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.

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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
Washington State University

Residency Program Director Name
Tom Wilkinson, Jr

Residency Program Director Email
twilkinson@wsu.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? Tuesday, January 26, 2021

Objectives

Succinctly state the objectives of the training program.

Guide residents through the development of knowledge and skills that will enable them to interpret and effectively report on diagnostic imaging studies of commonly imaged veterinary species using common imaging modalities (radiography, ultrasound, computed tomography, magnetic resonance imaging, nuclear scintigraphy, fluoroscopy). Through their studies and work as a clinician, they will be able to contribute to planning of the most effective imaging plan for a patient based on signalment, clinical signs and previous imaging history (if applicable).

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?
1. Study time for Preliminary ACVR Examination.
2. Graduate coursework
3. Research effort for residency project
4. Annual Vacation

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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? 75

How many weeks per year will the Residency Director be on clinical service and teaching residents at the primary training institution? 39

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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.
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 Diplomat’ 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: Ashley Hanna
Hours/Year: 1456
Specific Areas and/or Limitations of Instructional Responsibility: N/A

Name: John Mattoon
Hours/Year: 1664

Name: Greg Roberts
Hours/Year: 1560

Specific Areas and/or Limitations of Instructional Responsibility:

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: Rance Sellon
ACVIM Member Institution: Washington State University
ACVIM Member Email: rsellon@wsu.edu

ACVS Member Name: Peter Gilbert
ACVS Member Institution: Washington State University
ACVS Member Email: peter.gilbert@wsu.edu
ACVP Member Name                Josh Ramsay
ACVP Member Institution         Washington State University
ACVP Member Email              jdr105@wsu.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 set-up.

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)

16-slice Canon helical CT
3T Philips MRI
MiE Gamma Camera
Canon DR (x2)
Fuji CR
ViéWorks DR (x2)
Philips Fluoroscopy
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.

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.

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

- Small animal radiology: 4411
- Large animal radiology: 414
- Abdominal ultrasound: 857
- Non-abdominal ultrasound: 519
- Computed tomography: 964
- Magnetic Resonance Imaging: 385
- Nuclear scintigraphy: 14
- Other (Specify): referrals - 1321

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

- Small animals (canine, feline): 88
- Large animals (equine, bovine, porcine, etc.): 7
- Avian, Exotic, and Wildlife animals: 5

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): Yes
<table>
<thead>
<tr>
<th>Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food/fiber animal imaging</td>
<td>Yes</td>
</tr>
<tr>
<td>Exotics imaging</td>
<td>Yes</td>
</tr>
<tr>
<td>Teleradiology/Referral imaging</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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1. **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?**
   - Yes
   - 99%

2. **What percentage of the preliminary reports generated from the imaging caseload are initially produced by the resident(s) in this program?**
   - Yes
   - 99%

3. **Does this institution concurrently support the training of diagnostic imaging interns?**
   - Yes

4. **If yes, indicate the maximum number of imaging interns the institution will train concurrently, what percentage of the preliminary reports generated from the imaging caseload will be initially produced by the intern(s), and how this affects the resident imaging report caseload.**
   - <1%. Essentially no affect. Their most common case write-ups involve overflow ultrasound.

5. **What percentage of resident-generated reports are reviewed by training diplomates prior to finalization of the report?**
   - Yes
   - 99%

6. **What is the average turnaround time for resident-generated preliminary reports to be finalized by training diplomates?**
   - <24 hours

7. **What percentage of all imaging reports (resident and diplomate generated) is finalized and available to requesting clinicians within 48 hours after the exam is submitted for radiologist consult?**
   - Yes
   - 100%

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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.
Small animal radiology  
Large animal radiology  
Abdominal ultrasound  
Non-abdominal ultrasound  
Computed tomography  
Magnetic resonance Imaging  
Nuclear scintigraphy  
Other (specify) referrals - 1320

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.

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:

Radiobiology No
Nuclear Medicine No
Ultrasonography No
Computed Tomography No
Magnetic Resonance Imaging No
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.

We specifically cover radiology physics during the first 4 months of the program with the first year resident(s) in a group setting.

VM591 - Physics of radiography formally covered
Other topics are outlined by the current objectives, with discussions covering these during rounds or informal groups.

Scintigraphy is expected to be covered by the course offered by UT/UVa.

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

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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 diplomates (Supervising and Supporting diplomates) of this program are included as authors? (total number of publications in last 5 years among all training diplomates divided by the number of training diplomates)

3.25

How many peer-reviewed publications are expected of a resident completing the program?  
1

If this is an established program, what percentage of residents have made formal research presentations at the annual ACVR or equivalent national meeting?  
50

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

Intramural grant programs in conjunction with a grant writing class. None of the faculty are tenure-track, therefore any other publications come from collaborative work with other sections within the hospital.

Educational Environment

Review the Educational Environment expectations listed in the RPE document.

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

The residents are expected to informally teach our senior students on rotation informally, both during case review and with more didactic discussions as time permits. The residents are not “given” more formal opportunities, but if the interest exists, they are welcomed to participate in our sophomore student didactic course (laboratory component).

Briefly describe the nature and scope of the teaching file available to the resident(s) in this program and how it is maintained/updated.

8
RIS/PACS maintain our caseload, including reports dating back to 2008. The PACS maintains our image files well before the introduction of the RIS.

How many Known Case Conferences are conducted annually? 12

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 university library, as well as a robust collection of texts within the teaching hospital.

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Evaluation and Protection of Residents

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

List the current members of the resident review committee.
Ashley Hanna, John Mattoon, Greg Roberts, Tom Wilkinson

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.
Residents have the ability to report issues outside of our section to our hospital director, veterinary clinical sciences department chair, or the human resources department associated with the campus. A counselor is also now available to all hospital employees.

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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: 0
Number of Residents That Have Not Passed: 0
<table>
<thead>
<tr>
<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>
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<td>2017</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>
### 2016
- Number of Prelim Board Eligible Residents: 2
- Number of Residents That Took Prelim Exam: 2
- Number of Residents That Passed On 1st Attempt: 1
- Number of Residents That Passed After Multiple Attempts: 1
- Number of Residents That Have Not Passed: 0

### Certifying Board Exam Pass Rate
#### 2020
- Number of Certifying Board Eligible Residents: 2
- Number of Residents That Took Certifying Exam: 2
- Number of Residents That Passed On 1st Attempt: 1
- Number of Residents That Passed After Multiple Attempts: TBD
- Number of Residents That Have Not Passed: TBD

#### 2019
- Number of Certifying Board Eligible Residents: 0
- Number of Residents That Took Certifying Exam: 0
- Number of Residents That Passed On 1st Attempt: 0
- Number of Residents That Passed After Multiple Attempts: 0
- Number of Residents That Have Not Passed: 0
<table>
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<tr>
<th>Year</th>
<th>Certifying Board Eligible Residents</th>
<th>Residents Took Certifying Exam</th>
<th>Residents Passed On 1st Attempt</th>
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<tbody>
<tr>
<td>2018</td>
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<tr>
<td>2016</td>
<td>0</td>
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</tbody>
</table>

**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**

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.

**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.