Residency Program in Veterinary Diagnostic Imaging: ACVR

School of Veterinary Medicine
Louisiana State University

Department of Veterinary Clinical Sciences
School of Veterinary Medicine
Louisiana State University
Baton Rouge, LA 70803-8410
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1.0 INTRODUCTION

The residency will fulfill the training requirements and fulfill the requirements for examination (certification) of the American College of Veterinary Radiology. 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

- To provide advanced training in clinical problem solving and diagnostic and therapeutic techniques in the specialty field.
- To satisfy the eligibility requirements for examination by the American College of Veterinary Radiology.
- To provide experience in scientific and clinical case presentation through the seminar and house officer rounds program.
- To provide experience in the preparation and submission of scientific articles for publication and/or presentation.
- To provide opportunity to participate in graduate level courses that support and strengthen the clinical training program and are relevant to the field of veterinary diagnostic imaging.
- To obtain advanced training in veterinary diagnostic imaging using current techniques for examination of a wide variety of diseases in animals.
- Become an expert with imaging equipment, radiographic positioning and technique in small and large animal and routine abdominal ultrasound procedures in small animal.
- Review and learn anatomy with an emphasis on radiographic anatomy.
- Become proficient with the correct terminology used in the dictation for radiographic studies.
- Become prepared for after hour’s emergency duty associated with diagnostic imaging. Allow the resident to develop confidence in diagnostic radiology in an emergency setting.
- Perform and interpret ultrasonographic examinations on all small and large animals as well as exotic and wildlife species.
- To learn the principles of nuclear medicine examination techniques and interpretation.
- To learn the principles, examination techniques and interpretation of computed tomography and magnetic resonance imaging.
- To provide didactic and tutorial teaching training and experience through the house officer rounds and seminars as well as with student rounds and courses in Phases I and II.
- To provide experience in designing and conducting clinical research projects and preparation and submission of scientific articles for publication and/or presentation.
- To provide experience in presenting at national or international meetings and conferences.
- Prepare the resident for training and/or graduate study or entry into a high quality specialty practice or academic institution.
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 ACVR.

3.5. A standard residency application form (V.I.R.M.P. application) with respective deadlines met.
   3.5.1. A statement of objectives for the residency and subsequent career goals.
   3.5.2. A transcript of his/her academic record.
   3.5.3. Three letters of reference from individuals currently familiar with the applicant's professional status. At least one of the referees should be a diplomate of ECVDI or ACVR.

4.0 FACULTY MENTOR

4.1. The resident will be assigned to a faculty mentor who has diplomate status in the specialty field of Diagnostic Imaging

4.2. Responsibilities of the mentor include:
   4.2.1. Direction and coordination of the clinical program;
   4.2.2. Advice toward research, publications, and preparation for Specialty Board examinations
   4.2.3. General counseling.

5.0 HOUSE OFFICER ROUNDS AND SEMINAR PROGRAM

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.

The House Officer Seminar series is designed to provide the resident with the opportunity to research and present scientific information to professional colleagues.

5.1 One seminar will be prepared and given in each year of the residency.

5.2 The seminar will include a written manuscript with references in a suitable form for a publication that is to be forwarded electronically one week prior to the
seminar to the VCS office secretary who will distribute it to the faculty and house officers.

5.3 One seminar topic will relate to original research conducted by the resident.

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.

5.5 **VCS HO Rounds/Seminar Policy**

5.5.1 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.

5.5.2 Attendance will be taken at the beginning of each session.

5.5.3 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.

5.5.4 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 ACVR.

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

8.1 Year I Resident's Program
8.1.1 Weeks of training described in detail
8.1.2 The resident will participate in the instruction of Phase II students and interns. Participation in SVM student laboratories will be assigned.
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 VTC&H. 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 a major professional meeting at some point during the program with the advice and approval of his/her faculty mentor and the house officer committee. Expenses will be paid by the resident. The meeting must be scheduled during a non-clinical block.
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. The resident will register with the ACVR within 90 days of starting the program.
8.1.9 The resident will participate in emergency duty along with the responsible radiologist.
8.1.10 The resident may attend formal course work at human hospitals as approved by the program supervisor.

8.1.11 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.

8.2 Year II Resident's Program
8.2.1 Number of weeks of type of training detailed here
8.2.2 The resident will submit one paper suitable for publication to their mentor and the House Officer Chair by June 1. Topic considerations should be discussed with his/her mentor prior to working on the manuscript.

8.2.3 The resident should make applications for sitting examinations if applicable.

8.2.4 The resident will begin or continue the research project if funding has been obtained.

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 apply to sit the theoretical part of the ACVR board examination by the published deadlines on the ACVR website during year II (examination is in September of each year, which will be year II of the program).

8.2.7 The resident may attend 1 major professional meeting during Year III if not done in Year II and an abstract is accepted for oral or poster presentation. Expenses are paid by the resident.

8.3 **Year III Resident’s Program**

8.3.1 The resident will submit one paper suitable for publication to their mentor and the House Officer Chair by June 1.

8.3.2 The resident should make applications for sitting examinations if applicable.

8.3.3 Sit the practical part of the examination in September of year III.

8.3.4 The resident will perform primary diagnostic imaging emergency backup for the hospital.

8.4 **Year IV Resident’s Program**

8.4.1 The resident will be assigned 10 blocks of clinical rotation, 2 blocks of elective.

8.4.2 Training content while on clinics is listed above in 6.1 through 6.9

8.4.3 The resident will participate in phase II student’s instruction.

8.4.4 Participation in Phase I laboratories will be assigned.

8.4.5 1 hour of lecture will be presented in Phase I and be observed by a radiologist.

8.4.6 The resident will hold a portion of the Phase II student rounds in diagnostic imaging. These duties will be equally shared with the other radiologists.

8.4.7 Residents will present 1 rounds and 1 seminar presentation to faculty and house officers on an imaging topic of interest to the resident

8.4.8 The resident will submit one manuscript based on their research project to a refereed journal for publication.

8.4.9 The resident will perform primary diagnostic imaging emergency backup for the hospital to be equally shared with the other radiologists.

8.4.10 The resident may, with the approval of the resident’s advisor participate in clinically relevant graduate courses. The course work must not interfere with the clinical and instructional responsibilities of the resident.
8.4.11 The resident will continue work on their research project.
8.4.12 The resident may attend 1 major professional meeting during Year IV if an abstract is accepted for oral or poster presentation. Expenses are paid by the resident.
8.4.13 The resident will hold a portion of the Phase II student rounds in diagnostic imaging. These duties will be equally shared with the other radiologists.

8.5 Outside Rotations

8.6 Details of training content
The approximate number of cases that will be examined during the training period is based on the average case load of the hospital and number of months spent training in that area.

<table>
<thead>
<tr>
<th></th>
<th>Full time equivalent months</th>
<th>Approximate number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Animal Radiology</td>
<td>10</td>
<td>5800</td>
</tr>
<tr>
<td>Large Animal Radiology</td>
<td>2</td>
<td>850 (incl. Teaching file)</td>
</tr>
<tr>
<td>Small animal ultrasonography</td>
<td>8</td>
<td>1300</td>
</tr>
<tr>
<td>Large animal ultrasonography</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Computed Tomography</td>
<td>3</td>
<td>500 (incl. Teaching file)</td>
</tr>
<tr>
<td>Magnetic Resonance Imaging</td>
<td>1</td>
<td>100 (incl. teaching file)</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Elective (includes board prep, research, echocardiography and 12 weeks vacation)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>RT</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Special Procedures</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>9940</td>
</tr>
</tbody>
</table>

9.0 RESEARCH PROJECT

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 required to:

9.1 Design a research project to address a specific question or problem in the discipline

9.2 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

9.5 Publication of these results in a refereed journal is strongly encouraged

10.0 GRADUATE PROGRAM - Optional

11.0 ADDITIONAL OBJECTIVES

11.1 Formal didactic classes or organized self-study modules must be included in:
   11.1.1 Radiobiology
   11.1.2 Physics of
       11.1.2.1 Diagnostic radiology
       11.1.2.2 Nuclear medicine
       11.1.2.3 Ultrasonography
       11.1.2.4 CT
       11.1.2.5 MRI

11.2 Formal course, organized self-study modules or supervised practical experience must be included to provide the resident knowledge of the basic patterns of disease and principles of interpretation of disease in:
   11.2.1 Diagnostic nuclear medicine
   11.2.2 Echocardiography
   11.2.3 Large animal ultrasound
   11.2.4 MRI
   11.2.5 CT

12.0 EVALUATION & 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&C protocol.
   12.1.3 Personal characteristics; to include responsibility, initiative, interaction with faculty, staff and students, deportment 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 The resident will be asked each year to make an assessment of the program with suggestions for improvement. The evaluation form will be handed out in May or June and must be returned before completion of that year in July

13.0 HOUSE OFFICER COMMITTEE

The committee is comprised of a representative of each house officer program, the VCS Head (ex officio), and the Director of the VTH (ex officio). It will be responsible for:

13.1 The selection of residents from the application pool (with the advice of the faculty of the sponsoring discipline).

13.2 Annual review of the resident's progress (in the ninth month of each year).

13.3 Annual recommendation for reappointment of the resident or program completion

14.0 EMPLOYMENT AND BENEFITS

14.1 Louisiana State University classifies residents as University employees. As such, they (and their eligible dependents) qualify for the Louisiana State University Baton Rouge health insurance and retirement plans. The School of Veterinary Medicine also 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.virm.org). Salary is payable in monthly increments. Retirement contributions are withheld from each paycheck. No social security tax is withheld. Federal and state income tax is withheld. The resident may be eligible to petition the IRS for exemption from federal tax on part of his/her salary.

14.2 The Veterinary Teaching Hospital and Clinics operates year round. The resident will share with other house officers on emergency duty rotation. The rotation will commit the resident to a share of evening, weekend and holiday duty on a scheduled basis.

14.3 Reappointment to the second, third and fourth years of the residency program is contingent upon satisfactory completion of the previous year's requirements.
14.4 The University offers accrual of annual leave following either the University accrual rate (14 hrs/month with a maximum accumulation of 176 hours) or the Civil Service Schedule rate (8 hrs/month with no maximum accumulation). Sick leave time accrual is 8 hrs/month. All leave, except illness and emergencies, should be scheduled and approved 30 days in advance. Forms requesting the absence must be filled out by the resident and signed by the clinician to whom the resident will be assigned during the absence, the Resident's Advisor and the Chair of the House Officer Committee before approval will be granted. Leave will be granted on an individual basis taking into account the reason for the requested absence and the needs of the service and hospital. Leave 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 resident is assigned as soon as the resident learns that he/she will be absent. The official forms should be filled out upon the resident’s return.

15.0 APPLICATION

15.1 A standard residency online application through VIRMP.org
15.1.1 A statement of objectives for the residency and subsequent career goals.
15.1.2 A curriculum vitae
15.1.3 A transcript of his/her academic record.
15.1.4 Three letters of reference from individuals currently familiar with the applicant's professional status.
House Officer: _______________________________________________________

Date: ________________________________________________________________

Evaluator: ____________________________________________________________

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>E=Excellent</td>
<td></td>
</tr>
<tr>
<td>G=Good</td>
<td></td>
</tr>
<tr>
<td>N=Needs Improvement</td>
<td></td>
</tr>
</tbody>
</table>

### 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:

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

Comments: ____________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Evaluator: ________________________________
16.3 House Officer Leave Request

I am requesting leave approval for the following reasons: (Indicate the reason and dates.)

1. To attend the meeting listed below.

______________________________________________________________________________

2. To attend to personal activities (illness, family emergency, vacation).

______________________________________________________________________________

3. To attend to official activities (out rotations, special circumstance requirements).

______________________________________________________________________________

INTERN/RESIDENT: __________________________________________ Date: _____________
Print  Sign

ADVISOR: _________________________________________ Date: __________
Print  Sign

BLOCK MENTOR: __________________________________________ Date: __________
Print  Sign

CHAIR HOC: __________________________________________ Date: __________
Print  Sign
## 16.4 House Officer Evaluation Form

<table>
<thead>
<tr>
<th>Professional Ability</th>
<th>Select Rating</th>
<th>Select Rating</th>
<th>Select Rating</th>
<th>Select Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Theoretical Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Knowledge Application</td>
<td></td>
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<tr>
<td>3. Diagnostic/Surgical Skills</td>
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<tr>
<td>4. Patient Care</td>
<td></td>
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<tr>
<td>5. Thoroughness</td>
<td></td>
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<tr>
<td><strong>Personal Characteristics</strong></td>
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</tr>
<tr>
<td>1. Clinician Communication</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2. Student Communication</td>
<td></td>
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<tr>
<td>3. Staff Communication</td>
<td></td>
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<tr>
<td>4. Independent Study &amp; Initiative</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Awareness of Current Literature</td>
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<tr>
<td>6. Contribution to Student Education</td>
<td></td>
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<tr>
<td>7. Performance Under Stress</td>
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<tr>
<td>8. Ability to Accept Criticism</td>
<td></td>
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<tr>
<td>9. Organizational Skills</td>
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<tr>
<td>10. Ability to Work in a Team</td>
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<tr>
<td>11. Reliability</td>
<td></td>
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</tr>
<tr>
<td>12. Motivation</td>
<td></td>
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<tr>
<td>13. Attendance at Seminars &amp; Rounds</td>
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<tr>
<td>14. Presentation at Seminars &amp; Rounds</td>
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<tr>
<td>15. Ability to Make Independent Decisions</td>
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</tbody>
</table>

**Hospital Service**

<table>
<thead>
<tr>
<th>Completion of Duties</th>
<th>Select Rating</th>
<th>Select Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Quality of Work</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Emergency Services Duties
4. Communication with Veterinarians
5. Client Communication
6. Referral Letters & Record Keeping
7. Acceptance of Service & Case Responsibility
8. Adherence to VTH&C Protocol

Strengths

Improvements

General Comments

Type Signature
- Select Faculty, -
Completed
Finalized
No
Last modified by
04/20/2009
Last modified by
84