

RESIDENCY IN RADIATION ONCOLOGY

**Louisiana State University
School of Veterinary Medicine
Department of Veterinary Clinical Sciences
Veterinary Teaching Hospital**

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**RESIDENCY PROGRAM
IN
RADIATION ONCOLOGY**

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1.0 INTRODUCTION

1.1 The residency will fulfill the training requirements and fulfill the requirements for examination (certification) of the American College of Veterinary Radiology, specialty of radiation oncology. The training program will utilize faculty of the Department of Veterinary Clinical Sciences (VCS) as mentors. Clinical facilities of the Veterinary Teaching Hospital (VTH) will be the primary training location for the LSU portion of the residency.

2.0 OBJECTIVES

2.1 To provide advanced training in clinical problem solving and diagnostic and therapeutic techniques in the specialty field of radiation oncology.

2.2 To provide didactic and tutorial teaching training and experience.

2.3 To satisfy the requirements for examination by the American College of Veterinary Radiology, specialty of radiation oncology.

2.4 To provide experience in scientific and clinical case presentation through the seminar and house officer rounds program.

2.5 To provide experience in the preparation and submission of scientific articles for publication and/or presentation.

2.6 To provide experience in designing and conducting a clinical research project.

2.7 To provide opportunity to participate in graduate level courses that support and strengthen the clinical training program.

3.0 PREREQUISITES

3.1 Candidates must have a DVM or an equivalent degree.

3.2 Candidates must have satisfactorily completed at least a one year rotating small animal internship or its equivalent post graduate veterinary experience.

- 3.3 Candidates must have successfully completed the National Board examination or its equivalent in the certifying country.
- 3.4 Candidates must have the goal of board certification by the American College of Veterinary Radiology, specialty of radiation oncology.

4.0 FACULTY MENTOR

- 4.1 The resident will be assigned to a faculty mentor who has diplomate status in the specialty field of radiation oncology. The responsibilities of the mentor include the direction and coordination of the clinical program, advise toward research, publications, and preparation for Specialty Board examinations and general counseling.

5.0 HOUSE OFFICER ROUNDS AND SEMINAR PROGRAM

- 5.1 The House Officer Rounds are designed to provide the resident the opportunity to receive and present interesting, unusual, or difficult clinical case material utilizing a problem oriented approach to professional colleagues and to develop manuscripts for publication. The resident will participate with the other VCS house officers on a rotating basis and will make at least 1 case presentation in House Officer Rounds during the year.
- 5.2 The House Officer Seminar series is designed to provide the resident with the opportunity to research and present scientific information to professional colleagues.
- 5.3 One seminar will be prepared and given in each year of the residency.
- 5.4 Attendance: The resident is required to attend and participate in the following: VMED 7001 (VCS Seminar), Grand Rounds, House Officer Rounds, other seminars that are requirements of the resident's home department and/or section.

5.4.1 VCS HO Rounds/Seminar Policy

- 5.4.1.1 HO attendance at all HO Rounds/Seminar sessions is required. HO attendance is required at only those rounds and seminars designated as VCS HO Rounds/Seminar sessions and that others occurring in the same time slot are not required by the House Officer Committee.
- 5.4.1.2 Attendance will be taken at the beginning of each session.
- 5.4.1.3 HO will be required to present an additional seminar if they have more than one unexcused absence during the program

year. All absences must be accounted for by completing a HO Leave Request Form and submitting it to the HOC chair.

- 5.4.1.4** Excused absences include the following: illness, annual leave, attendance or participation in a continuing education program, presentation of a student lecture, scheduled out-rotation or special service requirements per request of advisor. All other absences are unexcused unless deemed excusable by the HO advisor.

6.0 TEACHING PROGRAM

- 6.1** Throughout the program residents will be viewed as role models by both interns and professional students. They should always present themselves in a professional manner.
- 6.2** The resident will participate in clinical instruction and in the evaluation of Phase II veterinary students assigned to the section.
- 6.3** The resident will participate in preclinical didactic lecture and laboratory instruction as assigned by his/her mentor.

7.0 BOARD CERTIFICATION

- 7.1** An important credential in veterinary medicine is board certification in a specialty area. One of the objectives of the program is to prepare the resident for certification by the American College of Veterinary Radiology, specialty of radiation oncology.
- 7.2** In order to qualify for examination the resident should refer to the published requirements of the college.
- 7.3** It is solely the responsibility of the resident to submit any material and fees required by the college for registration for board examinations.

8.0 CLINICAL PROGRAM

Below, a description of the 52 weeks per year of training is required. Each individual year of training should be described in detail with the number of weeks in various sections, out-rotations, independent study, leave, etc. adding up to the total weeks in the training program. The resident is required to keep a case log, which should be evaluated annually by the faculty mentor.

Please see attached list of scheduled weeks below

8.1 Year I Resident's Program

- 8.1.1** The first year resident will spend approximately 80% of their time on clinic duty on the oncology service. The remainder of the weeks

will be spent on a required out rotation such as diagnostic imaging, clinical pathology, or anesthesiology.

- 8.1.2** The resident will participate in the instruction of Phase II students and interns.
- 8.1.3** The resident will participate in house officer rounds, ward rounds, journal club, special topic conferences, seminars, and other scheduled conferences of the VTH. He/She will attend other scheduled seminars in the SVM as time permits.
- 8.1.4** The resident will present 1 seminar (to faculty and house officers) on a topic of interest to the resident.
- 8.1.5** The resident may attend the Veterinary Cancer Society or American College of Veterinary Radiology annual meeting with the advice and approval of his/her faculty mentor and the house officer committee. Expenses will be paid by the resident. Limited funds may be available from the Veterinary Teaching Hospital.
- 8.1.6** The resident is encouraged to attend and participate in continuing education meetings sponsored by the SVM or by local and regional veterinary organizations.
- 8.1.7** The resident must register with the specialty college.
- 8.1.8** The resident is encouraged to prepare a research proposal; review it with his/her faculty mentor, and submit it for funding consideration.
- 8.1.9** The resident will attend, either physically or via teleconference, radiation biology and radiation physics courses offered on main campus within the LSU medical health physics program.
- 8.1.10** The resident may, with the approval of the resident's advisor and the medicine faculty, participate in clinically relevant graduate courses. Course work must not interfere with the clinical and instructional responsibilities of the resident.
- 8.1.11** The resident will participate in emergency duty.

8.2 Year II Resident's Program

- 8.2.1** Approximately 80% of the year will be spent on the oncology service. The remainder of the weeks will be spent on a required out rotation such as radiology, anesthesiology, clinical pathology, or study.

- 8.2.2** The resident will be encouraged to submit one paper suitable for publication to their mentor and the House Officer Chair prior to completion of the residency. Topic considerations should be discussed with his/her mentor prior to working on the manuscript.
- 8.2.3** The resident should apply for the ACVR specialty of radiation oncology exam. Application deadline and related fees are available on the website <http://www.acvr.org> .
- 8.2.4** The resident will begin or continue the research project if funding has been obtained. If possible, the resident should prepare the research project to be presented at the Veterinary Cancer Society meeting or at the American College of Veterinary Radiology meeting.
- 8.2.5** The resident is required to give at least 1 hour of didactic instruction in courses offered to veterinary students.
- 8.2.6** The resident will participate in the instruction of Phase II students and interns.
- 8.2.7** The resident may attend the Veterinary Cancer Society or American College of Veterinary Radiology annual meeting with the advice and approval of his/her faculty mentor and the house officer committee. Expenses will be paid by the resident. Limited funds may be available from the Veterinary Teaching Hospital.
- 8.2.8** The resident will participate in emergency duty.

8.3 Outside Rotations

- 8.3.1** Outside rotations may include clinical rotations on radiation oncology services at other universities or private practices and/or time spent on a human hospital oncology service. Approval by the oncology faculty will be required. Travel will be paid by the resident.

9.0 RESEARCH PROJECT

Although a publication is not required by the ACVR for board certification in radiation oncology, the Department of Veterinary Clinical Sciences requires its residents to participate in scholarly activity such as basic, applied or clinical research. To that end the resident is strongly encouraged to:

- 9.1** Design a research project to address a specific question or problem in the discipline
- 9.2** If time permits, write a research grant proposal that may be used to seek funding for the project
- 9.3** Conduct the research according to the experimental design

- 9.4** Analyze and report the results of the project including submission of the manuscript to a refereed journal

10.0 GRADUATE PROGRAM

Not applicable for radiation oncology residency.

11.0 ADDITIONAL OBJECTIVES

11.1 Physics training

We have an on-site medical physicist 1/2 day per week who will mentor the resident. The Khan physics text will serve as the primary reference, and the resident will review the text with the physicist and/or faculty mentors. In addition, the resident will attend a course, Radiation Therapy Physics (LSU MEDP 7331). The resident will also have access to 10+ years of RAPHEX examinations and will be strongly encouraged to work through the radiation oncology and general sections.

11.2 Radiation biology training

As part of the residency program, the resident will read the Hall Radiation Biology textbook; the radiation oncology faculty will discuss this book with them on a chapter-by-chapter basis during topic rounds. The resident will attend a Radiobiology course (LSU MEDP 7121) through Louisiana State University.

12.0 EVALUATION AND REAPPOINTMENT

- 12.1** A written critique will be provided by the block mentor at the end of each assigned block. A summary evaluation will be made quarterly by the small animal faculty in conjunction with the resident's advisor. The critique will cover:

12.1.1 Professional ability; to include theoretical knowledge and application of that knowledge, clinical skills, tutorial skills, and scholarly activity.

12.1.2 Hospital services; to include communication skills, patient care, medical record quality, emergency duty quality, and adherence to VTH protocol.

12.1.3 Personal characteristics; to include responsibility, initiative, interaction with faculty, staff and students, department and leadership

- 12.2** The resident will meet with his or her mentor on a quarterly basis to discuss their progress and written block evaluations.

- 12.3** In March of each year, the House Officer Committee will review the

year's critiques. Following that review, the committee will make a recommendation to the Head of the Department of Veterinary Clinical Sciences to:

12.3.1 Continue the appointment for another year with or without probation

12.3.2 Award the certificate upon satisfactory completion of the program.

12.3.3 Not to reappoint the resident, with a minimum of 30 days notice of termination. At the discretion of the House Officer Committee and in consultation with the resident's service, guidelines can be formulated that if met, may allow the resident to be re-instated at the end of the specified period.

12.4 All House Officers are required to complete an annual evaluation of their program with suggestions for improvement before continuation or completion of their program is granted.

13.0 HOUSE OFFICER COMMITTEE

13.1 The Committee is comprised of a representative of each House Officer program. It is responsible for the year-end review of each house officer's progress. This review is based on block evaluations received throughout the course of the program. The Committee grants recommendation for reappointment or a certificate to those who successfully complete the program.

13.2 All House Officers are required to complete an annual evaluation of their program with suggestions for improvement before continuation or completion of their program is granted.

14.0 EMPLOYMENT AND BENEFITS

14.1 Louisiana State University classifies interns and residents as University employees. As such, they (and their eligible dependents) qualify for the Louisiana State University Baton Rouge health insurance and benefits. The School of Veterinary Medicine provides malpractice insurance coverage. The salary (not a stipend) is published in the Directory of Internships and Residencies as published by the American Association of Veterinary Clinicians (www.virmp.org). Salary is payable in monthly increments via direct deposit. Retirement contributions are required and withheld from each paycheck. No social security tax is withheld. Federal and state income tax is withheld. The employee may be eligible to petition the IRS for exemption from federal tax on part of his/her salary.

14.2 The Veterinary Teaching Hospital operates year round. House officers will share emergency duty with other house officers within their specialty. House Officers will also share evening, weekend and holiday duty on a scheduled basis.

- 14.3** The University offers accrual of annual time off following either the University accrual rate (14 hours/month with a maximum accumulation of 176 hours) or the Civil Service Schedule rate (8 hours/month with no maximum accumulation). Sick time off accrual is 8 hours/month. All time off, except for illness and emergencies, should be requested and approved 30 days in advance. Time off requests must be entered into Workday (via the employee's MyLSU account) by the employee and approved by the supervisor before time off will be granted. Annual time off will be granted on an individual basis taking into account the reason for the requested absence and the needs of the service and hospital. Annual time off for personal business is to be taken during elective or research blocks. Emergency absence such as for illness or a death in the immediate family should be brought to the attention of the clinician to whom the House Officer is assigned as soon as the House Officer learns that he/she will be absent. The official request should be entered into Workday upon the House Officer's return. Except in unusual circumstances, approval will not be granted for time off during the final month of the program.
- 14.4** Reappointment to the second and third years of the residency program is contingent upon satisfactory completion of the previous year's requirements.

15.0 APPLICATION PROCEDURE

- 15.1** Candidates may apply for the Residency in Radiation Oncology by submitting:
- 1) A standard residency application through www.virmp.org.
 - 2) A statement of Residency objectives and subsequent career goals.
 - 3) Official academic transcripts.
 - 4) Three letters of reference from individuals currently familiar with the applicant's professional status.
 - 5) A curriculum vitae.
- The VIRMP will be used to select a resident unless the current medical oncology resident is chosen by the program director and approved by the house officer committee as the radiation oncology resident.

16.0 APPENDICES

16.1 HOUSE OFFICER ROUNDS EVALUATION FORM

House Officer: _____ Date: _____

Evaluator: _____

	<u>Evaluation</u> E=Excellent G=Good N=Needs Improvement	<u>Comments</u>
Case Selection		
Complexity of case		
Appropriate follow-up		
Content		
Format of presentation		
Discussion		
Conclusions		
Use of problem-oriented approach		
Delivery		
Clarity of speech		
Rate of delivery		
Effectiveness of Visual Presentation		
Use of visual aids		
Body language and enthusiasm		
Questions handled appropriately		

Additional Comments:

16.2 VCS SEMINAR EVALUATION FORM

Presenter: _____ Date: _____

Audience: _____

Title/Topic: _____

Evaluation Criteria:

	Points	Evaluation
Definition of subject: introduction, importance, clinical significance	0-5	
Organization	0-10	
Quality of material	0-10	
Presence: speaking ability		
Clarity	0-10	
Rate of delivery	0-10	
Enthusiasm, expressiveness	0-10	
Support Materials		
Handouts, manuscript	0-15	
Visual aids	0-5	
Appropriate Summary	0-5	
Presentation consistent with audience level	0-10	
Questions/discussion handled appropriately	0-10	
	Total	

Comments:

Evaluator: _____

16.4 HOUSE OFFICER BLOCK EVALUATION FORM (E-Value)

<u>House Officer Evaluation Form in E-Value</u>	Needs Improvement	Satisfactory	Good	Excellent	Not Applicable
Professional Ability					
Theoretical Knowledge					
Knowledge Application					
Skills					
Patient Care					
Thoroughness					
Individual Characteristics					
Communication with clinicians					
Communication with students					
Communication with staff					
Independent study & initiative					
Awareness of current literature					
Contribution to student education					
Performance under stress					
Ability to accept criticism					
Organizational skills					
Ability to work in a team					
Reliability					
Motivation					
Attendance at seminars & rounds					
Presentation at seminars & rounds					
Ability to make independent decisions					
Hospital Service					
Completion of duties					
Quality of work					
Emergency services duty					
Communication with veterinarians					
Client communication					
Referral letters & record keeping					
Acceptance of service & case responsibility					
Adherence to VTH protocol					
Strengths:					
Areas for Improvement:					

16.5 RADIATION ONCOLOGY RESIDENCY CALENDAR

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
RO	MO	RO	RO	DI	RO	RO	RO	RO	RO	Vac/CP/Anes	RO
RO	MO	RO	RO	RO	RO	DI/Vac	RO	RO	Study	RO	RO

MO – medical oncology (2 months total): Responsible for receiving both medical and radiation oncology patients that present for evaluation (diagnostics to include blood work, imaging, biopsy, etc.) and therapy, and to see recheck appointments with an emphasis on the radiation oncology patients that present for rechecks. Participate in twice daily ward rounds to discuss current patients. Attend and also routinely responsible for morning teaching rounds with 3rd and 4th year veterinary students that are rotating through the oncology service.

RO – radiation oncology (18 months total): To consult on all potential radiation therapy patients that present to oncology or present to other services in the hospital. Develop a diagnostic and therapeutic plan. Review all imaging studies and the medical record for radiation patients. Perform a physical examination on all radiation patients prior to initiation of a course of radiation therapy. Position patients (vac-lok, bite block) for CT imaging for radiation treatment planning. Radiation treatment planning both CT based computer assisted 3D conformal and IMRT radiation treatment planning and manual planning. Involved in the daily treatment of radiation patients including assisting with anesthesia, patient positioning and delivery of radiation therapy. Telephone consultations with referring veterinarians on potential radiation patients.

DI- Diagnostic Imaging (6 weeks total): To attend daily radiology rounds, observe image acquisition and image interpretation under the guidance of the radiology residents and faculty. To generate imaging reports to be reviewed by the radiology faculty.

Anes – anesthesia (1 week total): Anesthetize small animal patients under the direction of the anesthesia service. Participate in the daily anesthesia rounds while on the anesthesia service. Also, to attend anesthesia lecture series when possible and for relevant topics on anesthetics and management of patients under anesthesia.

CP- clinical pathology (1 week total): Resident will interpret and help generate reports in the clinical pathology laboratory focusing on neoplastic lesions in companion pets, exotic pets, and equines.

Study (to include research time) – (1 month total): To be spent performing research, preparing a manuscript, and/or boards preparation.