

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	University of Illinois
Residency Program Director Name	Audrey Billhymer
Residency Program Director Email	abilh2@illinois.edu

Program Type

What type of residency program is being requested?	Traditional Residency Program
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If approved, what is the proposed start date of this residency program?	Monday, July 15, 2024
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Objectives

Succinctly state the objectives of the training program.

To train the resident to satisfy the requirements of the ACVR to pass both the preliminary and qualifying exams and become a diplomate of the ACVR.

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?
Complete a retrospective or prospective research project.

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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? 70

How many weeks per year will the Residency Director be on clinical service and teaching residents at the primary training institution? 37

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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: Tannis Lochead, DACVR

Hours/Year: 480

Specific Areas and/or Limitations of Instructional Responsibility: Hybrid role, on site 6 weeks a year and virtual 6 weeks a year

Institution: University of Illinois

Name: VetCT

Hours/Year: 400

Specific Areas and/or Limitations of Instructional Responsibility: Virtual supervision/support

Institution: VetCT

If any Supervising Diplomate position is comprised of >1 radiologist, list each individual member of the Supervising cohort here. Indicate the approximate percentage of hours each individual will contribute to the total cohort hours listed above as well as any specific areas of instructional responsibility and/or limitations in the scope of supervision (e.g. does not participate in ultrasound instruction; only trains residents in large animal, etc).

Name: Steve Tsai

% of Hours: 20

Specific Areas of Instructional Responsibility: Small Animal Imaging

Institution: VetCT

Name: Chee Kin Lim, DECDVI

% of Hours: 20

Specific Areas of Instructional Responsibility: Small Animal Imaging

Institution: VetCt

Name: Clifford Berry, DACVR

% of Hours: 20

Specific Areas of Instructional Responsibility: Small Animal Imaging

Institution: VetCT

Name: Hock Gan Heng, DACVR, DECVDI

% of Hours: 20

Specific Areas of Instructional Responsibility: Small Animal Imaging

Institution: VetCT

Name: Shanna Marroquin, DACVR

% of Hours: 20

Specific Areas of Instructional Responsibility: Small Animal Imaging

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	Kari Foss
ACVIM Member Institution	Neurology
ACVIM Member Email	karifoss@illinois.edu
ACVS Member Name	Sophia Topulos
ACVS Member Institution	Small Animal Surgery
ACVS Member Email	stopulos@illinois.edu

ACVP Member Name	Amy Schnelle
ACVP Member Institution	Clinical Pathology
ACVP Member Email	aschnel2@illinois.edu

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Resident:Supervising Diplomat 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?

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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)

128 slice CT and a 3T MRI (both Siemens). We also have a Canon Aplio 750 ultrasound unit and 4 radiology suites. We have table top fluoroscopy in the imaging department and an interventional suite within a surgical operating room that can both be used for fluoroscopic imaging and interventional procedures.

Please describe how residents will gain experience in image acquisition and protocol set-up for

each of these modalities (excluding nuclear medicine).

A portion of the resident's non-clinical time will be allocated to learning image acquisition for MRI, CT, and radiography. The resident will rotate after hours call with the imaging technicians to cover CT and MRI throughout the residency, starting in the fall of the first year.

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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.

34300

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.

9200

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

Small animal radiology	5226
Large animal radiology	397
Abdominal ultrasound	1294
Non-abdominal ultrasound	11
Computed tomography	1640
Magnetic Resonance Imaging	457
Nuclear scintigraphy	52
Other (Specify)	Fluoroscopy- 59

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

- Small animals (canine, feline): 50% canine, 50% feline
- Large animals (equine, bovine, porcine, etc.): 75% equine, 15% porcine, 10% bovine
- Avian, Exotic, and Wildlife animals: N/A

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	<input type="button" value="Yes"/>
Large animal ultrasound	<input type="button" value="Yes"/>
Nonabdominal small animal ultrasound (i.e. cervical, musculoskeletal)	<input type="button" value="Yes"/>
Food/fiber animal imaging	<input type="button" value="Yes"/>
Exotics imaging	<input type="button" value="Yes"/>
Teleradiology/Referral imaging	<input type="button" value="No"/>

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).

An agreement is in place with VetCT to provide exposure to teleradiology cases, though the resident will not be reporting on teleradiology 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?

50

Does this institution concurrently support the training of diagnostic imaging interns?

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?

Resident-generated reports will be finalized within 3 business days.

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?

75

Please describe how after-hours/weekend/holiday cases are handled at the primary institution. How does this affect resident-reported imaging caseload?

After-hours cases are sent to teleradiology for interpretation. The resident will not provide on-call interpretation or generate reports after-hours.

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	4500
Large animal radiology	500
Abdominal ultrasound	2000
Non-abdominal ultrasound	20
Computed tomography	500
Magnetic resonance Imaging	300
Nuclear scintigraphy	40
Other (specify)	Fluoroscopy- 100

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.

2000

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	Yes
Radiobiology	Yes
Nuclear Medicine	Yes
Ultrasonography	Yes
Computed Tomography	Yes
Magnetic Resonance Imaging	Yes
Other	No

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.

A 72-module course is provided to the residents during the first and second years which includes didactic training in the categories listed above and live discussions. This course is provided by Vet-CT as a component of their role as a supervising diplomate

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?

No

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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)

5

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? 0

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.

The resident will be encouraged to participate in research based on his/her interests. A tenured neurologist (ACVIM-neuro Dip.) has agreed to help the resident with a research project.

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.

An annual departmental seminar will be required (3 total over the course of the residency).

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

The resident will be able to teach house officers from other services who rotate through the diagnostic imaging service. The resident will also be expected to provide rounds to 4th year students 1-2 times per week. The resident will be expected to teach radiographic anatomy to first year students who rotate through the diagnostic imaging service during the first quarter of their first year.

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 teaching file is currently not established on site. However, VetCT, a supervising radiologist, has a large teaching file which is used during both casebased and didactic resident instruction. A web-based teaching file is currently being established and updated by the two supervising radiologists at University of Illinois.

How many Known Case Conferences are conducted annually? 24

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 rounds will be conducted daily, in the mornings, for at least one hour. Rounds will primarily involve reviewing and finalizing preliminary reports prepared by the resident. VetCT will also provide topic-based rounds on a regular basis, including weekly equine rounds.

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.

All journals listed in the study guide for the preliminary exam are available to residents through the University of Illinois library.

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Evaluation and Protection of Residents

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

No current residents

List the current members of the resident review committee.

Pam Wilkens, Jennifer Langan (Co-chairs). The review committee is also comprised of a single member from each service that has a residency program.

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 can reach out to any members of the resident review committee or to the department head directly to report any workplace misconduct. HR representatives are also available as a channel for residents to report personal/organizational conflict or workplace misconduct.

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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: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2019

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

2018

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: na

Number of Residents That Have Not Passed: n/a

2017

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

2016

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

Certifying Board Exam Pass Rate

2020

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

2019

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

2018

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

2017

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

2016

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt:
n/a

Number of Residents That Passed After Multiple
Attempts: n/a

Number of Residents That Have Not Passed: n/a

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



Sample resident schedule Uxlsx

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.



2023 Letter of Affiliation forpdf