

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

1/31/15

Date of Initial Program Approval

2009

Date of Last Re-approval

2012

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

Jean M. Poulson, DVM, PhD, DACVR (RO)

Program Director's Contact Information:

Work Phone:	765-494-0346
Fax:	765-496-1833
E-mail:	jpoulson@purdue.edu

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

Nicholas J. Rancilio, DVM, DACVR (RO)

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

52

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

Yes	No
X	

5. Name of resident(s)

Magdalena Parys, DVM
Keiko Murakami, BVSc (DVM equivalent)

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

Standard	Alternative
X	

6. 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)

Dr. Parys: 9/16/13 – 7/13/16

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

Dr. Murakami: 7/14/14 – 7/14/17

7. Location of Primary Institution

Primary Site:

Purdue University College of Veterinary Medicine

Department

Veterinary Clinical Sciences

Hospital/University

Purdue University Veterinary Teaching Hospital

Address

625 Harrison Street

City, State Zip Country

West Lafayette, IN 47907-2026 USA

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

N/A

Department

Hospital/University

Address

City, State, Zip, Country

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

9. Length of Training Program (months):

36 months

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

Yes	No
X	

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

28.5 months

11. Advanced Degree:

	Yes	No	Optional
Masters:	X		
PhD:			X
	The program includes a non-thesis Masters degree. A combined residency and thesis Masters degree or residency and PhD program are optional.		

12. Essential Program Faculty: 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)

The Purdue University Veterinary Teaching Hospital Diagnostic Imaging Service, (including a diplomate of ACVR) provides services 52 weeks/year.
Hock Gan Heng, DVM, MVS, MS, DECVDI, DACVR (31 weeks/year)
Chee Kin Lim, DVM, BVSc, DECVDI (36 weeks/year)
Locum tenens ACVR diplomates (16 weeks/year)

Number of weeks per year an ACVR – Radiology diplomate is available to resident on a

daily basis.

52

Faculty member on site?

Yes	No
X	

If off site, please explain relationship.

--

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

Deborah W. Knapp, DVM, MS Michael O. Childress, DVM, MS
--

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

Dr. Knapp: 45 to 48 weeks/year Dr. Childress: 36 weeks/year
--

Faculty member on site?

Yes	No
X	

If off site, please explain relationship

--

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

Gert J. Breur, DVM, MS, PhD
Amy Fauber, DVM, MS
Gary C. Lantz, DVM
S. Kathleen Salisbury, DVM, MS

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.

d. Pathologist(s): (must be Diplomate(s) of the ACVP)

Yava L. Jones-Hall, DVM, PhD (Anatomic pathology)
Stephen D. Lenz, DVM, PhD (Anatomic pathology)
Joanne Messick, VMD, PhD (Clinical pathology)
Margaret A. Miller, DVM, PhD (Anatomic pathology)
Craig A. Thompson, DVM (Clinical pathology)

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

The Purdue University Veterinary Teaching Hospital Clinical Pathology Laboratory (CPL) and the Indiana Animal Disease Diagnostic Laboratory (IADDL) provide clinical pathology (CPL) and surgical biopsy interpretation and necropsy services (IADDL) 52 weeks/year. At least one Diplomate of the ACVP, Clinical Pathology and at least one Diplomate of ACVP, Anatomic Pathology will be available to resident on a daily basis 52 weeks/year.

Faculty member on site?

Yes	No
X	

If off site, please explain relationship.

--

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

Name	Certifying College / Board
R. Timothy Bentley, MRCVS Stephanie Thomovsky, DVM, MS	DACVIM (Neurology)
Jeff Ko, DVM, MS Ann Weil, DVM, MS	DACVA (Anesthesiology)
Henry Green III, DVM Daniel F. Hogan, DVM	DACVIM (Cardiology)
Liz Thomovsky, DVM, MS	ACVECC (Emergency Critical Care)
Larry G. Adams, DVM, PhD Lynn Guptill, DVM, PhD Nolie Parnell, DVM	DACVIM (Small Animal)

Jean Stiles, DVM, MS

Wendy Townsend, DVM, MS

DACVO (Ophthalmology)

13. How does resident receive training in Medical Oncology? What is time allotted for this training? Please provide description of formal and informal training experiences.

As directed by ACVR (RO) the residents in this program will spend no less than 2 months rotating on the oncology service under the direction of Dr. Deborah Knapp and Dr. Michael Childress. While on the medical oncology rotation the resident will be responsible for receiving, evaluating, staging, managing and treating oncology cases. The radiation oncology service works closely with the oncology service to facilitate communication and coordinate management of clinical oncology patients, and training in medical oncology will be ongoing throughout the residency via the constant interaction between the two services. In addition to the close clinical interaction with the oncology group, the radiation oncology resident will regularly interact with the medical oncology faculty and the oncology residents for consultations, and weekly joint MO/RO clinician rounds, grand rounds, oncology journal club, and frequent seminars. The oncology residents and radiation oncology residents will participate together in regularly scheduled, directed reviews of medical and general oncology using current texts and current and historical literature as a basis for discussion.

14. How is resident trained in diagnostic imaging? What is time allotted for this training? Please provide description of formal and informal training experiences.

As directed by ACVR (RO) the residents in this program will spend no less than 1 month rotating on the diagnostic imaging service, reading plain films (CR, DR), CT, MRI, ultrasound and nuclear medicine studies. While on the diagnostic imaging rotation the resident will be responsible for dictating imaging reports under the supervision of ACVR (R) diplomates and will attend the weekly radiology case conference. The resident will be expected to review all imaging studies for cases considered for or undergoing radiation therapy in consultation with the radiation oncologist and the diagnostic radiologists. The resident will have the opportunity to take HCSI 570 Introduction to Medical Diagnostic Imaging.

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

Residents are required to take HSCI 540 Radiation Biology, a 3 credit course in radiation biology that is offered each spring semester and is generally taken during the first year of residency (syllabus included in appendix, course instructor is Jeannie Poulson). The course syllabus is structured around the text Radiobiology for the Radiologist (Hall). Supplemental discussions will be held using the text Basic Clinical Radiobiology (Steele). Radiobiological aspects of clinical cases will be discussed regularly. The current radiobiology literature will be included in the materials covered in regular journal club discussions.

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

Cancer biology is frequently addressed in regularly scheduled conferences, seminars and rounds. The resident will attend conferences and guest lectures on cancer biology sponsored by the Purdue University Center for Cancer Research. The resident will participate in formal review sessions using the current Tannock and Hill text (Basic Science of Oncology) and the Weinberg text (The Biology of Cancer) which are presently led by the oncology and radiation oncology faculty. The resident will have the opportunity to take BIOL 51600 Molecular Biology of Cancer, a 3 credit hour formal lecture course in the Purdue Biological Sciences Dept., when it is offered, typically each spring. Instructor, Elizabeth Taparowsky.

17. How is resident trained in radiation oncology physics? Please provide description of formal and informal training experiences.

Residents are required to take HSCI 572 Radiation Oncology Physics, a 3 credit hour course (syllabus included in appendix, Instructor Colleen DesRosiers). Purdue University has a Medical Physics Program in the Department of Health Sciences. The Radiation Oncology Program works closely with the Medical Physics Program to afford interaction between the clinical service and the medical physics faculty and students. The resident will attend seminars and conferences on medical physics topics related to clinical radiation oncology at Purdue University. Periodically there may be opportunities to attend programs on clinical medical physics at Indiana University in

Indianapolis. Radiation physics and treatment planning will be taught and reviewed daily in the course of managing clinical patients while the resident is on radiation oncology rotations.

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.

Required Courses for Residency (syllabi and instructor credentials included in appendix)
 HSCI 540 Radiation Biology (Jean M. Poulson) 3 credit hours, graduate level
 HSCI 572 Radiation Oncology Physics (Colleen M. DesRosiers) 3 credit hours, graduate level
 VCS 620 Seminar in Clinical Medicine and Surgery 1 credit hour, graduate level, fall and spring semesters

Suggested Elective Courses (further information included in appendix)
 HSCI 570 Introduction to Medical Diagnostic Imaging, 3 credit hours, graduate level.
 Biostatistics (several formal biostatistics courses that would fulfill this recommendation are offered on the Purdue University Campus).
 Biol 51600 Molecular Biology of Cancer (Elizabeth Taparowsky)

Other Available Elective Courses
 Purdue University offers a wide range of graduate level courses that may be relevant and of interest to individual residents. The program will be tailored to the resident's interests and goals.

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

Yes	No
X	
Comments:	A supervising diplomate is available for the majority of rounds. On the radiation oncology service the resident will attend clinical rounds each day. On other services, clinical rounds are held at least once a day, with the supervising diplomate in attendance.

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

Yes	No
X	
Comments:	<p>Radiation Oncology Journal/Book Club, weekly.</p> <p>Radiation Physics/Biology Problem Solving/Discussion, weekly.</p> <p>Oncology Journal Club (including Medical and Radiation Oncology) weekly.</p> <p>Oncology Clinician Rounds (including Medical and Radiation Oncology) weekly.</p> <p>Oncology Cancer Biology Review/Discussion Series, weekly.</p> <p>Diagnostic Imaging Journal Club, every 3 weeks.</p> <p>Neurology Journal Club, every 3 weeks.</p> <p>Histopathology Grand Rounds, every 3 weeks.</p> <p>Veterinary Clinical Sciences Seminar Series, weekly.</p> <p>Purdue University Center for Cancer Research Seminar Series, weekly.</p>

21. Please provide a description of the conferences, etc., that are provided and the typical schedule.

Oncology Journal Club/Discussion Group	Friday 12:00-1:00PM
Radiation Physics/Biology Problem Solving Group	Friday 1:00-2:00PM
Oncology Resident/Clinician Training Rounds	Thursday 8:30-9:30 AM
Oncology Cancer Biology Review/Discussion Series	Friday 9:00-10:00 AM
Radiation Oncology Chart Rounds (Physics Rounds)	Tuesday 9:00-10:00 AM
Radiation Oncology Journal/Book Club	Monday 8:00-9:00 AM
Diagnostic Imaging Journal Club	Every third Monday 8:30-9:30 AM
(First Monday of each block).	
Veterinary Clinical Sciences Medicine/Surgery Seminar	Friday 8:00-9:00 AM
Health Sciences Seminar (Medical Physics topics)	Tuesday 4:30-5:30
Purdue University Center for Cancer Research Seminar	Thursday 11:30 AM-12:30 PM
Cancer Imaging Rounds – two to three times per semester	
Pathology Grand Rounds – Every three weeks	Wednesday 8:00-9:20 AM
Other rounds and seminars are available if the resident has a particular interest in a certain area.	

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:	The resident is required to give one formal in house seminar at Purdue each year. Purdue residents are required to present at least once at Phi Zeta Research Day (held annually). Residents are required to present at ACVR during their 2 nd or 3 rd year of residency, and at other meetings if possible.

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:	The resident is required to attend ACVR in year 2 and/or year 3. One other meeting per year is encouraged, depending on funding, schedule and location of the meetings. Suggested additional meetings include ASTRO, VCS, Radiation Research Society, ASCO, and AACR.		

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

Yes	No	Optional	Number
X			
Comments:	One research project is required that is also fulfillment for the Masters degree.		

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

Yes	No	Number
X		1
Comments:	One manuscript must be submitted to a peer-reviewed journal by the end of the residency program.	

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: Varian 600 EX Clinical Linear Accelerator	X		X	
3D and IMRT- Computer based treatment planning system Please specify manufacturer and model: Varian Eclipse Clinical Treatment Planning System v. 11	X		X	
2D/2.5 D - Computer based treatment planning system Please specify manufacturer and model: Varian Eclipse Clinical Treatment Planning System v. 11	X		X	
Kodak CR Electronic Portal Imaging System	X		X	
MapCheck 2 SunNuclear multi-detector array for dose verification and QA	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 – Scintron planar gamma camera	X		X	
Computed Tomography: GE VCT 64 slice spiral CT unit	X		X	
Magnetic Resonance Imaging: GE Signa 1.5T LXi	X		X	
Positron Emission Tomography		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: School of Pharmacy, School of Health Science, School of Nursing, Basic Science Cancer Center	X		X	
Computerized Electronic Medical Records with Searching Capabilities	X		X	

27. 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.

All are available on site. In addition, Purdue University students have access to the Indiana University Collections via interlibrary loan. Electronic journal articles may be requested online and are usually delivered by email within 48 hours of the request. The main IUSM campus and Medical Center Library is located in Indianapolis, 65 miles from the Purdue Campus.

28. 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	71
LDR Brachytherapy	N/A
HDR Brachytherapy	N/A
Injectable Radionuclide therapy	
Radioiodine	18
Other (please specify)	
⁹⁰ Strontium Pleiotherapy	1
Other - please specify	

* indicate N/A (not applicable) if the treatment modality is not available

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

The radiation oncology resident is responsible for recording the radiation treatment details for all cases where they are the primary resident. The resident is expected to evaluate the patient's record and information obtained from the referring veterinarian, and request any additional information required to complete the record. The resident is responsible for verification of histopathology, and reviewing imaging and other diagnostic information. The resident must complete the radiation prescription and develop and design the treatment plan for each patient. The resident will present the treatment plans, including dose volume histograms, for new patients at weekly physics chart rounds. The resident will be responsible for completing and checking dose calculations, setting up each new patient, taking portal images, taking digital photos of the setup, and recording the details of the setup and the plan in the patient's radiation therapy record so that the setup can be repeated accurately. The resident will be responsible for quality assurance in the administration of the treatment, and review portal images at prescribed intervals. The resident will be responsible for measuring all tumors and recording the measurements in the patient records. The resident will grade and record all radiation side effects in the patient records. The resident will be required to keep a log of patients treated during their residency. This log will include the tumor type and location, treatment date, RT prescription, type of RT treatment plan, modifying devices used, and follow-up information on those patients.

30. What procedures are in place to facilitate collection of follow up information of patients treated?

All patient records are contained in the electronic medical record system at the Purdue Veterinary Teaching Hospital. In addition, the patients are entered in the Aria (Varian) record and verify system database, which includes diagnosis, lesion tracking (i.e. weekly tumor measurements) and follow up information. Both of these databases are searchable by diagnosis, diagnostic tests performed and treatment protocols. Radiation therapy patients return to Purdue weekly until acute side effects have resolved. The owners are encouraged to return their pets to Purdue for rechecks every 3 months for the first year, and every 6 months after that. If a patient has not returned for rechecks at these intervals, the client and the referring veterinarian are contacted for follow up information.

31. By what mechanisms and how often are residents evaluated? Please attach form used in this evaluation (required).

Trainees are formally evaluated every 6 months during the program. A formal residency performance review with a written report by the program director is submitted to the department chair and residency program director every 6 months. A copy of the residency evaluation form is included in the appendix. The formal evaluation is reviewed with the trainee at semi-annual graduate committee meetings. Course selection and performance are also discussed at this semi-annual meeting. Progress in research and publications is also evaluated and discussed.

32. 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.

Dr. April Clark completed this training program in 2012. Dr. Clark is board eligible and sat for the examination in 2014.

Dr. Nicholas Rancilio completed this training program in 2013 and was board certified in 2014. Dr. Rancilio is presently Clinical Assistant Professor of Radiation Oncology in the Purdue College of Veterinary Medicine, 625 Harrison ST, West Lafayette, IN 47907.

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

All residents in the Veterinary Clinical Sciences Department at Purdue University are required to enroll in the MS degree program. For this reason the Purdue Radiation Oncology Residency is a three-year program. The resident will be continuously involved in radiation oncology training during the three years. Graduate classes for clinical sciences residents are scheduled so as not to interfere with clinic duties. Time for performing the research project is worked into the clinical schedule.

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.

Attached?	Documents
X	Twenty-four (24) month calendar of resident's activities - Required
X	CV (2-page)- ACVR-RO Diplomate - Program Director(s) - Required
X	CV (2-page) - ACVR-R Diplomate(s) - Required
X	CV (2-page) - ACVIM-O Diplomate(s) - Required
X	Syllabi of formal course work included in the training program - Required
X	Credentials of instructors providing formal course work – Required C. DesRosiers – Physics; J. Poulson – Radiobiology (See Program Director CV above).
X	Forms used in resident evaluation - Required
N/A	Letters of agreement from cooperating institutions - Required

APPENDIX

Purdue Radiation Oncology Residency Sample Schedule Monthly (By Blocks) Training Program Calendar

The Purdue Clinical Rotations are divided into 17 three week blocks and one holiday block that includes the week between the Christmas and New Year holidays.

Year One (3 week blocks)

Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Radiation Oncology	Radiation Oncology	Medical Oncology	Radiation Oncology	Radiation Oncology	Dx Imaging
Block 7	Block 8	Block 9	Block 10	Block 11	Block 12
Radiation Oncology	Radiation Oncology	Rad Onc (2w) / Vacation (1w)	Radiation Oncology	Radiation Oncology	Radiation Oncology
Block 13	Block 14	Block 15	Block 16	Block 17	Holiday Block
Medical Oncology	Radiation Oncology	Radiation Oncology	Research	Radiation Oncology	1 wk vacation

Year Two (3 week blocks)

Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Radiation Oncology	Radiation Oncology	Medical Oncology	Radiation Oncology	Radiation Oncology	Dx Imaging
Block 7	Block 8	Block 9	Block 10	Block 11	Block 12
Radiation Oncology	Radiation Oncology	Rad Onc (2w) / Vacation (1w)	Radiation Oncology	Radiation Oncology	Radiation Oncology
Block 13	Block 14	Block 15	Block 16	Block 17	Holiday Block
Radiation Oncology	Medical Oncology	Radiation Oncology	Research	Radiation Oncology	1 wk vacation

Year Three (3 week blocks)

Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Radiation Oncology	Radiation Oncology	Other Rotations	Radiation Oncology	Radiation Oncology	Radiation Oncology
Block 7	Block 8	Block 9	Block 10	Block 11	Block 12
Radiation Oncology	Radiation Oncology	Rad Onc (2w) / Vacation (1w)	Radiation Oncology	Radiation Oncology	Radiation Oncology
Block 13	Block 14	Block 15	Block 16	Block 17	Holiday Block
Other Rotations	Radiation Oncology	Radiation Oncology	Research	Radiation Oncology	1 wk vacation

Note: Some adjustments in rotation order may be made to accommodate hospital and faculty scheduling.

Radiation oncology: 37 blocks plus 3 partial blocks (114 weeks; 28.5 months)

Medical oncology: 3 blocks (9 weeks)

Diagnostic imaging: 2 blocks (6 weeks)

Radiation oncology research or individual study: 3 blocks (9 weeks)

Other rotations (eg. anesthesia, pathology): 2 blocks (6 weeks)

Vacation: 6 weeks

Total: 36 months

Principal Investigator/Program Director (Last, First, Middle):

BIOGRAPHICAL SKETCH

Follow this format for each person. **DO NOT EXCEED TWO PAGES.**

NAME Poulson, Jean M.		POSITION TITLE Associate Professor of Radiation Oncology	
eRA COMMONS USER NAME JPOULSON		Director of Radiation Oncology Program	
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
Colorado State University, Fort Collins, CO	D.V.M.	1988-1992	Veterinary Medicine
Colorado State University, Fort Collins, CO	Post Doc	1992-1996	Radiation Biology
Duke University Medical Center, Durham, NC	Post Doc	1996-2000	Radiation Oncology
Colorado State University, Fort Collins, CO	Ph.D.	2001	Radiation Biology

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

- 1992-1996 Post Doctoral Fellow and Ph.D. Candidate, Radiation Biology, Dept. of Radiological Health Sciences, Colorado State University, Fort Collins, CO
- 1996-2000 Post Doctoral Fellow and Research Assoc., Radiation Oncology, Dept. of Radiation Oncology, Duke University Medical Center, Durham, NC
- 2000-2004 Assist. Res. Prof., Dept. of Radiation Oncology, Duke Univ. Medical Center, Durham, NC
- 2004-2008 Assist. Professor, Dept. of Clinical Sciences, Tufts University Cummings School of Veterinary Medicine, North Grafton, MA
- 2005-2008 Assist. Professor (Secondary), Dept. of Radiation Oncology, Tufts Univ. School of Medicine, Boston, MA
- 2008-present Assoc. Professor of Radiation Oncology, Dept. of Veterinary Clinical Sciences, Purdue University College of Veterinary Medicine, West Lafayette, IN

B. Selected peer-reviewed publications (in chronological order from 23 publications). Do not include publications submitted or in preparation. For publicly available citations, URLs or PMC submission identification numbers may accompany the full reference. Note copies of these publications are no longer accepted as appendix material.

- Gillette SM, **POULSON JM**, Deschesne KM, Chaney EL, Gillette, EL. Response of the canine esophagus to irradiation. *Radiation Research* 150, 365-368, 1998.
- POULSON JM**, Dewhirst MW, Gaskin AA, Vujaskovic Z, Samulski TV, Prescott DM, Meyer RE, Page RL, Thrall DE. Acute pancreatitis associated with administration of a nitric oxide synthase inhibitor in tumor-bearing dogs. *In Vivo* 14:709-14, 2000.
- POULSON JM**, Vujaskovic Z, Gillette SM, Chaney, EL, Gillette EL. Volume and dose-response effects for fatal pneumonitis after fractionated irradiation of canine lung. *International Journal of Radiation Biology* 76:463-8, 2000.
- Prescott DM, Charles HC, **POULSON JM**, Page RL, Thrall DE, Vujaskovic Z, Dewhirst, MW. The relationship between intracellular and extracellular pH in spontaneous canine tumors. *Clinical Cancer Research* 6:2501-5, 2000.
- Vujaskovic Z, **POULSON JM**, Gaskin AA, Thrall DE, Page RL, Charles HC, MacFall JR, Brizel DM, Meyer RE, Prescott DM, Samulski TV. Temperature dependent changes in physiologic parameters of spontaneous canine soft tissue sarcomas after combined radiotherapy and hyperthermia treatment. *Int J Radiat Oncol Biol Phys* 46:179-85, 2000.
- POULSON JM**, Vujaskovic Z, Gaskin AA, LaRue SM, Meyer RE, Prescott DM, Samulski TV, Thrall DE, Dewhirst MW. Effect of calcitonin gene related peptide vs. sodium nitroprusside to increase temperature in spontaneous canine tumors during local hyperthermia. *Int J Hyperthermia* 20:477-489, 2004.
- Dewhirst MW, **POULSON JM**, Yu D, Sanders L, Lora-Michiels M, Vujaskovic Z, Jones EL, Samulski TV, Powers BE, Brizel DM, Prosnitz LR, Charles HC. Relation between pO₂, ³¹P magnetic resonance spectroscopy parameters and treatment outcome in patients with high-grade soft tissue sarcomas treated with thermoradiotherapy. *Int J Radiat Oncol Biol Phys* 61(2): 480-91, 2005.

8. Hauck ML, LaRue SM, Petros WP, **POULSON JM**, Yu D, Spasojevic I, Pruitt AF, Klein A, Case B, Thrall DE, Needham D, Dewhirst MW. Phase I trial of doxorubicin-containing low temperature sensitive liposomes in spontaneous canine tumors. *Clin Cancer Res*, 12(13): 4004-10, 2006.
9. Lora-Michiels M, Yu D, Sanders L, **POULSON JM**, Azuma C, Case B, Vujaskovic Z, Thrall DE, Charles HC, Dewhirst MW. Extracellular pH and P-31 magnetic resonance spectroscopic variables are related to outcome in canine soft-tissue sarcomas treated with thermoradiotherapy. *Clin Cancer Res*, 12(19): 5733-40, 2006.
10. Siddiqui F, Li CY, LaRue SM, **POULSON JM**, Avery PR, Pruitt AF, Zhang X, Ullrich RL, Thrall DE, Dewhirst MW, Hauck ML. A phase I trial of hyperthermia-induced interleukin-12 gene therapy in spontaneously arising feline soft tissue sarcomas. *Mol Cancer Ther*, 6(1): 380-9, 2007.
11. Hosoya K, **POULSON J**, Azuma C. Osteoradionecrosis and radiation induced bone tumors following orthovoltage radiation therapy in dogs. *Vet Radiol Ultrasound*, 49(2):189-95, 2008.
12. Haney SM, Beaver L, Turrel J, Clifford CA, Klein MK, Crawford S, **POULSON JM**, Azuma C. Survival analysis of 97 cats with nasal lymphoma: A multi-institutional retrospective study (1986-2006). *J Vet Int Med*, 23(2):287-94, 2009.
13. Viglianti BL, Lora-Michiels M, **Poulson JM**, Lan L, Yu D, Sanders L, Craciunescu O, Vujaskovic Z, Thrall DE, Macfall J, Charles CH, Wong T, Dewhirst MW. Dynamic contrast-enhanced magnetic resonance imaging as a predictor of clinical outcome in canine spontaneous soft tissue sarcomas treated with thermoradiotherapy. *Clin Cancer Res*. 15(15):4993-5001, 2009.
14. Weinstein J, Payne S, **Poulson JM**, Azuma C. Use of force plate analysis to objectively evaluate the efficacy of single fraction 8 Gy external beam radiation to alleviate osteosarcoma pain. *Vet Radiol Ultrasound*, 50(6):673-8, 2009.
15. Deng, X., Elzey, B.D, **Poulson, J.M.**, Morrison, W.B., Ko, S.C., Hahn, N.M., Ratliff, T.L., and Hu, C.D. Ionizing radiation induces neuroendocrine differentiation in vitro, in vivo and in human prostate cancer patients. *Am. J. Cancer. Res*. 1:834-844, 2011.

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

Title: Construction of an integrated ultrasound platform for image-guided radiotherapy and the use of photoacoustic ultrasound for imaging the canine urinary bladder: A pilot study. **Grant Period:** 01/03/14-6/30/15
Source: Purdue Veterinary Clinical Sciences Dept. Graduate Student Competitive Research Funds
Role: PI/Mentor for Graduate Student Research Project, Nicholas Rancilio – Graduate Student Investigator
The goal of this work is to develop an ultrasound localization system for image-guided radiotherapy of the canine urinary bladder.

Title: COX-2 and NAG-1 as potential prognostic biomarkers and therapeutic targets in canine nasal carcinomas.
Source: Purdue Veterinary Clinical Sciences Dept. Graduate Student Competitive Research Funds
Role: PI/Mentor for Graduate Student Research Project, Magdalena Parys – Graduate Student Investigator
Grant Period: 01/03/14-6/30/15
The goal of this work is to use immunohistochemistry to evaluate canine nasal tumor samples for COX-2 and NAG-1 and identify patterns of expression and relationships treatment response and outcomes.

Title: Targeting neuroendocrine differentiation for prostate cancer radiosensitization.
Source: Department of Defense . (DoD PC 120512) **Grant Period:** 07/01/13-6/30/16
Role: Co-Investigator (PI: Chang-Deng Hu)
The goal of this work is to use cAMP response element binding (CREB) targeting as a model to determine whether targeting radiation therapy (RT)-induced neuroendocrine differentiation (NED) is an effective radiosensitization approach for prostate cancer RT.

Title: Targeting PRMT5 as a novel radiosensitization approach for primary and recurrent prostate cancer treatment.
Source: Department of Defense (DoD PC 111190) **Grant Period:** 08/01/12-7/31/15
Role: Co-Investigator (PI: Chang-Deng Hu)
The goal of this work is to investigate if targeting protein arginine methyltransferase 5 (PRMT5) can sensitize primary prostate cancer to radiation therapy and can reprogram therapy-resistant recurrent prostate cancer the therapy-sensitive prostate cancer

BIOGRAPHICAL SKETCH

NAME	POSITION TITLE Clinical Assistant Professor of Veterinary Radiation Oncology
Nicholas J Rancilio	
DEPARTMENT	PHONE:765-494-1107 FAX:765-496-6393 E-MAIL: nrancili@purdue.edu
Veterinary Clinical Sciences	

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
Purdue University, College of Veterinary Medicine, West Lafayette, IN	MS	2011-present	Clinical & Translational Research
Washington State University, College of Veterinary Medicine, Pullman, WA		2010-2011	Small Animal Rotating Internship
Michigan State University, College of Veterinary Medicine, East Lansing, MI	DVM	2006-2010	Veterinary Medicine
The University of Michigan, Ann Arbor, MI	BS	2001-2005	Anthropology-Zoology

PROVIDE THE FOLLOWING INFORMATION: A) Professional experience beginning with your current position; B) peer reviewed publications (last 3 three years and earlier pertinent publications).

A. Positions & Honors

**Small Animal Rotating Intern- Washington State University College of Veterinary
Medicine 2010-2011**

**Resident/Graduate Student Radiation Oncology—Purdue University College of Veterinary
Medicine 2011-2014; Achieved Board Certification in Veterinary Radiation Oncology
September 2014.**

**Clinical Assistant Professor of Veterinary Radiation Oncology—Purdue University College
of Veterinary Medicine 2014-present**

B. Peer Reviewed Publications

Rancilio NJ, Higuchi T, Gagnon J, McNeil EA (2012) Use of three-dimensional conformal radiation therapy for the treatment of a heart base chemodectoma in a dog. *J Am Vet Med Assoc*, 241 (4): 472-76.

Gao H, Hoesel LM, Guo RF, **Rancilio NJ**, Sarma JV, Ward PA (2006) Adenoviral-Mediated overexpression of SOCS3 enhances IgG immune complex induced acute lung injury. *J Immunol*, 177 (1): 612-20.

Speyer CL, **Rancilio NJ**, McClintock SD, Crawford JD, Gao H, Sarma JV, Ward PA (2005) Regulatory effects of estrogen on acute lung inflammation in mice. *Am J Physiol Cell Physiol*, 288 (4): C881-90.

Speyer CL, Gao H, **Rancilio NJ**, Neff TA, Hufnagle GB, Sarma JV, Ward PA (2004) Novel chemokine responsiveness and mobilization of neutrophils during sepsis. *Am J Path*, 165 (6): 2187-96.

C. Research Support

1. Agency / Title of Grant: **VCS Graduate Student Competitive Research Funds / Construction of an integrated ultrasound platform for image-guided radiotherapy and the use of photoacoustic ultrasound for imaging the canine urinary bladder: a pilot study**

2. Duration of Funding (Dates): **One (1) year (2014)**

3. Your role: **Co-PI**

4. If Co-PI, for how much of the total funding are you directly responsible: **\$4550**

Hock Gan Heng

EDUCATION & DEGREES	DVM (Malaysia) 1993 MVS (Melbourne) 1997 MS (Colorado) 2004 DECVDI 2004 DACVR 2005
RECENT PUBLICATIONS	
<ol style="list-style-type: none">1. Bentley RT, Burcham GN, Heng HG, Levine JM, Longshore R, Carrera-Justiz S, Cameron S, Kopf K, Miller MA. A comparison of clinical, magnetic resonance imaging and pathological findings in dogs with gliomatosis cerebri, focusing on cases with minimal magnetic resonance changes. <i>Vet Compt Oncol</i>. Published online 2014 June 19.2. *Heng HG, Ruth JD, Lee KC. Venous air embolism detected on computed tomography of small animals. <i>J Small Anim Pract</i>. 2014;55:420-423.3. *Lim CK, *Heng HG, Hui TY, Thompson CA, Childress MO, Adams LG. Ultrasonographic features of uterus masculinus in six dogs. <i>Vet Radiol Ultrasound</i>. Published online Jul 30, 2014.4. Ruth JD, *Heng HG, Miller MA, Constable PD. Effect of anisotropy and spatial compound imaging on renal cortical echogenicity in dogs. <i>Vet Radiol Ultrasound</i>. 2013;54(6):659-665.5. *Bentley RT, Reese MJ, Heng HG, Shimonohara N, Fauber A. Ependymal and periventricular magnetic resonance imaging changes in four dogs with central nervous system blastomycosis. <i>Vet Radiol Ultrasound</i>. 2013;54(5):489-496.6. *Lee KC, *Heng HG, Jeong J, Naughton JF, Rohleder JJ. Feasibility of computed tomography in awake dogs with traumatic pelvic fracture. <i>Vet Radiol Ultrasound</i>. 2012;53(4):412-416.7. Le Boedec K, *Heng HG, Snyder PW, *Pressler BM. Pulmonary abnormalities in dogs with renal azotemia. <i>J Vet Intern Med</i>. 2012;26(5):1099-1106.8. *Connolly S, Frank C, Thompson C, Van Alstine W, Gelb H, Heng HG, Klosterman E. Dual infection of <i>Pythium insidiosum</i> and <i>Blastomyces dermatitidis</i> in a dog. <i>Vet Clin Pathol</i>. 2012;41(3):419-23.9. Klosterman ES, *Heng HG, Freeman LJ, Childress MO. Transdiaphragmatic extension of a retroperitoneal lipoma into the intrathoracic extrapleural space via the lumbocostal trigone in a dog. <i>J Am Vet Med Assoc</i>. 2012;240(8):978-982.	

10. ***Heng HG**, Rohleder JJ, Pressler BM. Comparative sonographic appearance of nephroliths and associated acoustic shadowing artifacts in conventional vs. spatial compound imaging. *Vet Radiol Ultrasound*. 2012;53(2):217-220.
11. Manashirova M, *Pressler BM, Gelb HR, **Heng HG**, Lenz SD, Ochoa-Acuna HG, *Freeman LJ. Pilot evaluation of a vacuum-assisted biopsy instrument for percutaneous renal biopsy in dogs. *J Am Anim Hosp Assoc*. 2011;47(6):391-398.
12. *Adin CA, Chew DJ, **Heng HG**, Townsend KL, Karnik K. Bladder inversion and secondary hematuria in a 6-month-old domestic shorthair cat. *J Am Vet Med Assoc*. 2011;239(3):370-373.
13. Thomovsky SA, *Packer RA, Burcham GN, **Heng HG**. Imaging diagnosis-magnetic resonance imaging features of metastatic cerebral lymphoma in a dog. *Vet Radiol Ultrasound*. 2011;52(2):192-195.
14. ***Heng HG**, Widmer WR. Appearance of common ultrasound artifacts in conventional vs. spatial compound imaging. *Vet Radiol Ultrasound*. 2010;51(6):621-627.
15. Meler E, *Pressler BM, **Heng HG**, Baird DK. Diffuse cylindrical bronchiectasis due to eosinophilic bronchopneumopathy in a dog. *Can Vet J*. 2010;51(7):753-756.

Chee Kin Lim

EDUCATION & DEGREES	DVM (UPM)	2004
	BVSc (Hons)	2013
	DECVDI	2014
RECENT PUBLICATIONS		
1.	* Lim CK , Rosa CT, de Witt Y, Schoeman JP. Congenital hypothyroidism and concurrent renal insufficiency in a kitten. <i>J S Afr Vet Assoc.</i> 2014;85(1):1-6 (doi: 10.4102/jsava.v85i1.1144)	
2.	* Lim CK , Heng HG, Timothy HY, Thompson CA, Childress MO, Adams LG. Ultrasonographic features of uterus masculinus in six dogs. <i>Vet Radiol Ultrasound.</i> 2014 (Early view, doi: 10.1111/vru.12189)	
3.	*Pazzi P, Lim CK , Steyl J. Tetralogy of Fallot and atrial septal defect in a 3-week old white Bengal tiger (<i>Panthera tigris tigris</i>). <i>Acta Vet Scand.</i> 2014;56:12. doi: 10.1186/1751-0147-56-12	
4.	* Lim CK , Kirberger RM, Lane EP, Elliott DL. Computed tomography imaging of a leopard tortoise (<i>Geochelone pardalis pardalis</i>) with confirmed pulmonary fibrosis: a case report. <i>Acta Vet Scand.</i> 2013;55:35. doi: 10.1186/1751-0147-55-35.	
5.	* Lim CK , Saulez MN, Viljoen A, Carstens A. Basilar skull fracture in a Thoroughbred colt – radiography or computed tomography? <i>J S Afr Vet Assoc.</i> 2013;84(1):1-6.	
6.	*Kitshoff AM, McClure V, Lim CK , Kirberger RM. Bilateral multiple cystic kidney disease and renal cortical abscess in a Boerboel. <i>J S Afr Vet Assoc.</i> 2011;82:1-5.	

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED 2 PAGES & 10 PUBLICATIONS.**

NAME Deborah W. Knapp	POSITION TITLE Dolores L. McCall Professor of Comparative Oncology
eRA COMMONS USER NAME KNAPPDW	

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, Raleigh, NC	B.S.	1976-1979	Zoology
Auburn University, Auburn, AL	D.V.M.	1979-1983	Veterinary Medicine
Purdue University, West Lafayette, IN	M.S.	1985-1988	Veterinary Medicine
Purdue University, West Lafayette, IN	Post Doc	1998-1990	Cancer Pharmacology

A. Positions and Honors:

Positions and Employment

- 1983–1985 Small Animal Veterinary Clinician, One year each in Anchorage, AK, Wilmington, NC
- 1985–1988 Resident / Graduate Student, Comparative Oncology, Dept. Veterinary Clinical Sciences, Purdue University, W. Lafayette, IN
- 1988–1990 Post Doctoral Fellow, Cancer Pharmacology, Dept. Veterinary Physiology and Pharmacology, Purdue University, W. Lafayette, IN
- 1990–1991 Visiting Assist. Professor, Comparative Oncology, Dept. Veterinary Clinical Sciences, Purdue University, W. Lafayette, IN
- 1991–1996 Assist. Professor, Comparative Oncology, Dept. Veterinary Clinical Sciences, Purdue University, W. Lafayette, IN
- 1996–2002 Assoc. Professor, Comparative Oncology, Dept. Veterinary Clinical Sciences, Purdue University, W. Lafayette, IN
- 2002–present Professor, Comparative Oncology, Dept. Veterinary Clinical Sciences, Purdue University, W. Lafayette, IN
- 1998–present Chief of Clinical Oncology, Purdue University Veterinary Teaching Hospital, W. Lafayette, IN (Co-Chief with M. Childress starting in 2010)
- 2006-present Dolores L. McCall Professor of Veterinary Medicine (Comparative Oncology)

B. Selected Peer-Reviewed Publications:

- Dhawan D, Craig BA, Cheng L, Snyder PW, Mohammed SI, Stewart JC, Zheng R, Loman RA, Foster RS, Knapp DW. Effects of short-term celecoxib treatment in patients with invasive transitional cell carcinoma of the urinary bladder. *Mol Cancer Ther* 2010;9:1371-1377. PMID:20423998.
- Teegarden D, Lee JY, Adedokun O, Childress A, Parker LC, Burgess W, Nagel J, Knapp DW, Lelievre S, Agnew CR, Shields C, Leary J, Adams R, Jensen JD. Cancer prevention interdisciplinary education program at Purdue University: overview and preliminary results. *J Cancer Educ* 2011 Dec;26(4):626-32.
- Hahn NM, Bonney PL, Dhawan D, Jones DR, Balch C, Guo Z, Hartman-Frey C, Fang F, Parker HG, Kwon EM, Ostrander EA, Nephew KP, Knapp DW. Subcutaneous 5-azacitidine treatment of naturally occurring canine urothelial carcinoma: a novel epigenetic approach to human urothelial carcinoma drug development. *J Urol* 2012;187:302-309. PMID:22099988.

4. Dhawan D, Ramos-Vara JA, Hahn NM, Waddell J, Olbricht GR, Zheng R, Stewart JC, Knapp DW. DNMT1: An emerging target in the treatment of invasive urinary bladder cancer. *Urol Oncol* 2013;31:1761-1769. PMID:22609058.
5. Zhang J, Wei S, Liu L, Nagana Gowda GA, Bonney P, Stewart J, Knapp DW, Raftery D. NMR-based metabolomics study of canine bladder cancer. *Biochim Biophys Acta* 2012;1822:1807-1814. PMID:22967815.
6. Knapp DW, Henry CJ, Widmer WR, Tan KM, Moore GE, Ramos-Vara JA, Lucroy MD, Greenberg CB, Greene SN, Abbo AH, Hanson PD, Alva R, Bonney PL. Randomized trial of cisplatin versus firocoxib versus cisplatin/firocoxib in dogs with transitional cell carcinoma of the urinary bladder. *J Vet Intern Med* 2013;27:126-33. PMID: 23205923.
7. Dhawan D, Ramos-Vara JA, Naughton JF, Cheng L, Low PS, Rothenbuhler R, Leamon CP, Parker N, Klein PJ, Vlahov IR, Reddy JA, Koch M, Murphy L, Fourez LM, Stewart JC, Knapp DW. Targeting folate receptors to treat invasive urinary bladder cancer. *Cancer Res* 2013;73:875-884. PMID: 23204225.
8. Knapp DW, Peer WA, Conteh A, Diggs AR, Cooper BR, Glickman NW, Bonney PL, Stewart JC, Glickman LT, Murphy AS. Detection of herbicides in the urine of pet dogs following home lawn chemical application. *Sci Total Environ* 2013;456-457:34-41. PMID:23584031.
9. Knapp DW, Ramos-Vara JA, Moore GE, Dhawan D, Bonney PL, Young KE. Urinary bladder cancer in dogs, a naturally occurring model for cancer biology and drug development. *ILAR J* 2014;55:100-118. PMID:24936033.

C. Selected Active Research Support:

ACTIVE

NIH/NCI 5P30CA023168-31S1, CFDA 93.397 (Ratliff PI) 07/01/10 - 06/30/15

Cancer Center Support Grant (CORE) Renewal – Consolidated

This grant is to support shared resources that will facilitate cancer research in the Purdue University Center for Cancer Research.

Role: Executive Committee Member, Co-Program Leader and Acting Program Leader

5R25CA128770-02 (Teegarden PI; Knapp Co-I) 09/26/08 – 08/31/14

PHS-NIH National Cancer Institute

No cost extension until 08/31/15

Interdisciplinary Cancer Prevention Research Internship Program

The major goal of this project is to facilitate the education and training of scientists who will advance the field of cancer prevention.

Role: Co-I

Research grant (Knapp PI) 04/01/13 – 3/31/15

Animal Cancer Foundation

Exploiting Folate Receptors to Transform Bladder Cancer Therapy

The goal of the work is to establish the safety, efficacy, and starting dose of a folate-cytotoxic cancer drug conjugate in dogs with invasive bladder cancer in order to design optimal human clinical trials.

Role: PI

Research grant (Knapp PI) 09/01/14-08/31/17

Scottish Terrier Club of America and Novartis

Screening and Early Intervention to Positively Transform the Management of Bladder Cancer in Scottish Terriers

The goal of the work is to evaluate novel methods for bladder cancer screening and to determine the benefits of early intervention in dogs with very high breed-associated risk for invasive bladder cancer.

BIOGRAPHICAL SKETCH

DO NOT EXCEED TWO PAGES

NAME	POSITION TITLE
Michael O. Childress	Assistant Professor of Comparative Oncology Purdue University College of Veterinary Medicine

EDUCATION/TRAINING: Begin with undergraduate BA/BS or equivalent. Include postdoctoral training (internship/residency/fellowship, etc.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
The College of William and Mary, Williamsburg, VA	B.S.	1998	
Virginia-Maryland Regional College of Veterinary Medicine at Virginia Tech, Blacksburg, VA	D.V.M.	2004	Veterinary Medicine
Purdue University, West Lafayette, IN	M.S.	2009	Veterinary Oncology

A. Certification

2010 Board Certified in Oncology, American College of Veterinary Internal Medicine (ACVIM).

B. Positions and Honors

Positions and Employment

Sept. 2009-Present Assistant Professor, Comparative Oncology, Department of Veterinary Clinical Sciences, College of Veterinary Medicine, Purdue University, West Lafayette, IN

July 2006-July 2009 Resident, Oncology, Department of Veterinary Clinical Sciences, Purdue University, West Lafayette, IN

July 2005-July 2006 Intern, Small Animal Oncology, University of Georgia Veterinary Teaching Hospital, Athens, GA

June 2004-June 2005 Intern, Small Animal Medicine and Surgery (Rotating), Kansas State University Veterinary Medical Teaching Hospital, Manhattan, KS

Other Experience and Professional Memberships

2003-Present Phi Zeta Veterinary Honor Society

2003-Present American Veterinary Medical Association

2005-Present Veterinary Cancer Society

2010-Present American College of Veterinary Internal Medicine

2013-Present Purdue University Center for Cancer Research

C. Selected Peer-reviewed Publications

1. ***Childress MO**, Fulkerson CM, Lahrman SR, Weng H. Inter- and intra-rater reliability of calliper-based lymph node measurement in dogs with peripheral nodal lymphomas. *Vet Comp Oncol* 2015, In press.
2. *Lim CK, Heng HG, Hui TY, Thompson CA, **Childress MO**, Adams LG. Ultrasonographic features of uterus masculinus in six dogs. *Vet Radiol Ultrasound* 2015;56:77-83.
3. Wang WH, **Childress MO**, *Geahlen RL. Syk interacts with and phosphorylates nucleolin to stabilize Bcl-x(L) mRNA and promote cell survival. *Mol Cell Biol* 2014; 34: 3788-3799.
4. *Paoloni M, *Webb C, Mazcko C, Cherba D, Hendricks W, Lana S, Ehrhart EJ, Charles B, Fehling H, Kumar L, Vail D, Henson M, **Childress M**, Kitchell B, Kingsley C, Kim S, Neff M, Davis B, *Khanna C, *Trent J. Prospective molecular profiling of canine cancers provides a clinically relevant comparative model for evaluating personalized medicine (PMed) trials. *PLoS One*. 2014;9:e90028.
5. ***Childress MO**, Dhawan D, Leamon CP, Miller MA, Ramos-Vara JA, Naughton JF, Low PS, Knapp DW. Assessment of folate receptor expression and folate uptake in multicentric lymphomas in dogs. *Am J Vet Res*. 2014;75:187-194.
6. Schrempp DR, **Childress MO**, Stewart JC, Leach TN, Tang KM, Abbo AH, de Gortari AE, Bonney PL, *Knapp DW. Metronomic administration of chlorambucil for treatment of dogs with urinary bladder transitional cell carcinoma. *J Am Vet Med Assoc*. 2013;242:1534-1538.
7. Higuchi T, Burcham GN, **Childress MO**, Rohleder JJ, Ramos-Vara JA, *Knapp DW. Characterization and treatment of transitional cell carcinoma of the abdominal wall in dogs: 24 cases (1985-2010). *J Am Vet Med Assoc*. 2013;242:499-506.
8. Mallett CL, *Northrup NC, Saba CF, Rodriguez CO, Rassnick KM, Gieger TL, **Childress MO**, Howerth EW. Immunohistochemical characterization of feline mast cell tumors. *Vet Pathol*. 2013;50:106-109.
9. *Bentley RT, Mund JA, Pollok KE, **Childress MO**, Case J. Peripheral blood biomarkers of solid tumor angiogenesis in dogs: a polychromatic flow cytometry pilot study. *Vet J*. 2013;196:236-240.
10. Leach TN, **Childress MO**, Greene SN, Mohamed AS, Moore GE, Schrempp DR, Lahrman SR, *Knapp DW. Prospective trial of metronomic chlorambucil chemotherapy in dogs with naturally-occurring cancer. *Vet Comp Oncol*. 2012;10:102-112.
11. Klosterman ES, *Heng HG, Freeman LJ, **Childress MO**. Transdiaphragmatic extension of a retroperitoneal lipoma into the intrathoracic extrapleural space via the lumbocostal trigone in a dog. *J Am Vet Med Assoc*. 2012;240(8):978-982.
12. Arnold EJ, **Childress MO**, Fourez LM, Tan KM, Stewart JC, Bonney PL, *Knapp DW. Clinical trial of vinblastine in dogs with transitional cell carcinoma of the urinary bladder. *J Vet Intern Med*. 2011;25(6):1385-1390.
13. ***Childress MO**, Burgess RCF, Holland CH, Gelb HR. Consequences of intratumoral injection of a herbal preparation containing bloodroot (*Sanguinaria canadensis*) extract in two dogs. *J Am Vet Med Assoc*. 2011;239(3):374-379.
14. **Childress MO**, Adams LG, Ramos-Vara JA, Freeman LJ, He S, Constable PD, *Knapp DW. Results of biopsy via transurethral cystoscopy and cystotomy for diagnosis of transitional cell carcinoma of the urinary bladder and urethral in dogs: 92 cases (2003-2008). *J Am Vet Med Assoc*. 2011;239(3):350-356.
15. *Northrup NC, Gieger TL, Kosarek CE, Saba CF, LeRoy BE, Wall TM, Hume KR, **Childress MO**, Keys DA. Mechlorethamine, procarbazine, and prednisone for the treatment of resistant lymphoma in dogs. *Vet Comp Oncol*. 2009;7(1):38-44.

HSCI 540 Radiation Biology

Course Outline

Term: Spring 2015

Instructor: Dr. Jeannie Poulson, D.V.M. Ph. D. (jpoulson@Purdue.edu)
Associate Professor, School of Veterinary Medicine,
Director, Radiation Oncology Program
<http://www.vet.purdue.edu/vcs/faculty/poulsonj.html>
Office Hours: HAMP 2117 Tuesday 4:15 – 4:30 pm (after class).
HAMP 2117 Thursday 4:15 – 4:45 pm (after class).
By appointment in Lynn G578 (Veterinary Teaching Hospital)
Office phone: 494-0346 (40346)

Teaching Assistant: Justin Sick, Ph.D. Candidate Medical Physics (jsick@purdue.edu)
Office: Physics 96; phone 305-282-6379
Office hours: Wednesday 2:00 – 3:00 pm
Wednesday and Friday by appointment

Class Schedule: Tuesday and Thursday 3:00-4:15 pm, HAMP Rm 2117 (3.0 Credits)

Text book:

E.J. Hall and A.J. Giaccia, *Radiobiology for the Radiologist*, 7th Ed., Lippincott, Williams & Wilkins, 2011
Selected readings from the literature and other material will be posted on the Blackboard Learn HSCI 540 Course Website

Course Objectives:

Objectives for this course are to develop an understanding of:

- the interaction of radiation with cells
- the biological, chemical and physical factors that modulate the interaction of radiation with cells
- the mechanisms of cell killing by radiation
- the repair of radiation damage
- the genetic effects of radiation
- the carcinogenic effects of radiation
- the effects of radiation on different tissues
- the effects of acute whole body irradiation
- the use of radiation in cancer therapy
- the effects of radiation on development
- the biology of radiation carcinogenesis
- the risk of cancer in populations exposed to low doses of radiation

Attendance Policy:

Attendance is STRONGLY encouraged but not required. Although the topics covered in the textbook and course lectures will have considerable overlap, some materials covered in the lecture are not covered in the textbook and vice versa. Students will be responsible for, and may be tested on, materials from the textbook and the lectures. Skipping lectures and/or not reading the textbook will have a negative impact on your final grade.

Campus Emergencies:

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. Students will be notified by email in the event of a change to the course.

Grading and Examinations: As of the first day of class, everyone has an A. All students who demonstrate mastery of the concepts and topics covered in this course will receive an A in the course. To demonstrate mastery of the material, students are required to complete a series of homework assignments and two in-class exams.

60% Homework assignments. Homework assignments will be handed out on Tuesday of most class weeks, and will be due in class the following Tuesday.

20% Exam 1 (75 minutes, in class)

20% Exam 2 (75 minutes, in class).

Letter grades will be assigned as follows:

Grade A \geq 90%

Grade B \geq 80% and $<$ 90%

Grade C \geq 65% and $<$ 80%

Grade D \geq 50% and $<$ 65%

Fail $<$ 50%

HSCI 540 2015 Lecture, Homework and Exam Schedule
3.0 Credits 3:00 – 4:15 PM HAMP 2117

Class No.	2015 Date	Topic	Chapter	HWK Hand Out	HWK Turn In
1	Jan 13 (Tu)	Course Introduction and Overview; Physics and Chemistry of Radiation Absorption	1	1	
2	Jan 15 (Th)	Clinical Radiobiology, Overview of Radiobiology	Overview		1
3	Jan 20 (Tu)	Molecular Mechanisms of DNA and Chromosome Damage and Repair – Part 1	2	2	
4	Jan 22 (Th)	Molecular Mechanisms of DNA and Chromosome Damage and Repair – Part 2	2		
5	Jan 27 (Tu)	Cell Survival Curves 1	3		2
6	Jan 29(Th)	Cell Survival Curves 2			
7	Feb 3 (Tu)	Radiosensitivity and Cell Age in the Mitotic Cycle; Cell, Tissue and Tumor Kinetics	4 22	3	
8	Feb 5 (Th)	Fractionated Radiation and the Dose-Rate Effect	5		
9	Feb 10 (Tu)	Oxygen Effect and Reoxygenation; Linear Energy Transfer (LET) and Relative Biologic Effectiveness (RBE).	6 7	4	3
10	Feb 12 (Th)	Chemical Modifiers of Radiation Sensitivity; Hypoxia	9, 26		
11	Feb 17 (Tu)	Acute Radiation Syndrome	8		4
12	Feb 19 (Th)	Exam 1; in class on material through Feb. 12			
13	Feb 24 (Tu)	Cancer Biology (Dr. Nicholas Rancilio)	18	5	
14	Feb 26 (Th)	Radiation Carcinogenesis Radiation Cataractogenesis	10 13		
15	Mar 3 (Tu)	Heritable Effects of Radiation	11	6	5
16	Mar 5 (Th)	Effects of Radiation on the Embryo and Fetus	12		
17	Mar 10 (Tu)	Radiologic Terrorism Radiation Protection I	14 17	7	6
18	Mar 12 (Th)	Radiation Protection II	17		
	Mar 17 (Tu)	Spring Break (No Class)			
	Mar 19 (Th)	Spring Break (No Class)			
19	Mar 24 (Tu)	Molecular Imaging Doses and Risks for Diagnostic Radiology	15 16	8	7
20	Mar 26 (Th)	Dose-Response Relationships for Model Normal Tissues	19		
21	Mar 31 (Tu)	Clinical Response of Normal Tissues	20	9	8
22	Apr 2 (Th)	Model Tumor Systems	21		
23	Apr 7 (Tu)	Review, catch up, discuss homework if questions, additional topics			9
24	Apr 9 (Th)	Exam 2, in class on material Feb. 17 through April 2			
25	Apr 14 (Tu)	Time, Dose and Fractionation in Radiotherapy I	23	10	
26	Apr 16 (Th)	Time, Dose and Fractionation in Radiotherapy II	23		
27	Apr 21 (Tu)	Alternative Radiation Modalities	25	11	10
28	Apr 23 (Th)	Hyperthermia	28		
29	Apr 28 (Tu)	Bystander Effects, Adaptive Response, Genomic Instability			11
30	Apr 30 (Th)	Radiobiology History, Current Events, Wrap Up, End of Class, Return graded HW#11 to students			

HSCI 572: Radiation Oncology Physics

Instructor: Colleen DesRosiers, Ph.D

Instructor's Contact Information

Office: IU Simon Cancer Center RT084
Phone: 1-317-944-1316, 1-317-373-1856
Email: cmdesros@iupui.edu
Office Hours: Wednesdays 2-4 pm at IU
<https://courses.pnhs.purdue.edu/hsci572/>

Course Information

Course Number: HSCI 572
Spring, 2015
Tuesday and Thursday 10:30-11:45 AM
STEWART CENTER

Teaching Assistant: Ming-Jung Hsieh

Office: PHYS 96
Phone: 765 – 734 – 7062
Email: hsiehm@purdue.edu
Office Hours: Tuesday 1-3 pm at PHYS 96

Course Description

This is an introductory course to the physical principles, equipment, processes, imaging guidance and clinical techniques involved in the treatment of cancer patients with external radiation beams and radioactive sources. Various external radiation beam types and their energy deposition characteristics are described. Treatment planning dose calculation algorithms and point dose calculations are discussed. The use of international dosimetry protocols for radiation beam calibrations are covered in detail.

Prerequisites (if needed)

Students must have completed HSCI 312, MATH 224 and PHYS 221. If those prerequisites are not fulfilled then the consent of the instructor is required.

Course Goals

By the end of this course, students will be able to:

1. understand the function of a radiotherapy clinic and a physicist's role in the clinic
2. Perform basic monitor unit calculations for radiotherapy treatments
3. describe how radiotherapy treatment beams are calibrated
4. meet the preliminary requirements for a medical physics internship in radiation therapy

Objectives

To develop in the student an understanding of the physical processes, dosimetry, calculation systems, equipment and instrumentation used in the radiation treatment of patients.

Course Requirements

Homework:

A homework assignment will normally be given each week. Students are required to hand in the completed homework one week after it is assigned.

Group Project:

The written assignment and presentation is a major component of this course grade evaluation. The written assignment is a typed 4,000 word paper that comprises a review of a problem or clinical radiation treatment in a radiation oncology environment. This word length of this paper is exclusive of figures and tables that may be included. Format of the paper is required to be similar to that of a scientific review article with appropriate references to the work of other authors. Since this is a review, other author's work should be synthesized in the context of other investigators work, summarized succinctly and referenced without quoting text extensively from the original source. An electronic Word version of the presentation should be e-mailed to the course instructor and all students in the class one week prior to the scheduled oral presentation. The content of every student's assignment is part of the course curriculum and is therefore examinable for the final examination. Students in a particular group will confidentially evaluate each others contribution and this will be taken into consideration as part of the instructor's overall evaluation. Late submission of the paper will result in a penalty of 20% of the assignment and presentation mark for each day after the deadline. The oral presentation should be about 40 minutes plus 10 minutes for questions and discussion from the instructor and audience. Oral presentations must be given with Microsoft Powerpoint slides and these presentation slides must be provided electronically by e-mail to the course instructor, teaching assistant, and the other class members the evening before the oral presentation or earlier.

Alternative to a review paper/presentation, students may elect to perform an radiotherapy experiment. They will need to have their experiment approved by the instructor and they will need to work with a medical physicist mentor on the project.

Marking scheme for the written assignment and oral presentation is as follows:

Oral Presentation 30%

Written Assignment 45%

Evaluation by peers 25%

Examples of Previous Group Written Assignment and Presentation Topics:

Disease radiation treatment

- 1). Prostate cancer treatment.
- 2). Breast Cancer treatment.
- 3). Lung cancer treatment.
- 4). Hodgkin's disease treatment.
- 5). Brain, head and neck treatments.
- 6). Total body irradiation.
- 7). Total skin electron irradiation.

The paper and presentation should at minimum cover the following: a). Anatomy and lymph node system being irradiated, b). Critical organs at risk of severe injury and types of complication possible, c). Disease staging, progression and prognosis, d). The various radiation techniques commonly used for treatment, e). The state-of-the-art radiation treatment technique based on technology, optimization and outcome and c). Description of recent clinical trial results with state-of-the-art treatment.

Required Texts

Khan, The Physics of Radiation Therapy, 5th edition, Purdue Bookstore
Supplemental texts as provided

Policies

General Course Policies

Students may contact the instructor or TA by either phone or e-mail. The student can expect an e-mail response within 1 business day.

Grading

Homework Assignments 25%

Midterm 25%

Project 25%

Final exam 25%

Grading:

Grade A $\geq 90\%$

Grade B $< 90\%$ but $\geq 80\%$

Grade C $< 80\%$ but $\geq 70\%$

Grade D $< 70\%$ but $\geq 60\%$

Fail $< 60\%$

Academic Dishonesty

Academic dishonesty is not tolerated and will result in a failing grade. The student will be referred to the Dean of students if any instance of academic dishonesty is discovered. *Purdue prohibits "dishonesty in connection with any University activity. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty." [Part 5, Section III-B-2-a, University Regulations] Furthermore, the University Senate has stipulated that "the commitment of acts of cheating, lying, and deceit in any of their diverse forms (such as the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest." [University Senate Document 72-18, December 15, 1972]*

Students with Disabilities *Purdue University is required to respond to the needs of the students with disabilities as outlined in both the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 through the provision of auxiliary aids and services that allow a student with a disability to fully access and participate in the programs, services, and activities at Purdue University.*

It is the student's responsibility to notify the Disability Resource Center of an impairment/condition that may require accommodations and/or classroom modifications.

Classes	Topics	Primary Reference	Lecturer
Week One	Introduction to radiotherapy Treatment units/Linear accelerators 1	Slide show #1 Khan Ch. 4 and "A Primer On Theory and Operation of Linear Accelerators in Radiation Therapy," Karzmark & Morton (Handout)	CD CD
Week Two	Interactions of ionizing radiation with matter	Khan Ch. 5, Johns & Cunningham - Chp 5 and Ch.6 (Handout)	CD
Week Three	Imaging in Radiation therapy	Khan Ch. 3, Ch 11-13	MC
Week Four	Measurement of Ionizing radiation Bragg Gray Cavity Theory	Khan Ch. 6,7 Bragg Gray Handout	CD/MJH
Week Five	Measurement of absorbed dose	Khan: Chapter 8 TG-51 handout	CD
Week Six	Dose distribution and scatter analysis A system of dosimetric calculations	Khan Chapter 9, Khan Chapter 10	CD
Week Seven	Radiotherapy dose calculations/problem solving	Khan Ch. 10 Calculation tables	CD
Week Eight	Introduction to treatment planning	Khan, Ch. 11	CD
Week Nine		Midterm Exam	
Week Ten		Spring Break	
Week Eleven	Treatment Planning	Khan, Ch. 12/13	CD
Week Twelve	Electrons	Khan Ch. 14	CD
Week Thirteen	Brachytherapy	Khan Ch. 15, 22, 23	CD
Week Fourteen	IMRT and IMRT QA	Khan, Ch. 19-20, Slides	CD
Week Fifteen	Stereotactic treatments/heavy particles	Khan Ch.21, Slides	CD
Week Sixteen	Student presentations	you	
Week Seventeen		Final Exam	

VCS 620 Seminars in Clinical Medicine and Surgery (2014-2015)

Version 2 7/3/2014 8:57 AM: Instructor – Department Head

Seminars start promptly at 8:00 am in Lynn 1136 for Fall and Spring semesters

** Resident Advisors' initials listed after each resident

■ Denotes change to schedule

2014		2015	
August	1	Dr. Steve Thompson –“The EMR at Purdue– User Friendly Efficiency for Outpatients and Inpatients” (ROOM G155/119)	January 2
	8	Mackenzie Adams (3-LAS-JH)	9
	15	Rebecca Lee (3-SAS- HT) <i>Abstract</i> Timothy Hui (3-SAM-CSM) <i>Abstract</i>	16
	22	Lia Hanson, Medico-Legal Presentation	23
	29	To Be Determined	30
September	5	Stefania Grasso (3-ANEST-AW) <i>Abstract</i> Laura Ilie (3-ECC-AW) <i>Abstract</i> Michelle Custead (3-ONCO-DK) <i>Abstract</i>	February 6
	12	No Seminar – PVM Fall Conference	13
	19	Nicholas Szigetvari (2-ONCO-DK)	20
	26	To Be Determined	27
October	3	Emily Conway (3-OPHTHO-JS) <i>Abstract</i> Sonia Honkisz(2-ONCO-DK) <i>Abstract</i>	March 6
	10	To Be Determined	13
	17	Larry Hoscheit (2-Dxl-HH)	20
	24	Kellie Taylor (2-FAPM/Da-JT)	27
	31	To Be Determined	
November	7	LaTisha Taylor (3-OPHTHO-JS)	<i>*Spring Break</i>
	14	Bryan Eason (2-CARDIO-DH/HG)	20
	21	Gabriela Arroyo (2-LAM-LC)	27
	28	No Seminar – THANKSGIVING HOLIDAY	
December	5	Trevor Moore (3-NEURO-AF)	April 3
	12	No Seminar – EXAM WEEK	10
	19	Dr. Weisman-“Career Transition Series I”	17
	26	No Seminar – UNIVERSITY HOLIDAY	24
			May 1
			8
			15
			22
			29
			June 5
			12
			19
			26

2014-2015 REGIONAL AND NATIONAL CONFERENCES

Directory of Veterinary & Animal Science Organizations	http://www.vspn.org/library/wwwdirectory/Organizations.htm
PVM Fall Conference - September 9-13, 2014, West Lafayette, IN	http://www.purdue.edu/svmengaged/ce/FallConference
PVM Phi Zeta Research Day - TBA, West Lafayette, IN	http://www.vet.purdue.edu/orpd/phi-zeta-society.php
AABP - September 18-20, 2014, Albuquerque, NM	http://www.aabp.org/meeting
AAEP - December 6-10, 2014, Salt Lake City, UT	http://www.aaep.org/convention.htm
ACVIM - June 4-7, 2014, Nashville, TN	http://www.acvim.org
ACVO – October 8-11, 2014, Ft. Worth, TX	http://www.acvoconference.org
ACVS - October 16-18, 2014, San Diego, CA	http://www.acvs.org/Symposium
AVMA – July 26-29 2014, Denver, CO	https://www.avmaconvention.org
IVMA - February 5-8, 2015, Indianapolis, IN	http://www.invma.org/
IVECCS - September 10-14, 2014, Indianapolis, IN	http://2013.iveccs.org/
VOS - February 28-March 7, 2015, Sun Valley, ID	http://www.vosdvm.org
VCS - October 9-11, 2013, St. Louis, MO	http://www.vetcancersociety.org/conference/

- [Home](#)
- [Our Faculty](#)

Colleen DesRosiers, Ph.D.

Associate Professor

- [Bio](#)
- [Clinical](#)
- [Research](#)
- [Publications](#)

Degrees Awarded

- Ph.D., Medical Physics/Health Sciences, Purdue University - Lafayette, IN
- M.S., Medical Radiation Physics, University of Health Sciences/The Chicago Medical School

Certifications/Special Training

- American Board of Radiology, Therapy Physics
- American Board of Radiology, Diagnostic Radiological Physics
- Indiana State Department of Health, Therapy Physicist
- Indiana State Department of Health, Health Physics
- Indiana State Department of Health, X-ray Inspector
- Indiana State Department of Health, Mammography

Professional Activities/Committees

- Member: American Association of Physicists in Medicine

Hospital Privileges

- IU Health Methodist/IU Health University

Primary Clinic Location

Radiation Oncology
535 Barnhill Dr RT 041
Indianapolis, IN 46202

Special Interests

- Medical Physics Education
- Very high energy (150 MeV-250 MeV) electron beam therapy
- Laser-plasma technology
- Stereotactic treatment (intracranial and extracranial)

Special Interests

- Medical Physics Education
- Very high energy (150 MeV-250 MeV) electron beam therapy
- Laser-plasma technology
- Stereotactic treatment (intracranial and extracranial)

[Search Dr. DesRosiers on PubMed](#)



Associate Professor of
Clinical Radiation Oncology
Indiana University
School of Medicine
Department of
Radiation Oncology
535 Barnhill Drive, RT 041
Indianapolis, IN 46202-5289

cmdesros@iupui.edu

(317) 944-2524

FAX: (317) 944-2486

Resources

- [Patient Instructions & Forms](#)
- [Privacy Practice](#)
- [Departmental Staff](#)



[IU](#) | [IUPUI](#) | [Disclaimer](#) | [Webmaster](#) | [Login](#)

[Copyright 2015](#), The Trustees of Indiana University | [Copyright Complaints](#) | Page updated on October 23, 2014

Department of Radiation Oncology | 535 Barnhill Drive, RT 041 | Indianapolis, IN 46202-5289 | Phone: 317-944-2524 | FAX: 317-944-2486

Purdue University School of Veterinary Medicine Residency Program Evaluation (Mentor)

Evaluations are due by Jan 15 and July 15 of each year to the chair of the Residency Committee.

Name _____ Residency Program _____

Date _____

Resident Name _____ Year in Program _____

During the past 6 months have you or a faculty member in your section had journal review with the resident for the equivalent of 1 hour every 2 weeks? Yes _____ No _____

During the past 6 months have you or a faculty member in your section had other didactic rounds with the resident for the equivalent of 1 hour every 2 weeks? Yes _____ No _____

In the last 6 months have you had a formal residency review with your resident? Yes _____ No _____

At this point is your resident on track to fulfill all the residency requirements of your specialty college? Yes _____ No _____ If no, please explain below.

Has the resident participated in Phi Zeta Day (poster or presentation)? Yes _____ No _____ When? _____

In the past 6 months have you or a faculty member from your section been available for direct supervision (in the building and available for assistance) of the resident at least 75% of the time? Yes _____ No _____ If no, please explain below.

Is your resident working on a manuscript so that it will be submitted to a refereed journal by the end of the residency program? Yes _____ No _____

Are there any concerns on your part with your resident's performance? Yes _____ No _____. If yes, please explain below, or indicate that you would like a member of the residency committee to contact you for a confidential discussion.

Has the resident performed satisfactorily such that you recommend continuation in the program? Yes _____ No _____

Submit by Email