Julie Byron	ACVIM (Internal Medicine)
Cathy Langston	ACVIM (Internal Medicine)
Adam Rudinsky	ACVIM (Internal Medicine)
Valerie Parker	ACVIM (Internal Medicine/Nutr)
Karsten Schober	ACVIM (Cardiology)
John Bonagura	ACVIM (Cardiology)
Richard Bednarski	ACVA
Phillip Lerche	ACVA
Turi Aarnes	ACVA
Carolina Ricco	ACVA
Alicia Bertone	ACVS (Equine)
Margaret Mudge	ACVS (Equine), ACVECC (LA)
David Wilkie	ACVO
Anne Gemensky-Metzler	ACVO
Eric Miller	ACVO

11. Please describe the role of the radiation oncology resident and the radiation oncology service in the daily clinical management of patients and clients.

Radiation Oncology is a primary care service within the Integrated Oncology service. The radiation oncology resident assumes primary case responsibility for all patients receiving radiation therapy, radiation therapy patient recheck appointments and those new appointments where radiation therapy will likely by the choice of treatment.

12. How will the resident receive training in Medical Oncology? What is time allotted for his training? Please provide description of formal and informal training experiences as well as description of the resident's role while rotating on a medical oncology service.

The resident spends two months on the medical oncology service under the direct supervision of a board-certified oncologist and will perform the duties of an oncology resident: primary patient care, owner and referring veterinarian consultation, chemotherapy administration, and patient management and treatment decisions.

13. How is resident trained in diagnostic imaging? What is time allotted for this training? Please provide description of formal and informal training experiences. Please specify if the resident is required to generate imaging reports while on diagnostic imaging rotation.

The resident will spend a month over the course of the residency in diagnostic imaging. During this time, the resident will function as a radiology resident and be responsible for dictating radiological studies under the supervision of a board-certified radiologist. Special emphasis will be placed on oncologic imaging and interpretation of ultrasound studies, radiographs, CT and MRI. When not assigned to radiology, the resident will informally interpret and review all imaging procedures performed on prospective radiation oncology patients under the supervision of the program director or boarded radiologist.	

14. Will the resident be provided with training in anesthesia? If yes, please include a description of the training.

The resident with spend two weeks on the anesthesia service performing the duties of an anesthesia resident under the guidance of a board-certified anesthesiologist. The resident will focus attention on cases with neoplasia, specifically those involving the head, nasal cavity, brain and thoracic cavity.

15. How is resident trained in radiation biology? Please provide description of formal and informal training experiences.

The resident will be trained in Radiation Biology by the program director and the additional Radiation Oncology member through the review of Hall's *Radiobiology for the Radiologist* and selected chapters in Tannock and Hill's *Basics Science of Oncology*. The training will be in the form of a weekly 1 hour seminar and will focus on addressing the training objectives defined by ACVR.

16. How is resident trained in cancer biology? Please provide description of formal and informal training experiences.

The resident will be trained in Cancer Biology by the program director, the additional Radiation Oncology member and Medical Oncologists through the review of Tannock and Hill's *Basics Science of Oncology* and Weinberg's *The Biology of Cancer*. The training will be in the form of a weekly 1 hour seminar and will focus on addressing the training objectives defined by ACVR.	

17. How is resident trained in radiation oncology physics? Please include a description of medical physics support available at your institution and any role institutional medical physics support may provide in training of the resident.

The resident will be trained in Radiation Oncology Physics by the program director and the additional Radiation Oncology member through the review of Khan's *The Physics of Radiation Therapy*. The training will be in the form of a weekly 1 hour seminar and will focus on addressing the training objectives defined by ACVR. Medical physics support is provided by Dominic Diconstanzo, MS, DABR, a member of the Medical Physics team at the OSU James Cancer Hospital. He is responsible for all machine QA, including IMRT and SRS plan review and QA. He provides critical feedback and advice on all IMRT and SRS plans and is experienced in advanced treatment planning design. He will provide the resident informal instruction in the AAPM QA requirements and will serve as a critical resource for Eclipse training.

18. Please list any formal courses and their instructors included in the residency training curriculum. Please attach syllabi and instructor credentials for each listed course.
NOTE: Please ensure syllabi are up-to-date within the last year

NA

19. Will the resident participate in clinical rounds on a daily basis while on clinical rotations? Is a supervising Radiation Oncology Diplomate available for the majority of rounds? If no, please describe how rounds are attended and supervised.

Yes	No
X	

Comments:	All members (faculty and residents) of the Integrated Oncology team (RadOnc, MedOnc and SurgOnc) participate in board rounds on a daily basis. This is a 30-minute discussion of the day's appointments and inpatients that occurs daily at 9am. A 1-hour afternoon chart rounds session (typically 2:30-3:30) is a discussion of new cases attended by all members of the Integrated service.

20. Are formal conferences, such as clinicopathologic conferences, journal clubs, or seminars held on a weekly basis?

Yes	No
X	

Comments:	Integrated Oncology clinical pathology rounds and journal clubs are scheduled weekly.

21. Please provide a description of the conferences, etc., that are provided and the typical schedule. Please specify which conferences are mandatory vs. optional.

Clinicopathological Conference – Once-monthly presentations of clinical cases with in-depth discussions of pathophysiology (mandatory). 8-9am Friday mornings.

Clinical Pathology Rounds – Weekly review of current cytology cases (mandatory). 3-4pm Friday afternoons.

Medical Oncology Journal Club – Weekly discussion of pertinent oncology journal articles (mandatory). 7-8am Thursday mornings.

Radiation Oncology Journal Club – Weekly discussion of pertinent radiation oncology journal articles (mandatory). 7-8am Wednesday mornings.

Monday	Tuesday	Wednesday	Thursday	Friday
	7-8 RO seminar	7-8 Rad Onc Journal Club	7-8 Med Onc Journal Club	8-9 Clinicopathological Conference (monthly)
9-9:30 Board rounds	9-9:30 Board rounds	9-9:30 Board rounds	9-9:30 Board rounds	9-9:30 Board rounds
2:30-3:30 Chart rounds	2:30-3:30 Chart rounds	2:30-3:30 Chart rounds	2:30-3:30 Chart rounds	2-3 Chart rounds
				3-4 Clinical Pathology Rounds

22. Is the resident required to give one or more formal presentations at a conference or in an educational setting on a yearly basis? If yes, please describe these conferences or educational settings.

Yes	No
X	

Comments:	It is strongly encouraged that the subject of the resident's project be presented at either a VCS or ACVR meeting. The resident will also have the opportunity to present at an existing in-house seminar series where all OSU residents are expected to present.

23. How many major veterinary medical or medical meetings is each resident able to or expected to attend during his/her training program? Please list the meetings attended.

None	One	Two	> Two
	X		

Comments:	ACVR, VCS

24. Does the training program require a research project? Please indicate the number of research projects required.

Yes	No	Optional	Number
X			1

Comments:	It is strongly encouraged that the resident will perform either prospective or retrospective research.

25. Are one or more publications required as part of the training program?

Yes	No	Number
X		1

Comments:	The resident is strongly encouraged to publish the results of a research project.

26. Please indicate the availability of the following facilities or equipment. Indicate if these are available at the primary training site, or at a different location. For facilities that are not on-site, please describe the situation and availability in the space at the end of this section.

Equipment / Service	**Available?**		**On-Site?**	
	Yes	No	Yes	No
Megavoltage Teletherapy Machine Please specify manufacturer and model: Siemens Oncor	X		X	
Multileaf collimator **Please specify number of leaves: 160	X		X	
On-board portal or CT imaging **Please specify type: MVCBCT	X		X	
3D - Computer based treatment planning system Please specify manufacturer and model: Varian Eclipse 13.1	X		X	
2D/2.5 D - Computer based treatment planning system Please specify manufacturer and model:		X		
Intensity Modulated Radiation Therapy	X		X	
Stereotactic Radiation Therapy or Radiosurgery	X		X	
Strontium-90 Plesiotherapy	X		X	
LDR Brachytherapy treatment and planning		X		
HDR Brachytherapy treatment and planning		X		

Diagnostic Radiology / Imaging Services	X		X	
Conventional Radiography	X		X	
Fluoroscopy	X		X	
Ultrasound	X		X	
Nuclear Medicine	X		X	
Computed Tomography	X		X	
Magnetic Resonance Imaging	X		X	
Positron Emission Tomography	X		X	
Intensive Care Facility - 24 hours	X		X	
Clinical Pathology capabilities: (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, and endocrinology)	X		X	
Veterinary Library w/ Literature Searching Capabilities	X		X	
Medical Library w/ Literature Searching Capabilities	X		X	
Computerized Medical Records w/ Searching Capability	X		X	

If any of the above equipment or facilities are available off-site, please explain how the resident can access them for case management, research, or study.

27. Please list numbers of patients treated in the last 12 months using the listed radiation treatment modalities.

Modality	Number Treated*
Megavoltage Gamma / X-ray Teletherapy	120[#]
LDR Brachytherapy	NA
HDR Brachytherapy	NA
Injectable Radionuclide therapy	NA

Radioiodine	16
Other (please specify)	
^{90}Strontium Plesiotherapy	8
Other - please specify	

* indicate N/A (not applicable) if the treatment modality is not available
# Patients treated from 1/1/2015 to 9/1/2015. Machine and room upgrade occurred from 9/1/2015 to 10/1/2016.

28. Describe procedures for resident recording of radiation treatment details of all patients.

The Radiation Oncology service uses Varian ARIA patient management software to record all treatment related information (plans, fields, side effects, etc…). This system is searchable for ease of data retrieval.

29. What procedures are in place to facilitate collection of follow up information of patients treated? What is a standard recheck schedule for patients? In the absence of routine patient rechecks at the facility, is there a system in place to obtain follow-up?

The ARIA patient management software can be programed for patient follow up reminders. Typically, patients will be seen at two weeks post therapy and either monthly or every three to six months thereafter for routine follow up staging. All radiation oncology patients receive email or postcard contact for follow up at 1, 3, 6, 9, 12 months and every 6 months thereafter if they are not seen in house.

30. By what mechanisms and how often are residents evaluated? Please attach form used in this evaluation (required). Please comment on radiation therapy specific evaluation as well as general clinical evaluation.

All residents at OSU are evaluated initially informally at three months and then formally at six months and every six months thereafter. The evaluation form is a standard on-line form required by OSU. All areas on the form are evaluated in the context of each specialty and a comments section is available to address specialty-specific skills.

31. If applicable, please list the residents who have completed the training program including the year that each individual's training program ended. If at all possible, please provide an address, and any information you have on the status of each individual with respect to the board certification process.

Kenji Hosoya – Board certified 2007, No address available.
Meagan Sowders née Williams – Board certified 2016
VCA Aurora Animal Hospital
2600 West Galena Blvd.
Aurora, IL 60506

32. Please list any additional information of interest in support of this residency re-approval application.

Attachments:
Please attach the following documents to the application if applicable. Please mark box to indicate which documents are included. Please list any additional documents attached in support of this application.

NOTE: Please ensure CVs, syllabi, and letter(s) of agreement are **current** within the past year.

Attached?	**Documents**
X	Calendar of resident's activities (24 or 36 month), including required rotations and vacation - **Required**
X	CV (2-page)- ACVR-RO Diplomate(s) - Program Director(s) - **Required**
X	CV (2-page) - ACVR-R and/or ECVDI Diplomate(s) - **Required**
X	CV (2-page) - ACVIM-O Diplomate(s) - **Required**
NA	Syllabi of formal course work included in the training program - **Required**
NA	Credentials of instructors providing formal course work - **Required**
X	Forms used in resident evaluation - **Required**
NA	Letters of agreement from cooperating institutions - **Required**

Example Resident Schedule

Month	**Year 1**	**Year 2**
July	Rad Onc	Rad Onc
August	Anesthesia/Rad Onc	Rad Onc
September	Rad Onc	Rad Onc
October	Med Onc	Rad Onc
November	Rad Onc	Rad Onc
December	Rad Onc	Rad Onc
January	Rad Onc	Rad Onc
February	Rad Onc	Rad Onc
March	Radiology	Rad Onc
April	Rad Onc	Med Onc
May	Rad Onc	Rad Onc
June	Rad Onc	Rad Onc

2.5 months for vacation and research time will be scheduled as needed and will replace Rad Onc clinic time.

Program Director and Supporting Faculty CVs

BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
Eric M. Green, DVM, DACVR (Radiology and Radiation Oncology)	Professor - Clinical

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training).*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Northern Michigan University, Marquette, MI	B.A.	1987-1991	Zoology/German/Group Science
University of Wisconsin-Madison	D.V.M.	1991-1995	Veterinary Medicine
University of Georgia-Athens	Internship	1995-1996	Small Animal Medicine/Surgery
University of Wisconsin-Madison	Residency	1997-2000	Radiology
University of Wisconsin-Madison	Residency	2000-2002	Radiation Oncology

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

SPECIALTY BOARD

Board Certified by the American College of Veterinary Radiology, 2000
Board Certified by the American College of Veterinary Radiology – Radiation Oncology, 2002

PROFESSIONAL EXPERIENCE

Assistant Professor - Clinical, College of Veterinary Medicine, The Ohio State University; July 2002- October 2006.
80% (45 weeks/year) clinic appointment

Associate Professor - Clinical, College of Veterinary Medicine, The Ohio State University; October 2006-October 2012.
80% (45 weeks/year) clinic appointment

Professor - Clinical, College of Veterinary Medicine, The Ohio State University; October 2012-Present.
80% (45 weeks/year) clinic appointment

PROFESSIONAL SOCIETIES AND RELATED ACTIVITIES

Member, The American Veterinary Medical Association
Diplomate, The American College of Veterinary Radiology – Radiology 2000
Diplomate, The American College of Veterinary Radiology – Radiation Oncology 2002

FUNDED RESEARCH PROJECTS ONGOING OR COMPLETED DURING THE LAST 3 YEARS

Forrest LJ, **Green EM**. Vac-Lok™ mattresses as positioning aids for external beam irradiation: evaluation of positioning accuracy and efficiency. Companion Animal Fund Grant, $2,755. 7/1/01 - 6/30/02.

Green EM, Hosoya K. Accelerated Radiotherapy for Canine Appendicular Osteosarcoma
The Ohio State University (Canine Research Fund Grant) June 2005 -June 2007 $26,598

SELECTED PUBLICATIONS

Wilsman NJ, Farnum CE, **Green EM**, Lieferman EM, Clayton MK. Cell cycle analysis of proliferative zone chondrocytes in growth plates elongating at different rates. J Orthop Res 1996 Jul;14(4):562-72.

Green EM, Adams WM, Steinberg H. Malignant transformation of solitary spinal osteochondroma in two

mature dogs. Vet Rad & US 1999 Nov-Dec;40(6):634-7.

Meteyer CU, Loeffler IK, Fallon JF, Converse KA, **Green EM**, Helgen JC, Kersten S, Levey R, Eaton-Poole L, Burkhart JG. Hind limb malformations in free-living northern leopard frogs (Rana pipiens) from Maine, Minnesota and Vermont suggest multiple etiologies. Teratology 2000 62:151-171.

Cook BE, Lucarelli MJ, Lemke BN, Dortzbach RK, Kaufman PL, Forrest LJ, **Green EM**, Gabelt BT. Eyelid lymphatics I: histochemical comparisons between the monkey and human. Ophthal Plast Reconstr Surg. 2002 Jan;18(1):18-23.

Cook BE, Lucarelli MJ, Lemke BN, Dortzbach RK, Kaufman PL, Forrest LJ, **Green EM**, Gabelt BT. Eyelid lymphatics II: a search for drainage patterns in the monkey and correlations with human lymphatics. Ophthal Plast Reconstr Surg. 2002 Mar;18(2):99-106.

Green EM, Adams WH, Forrest LJ. Four fraction palliative radiotherapy for canine osteosarcoma: a retrospective study of 24 dogs. J Am Animal Hosp Assoc. 2002 Sep-Oct;38(5):445-51.

Green EM, Adam WH, Forrest LJ. A vacuum-formable mattress for radiotherapy positioning: comparison with conventional methods. Vet Rad & US. 2003 44(4):476-479.

Poirier VJ, Adams WH, Forrest LJ, **Green EM**, Dubielzig RR, Vail DM. Radiation therapy for incompletely excised grade II mast cell tumors. J Am Anim Hosp Assocc. 2006 Nov-Dec;42(6):430-4.

Goodnight AL, Couto CG, **Green EM**, Barrie M, Myers G. Chemotherapy and radiotherapy for treatment of cutaneous lymphoma in a ground cuscus (Phalanger gymnotis). J Zoo Wildl Med. 2008 Sep;39(3):472-5.

Samii VF, Dyce J, Pozzi A, Drost WT, Mattoon JS, **Green EM**, Kowaleski MP, Lehman AM. Computed tomographic arthrography of the stifle for detection of cranial and caudal cruciate ligament and meniscal tears in dogs. Vet Radiol Ultrasound. 2009 Mar-Apr;50(2):144-50.

Reese DJ, **Green EM**, Zekas LJ, Flores JE, Hill LN, Winter MD, Berry CR, Ackerman N. Intra- and interobserver variability of board-certified veterinary radiologists and veterinary general practitioners for pulmonary nodule detection in standard and inverted display mode images of digital thoracic radiographs of dogs. J Am Vet Med Assoc. 2011 Apr 15;238(8):998-1003. doi: 10.2460/javma.238.8.998.

Stern JA, Chew DJ, Schissler JR, **Green EM**. Cutaneous and Systemic Blastomycosis, Hypercalcemia, and Excess Synthesis of Calcitriol in a Domestic Shorthair Cat. JAAHA: November/December 2011, Vol. 47, No. 6, pp. e116-e120.

Burgess KE, **Green EM**, Wood RD, Dubielzig RR Angiofibroma of the nasal cavity in 13 dogs.
Vet Comp Oncol. 2011 Dec;9(4):304-9. doi: 10.1111/j.1476-5829.2011.00278.x.

Karnik KS, Samii VF, Weisbrode SE, London CA, **Green EM**. Accuracy of computed tomography in determining lesion size in canine appendicular osteosarcoma.
Vet Radiol Ultrasound. 2012 May-Jun;53(3):273-9. doi: 10.1111/j.1740-8261.2012.01930.x.

Drost WT, **Green EM**, Zekas LJ, Aarnes TK, Su L, Habing GG. Comparison of computed tomography and abdominal radiography for detection of canine mechanical intestinal obstruction.
Vet Radiol Ultrasound. 2016 Jul;57(4):366-75. doi: 10.1111/vru.12353.

Rippy SB, Gardner HL, Nguyen SM, Warry EE, Portela RA, Drost WT, Hostnik ET, **Green EM**, Chew DJ, Peng J, London CA. A pilot study of toceranib/vinblastine therapy for canine transitional cell carcinoma. BMC Vet RES. 2016 Nov 17;21(1):257.

BIOGRAPHICAL SKETCH

NAME: Noopur Desai
eRA COMMONS USER NAME (credential, e.g., agency login): POSITION TITLE: Assistant Professor EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
K.N.P College of Veterinary Sciences Mumbai Veterinary College	B.V.Sc	07/ 2008	Veterinary Sciences Veterinary Surgery
Michigan State University	M.V.Sc	10/ 2010	Veterinary Medical Oncology
University of Wisconsin- Madison, School of Veterinary Sciences	-	12/2012	Veterinary Radiation Oncology (Residency)
	-	07/2016	

A. Personal Statement

I am an Assistant Professor in the Department of Veterinary Clinical Sciences at The Ohio State University, College of Veterinary Medicine. I am a residency trained radiation oncologist with experience in the design, accrual and monitoring of clinical trials. Having been an integral part of research projects during my residency, I have gained immense experience with the methodology of clinical trials. During my residency, I was awarded two grants, one internal and the other external, for a project evaluating the role of stereotactic radiation therapy for nasal tumors in dogs. This project is ongoing and on track to be successfully completed. I am well aware of the requirements in terms of time and efforts required for the current project and believe that I have the motivation and the required experience pursue advanced clinical research in the field of oncology.

B. Positions and Honors

Position of Employment
2008-2010: Masters in Surgery, Mumbai Veterinary College, India. 2010- 2011: Surgeon, Noah's Arc, Pune, India
2011-2012 : Scholar in Medical Oncology, SVM, Michigan State University
2014- 2016: Radiation Oncology Resident; SVM, University of Wisconsin- Madison 2016- : Assistant Professor in Radiation Oncology; CVM, Ohio State University

Honors
2008 : Scholarship, Neomec Project Siksha for outstanding all round and academic performance

Professional Memberships
2015-present: American Society for Radiation Oncology (ASTRO) 2015-present: Radiological Society of North America (RSNA) 2014-present: American College of Veterinary Radiology (ACVR) 2012- present: Veterinary Cancer Society (VCA)
2009- present: Indian Society for Veterinary Surgery 2008- present: Maharashtra State Veterinary Council 2008- present: Veterinary Council of India

C. Contribution to Science

Research earlier in my career was retrospective in nature. More recently during my residency I moved on to pursuing more prospective, funded, collaborative projects. I have been extensively involved in clinical trials for radiation therapy in dogs with nasal tumors and osteosarcomas. I have taken an active role in the multiple aspects of clinical studies evaluating the role of stereotactic radiation therapy for nasal tumors in dogs.

1. Dosimetric comparison of helical tomotherapy with gantry based intensity modulated radiation therapy and volumetric modulated arc therapy. Proceedings of the Veterinary Cancer Society- Orlando, FL.
2. Desai, M. Takada, BE Kitchell, NG Dervisis. "UW-25 for canine T- cell lymphoma"- Abstract. Proceedings of the Veterinary Cancer Society- Las Vegas, NV, Pg- 88
3. Parys M, Desai N, Kitchell B, Dervisis N "Doxorubicin/Temozolomide as a rescue protocol for treatment of relapsed canine lymphoma"- Abstract. Proceedings of the Veterinary Cancer Society- Las Vegas, NV, Pg- 89

4.A.P.Somkuwar, V.R. Patodkar, Noopur Desai, Manisha Patil, Varsharani Patil, Nita Dangat " To study the blood Calcium levels after oral administration of 'Calop Gel' in buffalo calves with hypocalcemia" Abstract. Mid Annual Convention, Technical Bulletin and Souvenir, Pg-21-22

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing:
FY2016 SVM Companion Animal Fund Grant Award (Co-PI: Desai) ACVR Resident Research Award (PI: Desai)
Evaluation of stereotactic radiotherapy for canine sinonasal tumors using helical Tomotherapy
The purpose of this project is to evaluate the role of stereotactic radiation therapy for sino nasal tumors in dogs. The primary aim is to compare the acute and late side effects of stereotactic radiation therapy when compared to the conventional, definitive radiation for nasal tumors. The secondary aim was to evaluate and compare the survival times with conventional therapy.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
Photocopy this page or follow this format for each person

NAME	POSITION TITLE
Wm Tod Drost	Associate Professor

EDUCATION/TRAINING: *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
North Carolina State University	Residency	1992-1995	Veterinary Radiology
	D.V.M.	1991	Veterinary Medicine
	B.S.	1987	Dairy Science
University of Florida			
University of Florida			

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

PROFESSIONAL EXPERIENCE:

2005-present Associate Professor, Department of Veterinary Clinical Sciences, The Ohio State University
2000-2005 Assistant Professor, Department of Veterinary Clinical Sciences, The Ohio State University
1995-2000 Assistant Professor, Department of Veterinary Clinical Sciences, Oklahoma State University

PROFESSIONAL HONORS:

1995 Diplomate, American College of Veterinary Radiology
1995 Phi Zeta, Oklahoma State University
1991 Excellence in Radiology, University of Florida

RELEVANT PUBLICATIONS:

Drost WT, Green EM, Zekas LZ, Aarnes TK, Su L, Habing GG. Comparison of Computed Tomography and Abdominal Radiography for Detection of Canine Mechanical Intestinal Obstruction. Vet Radiol Ultrasound. 2016: 57;366-375.

Grundmann INM, **Drost WT**, Zekas LJ, Belknap JK, Garabed RB, Weisbrode SE, Parks AH, Knopp MV, Maierl J, Quantitative Assessment of the Equine Hoof Using Digital Radiography and Magnetic Resonance Imaging. Eq Vet J. Vol. 46, 1-4. 2014.

Martin-Vaquero P, da Costa RC, **Drost WT**, Comparison Of Noncontrast Computed Tomography And High Field Magnetic Resonance Imaging In The Evaluation Of Great Danes With Cervical Spondylomyelopathy. Vet Radiol Ultrasound Vol. 55, no. 5: 496-505. 2014.

Schober KA, Wetli E, **Drost WT**, Radiographic and echocardiographic assessment of left atrial size in 100 cats with acute left-sided congestive heart failure. Vet Radiol Ultrasound. Vol. 55, no. 4: 359-367. 2014

Dulin JA, **Drost WT**, Phelps MA, Santschi EM, Menendez MI, Bertone AL. 2012. Influence of exercise on the distribution of ^{99m}technetium-methylene diphosphonate following intra-articular injection in horses. Am J Vet Res 73:418-425.

Drost WT. 2011. Transitioning to digital radiography. J Vet Emerg Critical Care. 2011:21;137.

Nelson NC, **Drost WT**, Lerche P, Bonagura JB. 2010. Noninvasive estimation of central venous pressure in anesthetized dogs by measurement of hepatic venous blood flow velocity and abdominal venous diameter. *Vet Radiol Ultrasound* 51: 313-323.

Samii VF; Dyce J; Pozzi A; **Drost WT**; Mattoon JS; Green EM; Kowaleski MP; Lehman AM. 2009. Computed tomographic arthrography of the stifle for detection of cranial and caudal cruciate ligament and meniscal tears in dogs. Vet Radiol Ultrasound;50;144.

Arble JB, Mattoon JS, **Drost WT**, Weisbrode SE, Wassenaar PA, Pan X, Hunt RJ, Belknap JK. Magnetic Resonance Imaging Of The Initial Active Stage of Equine Laminitis at 4.7 T. Vet Radiol Ultrasound 2009:50; 3-12.

Drost WT, Reese DJ, Hornof WJ. Digital radiography artifacts. Vet Radiol Ultrasound 2008;49:S48-S56.

Hostutler RA, DiBartola SP, Chew DJ, Nagode LA, Schenck PA, Rajala-Schultz PJ, **Drost WT**. Comparison of the effects of daily and intermittent-dose calcitriol on serum parathyroid hormone and ionized calcium concentrations in

normal cats and cats with chronic renal failure. J Vet Intern Med. 2006;20:1307-1313.
Dudley RM, Kowaleski MP, **Drost WT**, Dyce J. Radiographic and computed tomographic determination of femoral varus and torsion in the dog. Vet Radiol Ultrasound 2006;47:546-552.
Drost WT, Couto CG, Fischetti AJ, Mattoon JS, Iazbik C. Comparison of glomerular filtration rate between Greyhounds and non-Greyhound dogs. J Vet Intern Med. 2006;20:544-546.
Drost WT, Mattoon JS, Weisbrode SE. Use of helical computed tomography for measurement of thyroid glands in clinically normal cats. Am J Vet Res. 2006;67:467-471.
Alexander K, **Drost WT**, Mattoon JS, Kowalski JJ, Funk JA, Crabtree AC. Binding of ciprofloxacin labeled with technetium ^{99m}Tc versus ^{99m}Tc - pertechnetate to live and killed equine isolate of *Escherichia coli*. Can J Vet Res. 2005;69:272-277.
Alexander K, **Drost WT** Mattoon JS, Anderson, DE. ^{99m}Tc-ciprofloxacin in imaging of clinical infections in camelids and a goat. Vet Radiol Ultrasound. 2005;46:340-347.
Fischetti AJ, **Drost WT**, DiBartola SP, Chew DJ, Schenck PA, Meadow C. Effects of methimazole on thyroid gland uptake of ^{99m}Tc-pertechnetate in 19 hyperthyroid cats. Vet Radiol Ultrasound 2005;46:267-272.
Aper R, Kowaleski MP, Apelt D, **Drost WT**, Dyce J. Computed tomographic determination of tibial torsion in the dog. Vet Radiol Ultrasound. 2005;46:187-191.
Smithenson BT, Mattoon JS, Bonagura JD, Abrahamsen EJ, **Drost WT**. Pulsed wave Doppler ultrasound evaluation of hepatic veins during variable hemodynamic states in healthy anesthetized dogs. Am J Vet Res. 2004;65:734-740.
Fife WD, Samii VF, **Drost WT**, Mattoon JS. Comparison between malignant and non-malignant splenic masses in dogs using contrast-enhanced computed tomography. Vet Radiol Ultrasound. 2004;45:289-297.
Samii VF, McLoughlin MA, Mattoon JS, **Drost WT**, Chew DJ, DiBartola SP, Hoshaw-Woodard S. Comparison of results from digital fluoroscopic excretory urography, digital fluoroscopic urethrography, helical computed tomography, and cystoscopy in 24 dogs with suspected ureteral ectopia. J Vet Intern Med 2004;18:271-281.
Drost WT, Mattoon JS, Samii VF, Weisbrode SE, Hoshaw-Woodard SL. Computed Tomographic Densitometry of Normal Feline Thyroid Glands Vet Radiol Ultrasound 2004;45:112-116.
Mattoon JS, **Drost WT**, Grguric M, Auld DM, Reed SM. Technique for equine cervical articular process injection. Vet Radiol Ultrasound 2004;45:238-240.
Drost WT, McLoughlin MA, Mattoon JS, Lerche P, Samii VF, DiBartola SP, Chew DJ, Barthez PY. Determination of extrarenal clearance and hepatic uptake of technetium-99m-mercaptoacetyltriglycine in cats. Am J Vet Res 2003;64:1076-1080.
Drost WT, Cummings CA, Mathew JS, Panciera RJ, Ko JCH. Determination of time of onset and location of early skeletal lesions in young dogs experimentally infected with *Hepatozoon americanum* using bone scintigraphy. Vet Radiol Ultrasound 2003:44;86-91.
Nahman Jr, NS, **Drost WT**, Bhatt UY, Sferra TJ, Johnson A, Gamboa P, Hinkle GH, Haynam A, Bergdall V, Hickey C, Bonagura JD, Brannon-Peppas L, Ellison JS, Mansfield A, Shie S, Shen N: Biodegradable microparticles for in vivo glomerular targeting: implications for gene therapy of glomerular disease. Biomedical Microdevices 2002;4:189-195.
Drost WT, Lehenbauer TW, Reeves J. Mensuration of cervical vertebral ratios in Doberman pinschers and Great Danes. Vet Radiol Ultrasound. 2002:43;124-131.
Drost WT, Henry GA, Meinkoth JH, Woods JP, Lehenbauer TW. Quantification of hepatic and renal cortical echogenicity in normal cats using histogram analysis. Am J Vet Res 2000;61:1016-1020.
Panciera RJ, Mathew JS, Ewing CA, Cummings CA, **Drost WT**, Kocan AA. Skeletal lesions of canine hepatozoonosis caused by *Hepatozoon americanum*. Vet Path, 37:225-230, 2000.
Drost WT, Henry GA, Meinkoth JH, Woods JP, Payton ME, Rodebush C. The effects of a unilateral, ultrasound-guided, renal biopsy on renal function in healthy, sedated cats. Vet Radiol Ultrasound, 41:57-62, 2000.
Woods PR, **Drost WT**, Clarke CR, Rodebush CR. Use of ^{99m}Tc-mercapoacetyltriglycine in the horse. Vet Radiol Ultrasound, 41:85-88, 2000.
Drost WT, Bahr RJ, Henry GA Campbell GA. Aortoiliac thrombus secondary to a mineralized arteriosclerotic lesion. Vet Radiol Ultrasound,40:262-266, 1999.
Drost WT, Berry CR, Breitschwerdt EB, Davidson MG. Acute thoracic radiographic changes in dogs experimentally infected with *Rickettsia rickettsii*. Vet Radiol Ultrasound, 38:260-266, 1997.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Eric T. Hostnik

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Assistant Professor - Tenure

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Vermont, Burlington, VT	BS	05/2008	Biological Sciences and Animal Sciences
University of Florida, Gainesville, FL	DVM	05/2012	Veterinary Medicine
The Ohio State University, Columbus, OH	MS	05/2016	Comparative and Veterinary Medicine
The Ohio State University, Columbus, OH	DACVR	07/2016	Diagnostic imaging residency

A. Personal Statement

Imaging is critical to the diagnosis and management of medical conditions. The need for collaborative efforts from diagnostic imaging is growing with the development of digital and computed radiography, as well as, a higher prevalence of hospitals with access to advanced modalities like ultrasound, computed tomography, and magnetic resonance imaging. The constant evolution of the digital imaging realm has lead to the instantaneous distribution of knowledge. Also, the permanence of digital image record keeping has generated a plethora of stored information. The growth of imaging in the clinical setting offers a multitude of opportunities for research and innovation. Our aims through research is to grow the understanding of disease and improve clinical care of patients of all species.

B. Positions and Honors

June 2012-July 2013 Intern, VCA South Shore Animal Hospital, South Weymouth, MA
July 2013-July 2016 Diagnostic Imaging Resident, The Ohio State University, Columbus, OH
August 2016-Present Assistant Professor - Tenure, Diagnostic Imaging and Radiation Oncology Service, The Ohio State University, Columbus, OH

Honors

2012 University of Florida Senior Radiology Award
2011 - 2012 **Phi Zeta Scholar**
2010 - 2012 American Veterinary Medical Foundation Scholarship
2009 - 2010 Florida Veterinary Medical Association Scholarship
2009 - 2010 Shands Veterinary Board of Directors – Top Scholarship

C. Contributions to Science

Rippy SB, Gardner HL, Nguygen SM, Warry EE, Portela RA, Drost WT, Hostnik ET, Green EM, Chew DJ, Peng J, and London CA. "A pilot study of toceranib/vinblastine therapy for canine transitional cell carcinoma." *BMC Veterinary Research*. 2016;12:257. doi:10.1186/s12917-016-0882-6.

DeCourcy K, Hostnik ET, Lorbach J, Knoblaugh S. Unsedated computed tomography for diagnosis of pelvic canal obstruction in a leopard gecko (*Eublepharis* macularius). 2016. Journal of Zoo and Wildlife Medicine. 47(4): 000 – 000.

Faust M, Binder T, Vandergoot G, Hostnik ET, Hinderer JM, Ives J, and Krueger C. Feasibility of Electrosedation as an Alternative to Chemical Sedation of Lake Trout, *Salvelinus namaycush.* Oral/Podium presentation at American Fisheries Society meeting 2016 Kansas City, MO.

Hostnik ET, Scansen BA, Zielinski RE, and Ghadiali SN. Computation fluid dynamics using computed tomography to assess airway resistance in brachycephalic dogs. Oral/Podium presentation at American College of Veterinary Radiology 2015 Minneapolis, MN.

Hostnik ET, Scansen BA, Habing AM, and White RD. Cardiac dimensions measured by multi-detector computed tomography angiography and thransthoracic echocardiography in English bulldogs. Poster presentation at American College of Veterinary Radiology 2015 Minneapolis, MN.

Hostnik ET, Kube S, Jortner B, Hager D, and RH Garman. "Pleomorphic xanthoastrocytoma within the medulla oblongata of a young dog" 2015. Veterinary Pathology. 52 (1): 176 – 180.

Publications under review or in preparation:

Hostnik ET, Parker VJ, and Cullen JM. Computed tomography of lobular dissecting hepatitis in a young golden retriever. Under review at *Veterinary Radiology and Ultrasound.*

Hostnik ET, Scansen BA, Zielinski RE, and Ghadiali SM. Quantification of nasal airflow resistance in English bulldogs using computed tomography and computational fluid dynamics. Under review at *Veterinary Radiology and Ultrasound*.

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

Internal Funding of Ohio State University. Computed tomography of gallbladder sludge and gallbladder mucoceles. $23,400 Total Award. Clinical Trial Role: Co-principal investigator and mentor — 2016-Pres

Blue Buffalo LLC. The effect of a struvite dissolution diet in cats with naturally occurring struvite urolithiasis. $179,146 Total Award. Clinical Trial
Role: Co-investigator (Principal Investigator: Julie K. Byron) — 2016-Pres

Frequency of positive bacteriologic culture in dog with gallbladder mucoceles and variables associated with survival 200 cases (2007 – 2016). Retrospective multiinstitutional collaborative project. Role: Co-investigator (Principal Investigator: Jared Jaffey of University of Missouri) — 2016-Pres

Radiographic evaluation of the cardiac silhouette in Humboldt Penguins (*Spheniscus humboldti*). Internal funding of Ohio State University. Collaborative project with the The Columbus Zoo. Role Co-principal investigator and mentor — 2017-Pres

OSU-CVM Canine Intramural Grant, The Ohio State University College of Veterinary Medicine 2015-2016
"Quantification of airflow resistance by computed tomography in brachycephalic dogs before and after surgery" $8,105 funded. In preparation for manuscript.
Role: Co-principal investigator (Co-principal Investigator BA Scansen)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Amy E. Schkeeper

eRA COMMONS USER NAME:

POSITION TITLE: Assistant Professor - Clinical

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Rutgers University, Cook College, New Brunswick, NJ	BS	05/2007	Animal Science
The Ohio State University, College of Veterinary Medicine, Columbus, OH	DVM	06/2011	Veterinary Medicine
Auburn University, Auburn, AL	MS	07/2016	Biological Sciences
Auburn University, Auburn, AL	DACVR	07/2016	Diagnostic imaging residency

A. Positions and Honors

June 2011-June 2012 Small Animal Rotating Intern, Pet Emergency and Specialty Center, La Mesa, CA
June 2012-July 2013 Radiology Intern, Veterinary Imaging Center of San Diego, CA
July 2013-July 2016 Diagnostic Imaging Resident, Auburn University, Auburn, AL
July 2016-Present Assistant Professor - Clinical, Diagnostic Imaging and Radiation Oncology Service, The Ohio State University, Columbus, OH

Honors

2011 The Ohio State University Veterinary Radiology and Ultrasound Senior Student Award

B. Contributions to Science

Schkeeper AE, Foss K, Drost WT. What Is Your Diagnosis? Prostatic Adenocarcinoma and Metastasis in a Dog. J Am Vet Med Assoc 2013; 243(4): 483-485.

Schkeeper AE, Narak J, Weiss R. Imaging Diagnosis: Feline Systemic Reactive Angioendotheliomatosis. Veterinary Radiology and Ultrasound. Published online May, 2016.

Schkeeper AE, Linden D, Shrader, S, Moon R, Taylor AR. Metastatic Oligodendroglioma in the Spinal Cord and Brain of a Dog. Veterinary Radiology and Ultrasound. Published online August 2016.

Publications under review or in preparation:

Schkeeper AE, Brawner WR, Cole RC, Gard JA, Maxwell HS, Edmondson MA. Ultrasound Anatomy of the Normal Penis in Bulls. In preparation.

C. Additional Information: Research Support and/or Scholastic Performance

CE Presented

Auburn University Annual Conference. 1 hour lecture. April 10, 2013.

Auburn University Annual Conference. 1 hour lecture. March 26, 2014.

Auburn University Annual Conference. 1 hour lecture. March 31, 2015.

Miami Valley Veterinary Medical Association Radiology Seminar. 2 hour lectures. Nov 13, 2016. Moraine, OH.

Universal Ultrasound Training Course: Basic and Intermediate Abdominal Ultrasound. 2 hour lectures and 8 hours lab. Jan 21-22, 2017. The Ohio State University, Columbus, OH.

BIOGRAPHICAL SKETCH

NAME Kisseberth, William Charles	POSITION TITLE Associate Professor (Veterinary and Comparative Oncology)
eRA COMMONS USER NAME: KISSEBERTH02	

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	MM/YY	FIELD OF STUDY
University of Illinois-Urbana, Urbana, IL	B.S.	1983	Veterinary Science
University of Illinois-Urbana, Urbana, IL	D.V.M	1985	Veterinary Medicine
University of Wisconsin-Madison, Madison, WI	M.S.	1992	Veterinary Science
University of Wisconsin-Madison, Madison, WI	Residency	1995	Veterinary Oncology
University of Wisconsin-Madison, Madison, WI	Ph.D.	2000	Veterinary Science

A. PERSONAL STATEMENT

I am a veterinary medical oncologist with over 20 years of experience in comparative oncology research, focused primarily on experimental therapeutics, comparative oncology clinical trials and comparative genomics. This has included extensive use of comparative animal models, including spontaneous cancers in dogs and cats, xenograft models in immunodeficient mice, and genetically engineered rats and mice. I have been the OSU site PI involved with the establishment and continued clinical trials and studies of the Comparative Oncology Trials Consortium (COTC), the Canine Comparative Oncology Genomics Consortium and the Comparative Brain Tumor Consortium (CBTC), supported by NCI, since their inceptions. The veterinary oncology program at The Ohio State University College of Veterinary Medicine (OSU-CVM) and Veterinary Medical Center (VMC) is one of the premier programs of its kind in the country, has one of the largest oncology caseloads, and is arguably the most closely aligned and collaborative with a NCI-CCC. I am senior staff veterinary oncologist of the OSU-CVM Oncology Service and Director of the CVM Biospecimen Repository (Tissue Bank). Activities of both entities are supported in part and report to the Ohio State University Comprehensive Cancer Center and Center for Clinical & Translational Science.

B. POSITIONS AND HONORS

Positions and Employment

1985-1987 Associate Veterinarian, Illiana Veterinary Hospital, Ltd., South Holland, IL
1987-1989 SA Emergency Clinician/Manager, Calumet Emergency Vet. Clinic, Hammond, IL
1989-1990 Small Animal Clinician, Chicago Metro Veterinary Relief, Chicago, IL (Self-Employed)
1990-1992 Research Asst., School of Veterinary Medicine, University of Wisconsin, Madison, WI
1992-1994 Resident, School of Veterinary Medicine, University of Wisconsin, Madison, WI
1995-1999 Assistant Scientist, School of Veterinary Medicine, University of Wisconsin, Madison, WI
1999-2001 Senior Instructor, Dept. of Medicine, U. of Rochester Medical Center, Rochester, NY
2001-2007 Assistant Professor, Dept. of Veterinary Clinical Sciences, OSU-CVM, Columbus, OH
2001-present The Ohio State University Comprehensive Cancer Center, member
2008-present Associate Professor, Dept. of Veterinary Clinical Sciences, OSU-CVM, Columbus, OH
2011-2015 Service Head, Oncology & Hematology Service, Veterinary Medical Center, The Ohio State University, Columbus, OH
2008-2016 Program Leader, Comparative Oncology Program, OSU-CVM, Columbus, OH
2001-present The Ohio State University Comprehensive Cancer Center, member
2008-present Director, OSU College of Veterinary Medicine Biospecimen Repository

Other Experience and Professional Memberships

2005-present Comparative Oncology Trials Consortium, The Ohio State University site PI
2007-present Canine Comparative Oncology Genomics Consortium, The Ohio State University site PI
2007-2010, 2015-present Examination Committee (Oncology), American College of Veterinary Medicine
2014-present CTSA One Health Alliance (COHA), member Tissue and DNA Banking Subcommittee
2015-present Comparative Brain Tumor Consortium, The Ohio State University site PI

Honors

1995-2001 Special Emphasis Research Career Award (SERCA), NCRR, NIH,
1994 AACR, Molecular Biology in Clinical Oncology Workshop
1985 The H. Preston Hoskins Award for Outstanding Literary Achievement, Illinois Veterinary Medical Association and the Chicago Veterinary Medical Association

C. Selected Peer-reviewed Publications, Past 3 Years (Selected from over 60)

1. Fenger JM, Roberts RD, Iwenofu OH, Bear MD, Zhang X, Couto JI, Modiano JF, **Kisseberth WC**, London CA. MiR-9 is overexpressed in spontaneous canine osteosarcoma and promotes a metastatic phenotype including invasion and migration in osteoblasts and osteosarcoma cell lines. *BMC Cancer*. 2016 Oct 10;16(1):784.
2. Harrington BK, Gardner HL, Izumi R, Hamdy A, Rothbaum W, Coombes KR, Covey T, Kaptein A, Gulrajani M, Van Lith B, Krejsa C, Coss CC, Russell DS, Zhang X, Urie BK, London CA, Byrd JC, Johnson AJ, **Kisseberth WC**. Preclinical Evaluation of the Novel BTK Inhibitor Acalabrutinib in Canine Models of B-Cell Non-Hodgkin Lymphoma. *PLoS One*. 2016 Jul 19;11(7):e0159607.
3. LeBlanc AK, Mazcko C, Brown DE, Koehler JW, Miller AD, Miller CR, Bentley RT, Packer RA, Breen M, Boudreau CE, Levine JM, Simpson RM, Halsey C, **Kisseberth W**, Rossmeisl JH Jr, Dickinson PJ, Fan TM, Corps K, Aldape K, Puduvalli V, Pluhar GE, Gilbert MR. Creation of an NCI comparative brain tumor consortium: informing the translation of new knowledge from canine to human brain tumor patients. *Neuro Oncol*. 2016 Sep;18(9):1209-18.
4. Mani R, Yan R, Mo X, Chen CS, Phelps MA, Klisovic R, Byrd JC, **Kisseberth WC**, London CA, Muthusamy N. Non-immunosuppressive FTY720-derivative OSU-2S mediates reactive oxygen species-mediated cytotoxicity in canine B-cell lymphoma. *Vet Comp Oncol*. 2016 May 2. [Epub ahead of print]
5. Saba C, Paoloni M, Mazcko C, **Kisseberth W**, Burton JH, Smith A, Wilson-Robles H, Allstadt S, Vail D, Henry C, Lana S, Ehrhart EJ, Charles B, Kent M, Lawrence J, Burgess K, Borgatti A, Suter S, Woods P, Gordon I, Vrignaud P, Khanna C, LeBlanc AK. A Comparative Oncology Study of Iniparib Defines Its Pharmacokinetic Profile and Biological Activity in a Naturally-Occurring Canine Cancer Model. *PLoS One*. 2016 Feb 11;11(2):e0149194.
6. Clemente-Vicario F, Alvarez CE, Rowell JL, Roy S, London CA, **Kisseberth WC**, Lorch G. Human Genetic Relevance and Potent Antitumor Activity of Heat Shock Protein 90 Inhibition in Canine Lung Adenocarcinoma Cell Lines. *PLoS One*. 2015 Nov 11;10(11):e0142007.
7. Brown ME, Bear MD, Rosol TJ, Premanandan C, **Kisseberth WC**, London CA. Characterization of STAT3 expression, signaling and inhibition in feline oral squamous cell carcinoma. *BMC Vet Res*. 2015 Aug 14;11:206.
8. Breit MN, **Kisseberth WC**, Bear MD, Landesman Y, Kashyap T, McCauley D, Kauffman MG, Shacham S, London CA. Biologic activity of the novel orally bioavailable selective inhibitor of nuclear export (SINE) KPT-335 against canine melanoma cell lines. *BMC Vet Res.* 2014 Jul 15;10:160.
9. Fenger JM, London CA, **Kisseberth WC**. Canine osteosarcoma: a naturally occurring disease to inform pediatric oncology. *ILAR J*. 2014;55(1):69-85.
10. Fenger JM, Bear MD, Volinia S, Lin TY, Harrington BK, London CA, **Kisseberth WC**. Overexpression of miR-9 in mast cells is associated with invasive behavior and spontaneous metastasis. *BMC Cancer*. 2014 Feb 11;14:84.
11. London CA, Bernabe LF, Barnard S, **Kisseberth WC**, Borgatti A, Henson M, Wilson H, Jensen K, Ito D, Modiano JF, Bear MD, Pennell ML, Saint-Martin JR, McCauley D, Kauffman M, Shacham S. Preclinical evaluation of the novel, orally bioavailable selective inhibitor of nuclear export (SINE) KPT-335 in spontaneous canine cancer: results of a phase I study. *PLoS One*. 2014 Feb 4;9(2):e87585.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Joelle M. Fenger

eRA COMMONS USER NAME (credential, e.g., agency login): **FENGER03**

POSITION TITLE: **Assistant Professor**

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	COMPLETION DATE	FIELD OF STUDY
University of California, San Diego, CA	BS	2003	Animal Physiology
University of California, Davis, CA	DVM	2007	Veterinary Medicine
The Ohio State University, Columbus, OH	Residency	2013	Medical Oncology
The Ohio State University, Columbus, OH	PhD	2015	Molecular Biology

A. PERSONAL STATEMENT

I am an Assistant Professor in the Department of Veterinary Clinical Sciences at The Ohio State University College of Veterinary Medicine. I am a board-certified veterinary medical oncologist with broad experience in the fields of translational and comparative oncology. My doctoral research focused on microRNA dysregulation in spontaneous canine mast cell tumors and osteosarcoma, resulting in the identification of miR-9 as a mediator of invasive behavior and metastasis; a similar role for miR-9 has been defined in metastatic human breast, bone, liver, and head and neck cancers. This work with miR-9 resulted in the development of an inducible mouse model of mast cell specific miR-9 overexpression, providing the foundation for a successful NIH K01 application that I was awarded in 2015. Lastly, I have broad research experience in comparative biology of human cancers and spontaneous models of cancer in dogs and have been intimately involved in basic studies involving several anti- cancer therapeutics, including the compounds AR-42 and FLLL32. Importantly, this work has resulted in strong collaborative effort with the OSU College of Pharmacy, OSU College of Medicine, and Nationwide Children's Hospital that integrates *in vitro* studies, mouse models of disease and spontaneous canine cancer to ultimately identify novel targets for therapy and provide a foundation for subsequent translational clinical trials.

B. POSITIONS AND HONORS Positions of Employment

06/2001-09/2001 Research Assistant, Scripps Institute of Oceanography, San Diego, CA 06/2002-06/2003 Research Assistant, Dept of Medicine, UC San Diego, San Diego, CA 06/2007-06/2007 Rotating Intern, OSU Veterinary Medical Center, Columbus, OH 07/2010-07/2013 Resident, Oncology, OSU Veterinary Medical Center, Columbus, OH
07/2008-05/2015 Graduate Research Associate, OSU College of Veterinary Medicine, Columbus, OH 05/2015- Assistant Professor, Veterinary Clinical Sciences, College of Veterinary Medicine, OSU

Academic and Professional Honors

2005 Grace and Bud Willson Memorial Scholarship
2005-06 George H. Hart Scholarship for academic achievement
2006 Salsbury Scholarship for academic scholarship and leadership
2006 UC Davis School of Veterinary Medicine Recruitment and Outreach Award 2007 Shadow Oliver Scholarship for excellence in small animal medicine
2007 Helene Durant Scholarship
2007 Harrold Memorial Scholarship for academic scholarship
2008 OSU Veterinary Teaching Hospital Outstanding Intern Award
2008-09 OSU University Fellowship Award
2010 OSU College of Veterinary Medicine Research Day Award (Molecular Biology) 2010 E. Gregory MacEwen Award for Outstanding Resident's Basic Research
2012 OSU College of Veterinary Medicine Research Day Award (Molecular Biology) 2012 OSU Edward F. Hayes Graduate Research Forum (Prof. Biological Sciences) 2012 27th Annual Aspen Cancer Conference Fellow, (Millennium Pharmaceuticals, Inc)

2013 28th Annual Aspen Cancer Conference Fellow, (Millennium Pharmaceuticals, Inc) 2013 OSU Presidential Fellowship
2014 OSU Department of Veterinary Clinical Sciences Resident Research Award 2014 OSU Comprehensive Cancer Center Pelotonia Fellowship
2015 AVMA/AVMF Young Investigator Award
2016 OSU REACH for Commercialization Nominated Fellow

A. **CONTRIBUTIONS TO SCIENCE**

1. Scientific efforts early in my training career were largely focused on the pre-clinical evaluation of novel therapies in spontaneous canine cancers with the intent of informing the human drug development path. To this end, we compared the molecular profiles and functional consequences of therapeutic interventions in both normal and malignant mast cell populations. Specifically, we identified KIT as a novel target of the HDAC inhibitor AR42. Subsequent collaborative studies with the OSU College of Pharmacy, OSU College of Medicine, and Nationwide Children's Hospital demonstrated that, the

LLL12 compound, an allosteric inhibitor targeting STAT3 exhibits strong in vitro biologic activity in canine and human osteosarcoma.

a. Lin TY, **Fenger J,** Muharari S, Bear M, Kulp SK, Wang D, Chen CS, Kisseberth WC, London CA. AR-42, a novel HDAC inhibitor, exhibits biologic activity against malignant mast cell lines via downregulation of constitutively activated Kit. *Blood.* 2010 May 27;115(21):4217-25 [PMID: 29233974].
b. Fossey SL, Bear MD, Lin J, Li C, Schwartz EB, Li P-K, Fuchs J, Pennell MJ, **Fenger J,** Kisseberth WK, and London CA. The novel curcumin analog FLLL32 has biologic activity against osteosarcoma. *BMC Cancer*. 2011 Mar 28;11:112 [PMID: 21443800].

1. During my combined residency/PhD graduate program in veterinary and comparative oncology, the contribution of microRNAs in mast cell biology was just being explored. To better define the contribution of microRNA dysregulation in the biological behavior of canine mast cell disease, a well-established model of spontaneous mast cell malignancy, I compared the microRNA profiles of normal and malignant canine mast cells, resulting in the identification of miR-9 as a mediator of invasive behavior and metastasis; a similar role for miR9 has been defined in metastatic human breast cancer. We more recently found that miR-9 is over-expressed in a subset of canine osteosarcoma samples and that forced expression of miR-9 in normal osteoblasts induces invasive behavior. My work with miR-9 resulted in the development of an inducible mouse model of mast cell specific miR-9 overexpression, providing the foundation for a successful K01 SERCA application.
    a. **Fenger JM**, Bear MD, Volinia S, Lin TY, Harrington BK, London CA, Kisseberth WC. Overexpression of miR-9 in mast cells is associated with invasive behavior and spontaneous metastasis. *BMC Cancer.* 2014 14:84 [PMC3933481].
    b. **Fenger JM**, Roberts RD, Iwenofu OH, Bear MD, Zhang X, Couto JI, Modiano JF, Kisseberth WC, London CA. MiR-9 is overexpressed in spontaneous canine osteosarcoma and promotes and metastatic phenotype including invasion and migration in osteoblasts and osteosarcoma cell lines. *BMC Cancer.* 2016 Oct 10;16(1):784 [PMID:27724924].

1. My work has also focused on the comparative biology of canine and human osteosarcoma (OSA) with the ultimate goal of identifying common molecular pathways that provide a foundation for subsequent translational clinical trials. To this end we characterized the contribution of the p63 isoform, ΔNp63 to canine OSA, demonstrating that it plays a similar role in disease biology when compared to human OSA and promotes metastasis. Furthermore, we validated ΔNp63 as a relevant target for therapeutic intervention in both canine and human OSA. This work resulted in a strong collaborative effort with the OSU College of Veterinary Medicine, the OSU College of Medicine, and Nationwide Children's Hospital to integrate in vitro studies, mouse models of disease and spontaneous canine cancer and provide a platform for future comparative and translational studies in an effort to develop and critically test novel targeted therapies for this disease.
    a. **Fenger JM**, London CA, Kisseberth WC. Canine osteosarcoma – a naturally occurring disease to inform pediatric oncology. *ILAR J.* 2014 55(1):69-85 [PMID24936031].

a. Gardner HL, **Fenger JM**, London CA. "Dogs as a Model for Cancer." *Annu Rev Anim Biosci.*. 2016 Feb 15;4:199-222 [PMID26566160].
b. Cam M, Gardner HL, Roberts RD, **Fenger JM**, Guttridge DC, London CA, Cam H. Δp63 mediates cellular survival and metastasis in canine osteosarcoma. *Oncotarget*. 2016. Jul 6. Doi: 10.18632/oncotarget.10406. [PMID: 27391430].
c. **Fenger JM**, Rowell JL, Zapata I, Kisseberth WC, London CA, Alvarez CE. Dog models of naturally occurring cancer, in Animal models for Human Cancer: Discovery and Development of Novel Therapeutics (ed Martic-Kehl M, Schubiger A), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany. 2016. [ISBN: 978-3-527-33997-6].

D. RESEARCH SUPPORT			
Ongoing K01 OD 019923	**(PI: Fenger)**	($654,345)	02/16/15-12/31/19
NIH Office of the Director			

Dissecting the role of miR-9 in normal and malignant mast cell biology
The purpose of training grant is to evaluate the consequences of miR-9 overexpression on normal and malignant mast cell biology using a transgenic mouse model that conditionally overexpresses miR-9 in mast cells.

Canine Research Fund **(PI: Fenger)** ($24,578) 10/01/15-09/31/17 OSU College of Veterinary Medicine
Characterization of Wwox deficiency in canine osteosarcoma
The purpose of this grant is to evaluate the biological consequences of the tumor suppressor gene Wwox in canine osteosarcoma cell lines *in vitro*. The second aim of this grant is to generate a conditional transgenic mouse that will delete Wwox in an osteoblast-specific manner to define the *in vitro* molecular and *in vivo* biological consequences of Wwox deficiency in normal osteoblasts.

Steps for Sarcoma Pilot Fund **(PI: Fenger)** ($30,000) 10/01/16-09/31/17 OSU-Comprehensive Cancer Center Steps for Sarcoma
Characterization of role of Wwox deficiency in normal and malignant osteoblast biology
The overarching goals of this project are to characterize the function of WWOX in osteoblast biology and provide a molecular framework for understanding the role of Wwox loss in osteosarcoma initiation.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Megan E. Brown

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Assistant Professor - Clinical

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Princeton University, Princeton, NJ	AB	06/2006	Ecology and Evolutionary Biology
Cornell University, Ithaca, NY	DVM	05/2011	Veterinary Medicine
The Ohio State University, Columbus, OH	MS	05/2015	Veterinary Medicine
The Ohio State University, Columbus, OH	DACVIM	07/2015	Veterinary Internal Medicine (Oncology)

A. Personal Statement

I am a veterinary oncologist and a diplomate of the American College of Veterinary Internal Medicine (Oncology). I am an Assistant Professor in the Veterinary Clinical Sciences Department at The Ohio State University College of Veterinary Medicine. My appointment is clinically intensive (65%) and I am responsible for managing veterinary cancer patients on the clinic floor as well as training 4th year veterinary students, interns and residents. My research interests include advanced cancer imaging and using cancer bearing dogs as a model for imaging agent and drug development.

B. Positions and Honors

Academic Appointments (past)

2011-2012 Small Animal Medicine and Surgery Intern, The Ohio State University, Columbus, OH
2012-2015 Resident in Medical Oncology, The Ohio State University, Columbus, OH
2015-2015 Clinical Instructor in Medical Oncology, The Ohio State University, Columbus, OH
2016-Present Associate Professor (Clinical), The Ohio State University, Columbus, OH

Honors and Awards

2006 Graduation with Honors in Ecology and Evolutionary Biology, Princeton University
2011 Merck Manual Award, Cornell University
2011 American College of Veterinary Surgeons Surgical Proficiency Award, Cornell University
2011 American College of Veterinary Radiology Senior Student Award, Cornell University
2011 Veterinary Cancer Society Award for Proficiency in Clinical Oncology, Cornell University
2011 Graduate with top honors, Cornell University College of Veterinary Medicine
2015 Department of Veterinary Clinical Sciences Resident Research Award, OSU CVM

C. Contributions to Science

1. **Brown, ME**, Bear, MD, Rosol, TJ, Premanandan, C, Kisseberth, WC, London CA. Characterization of STAT3 expression, signaling and inhibition in feline squamous cell carcinoma. BMC Veterinary Research. 2015;11:206

2. Lundberg AP, Francis JM, Pajak M, Parkinson EI, Wycislo KL, Rosol TJ, **Brown ME**, London CA, Dirikolu L, Hergenrother PJ, Fan TM. Pharmacokinetics and derivation of an anticancer dosing regimen for the novel anti-cancer agent isobutyl-deoxynyboquinone (IB-DNQ), a NQO1 bioactivatable molecule, in the domestic felid species. Invest New Drugs. 2016 Dec 14.

D. Additional Information: Research Support and/or Scholastic Performance

Research Support

Tilmanocept as a Canine Cancer Theranostic – Co-Primary Investigator
Co-PI – Dr. Tom Rosol
OSU CVM Intramural Canine Grant
$25,000
2015-2018
This is a clinical trial that will evaluate the utility of a novel imaging agent (Tilmanocept – Lymphoseek) in dogs with spontaneously occurring soft tissue sarcomas. If successful, this clinical trial will support further development of Tilmanocept as both a canine diagnostic and therapeutic agent (theranostic). Enrollment is anticipated to start mid-year 2017.

Phase I of KPT-9274 in dogs with lymphoma - Co-Investigator
PI – Dr. Cheryl London
Karyopharm
$280,000
2016 -2017
This is an extension of the Phase I KPT-9274 clinical trial investigating the efficacy and tolerability of KPT-9274 in combination with doxorubicin in dogs with lymphoma. This is a small study of 5 dogs, all of which have been enrolled at this time. Two dogs have completed the clinical trial and 3 dogs are still being followed and receiving the KPT-9274 therapy on a compassionate use basis.

COTC 021, COTC 022: Evaluation of an Orally Administered mTOR inhibitor Rapamycin in Dogs in the Adjuvant Setting with Osteosarcoma Compared to Standard of Care – Co-Investigator
OSU PI – Dr. William Kisseberth
Morris Animal Foundation
Up to $9,500/patient
2015 – Current
When on clinics, I oversee or am directly responsible for care of patients on this clinical trial (in conjunction with other faculty on clinics). I am also responsible for facilitating recruitment of trial patients from the Integrated Oncology Service.

Dec 2016 VCS Resident Evaluation Form

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Efficient during clinics (1)	❍	❍	❍	❍	❍	❍
Able to handle emergencies (2)	❍	❍	❍	❍	❍	❍
Able to solve problems (diagnostic ability) (3)	❍	❍	❍	❍	❍	❍
Attentive to changes in patient condition (4)	❍	❍	❍	❍	❍	❍
Provides good patient care (5)	❍	❍	❍	❍	❍	❍
Manages cases properly (6)	❍	❍	❍	❍	❍	❍
Conducts procedures competently (7)	❍	❍	❍	❍	❍	❍
Demonstrates appropriate technical skills (8)	❍	❍	❍	❍	❍	❍
Uses consultations with other specialists effectively (9)	❍	❍	❍	❍	❍	❍
Critically examines decisions and actions for optimal performance (10)	❍	❍	❍	❍	❍	❍
Uses	❍	❍	❍	❍	❍	❍

evidence-based medicine to the extent available (11)						
Seeks out and adjusts performance according to feedback (12)	❍	❍	❍	❍	❍	❍
Demonstrates animal handling skills to properly restrain and manage animals in a safe and humane manner (13)	❍	❍	❍	❍	❍	❍

Comments:

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Understands basic science of specialty (1)	❍	❍	❍	❍	❍	❍
Familiar with and understands relevant literature (2)	❍	❍	❍	❍	❍	❍
Demonstrates growth in knowledge base (3)	❍	❍	❍	❍	❍	❍
Can critically evaluate newly reported information (4)	❍	❍	❍	❍	❍	❍
Gives succinct, accurate case rounds with appropriate interpretation of physical exam results and lab data (5)	❍	❍	❍	❍	❍	❍

Comments

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Is fully prepared at the start of the clinical shift (1)	❍	❍	❍	❍	❍	❍
Acts and appears in a manner consistent with a medical professional (2)	❍	❍	❍	❍	❍	❍
Takes timely and appropriate breaks (3)	❍	❍	❍	❍	❍	❍
Demonstrates good work ethic (4)	❍	❍	❍	❍	❍	❍
Is aware of and attends to the goals and objectives for the rotation (5)	❍	❍	❍	❍	❍	❍
Interacts with others in a caring and thoughtful fashion (6)	❍	❍	❍	❍	❍	❍
Explains and defends decisions in a defensible and understandable form (7)	❍	❍	❍	❍	❍	❍

Comments:

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Communicates effectively and respectfully with faculty (1)	❍	❍	❍	❍	❍	❍
Communicates effectively and respectfully with students (2)	❍	❍	❍	❍	❍	❍
Communicates effectively and respectfully with technicians/staff/receptionists (3)	❍	❍	❍	❍	❍	❍
Interacts collegially with other services (4)	❍	❍	❍	❍	❍	❍
Interacts collegially with other staff and colleagues (5)	❍	❍	❍	❍	❍	❍
Interacts collegially with RDVMs (6)	❍	❍	❍	❍	❍	❍
Demonstrates enthusiasm (7)	❍	❍	❍	❍	❍	❍
Demonstrates willingness to work (8)	❍	❍	❍	❍	❍	❍
Accepts responsibility (9)	❍	❍	❍	❍	❍	❍
Accepts constructive criticism (10)	❍	❍	❍	❍	❍	❍
Handles adversity well (14)	❍	❍	❍	❍	❍	❍
Maintains composure during stressful events (15)	❍	❍	❍	❍	❍	❍
Demonstrates judgment, maturity and professionalism (11)	❍	❍	❍	❍	❍	❍
Supports a “team effort” (12)	❍	❍	❍	❍	❍	❍
Participates in consultations (13)	❍	❍	❍	❍	❍	❍

Comments:

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Demonstrates teaching ability during clinics, rounds, workups and procedures (1)	❍	❍	❍	❍	❍	❍
Shares knowledge with other residents/faculty (2)	❍	❍	❍	❍	❍	❍
Supervises students effectively (3)	❍	❍	❍	❍	❍	❍
Fulfillment of assigned student teaching requirements in laboratories, lectures and seminars (4)	❍	❍	❍	❍	❍	❍
Shows good judgment in the oversight of students during procedures and case management (5)	❍	❍	❍	❍	❍	❍

Comments:

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Files lab work/reports promptly (1)	❍	❍	❍	❍	❍	❍
Completes medical records promptly (2)	❍	❍	❍	❍	❍	❍
Returns medical records promptly after discharge (3)	❍	❍	❍	❍	❍	❍
Provides follow-up to DVMs (4)	❍	❍	❍	❍	❍	❍
Follows-up on outpatient lab evaluations (5)	❍	❍	❍	❍	❍	❍
Manages case flow efficiently (6)	❍	❍	❍	❍	❍	❍
Supervises student notations in medical record (7)	❍	❍	❍	❍	❍	❍
Records all client communications (8)	❍	❍	❍	❍	❍	❍
Arrives for rounds or seminars on time (9)	❍	❍	❍	❍	❍	❍

Comments:

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Maintains appropriate progress on research and projects (1)	❍	❍	❍	❍	❍	❍
Is cognizant of requirements and status in the graduate program (2)	❍	❍	❍	❍	❍	❍
Consults with advisors in a timely and appropriate manner before presentations (3)	❍	❍	❍	❍	❍	❍
Completes presentations, abstracts, and manuscripts in a timely fashion (4)	❍	❍	❍	❍	❍	❍
Seeks out and responds to feedback on research presentations and manuscripts (5)	❍	❍	❍	❍	❍	❍

Comments:

	1 Needed significant assistance, input or correction (1)	2 Needed moderate assistance, input or correction (2)	3 Needed minimal assistance, input or correction (3)	4 Needed very infrequent assistance, input or correction (4)	5 Performed in a fully independent manner, did not need assistance, input or correction (5)	Not observed (6)
Participates in journal club/book review, attends pertinent conferences (1)	❍	❍	❍	❍	❍	❍

Comments:

What are particular strengths of this resident?

Residents want to know how they can improve. Note specific areas or items that this resident should focus on improving:

This evaluation indicates a need for remediation?

❍ Yes (1)

❍ No (2)

This evaluation puts the resident on probation?

❍ Yes (1)

❍ No (2)

Student evaluations have been discussed with this Resident.

❍ Yes (1)

❍ No (2)

Please include the names of the faculty that participated in the review of this resident.

Please select the courses in which a B or better was earned:

❑ VETCLIN 8781 Research Methods 1 (required) (1)

❑ Stats Requirement 1 credit (5)

❑ Stats Requirement 1 credit (6)

Please check the courses that the Resident took to fulfill the requirement for stats:

❑ VETCLIN 8783 Experimental Design 1 (1)

❑ VETCLIN 8784 Experimental Design 2 (2)

❑ VETPREV 8782 Clinical Epidemiology (3)

❑ Other (4) _____

I have met with the resident and they have seen a copy of this evaluation.

- ❍ Yes (1)
- ❍ No (2)

Please list cumulative GPA. (3.0 required to be in good standing)

Please list number of graded credit hours completed. (Must have at least 20 graded credit hours and 30 hours total)