

# 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.

<b>Institution Name</b>	Western College of Veterinary Medicine
<b>Residency Program Director Name</b>	Sally Sukut, Dr.
<b>Residency Program Director Email</b>	sally.sukut@usask.ca

### Program Type

<b>What type of residency program is being requested?</b>	Traditional Residency Program
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<b>If approved, what is the proposed start date of this residency program?</b>	Saturday, July 15, 2023
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### Objectives

**Succinctly state the objectives of the training program.**

Description of the program

- A. The graduate student/residency program is a three-year program which is directed towards the development of expertise and competence in the specialty of veterinary diagnostic imaging and the building of a foundation for academic pursuits such as teaching, writing and clinical research.
- B. This graduate student/residency program gives a high priority to preparation for board certification by the American College of Veterinary Radiology (ACVR). This requires a program of a minimum of 3 years (36 months) of postdoctoral medical education in veterinary radiology, of which a least 30 months of training must be supervised clinical experience. It is expected that all graduate student/residents will take the Preliminary Examination of the ACVR in September after the second

year of their program.

C. The major emphasis of the graduate student/residency program is clinical training. Exposure to a wide variety of clinical case material involving all diagnostic imaging modalities available at the VMC will enable the graduate student/resident to become more proficient in diagnostic imaging. Access to veterinary and medical libraries and consultation with specialists in internal medicine, ophthalmology, surgery, radiology, clinical pathology, pathology, clinical pharmacology, and microbiology will enable the graduate student/resident to improve and update his/her knowledge of imaging diagnostics and diseases as cases are managed through the Veterinary Medical Centre.

D. In addition to the clinical training, each graduate student/resident must enrol in the College of Graduate Studies and Research and work towards the Master of Science (project-based) degree. This involves coursework and a research project.

## 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?**

During their non-clinical time, the graduate student/resident will work towards the Master of Science (project-based) degree, which involves course work and a research project. They will also use their time to study for the ACVR board exams.

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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

## ACVR Residency Training Program Application

### 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: Jasmine Gu

Hours/Year: 26 weeks/clinics/year

Specific Areas and/or Limitations of Instructional Responsibility: Jasmine will be teaching in all areas

Institution: Western College of Veterinary Medicine

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** Kevin Cosford, Dr.

**ACVIM Member Institution** Western College of Veterinary Medicine

**ACVIM Member Email** kevin.cosford@usask.ca

**ACVS Member Name** Kathleen Linn, Dr.

<b>ACVS Member Institution</b>	Western College of Veterinary Medicine
<b>ACVS Member Email</b>	kathleen.linn@usask.ca
<b>ACVP Member Name</b>	Ryan Dickinson, Dr.
<b>ACVP Member Institution</b>	Western College of Veterinary Medicine
<b>ACVP Member Email</b>	ryan.dickinson@usask.ca

## ACVR Residency Training Program Application

### 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?** 3

## ACVR Residency Training Program Application

### 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?

<b>Digital or Computed Radiography</b>	Yes
<b>Fluoroscopy</b>	Yes
<b>Ultrasound with Doppler Capability</b>	Yes
<b>MRI</b>	Yes
<b>Fan-beam CT</b>	Yes
<b>Nuclear scintigraphy</b>	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)**

We are fully equipped in-house to train all modalities. Our imaging equipment includes:  
 80 slice Toshiba Aquilion Prime CT scanner  
 Siemens Symphony 1.5 Tesla MRI for small animals and a standing equine MRI in the Ryan-Dube Equine Performance Centre  
 GE Discovery MI PET/CT Scanner  
 Millenium MPR/MPS Gamma Camera with Genie AcQ software, Philips BV Pulsera C-arm Fluoroscope

Toshiba Aplio 300 and a machines with multiple specialized probes  
Canon Plate DR systems for large and small animal radiography.

**Please describe how residents will gain experience in image acquisition and protocol set-up for each of these modalities (excluding nuclear medicine).**

Our residents are responsible for acquiring CT studies after hours. They also set up all protocols for CT and QC the studies as they become available during day time hours. They also QC MRI studies and make sequence acquisition decisions in their final years, in conjunction with the radiologists. They are encouraged to spend time with our human-trained CT and MRI technician during image acquisitions and also have that technician as an educational resource. They are also expected to decide on protocol and be involved in study acquisition for fluoroscopy and radiography contrast studies.

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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.** 10854

**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.** 5987

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

<b>Small animal radiology</b>	3321
<b>Large animal radiology</b>	681
<b>Abdominal ultrasound</b>	964
<b>Non-abdominal ultrasound</b>	51
<b>Computed tomography</b>	512
<b>Magnetic Resonance Imaging</b>	141
<b>Nuclear scintigraphy</b>	2
<b>Other (Specify)</b>	PET/CT - 15

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

Small animals (canine, feline): 85%

Large animals (equine, bovine, porcine, etc.): 10%

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

**Food/fiber animal imaging**

Yes

**Exotics imaging**

Yes

**Teleradiology/Referral imaging**

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).**

We do not provide tele radiology but do consult on referral imaging on a weekly basis. Our large animal ultrasound and food/fiber animal imaging is limited but we do provide "labs" in addition to the occasional study of equine tendon and abdominal ultrasound and we are required to interpret the occasional food/fiber animal studies.

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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?** 98

**If < 99%, please provide a brief explanation and account for this when calculating the number of cases that each resident will interpret.**

We don't interpret the equine MRI on-site and we occasionally send LA radiographs off site due to our limited radiology staffing.

**What percentage of the preliminary reports generated from the imaging caseload are initially produced by the resident(s) in this program?** 98

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

Yes

**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.**

We only have an imaging intern this year as we only currently have 2 residents. Next year, we will not have an imaging intern.

The intern only interprets approximately 10% of our case load currently.

**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?**

Typically less than 12 hours, occasionally up to 24 hours.

**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?**

99

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

One of the 3 medical imaging case officers is on primary call typically, with one of the radiologists providing back-up. All weekend and after hours reports are initially generated by the intern/resident and then over-read by the onsite radiologist. Occasionally, the resident will not have an on-site radiologist as back-up, in those instances occasional reports may be sent to IDEXX, however the majority of after hours reports are usually over-read by the onsite radiologist on the next working day.

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** 3921

**Large animal radiology** 667

**Abdominal ultrasound** 964

**Non-abdominal ultrasound** 51

**Computed tomography** 512

**Magnetic resonance Imaging** 250

Nuclear scintigraphy	1
Other (specify)	PET/CT - 20

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.	1015
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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

No

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.**

VSAC 837.3 MI Physiology and Pathophysiology, 3 credits  
VSAC 898.3 MI Anatomy, 3 credits  
VSAC 898.0 MI CT/MRI Physics and radiation biology, 3 credits  
VSAC 836.0 MI US Physics and radiographic physics, 3 credits  
VLAC 811/812 Biostatistics, 2 credits

The residents also present one topic in a Friday morning seminar to the SA faculty, other residents/interns and students every year.  
They are involved in weekly journal club meetings and KCC is hosted every 3 weeks, more in the residents last year.



**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?**

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)**

6.5

**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?**

1

**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.**

A project-based masters degree is required and done alongside the residency. The graduate study/resident will work on this project when off-clinics or when slow on their service.

### **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 graduate student/resident gives a formal 30-45 min Friday morning seminar lecture every year to all of the small animal faculty, interns and residents. They also present a 50-minute lecture on radiographic anatomy to 1st year Veterinary students.

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

The graduate student/resident is heavily involved in teaching our 4th year students while they are on rotation with us. They give student rounds and provide day-to-day educational opportunities while on clinics. They also are involved with the radiology and small animal clubs, where they may do case-based rounds or give a small lunch hour talk.

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

The TFS is currently in an excel worksheet and all radiologists contribute. This summer, the TFS will be moved to McKesson PACS as there is a more robust system with our new upgrade that will be used in the future.

**How many Known Case Conferences are conducted annually?** 17

**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.**

Tuesdays 8-9 am Journal Club, alternating every 3rd week with KCC  
Wednesdays 8-1030 Graduate class (with ACVR objectives)  
Friday 8-9 Friday morning seminar, 9-1030 Case 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 reference materials are available in our radiology department library. Once registered as graduate students, our residents have access to all journals and resources through the University of Saskatchewan library.

## 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.**

Alex Belotta, alexandra.belotta.vet@gmail.com, July 15th, 2021 - July 15th, 2024  
Claire Whittaker, claire.whittaker@usask.ca, July 15th, 2022 - July 15th, 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.**

Dr. Monique Mayer  
Dr. Lynne Sandmeyer  
Dr. Sally Sukut  
Dr. Jasmine Gu  
Dr. Cindy Shmon

**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.**

-provide regular scheduled meetings for feedback with resident  
-if there is conflict or performance problems, discuss them informally and try to resolve  
-If cannot be resolved, inform the graduate chair, and the Residency training committee (RTC)  
-meeting of the parties involved with the graduate chair, and members of the RTC will occur to try to resolve the conflict  
-if not resolved, the department head will become involved

-if needed, the college of graduate and post-doctoral studies will be informed and involved

## 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: 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

**2019**

Number Of Prelim Board Eligible Residents: 0

Number of Residents That Took Prelim 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

**2018**

Number Of Prelim Board Eligible Residents: 0

Number of Residents That Took Prelim 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

**2017**

Number Of Prelim Board Eligible Residents: 0

Number of Residents That Took Prelim 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

**2016**

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

## **Certifying Board Exam Pass Rate**

**2020**

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

**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

**2018**

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

**2017**

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

2016

Number of Certifying Board Eligible Residents: 1

Number of Residents That Took Certifying Exam: 1

Number of Residents That Passed On 1st Attempt:  
0

Number of Residents That Passed After Multiple  
Attempts: 1

Number of Residents That Have Not Passed: 0

## 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



2022-2023 Radiology Sched... .xlsx

## 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.