

ACVR-RO RESIDENCY TRAINING PROGRAM APPLICATION

1. Date of Application

August 20, 2009

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

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

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

48

Program Director's Contact Information:

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

3. Application is made for check one (see below):

Standard Program	Alternative Program
X	

The following conditions define an Alternative Program:

- a. If the program is not at least a minimum two-year continuous radiation oncology training program which fulfills all of the trainee requirements of the training program guidelines, it will be defined as an Alternative Program.
- b. If exemption from any other requirement for a Standard program is requested in the application, the program must be submitted as an Alternative Program.

4. Location of Primary Institution

Primary Site:

Veterinary Clinical Sciences

Department

Purdue University Veterinary Teaching Hospital

Hospital/University

Lynn Hall of Veterinary Medicine, 625 Harrison Street

Address

West Lafayette, IN 47907-2026 USA

City, State Zip Country

5. 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).

6. Length of Training Program (months):

36

Yes

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

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

28.5

8. Advanced Degree:

	Yes	No	Optional
Masters:	X		
PhD:			X

9. Essential Program Faculty:

Please list all qualified faculty in support of program

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

Jacob J. Rohleder DVM, MS Debra K. Baird, DVM, PhD William R. Widmer, DVM, MS Hock Gan Heng, DVM, MVS, MS James F. Naughton, DVM, MS
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Number of weeks per year faculty member(s) is/are available to resident on a daily basis.
Please list for each faculty member.

The Purdue University Veterinary Teaching Hospital Diagnostic Imaging Service, (including a diplomate of ACVR) provides services 52 weeks/year. Dr. Rohleder: 31 weeks/year Dr. Baird: 26 weeks/year Dr. Widmer: 10 weeks/year Dr. Heng: 36 weeks/year Dr. Naughton: 35 weeks/year
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Faculty member on site?

Yes	No
x	

If off site, please explain relationship.

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

Deborah W. Knapp, DVM, MS

Number of weeks per year faculty member(s) is/are available to resident on a daily basis.

Please list for each faculty member.

Dr. Knapp: 45 to 48 weeks/year

Faculty member on site?

Yes	No
x	

If off site, please explain relationship

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

Brenda Austin, DVM, MS Gert J. Breur, DVM, MS, PhD Amy Fauber, DVM, MS Lynetta Freeman, DVM, MS Gary C. Lantz, DVM S. Kathleen Salisbury, DVM, MS
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Number of weeks per year faculty member(s) is/are available to resident on a daily basis.
Please list for each faculty member.

The Purdue University Veterinary Teaching Hospital Small Animal Surgery Service provides care (including a diplomate of ACVS) for patients 52 weeks/year. Many of the surgery faculty will also be available to the resident for consultation while off clinics as well. Dr. Austin: 21 weeks Dr. Breur: 14 weeks Dr. Fauber: 14 weeks Dr. Freeman: 16 weeks Dr. Ko: 12 weeks Dr. Lantz: 22 weeks Dr. Salisbury: 3 weeks

Faculty member on site?

Yes	No
x	

If off site, please explain relationship.

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

Christine Hanika-Holland, DVM, PhD (Anatomic pathology)
Evelyn A. Kazacos, DVM, PhD (Anatomic pathology)
Joanne Messick, VMD, PhD (Clinical pathology)
Margaret A. Miller, DVM, PhD (Anatomic pathology)
Rose E. Raskin, DVM, PhD (Clinical pathology)
Paul W. Snyder, DVM, PhD (Anatomic pathology)
Craig A. Thompson, DVM (Clinical pathology)

Number of weeks per year faculty member(s) is/are available to resident on a daily basis.

Please list for each faculty member.

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.
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Faculty member on site?

Yes	No
x	

If off site, please explain relationship.

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

Name	Certifying College / Board
Rebecca Packer, DVM, MS	DACVIM (Neurology)
Jeff Ko, DVM, MS Ann Weil, DVM, MS	DACVA (Anesthesiology)
Henry Green III, DVM Daniel F. Hogan, DVM	DACVIM (Cardiology)
Diane Bevier, DVM	DACVD Dermatology
Larry G. Adams, DVM, PhD Lynn Guptill, DVM, PhD Wallace B. Morrison, DVM, MS Barrack Pressler, DVM, PhD J. Catharine Scott-Moncrieff Nolie Parnell, DVM	DACVIM
Sheryl D. Krohne, DVM, MS Jean Stiles, DVM, MS	DACVO Ophthalmology

11. How will 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 through the oncology service under the direction of Dr. Deborah Knapp. 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 through the interaction between the two services. The radiation oncology resident will regularly interact with the medical oncologists and oncology residents for consultations, rounds, grand rounds, journal clubs, and seminars. The oncology residents and radiation oncology residents will participate in regularly scheduled, directed reviews of medical and general oncology using current texts and literature as a basis for discussion.

12. How will resident be 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 through the diagnostic imaging service, reading plain films (CR), CT, MRI, ultrasound and nuclear medicine studies. The resident will be encouraged to take HCSI 570 Introduction to Medical Diagnostic Imaging. While rotating through diagnostic imaging 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.

13. How will resident be trained in radiation biology?

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, instructors R. Stewart and J. 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.

14. How will resident be trained in cancer biology?

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 Cancer Research Center. The resident will participate in formal review sessions using the current Tannock and Hill text which are presently led by the oncology and radiation oncology faculty. A formal cancer biology course is under development in the school of veterinary medicine to enhance the training of the medical oncology and radiation oncology residents.

15. How will residents be trained in radiation oncology physics?

Residents are required to take HSCI 572 Radiation Oncology Physics, a 3 credit hour course (syllabus included in appendix, instructor C. 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, and at the Indiana University Cyclotron Facility in Bloomington, Indiana. 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.

16. 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 (Stewart and Poulson) 3 credit hours, graduate level

HSCI 572 Radiation Oncology Physics (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 312 Radiation Science Fundamentals, 3 credit hours

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).

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.

17. Will 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 morning. On other services, clinical rounds are held at least once a day, with the supervising diplomate in attendance.
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18. Are formal conferences, such as clinicopathologic conferences, journal clubs, or seminars held on a weekly basis?

Yes	No
X	

Comments:	
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19. 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
Oncology Resident/Clinician Training Rounds	Thursday 8:30-9:30 AM
Oncology Cancer Biology Review/Discussion Series	Friday 2:00-3:00 PM
Radiation Oncology Chart Rounds (Physics Rounds)	Thursday 2:00-3:00 PM
Radiation Oncology/Radiation Biology Journal Club	Tuesday 7:00-8:00 AM
Veterinary Clinical Sciences Medicine/Surgery Seminar	Friday 8:00-9:20 AM
Health Sciences Seminar (Medical Physics topics)	Tuesday 4:30-5:30
Cancer Imaging Rounds – two to three times per semester	
Histopathology Grand Rounds – Monthly	
Clinical Pathology Grand Rounds – Monthly	
Purdue Cancer Research Center – Monthly programs and periodic guest lectures on cancer topics.	
Other rounds and seminars are available if the resident has a particular interest in a certain area.	

20. Is the resident required to give one or more formal presentations at a conference or in an educational setting on a yearly basis?

Yes	No
X	
Comments:	The resident is required to give one formal in house seminar at Purdue each year. Residents are required to present at ACVR during their 2 nd or 3 rd year of residency, and at other meetings if possible.

22. How many major veterinary medical or medical meetings is each resident able to or expected to attend during his/her training program?

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. Suggested additional meetings include RRS, ASTRO and VCS.
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23. Does the training program require a research project? Please indicate the number of research projects required.

Yes	No	Optional	Number
X			1

Comments:	One project is required that is also fulfillment for the Masters degree
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24. 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.
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25. 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 600C Clinical Linear Accelerator	x		x	
3D - Computer based treatment planning system Please specify manufacturer and model: Varian Eclipse treatment planning system	x		x	
2D/2½ D - Computer based treatment planning system Please specify manufacturer and model: Varian Eclipse Treatment Planning System	x		x	
Intensity Modulated Radiation Therapy LDR Brachytherapy treatment and planning HDR Brachytherapy treatment and planning	x		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 – Indiana University School of Medicine, Dept. of Radiology, Bloomington, IN	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 – Onsite: Pharmacy, Nursing and Health Sciences Library Offsite: Indiana University School of Medicine Library Indianapolis, IN (65 miles from Purdue Campus)	x	x	
Computerized Medical Records w/Searching Capabilities	x	x	

26. 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.

Medical Library w/Literature Searching Capabilities is available at Indiana University School of Medicine (IUSM). 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.