ACVR Diagnostic Imaging Residency Training Program Application

This application is required for institutions desiring ACVR accreditation of a new residency training program and for institutions requesting re-accreditation of an existing program. Before beginning the application process, all applicants should review the most recent version of the ACVR Residency Program Essential Training Standards and Requirements (RPE) document (accessed from the Essentials Homepage) in detail. Use the RPE as a reference when completing the application form, as the contents you provide herein will be evaluated by the Residency Standards and Evaluation Committee (RSEC) against the published RPE standards. This application form follows the headings of the RPE. All terms used in this application have same definitions as those in the RPE, and no information provided in the application form itself will supersede that published in the RPE. During the application review process, the Chair or Assistant Chair of the RSEC may contact the applicant for additional information or clarification.

*Note: If you wish to save your submission and complete it later, click the save button located at the bottom of the pages. You will be emailed a link to complete your form at a later date.

ACVR Residency Training Program Application

Program Summary

The Residency Director of the program is expected to be the primary applicant and contact person for this application. The Residency Director must be located at the primary training institution.

Institution Name
LSU School of Veterinary Medicine

Residency Program Director Name
Nathalie Rademacher

Residency Program Director Email
nrademac@lsu.edu

Program Type

What type of residency program is being requested?
Traditional Residency Program

If approved, what is the proposed start date of this residency program?
Saturday, July 15, 2023

Objectives

Succinctly state the objectives of the training program.
The residency program is designed to provide high-quality, in-depth clinical training in veterinary diagnostic imaging which will allow the resident to develop knowledge and clinical proficiency in the field. The program will provide an in-depth understanding of diagnostic radiology, ultrasonography, magnetic resonance imaging and computed tomography as well as knowledge of the general principles and applications of nuclear medicine. The principles of radiation safety and biology and radiotherapy will be given. The training program will aim to produce veterinary radiologists proficient in the use of current imaging techniques for examination of a wide variety of diseases in animals, with an understanding of developing techniques, digital radiography, and the ability to contribute to the discipline through participation in research, congresses and publications. The resident will be expected to meet the training requirements of the ACVR required to take the ACVR board examination. Upon completion of the program and examinations the successful candidate will be able to pursue career
goals in academia, industry or private specialty practice.

**Training Period**

**What is the total length of the training program?**
36

**What is the anticipated length of supervised clinical training a resident will experience during this program?**
30

**Will the resident(s) in this program be eligible to take the ACVR Preliminary Exam in September of their third year?**
Yes

**What are the responsibilities of the resident(s) during non-clinical portions of the program?**
This time is scheduled for research and writing, elective subspecialty training, outside rotations and studying for the written board exam. This can also be used for vacation, conferences and optional Masters degree program.

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**Direction and Supervision**

When calculating time commitment in this section, you may consider a 100% (full time) duty schedule to consist of 48 weeks per year with 8 hours per day or 40 hours per week.

**Residency Director**

Please review the Residency Director requirements and responsibilities in the ACVR Residency Program Essential Training Standards and Requirements (RPE) document. Note that the Residency Director will be required to provide at least 24 weeks of clinical duty per year in primary support of residents in this program and to meet all other qualifications of a Supervising Diplomate.

**Is the applicant Residency Director for this program prepared to meet these requirements?**
Yes

**What percentage of the Residency Director’s time is committed to clinical service at the primary training institution?**
50

**How many weeks per year will the Residency Director be on clinical service and teaching residents at the primary training institution?**
26

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**Additional Training Diplomates**

Please review the definitions and responsibilities of Supervising Diplomate and Supporting Diplomate in the RPE document. Note that Supervising Diplomates will be required to provide at least 10 weeks of clinical duty in primary support of residents in this program, and are expected to participate in all facets of residency training. Supporting Diplomates aid in residency training, but provide support that is limited, as by modality (e.g. only works in ultrasound), time commitment (e.g.
clinical duty < 10 weeks per year), or other constraints that prevent them from qualifying as a Supervising Diplomate. Provide a copy of affiliation agreements with any diplomates that are located at an external institution (see Affiliation Agreement item at the end of this section).

Excluding the Residency Director, please list all training diplomates who will act as Supervising Diplomates of this residency program. Indicate the approximate number of hours per year each supervisor will be scheduled on clinical duty with primary support of residents and, if applicable, any specific areas of instructional responsibility (e.g. trains mostly in small animal, trains mostly in MRI, etc). If a ‘Supervising Diplomate’ position will be comprised of multiple radiologists, please list the cohort as a single entity or institution for this question (e.g. “teleradiologists” or private institution name)

Name: Abbi Granger  Hours/Year: 1100
Specific Areas and/or Limitations of Instructional Responsibility: involved in all areas of the residency training
Institution: LSU School of Veterinary Medicine

Please list all training diplomates who will act as Supporting Diplomates of this residency program. Indicate how many hours per year each Supporting Diplomate will be scheduled on clinical duty with primary support of residents and any specific areas of instructional responsibility and/or limitations in the scope of this support (e.g. only trains residents in ultrasound, does not participate in large animal training, does not finalize LSU Telerad cases).

Name: Alyce Marks  Hours/Year: 96
Specific Areas of Instructional Responsibility: does not participate in large animal training, does not finalize LSU Telerad cases
Institution: IDEXX

Name: Rachel Jania  Hours/Year: 350
Specific Areas of Instructional Responsibility: does not participate in large animal training, does not finalize LSU Telerad cases
Institution: VetCT

In addition to ACVR/ECVDI Diplomates, the program must arrange for the resident(s) to have direct access to specialists in other areas. Please identify one member in each of the specialty colleges listed below that has agreed to support this program through clinical activity that allows regular interactions between the specialist and the diagnostic imaging residents (e.g. discussion of diagnostic work up, imaging findings, or patient outcomes, and/or participation in interdisciplinary rounds, etc). Indicate whether the specialist is located on-site at the primary institution at an external institution. Provide a copy of affiliation agreements with any non-ACVR/ECVDI diplomates that are located at an external institution (see Affiliation Agreement section at the end of this application). Upon completion of this application, the below individuals will receive an email requesting
acknowledgement of their support of your residency program.

ACVIM Member Name: Andrea Johnston
ACVIM Member Institution: LSU School of Veterinary Medicine
ACVIM Member Email: johnston1@lsu.edu

ACVS Member Name: Karanvir Aulakh
ACVS Member Institution: LSU School of Veterinary Medicine
ACVS Member Email: kaulakh@lsu.edu

ACVP Member Name: Shannon Dehghanpir
ACVP Member Institution: LSU School of Veterinary Medicine
ACVP Member Email: sdavi15@lsu.edu

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Resident:Supervising Diplomate Ratio

The number of residents in the program cannot exceed twice the number of Supervising Diplomates on-site. Remote Supervising Diplomates will not count when calculating the maximum residents allowed in a given program.

What is the maximum number of imaging interns you will have enrolled in this training program at any given time? 4

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Facilities

Review the Facility Requirements listed in the RPE document. Note also that residents should have opportunities to be involved with image acquisition and protocol setup.

Does this residency training program provide on-site access to modern equipment for the following modalities?

- Digital or Computed Radiography: Yes
- Fluoroscopy: Yes
- Ultrasound with Doppler Capability: Yes
- MRI: Yes
- Fan-beam CT: Yes
- Nuclear scintigraphy: Yes
Briefly describe how this program meets the facility requirements, including the specific type of CT and MRI units available. Explain how your program will train residents in modalities for which equipment is not located on site, providing affiliation agreements if applicable. (see Affiliation Agreement item at the end of this section)

Radiographic equipment:
The section has two small animal suites and one large animal suite newly installed in 2020:
• AGFA DR Retrofit with 2 detectors plus VET Ray Double Tube Crane X-Ray System
• AGFA 2 DR Laptop Retrofit systems with DR Suitcases
• AGFA DR 800 RF Room
• AGFA DX-D 600 with wall stand
• AGFA PACS
• AGFA RIS

Ultrasonographic equipment:
1. GE LogiQ E10 Vet Small Animal Ultrasound Machine
   a. Low and high frequency, curved and linear array probes (4 probes)
   b. Strain and Shear wave Elastography
   c. Remote Control Tablet
2. Toshiba Aplio 300 Small and Large Animal ultrasound machine
   a. Low and high frequency, curved and linear array probes (5 probes)
   b. Cardio package and phase array probe
   c. Elastography
5. Hitachi Noblus (x2), Mobile Unit, Small and Large animal machines
6. Toshiba Viamo, Mobile Unit, Small and Large Animal machines

CT equipment:
Fujifilm Persona CT 128-slice CT unit with 85 cm large bore with pressure injector, respiratory and cardiac gating as well dual energy scanning. Equipped for equine imaging with a dedicated table.

Nuclear medicine equipment:
MiE Equine Scanner HR with Scintron VI workstation including Camera control board and multi-tasking real time operating system; rectangular format gamma camera with a very large field of view (61cm x 39cm) mounted on a crane system with the ability to rotate the camera in 2 orthogonal planes high performance PMT, LEAP and pinhole collimator in a dedicated room for equine and small animal imaging.

MRI equipment:
1.5T Hitachi Echelon, in hospital for small and large animal (with custom equine table) with Diffusion Tensor Imaging capabilities.

Other:
1. A total of 9 triple head, high resolution color medical grade workstations are available for image viewing in the reading room, conference room, US room and MRI.
2. Dictation software and Microphones were added at all work stations.
5. Large reading room to accommodate students and residents for rounds with HD smart board.
6. Large conference room for journal club and book review, resident rounds and case discussions with viewing workstation and 4K HD smart board.
8. Radiotherapy: the oncology service maintains a Varian 21EX linear accelerator with photons and electrons, a multileaf collimator, On-board imaging (OBI) and a cone beam CT. In addition, 3D treatment planning system (TPS) and record and verify system (R&V) for advanced techniques such as IMRT, SBRT, SRS is available.
9. Radioactive iodine therapy ward for treatment of cats with hyperthyroidism.
10. Isolation wards for cats and dogs for holding post-nuclear medicine scans.
11. Isolation stalls for horses post nuclear medicine scans.

Please describe how residents will gain experience in image acquisition and protocol set-up for each of these modalities (excluding nuclear medicine).
The first 3 months of the training is focused on training in the rooms with the different modalities, so that the resident is able to run each piece of equipment on their own. Throughout the residency, residents acquire CT and MRI studies when on emergency duty and are constantly involved in study approval throughout the day.
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Clinical Resources and Training Content

Review the clinical resource and training content requirements listed in the RPE document.

What is the average annual caseload at the primary institution over the past 3 years? This number will include all patient visits whether or not they contribute to the annual imaging caseload.

19000

What is the average annual imaging caseload at the primary institution over the past 3 years? Each body region imaged for a given patient (e.g. thorax, abdomen, spine, etc) will count as a single study.

8800

What is the average annual imaging caseload at the primary institution over the past 3 years in the following categories?

Small animal radiology 5400
Large animal radiology 500
Abdominal ultrasound 1300
Non-abdominal ultrasound 140
Computed tomography 330
Magnetic Resonance Imaging 125
Nuclear scintigraphy 45
Other (Specify) 900 FNA or biopsies

Indicate the approximate species breakdown of the imaging caseload at the primary institution in the following categories:

Small animals (canine, feline): 80%
Large animals (equine, bovine, porcine, etc.): 13%
Avian, Exotic, and Wildlife animals: 7%

Which of the following types of imaging cases will the resident(s) have direct, on-site exposure to at the primary institution during the residency program?

Echocardiography Yes
Large animal ultrasound Yes
Nonabdominal small animal ultrasound (i.e. cervical, musculoskeletal)  
Food/fiber animal imaging  
Exotics imaging  
Teleradiology/Referral imaging  

Yes  
Yes  
Yes  
Yes

Explain how the resident(s) in this program will gain experience in any of the above types of imaging cases that are NOT available at the primary institution. Provide affiliation agreements, if applicable. (see Affiliation Agreement item at the end of this section).

MRI case load is expected to increase since we hired a neurologist starting fall of 2022 and already has since she started her clinical service at the beginning of the year. Residents attended also MRI and IDEXX rounds with Dr. Silke Hecht to increase exposure to MRI cases.

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What percentage of the total imaging caseload at the primary institution results in a written imaging report being generated by either the residents or the training radiologist diplomates in this program?  
99

What percentage of the preliminary reports generated from the imaging caseload are initially produced by the resident(s) in this program?  
95

Does this institution concurrently support the training of diagnostic imaging interns?  
No

What percentage of resident-generated reports are reviewed by training diplomates prior to finalization of the report?  
100

What is the average turnaround time for resident-generated preliminary reports to be finalized by training diplomates?  
24-48 hrs. Residents write same day reports that are being finalized the next day or sometimes on the same day. Exceptions are cases generated over holidays or the weekends or complex cases where more research is sometimes needed.

What percentage of all imaging reports (resident and diplomat generated) is finalized and available to requesting clinicians within 48 hours after the exam is submitted for radiologist consult?  
98

Please describe how after-hours/weekend/holiday cases are handled at the primary institution.
How does this affect resident-reported imaging caseload?
Diagnostic Imaging residents provide primary emergency back up after hours/weekends and holidays for the Veterinary Teaching Hospital and are coming in for US, CT or MRIs. These cases are getting reports on the next available business day, but all cases generated during those hours are reported by a resident.

For each category below, calculate the approximate number of cases that a single resident will interpret at the primary institution with radiologist feedback during the course of the entire residency program. These numbers should be calculated using the annual imaging caseload adjusted to include only those with written reports generated by the residents. In general, this number should then be divided by the total number of residents in a program during a given year. If external rotations for the resident(s) are employed to increase the resident caseload in any given category, please be sure to upload affiliate agreements that include the expected number of reports that residents can expect to generate (with radiologist feedback) for cases in those categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small animal radiology</td>
<td>4050</td>
</tr>
<tr>
<td>Large animal radiology</td>
<td>400</td>
</tr>
<tr>
<td>Abdominal ultrasound</td>
<td>975</td>
</tr>
<tr>
<td>Non-abdominal ultrasound</td>
<td>105</td>
</tr>
<tr>
<td>Computed tomography</td>
<td>300</td>
</tr>
<tr>
<td>Magnetic resonance Imaging</td>
<td>150</td>
</tr>
<tr>
<td>Nuclear scintigraphy</td>
<td>33</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>800 FNAs</td>
</tr>
</tbody>
</table>

How many ultrasound exams will a single resident perform with radiologist supervision and feedback during the course of the entire program? Scans for which the resident writes a report but does not acquire images are excluded.

1080

Do residents in this program have ample hands-on training and practice opportunities to become proficient in the performance of ultrasound guided fine needle aspirates and biopsies?

Yes

Please indicate whether this training program includes formal courses in any of the following topics:

Physics of Diagnostic Imaging

Radiobiology

Nuclear Medicine

Ultrasonography

Yes
**Computed Tomography**  
Yes

**Magnetic Resonance Imaging**  
Yes

**Other**  
Yes

**Briefly describe the formal courses that are available for the resident(s) in this program by indicating the institution, course title, course number, and credit hours as well as any other relevant information. For any topics for which formal course work is not provided for the resident(s), please explain how educational objectives in these topics will be met.**

MDEP 7121: Radiological Physics for Residents for a total of 65 lecture hours
Formal course work is provided by the Medical physics Department in Baton Rouge, Louisiana in association with the Ochsner Health Group (hospital) in New Orleans. The course is taken with human radiology residents in that program and the course covers the topics of Radiography, CT, MRI, Neuroimaging, Ultrasound and Nuclear Medicine and Radiobiology. They also visit a radiopharmacy to learn how a molybdenum generator functions. The residents will attend the course via videoconference in the first and second year of the residency. 
Description: This course covers the curriculum for Diagnostic Radiology Residents recommended by AAPM Subcommittee of the Medical Physics Education of Physicians Committee (Report of May 2009); see also 2013 version with added Q&A. Topics include: review of atomic structure and radiation; radiation interactions with matter; concepts for radiation protection; biological effects of radiation; x-ray production; radioisotope decay; fundamentals of image science; physics of x-ray imaging, fluoroscopy, and CT; physics of ultrasound; physics of MRI; physics of nuclear medicine.

**Instructors:**
Joyoni Dey, PhD; LSU-Baton Rouge
Stephen Lokitz, PhD; Biomedical Research Foundation of Northwest Louisiana
Kip Matthews, PhD DABR; LSU-Baton Rouge
Wei-Hsung Wang, PhD CHP CSP CLSO; LSU-Baton Rouge

**Format and Meeting Times:**
See topical outline for schedule. Typically 2-3 hours of lecture per week, with Powerpoint format presentation. Powerpoint format for all presentations, delivered by Zoom videoconferencing, on Mondays & Wednesdays, 4:30-5:30 PM.

**Resources:**
Textbooks:
Online:
• RSNA-AAPM Physics Modules,  
http://physics.rsna.org

**Topical Outline:**

<table>
<thead>
<tr>
<th>Hours Module*</th>
<th>Topic</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Atomic structure; EM radiation; particulate radiation, Matthews</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Interactions of radiation with matter, Matthews</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Radiation units, Wang</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Radiation protection and regulations, Wang</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Biological effects of radiation, Dey</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Imaging concepts, Lokitz</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>General radiography, Matthews</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Mammography, Matthews</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Fluoroscopy and interventional imaging, Matthews</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Ultrasound imaging, Dey</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Magnetic resonance imaging (MRI), Dey</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>CT, Lokitz</td>
<td></td>
</tr>
<tr>
<td>1 hour in length. Review sessions are 1.5 hours in length.</td>
<td>Nuclear medicine imaging, Lokitz</td>
<td></td>
</tr>
</tbody>
</table>

* Module numbers from AAPM Physics Curriculum for Radiology Residents (2009).
LADIS Equine Diagnostic Imaging Course – Online CE Lectures Only
The Large Animal Diagnostic Imaging Society of the ACVR offers a virtual equine diagnostic imaging course for ACVR residents, Diplomates, and post-trainees. The course includes didactic lectures covering image interpretation of all modalities. The course is offered online-only for ACVR residents, post-trainees, and ACVR Diplomates. The didactic content will be required prior to any live case discussions. Recordings are available for review for 6 months.

LECTURES (pre-recorded 11.25h)
1 hr                Ultrasound essentials, metacarpus and pastern                Myra Barrett
1 hr                Ultrasound essentials, metatarsus and stifles                Myra Barrett
1 hr                Ultrasound essentials, abdomen                                Dana Neelis
1 hr 15min          Radiographic interpretation distal limb                   Myra Barrett
30 min              Radiographic interpretation proximal front limb (Carpus and above)  Mathieu Spriet
30 min              Equine Nuclear Medicine                                      Mathieu Spriet
1 hr                Radiographic interpretation tarsus, stifles                  Myra Barrett
1 hr                Radiographic interpretation head, neck and back              Mathieu Spriet
1 hr                Equine CT: distal extremity and neck                           Kate Wulster
1 hr                Equine Skull CT                                            Dana Neelis
1 hr                Equine MRI: Sequence selection and normal findings            Beth Biscoe
1 hr                Equine MRI: Pathologic findings and clinical significance      Kate Wulster

Nuclear Medicine Short Course – Online CE

This short course is designed to present an overview of veterinary nuclear medicine, and how to utilize and interpret various scintigraphic studies. Principles of nuclear medicine including, physics, radiation decay, radioisotopes, radiation equipment, image processing, quality control, artifacts and radiation safety and regulations will be covered. Thyroid scintigraphy, bone scintigraphy, portal and renal scintigraphy will be discussed including image parameters of each study and interpretation of normal and abnormal studies, as well as a few less commonly performed scintigraphic studies. Principles and interpretation of Positron Emission Tomography in small animals and equine extremities will be covered. Radiotherapeutics, including radio-iodine therapy and radiosynoviorthesis with 117mSn colloid, are also included in this course. The content of this course is intended to cover topics of current commonly utilized veterinary nuclear medicine procedures and prepare the attendees to utilize scintigraphy in veterinary practice.

Pre-recorded talks will be available for registrants to view at their leisure for 6 months. Access to the course will be forthcoming after registering. Registrants will receive 14.25 RACE credits after successful completion of course.

Nuclear Medicine Short Course Schedule:

Principles of Nuclear Medicine: (Best viewed in order listed.)
1. Physics, Principles and Radiation Decay (1 hour)
   • understand what isotopes are, what they are used for, what their emissions are, and how they are associated with nuclear medicine.
2. Radiopharmacy & Generators (0.5 hour)
   • understand radiation decay, half life, emissions for various radiopharmaceuticals.
3. Radiation Detectors & Equipment (1.25 hour)
   • Understand how gas filled and scintillation detectors work, the differences between them, and their uses.
4. Image Processing (1.25 hour)
   • Understand image processing for digital image, including matrix size, look up tables, and image processing in spatial and frequency domains.
5. Image Quantification & Count Statistics (0.5 hour)
   • Understand concepts of regions of interest, count density, time/activity curves and how image decay can be quantified for static and dynamic studies.
6. Quality Control (0.5 hour)
   • Understand importance of and how to perform quality control on nuclear medicine equipment and radiopharmaceuticals (including photopeak, uniformity, sources, quantitative analysis, calibrations).
7. Image Artifacts (0.5 hour)
   - Recognize and know how to correct artifacts associated with radioisotope, patient, gamma camera and/or collimator generated artifacts.
8. Radiation Safety & Regulations (0.5 hour)
   - Understand radiation safety protocols, practices, radiation limits, dosimetry, and regulations regarding labeling radioactive materials.

Nuclear Medicine Studies: (Can be viewed in any order, except G should follow F.)
A. Thyroid Scintigraphy & Radioiodine Therapy (1.5 hour)
   - Understand radioisotopes utilized for thyroid scintigraphy, indications for performing thyroid scans, how to perform and be able to interpret normal versus abnormal bone scans and know physics of radio-iodine therapy, dosage and indications.
B. Bone Scintigraphy (1 hour)
   - Understand radioisotopes utilized for bone scintigraphy, indications for performing bone scans, how to perform and be able to interpret normal versus abnormal bone scans.
C. Portal Scintigraphy (1.5 hour)
   - Understand radioisotopes utilized for portal scintigraphy, indications for performing portal vascular scans, how to perform and be able to interpret normal versus abnormal portal scans.
D. Renal Scintigraphy (1 hour)
   - Understand radioisotopes utilized for renal scintigraphy, indications for performing renal scans, how to perform and be able to interpret normal versus abnormal renal scans.
E. Less Commonly Performed Studies (1 hour)
   - Understand radiopharmaceuticals utilized, indications, how to perform and be able to interpret normal versus abnormal studies: hepatobiliary scintigraphy, pulmonary perfusion imaging, pulmonary ventilation imaging, lymphoscintigraphy, and neuroendocrine imaging.
F. Positron Emission Tomography (PET) (1.25 hour)
   - Be familiar with radiopharmaceuticals utilized in PET, Know what SUV and pair production is, know normal background uptake F-18 FDG PET studies, understand indications and basics of how to interpret normal versus abnormal PET studies.
G. Equine PET (0.5 hour)
   - Be familiar with the indications and abnormalities in PET studies in the equine foot.
H. Radiotherapeutics (0.5 hour)
   - Be familiar with 117mSn colloid in treating canine osteoarthritis (radiosynoviorthesis) and basic regulations associated with this treatment.

Do residents have access to a majority of the written pathology reports that are generated from patients included in this imaging caseload?  
Yes

Will the resident(s) in this program attain an advanced degree (MS, PhD) at the conclusion of the program?  
optional degree

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Research Environment

Review the Research Requirements listed in the RPE document.
Over the last five years, what is the average number of peer reviewed publications on which the training diplomats (Supervising and Supporting diplomats) of this program are included as authors? (total number of publications in last 5 years among all training diplomats divided by the number of training diplomats)

How many peer-reviewed publications are expected of a resident completing the program?

If this is an established program, what percentage of residents have made formal research presentations at the annual ACVR or equivalent national meeting?

Briefly describe if/how residents are encouraged to engage in investigative work and what mechanisms are in place for training diplomats to support this work.

Each resident is expected to do an investigative research project during their training program with the help of their assigned mentor. Support through the LSU School of Veterinary Medicine is available on multiple levels, such as grant writing seminars, in and out of house funding opportunities with an active research department and faculty support. More information can be found here: https://www.lsu.edu/vetmed/research/index.php

Educational Environment

Review the Educational Environment expectations listed in the RPE document.

Please list and enumerate the formal presentations that are expected of each resident during the course of their training. In general, didactic lectures, departmental seminars, scientific presentations, Continuing Education presentations, and similar are considered "formal". Informal topic rounds, journal club, small group teaching (like student rounds), student labs, and similar events should not be included.

The resident will be expected to hold at least 2 formal intramural presentations per year. One formal presentation per year is required for the hospital wide Friday morning departmental seminar series and at least one didactic lecture to year 1-3 students. At least one presentation at a veterinary congress will be expected, usually during the second year of the program.

Briefly describe the type and extent of teaching opportunities that are provided to the resident throughout the training program.

Residents have plenty of teaching opportunities throughout the training program, both formal and informal. Residents are in charge of student morning topic rounds every 4 weeks in a formal setting where the student's have the opportunity to discuss the cases they were assigned during their clinical radiology rotation in year 4. Additionally the residents have ample opportunity for informal teaching during regular clinical cases and especially with the students on the ultrasound rotation. Residents will also assist in all laboratories in the diagnostic imaging courses of the years 1-3 as well as the anatomy teaching labs.
Briefly describe the nature and scope of the teaching file available to the resident(s) in this program and how it is maintained/updated.

A searchable database is available through our current as well as our previous PACS system. The cases are updated daily as surgical, clinical, clinical pathology and histopathology results that are available via an online database become available (all online).

**How many Known Case Conferences are conducted annually?**

30

Describe the nature and frequency of resident rounds ("other educational events") planned for this program. You may upload an example schedule with the general program schedule that is requested at the end of this application.

- Resident morning rounds are conducted Tuesdays, Wednesdays and Thursdays in the morning for 2 hours. One on one case review is conducted throughout business days.
- Weekly journal club for an 1 hr: residents prepare assigned journal articles using power point format followed by an open forum discussion or topic discussions resulting from compiled journal articles for a particular topic.
- Monthly 1 hour case discussion with correlation of pathology results and literature review.
- Resident and Intern departmental Seminar (i.e. all interns and residents of the hospital 1) 1 hr. These are held weekly on Friday and are formal presentations by the resident either to review a subject area in internal medicine, surgery, neurology, exotics, anesthesia, oncology or radiation oncology or to present the resident's research project or case reports. Both large and small animal and exotic wildlife is covered. New will be incorporation of professional development and well being topics in the upcoming year.
- Dean's Grand Rounds. 1 hour. Held once a month. Invited speakers covering a variety of topics.

Describe how the resident(s) in this program will attain direct and consistent medical library access and/or how they will access research tools and medical literature including the suggested references listed in the ACVR Preliminary Examination study guide.

The resident has access to the veterinary journals and reference books listed in the reading list of the syllabus. The School of Veterinary Medicine maintains a complete digital library with up-to-date textbooks and journals in all specialty fields. The main veterinary journals for all specialty fields are also available electronically through the LSU SVM library website interface which also includes access to all available medical journals (https://www.lsu.edu/vetmed/library/index.php). In addition, the radiology section maintains its own library of the most recent anatomy and diagnostic imaging textbooks.

ACVR Residency Training Program Application

**Evaluation and Protection of Residents**

For existing programs, list the names, email contact information, and start/end dates of your current residents.

Carolyn Blank, cblank8@lsu.edu, 7/15/2020 - 7/14/2023
Kassandra Wilson, 7/15/2020 - 7/14/2023
Victoria Van,, 7/15/2021 - 7/14/2024
Jaqueline Hansen, , 7/15/2022 - 7/14/2025

Did all of your current residents adequately complete the last 6 months of training?  Yes

List the current members of the resident review committee.

Abbi Granger
Nathalie Rademacher
LSU House Officer Committee

Describe the internal mechanisms in place at your institution to protect the resident(s) if
personal or organizational conflicts arise. Include the management hierarchy for residents and procedures by which residents would report workplace misconduct.

Formal written evaluation are carried out every 3 months with yearly one on one evaluation meetings with all faculty radiologists and the resident. Where deficiencies are noted, appropriate measures will be taken. Electronic evaluations via eValue are triggered by the resident and send to the supervising clinician for additional written evaluation feedback every 2 weeks, which are submitted to the House Officer Committee of the School of Veterinary Medicine. This committee oversees all specialty programs available at LSU and can be contacted if conflicts arise. Additionally, the resident can contact their assigned radiology mentor, the House Officer Committee Chair, VTH Wellbeing manager, Department Head for the Veterinary Clinical Science Department, HR department or the Hospital director, in case of conflicts. Monthly hospital breakfasts are provided to all House officers, these are forums where they can give input about organizational procedures. Additionally, LSU just revamped their whole Title IX procedural policies and reporting can be done online via the LSU Reporting website https://www.lsu.edu/titleix/index.php

ACVR Residency Training Program Application

Appendix

Please provide the following information regarding preliminary and certifying board exam pass rates for residents in your program over the past five years.

Preliminary Board Exam Pass Rate

### 2020

| Number Of Prelim Board Eligible Residents: 1 |
| Number of Residents That Took Prelim Exam: 1 |
| Number of Residents That Passed On 1st Attempt: 1 |
| Number of Residents That Passed After Multiple Attempts: NA |
| Number of Residents That Have Not Passed: NA |

### 2019

<p>| Number Of Prelim Board Eligible Residents: 1 |
| Number of Residents That Took Prelim Exam: 1 |
| Number of Residents That Passed On 1st Attempt: 1 |
| Number of Residents That Passed After Multiple Attempts: NA |
| Number of Residents That Have Not Passed: NA |</p>
<table>
<thead>
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<th>Year</th>
<th>Number Of Prelim Board Eligible Residents</th>
<th>Number of Residents That Took Prelim Exam</th>
<th>Number of Residents That Passed On 1st Attempt</th>
<th>Number of Residents That Passed After Multiple Attempts</th>
<th>Number of Residents That Have Not Passed</th>
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**Certifying Board Exam Pass Rate**

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<th>Number of Residents That Passed On 1st Attempt</th>
<th>Number of Residents That Passed After Multiple Attempts</th>
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### Program Schedule
Upload a schedule for your residents that outlines their clinical and non-clinical work over the course of the residency program. This may be a master schedule or duty roster for your entire radiology section, if desired. If available, an example weekly or monthly rounds schedule can also be included.

**Program Schedule**

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<td>Number of Residents That Have Not Passed: NA</td>
</tr>
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</table>

### Affiliation Agreements
Upload digital copies of any affiliation agreements that have not been included elsewhere in this document. Refer to the RPE document for an explanation of what information should be included in such agreements.

*3 year Resident schedule we... .xlsx*