ACVR Residency Training Program Application

Submission Date	2017-10-02 19:02:04
Institution Name:	University of Saskatchewan (Western College of Veterinary Medicine)
Succinctly state the objectives of the training program.	The WCVM Diagnostic Imaging Residency is a 4-year post-graduate clinical and academic program. The clinical aspect of this program will provide residents with a diverse caseload to develop strong interpretation and technical skills, and will support preparation for the certifying examination. The academic portion of the program will provide a valuable research opportunity, formal preparation for the qualifying examination as well as manuscript preparation and presentation. Ultimately, our goal is to prepare and support residents in passing the ACVR examinations and completing a non-thesis Master of Science program.
What is the total length of the training program?	4 years
If this is a four year program, during what year will the resident be eligible to take the ACVR Preliminary Exam?	3
What are the responsibilities of the resident in the remaining non-clinical portion of the program?	The responsibilities of the resident in the remaining non-clinical portion of the program include (a) completion of MSc (project-based), including residency project, graduate courses and manuscript preparation and (b) preparation for qualifying and certifying examinations.
Who is the Director of Residency training?	Lesley A. Zwicker
What percentage of this individual's time is committed to clinical service and teaching of residents?	50%
Roentgen diagnosis	Gregory Starrak 50%
Diagnostic ultrasound	Gregory Starrak 50%
Computed Tomography	Lesley Zwicker 50%
Magnetic Resonance Imaging	Lesley Zwicker 50%
Nuclear Medicine	Lesley Zwicker 50%
List the names and percentage clinical commitment of additional imaging faculty in the program, and their area(s) of instructional responsibility.	Sally Sukut, DVM, 50%
	Abbreviated CV Lesley Zwicker.docx

ACVIM	Tony Carr
ACVIM	Kevin Cosford
ACVS	Kathy Linn
ACVS	Cindy Shmon
ACVP	Enrique Aburto
ACVP	Hilary Burgess
Briefly describe how the program meets the facility requirements.	The Western College of Veterinary Medicine is as state-of-the-art facility serving western Canada as an AVMA and AAHA accredited hospital and referral center. The advanced imaging equipment includes: Toshiba Aquilion 16-row detector CT, Millennium MPR/MPS Gamma Camera with Genie AcQ software, Philips BV pulsera C-arm Fluoroscope, Toshiba Aplio 300 Ultrasound (two machines) with multiple specialized probes and cardiac package/probes. Philips iU22 and GE Logiq 6 Ultrasound machines with multiple specialized probes are also located on-site. In-house MRI technology includes a Seimens Magnetom Symphony 1.5 Tesla system as well as a standing low-field magnet in our Ryan-Dube Equine Performance Centre. Eklin DR systems are located in the small and large animal radiology suites with Canon DR plates (two 14 by 17” and one 10 by 12” plate). Portable Eklin DR equipment is also available for large animal radiology. The McKesson Horizon Medical Imaging PACS provides access throughout the College for consultation, diagnosis and teaching on clinical and research cases. There are three dedicated work stations with 30” Barco diagnostic monitors in the imaging department, as well as two dedication stations that have two each 20” Barco diagnostic monitors. Additionally, we have purchased and will be installing a Toshiba Aquilion One 320-row Dynamic Volume CT in the fall of 2017 with an expanded Aquilion work station. The radiation oncology service operates a Clinac 21EX 6MV linear accelerator with electron capability, a 120 leaf Millennium multileaf collimator, OBI and CBCT allowing intensity modulated and stereotactic radiation therapy in addition to conformal radiation therapy, with Aria system and Eclipse planning system.
Indicate the approximate number of patients seen annually by the home institution?	21,500
What is the annual imaging caseload?	7,100
	Small Animals (canine, feline): 75% Large Animals (equine and food animals): 15% Exotic Animals: 10%
	Small Animal Radiology: 4000 Large Animal Radiology: 470 Abdominal Ultrasound: 1200 Computed Tomography: 474 Nuclear Medicine: 8 Magnetic Resonance Imaging: 370 Other (specify): 578 (thoracic and MSK ultrasound)

What percentage of imaging reports are typically available within 48 hours after the examination is conducted in typewritten or electronic form?	90-100%
Of the preliminary reports generated from the imaging caseload what percentage are initially produced by the resident?	75-80%
What percentage of the resident reports are reviewed by the imaging faculty prior to finalization of the report?	100%
When preliminary resident reports are reviewed and edited by the imaging faculty responsible for training, what percentage of the time are two or more faculty present?	2
	Small Animal Radiology: 6000 (1500 per year) Large Animal Radiology: 800 (200 per year) Abdominal Ultrasound: 2000 (500 per year) - large animal and echocardiography also performed Computed Tomography: 800 (200 per year) Nuclear Medicine: 32 (8-10 per year) Magnetic Resonance Imaging: 480 (120 per year) Elective (any of above): Required elective (specify): Nuclear medicine short course Total: 10,112
Radiobiology	VSAC 899.2 2
Nuclear Medicine	VSAC 899.6 6
Ultrasonography	VSAC 899.6 6
CT	VSAC 899.6 6
MRI	VSAC 899.6 6
Over the last five years, what is the average number of peer reviewed publications, on which the IMAGING faculty listed under Direction and Supervision in IV, are included as authors?	5

What is the number of publications/submissions expected of a resident completing the program?	1-2
If this is an established program, what percentage of residents have made formal research presentations at the annual ACVR or equivalent national meeting?	N/A
Is an advanced degree a requirement of the training program?	Yes, MSc (project-based, non-thesis)
How many lectures or scientific presentations are expected of each resident during the course of their training?	Approximately 12 total (3-4 per year)
Did all of your current resident(s) adequately complete the last six months of training?	No current residents
List the internal mechanisms in place to protect your resident if conflicts arise.	Each resident will have a supervisor that will be available to aid in conflict mediation. If this is not satisfactory, the residency director will be available to mediate conflict. If the resident is not comfortable involving the radiology faculty, the resident can approach the head of the small animal clinical sciences for guidance. As a graduate student (MSc), each resident also as an Advisory Committee that meets twice per year – members can be contacted in the interim to aid the resident. Additionally, we are fortunate to have a registered social worker in our facility and residents will have access to the social worker to discuss any problems, personally or professionally.
What is the nature and scope of the teaching file available to residents?	There is a new File Share option in our McKesson PACS system that we are developing as a teaching tool. Additionally, we have a spreadsheet of approximately 1100 interesting cases for teaching/learning purposes.
How is it maintained/updated?	Cases are added as they are encountered and deemed appropriate. Cases are predominately maintained by Dr. Sally Sukut (file share) and Dr. Gregory Starrak (Excel spreadsheet).
On average how many Known Case Conferences are conducted annually?	15
What is the geographic relationship between the nearest medical library and the training program?	There is a veterinary medical library within the Western College of Veterinary Medicine. Additionally, the medical school is a short walk across campus and an additional medical library is available to our students.

Provide the pass rate for first time, second time, etc for both the preliminary and certifying exams for your residents for the past 5 years. For example, for all residents finishing your program 5 years ago (Year 5): x number passed prelim 1st time, y number passed certifying exam 1st time, z number was unsuccessful.

	Year 5	Year 4	Year 3	Year 2	Year 1
Passed preliminary exam 1st time			X		
Passed preliminary exam 2nd time					
Passed preliminary exam after 2nd time					
Passed certifying exam 1st time					
Passed certifying exam 2nd time					
Passed certifying exam after 2nd time					
Unsuccessful in all attempts					

Duty Roster Example.docx

6 Week Duty Roster Example:

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Weekend**
Rounds		Radiology Rounds	Graduate Class	Journal Club/KCC	Small Animal Clinical Sciences Seminar	
Week #1	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Afterhours Call:** R1 (LZ backup)
	Afterhours Call: R1 (LZ backup)	**Afterhours Call:** R1 (LZ backup)	**Afterhours Call:** R1 (LZ backup)	**Afterhours Call:** R1 (LZ backup)	**Afterhours Call:** R1 (LZ backup)	
Week #2	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Afterhours Call:** R2 (GS backup)
	Afterhours Call: R2 (GS backup)	**Afterhours Call:** R2 (GS backup)	**Afterhours Call:** R2 (GS backup)	**Afterhours Call:** R2 (GS backup)	**Afterhours Call:** R2 (GS backup)	
Week #3	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Clinical duty:** R1: US/Nuclear Medicine R2: Rads/CT/MR	**Afterhours Call:** SS
	Afterhours Call: SS	**Afterhours Call:** SS	**Afterhours Call:** SS	**Afterhours Call:** SS	**Afterhours Call:** SS	
Week #4	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Afterhours Call:** R1 (GS backup)
	Afterhours Call: R1 (GS backup)	**Afterhours Call:** R1 (GS backup)	**Afterhours Call:** R1 (GS backup)	**Afterhours Call:** R1 (GS backup)	**Afterhours Call:** R1 (GS backup)	
	Clinical duty:	**Clinical duty:**	**Clinical duty:**	**Clinical duty:**	**Clinical duty:**	

Week #5	R1: US/Nuclear Medicine R2: Rads/CT/MR	R1: US/Nuclear Medicine R2: Rads/CT/MR	R1: US/Nuclear Medicine R2: Rads/CT/MR	R1: US/Nuclear Medicine R2: Rads/CT/MR	R1: US/Nuclear Medicine R2: Rads/CT/MR	**Afterhours Call:** R2 (SS backup)
	Afterhours Call: R2 (SS backup)	**Afterhours Call:** R2 (SS backup)	**Afterhours Call:** R2 (SS backup)	**Afterhours Call:** R2 (SS backup)	**Afterhours Call:** R2 (SS backup)	
Week #6	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Clinical duty:** R1: Rads/CT/MR R2: US/Nuclear Medicine	**Afterhours Call:** LZ
	Afterhours Call: LZ	**Afterhours Call:** LZ	**Afterhours Call:** LZ	**Afterhours Call:** LZ	**Afterhours Call:** LZ	

Code:

- R1 = Resident #1
- R2 = Resident #2
- Radiologist = LZ, GS, SS

*Residents will provide 33% of the primary on-call duty with back-up at all times from a radiologist. In the first year of our residency program (2018/19), there will be two residents, with a third resident joining in the second year of our program (2019/2020). In their 4th year, residents will be scheduled to perform some back-up duties as well as primary duty – a radiologist will also be available to the senior resident to provide back-up service. Once there are 3 residents, each resident will be assigned to one of three different services: (1) Ultrasound, (2) Radiology, (3) Computed tomography/Magnetic resonance imaging.

Breakdown of Duties/Scholastic Activity by Year:

Year 1

Clinical Duty	• Rotation through roster/afterhours schedule as indicated above • 6 and 12 month review (see below, Master of Science)
ACVR/Examination Preparation	• Register as a Resident with ACVR • Begin working on board objectives including suggested reading list
Master of Science	• Register as a graduate student (Master of Science, project-based) in Small Animal Clinical sciences • Register for graduate classes VSAC 820.4 (Clinics I), VSAC 990 (Seminar), VSAC 922 (Research), VSAC 980 (Clinics), GSR 960 (Ethics and Integrity), GSR 962 (Research Utilizing Animals), VSAC 899.4 (Fundamental Concepts in Diagnostic Imaging, including mock examinations), VSAC 899.2 (Radiation biology and physics, including mock examinations)

	• Establish Committee, decide on a project • Review of progress every 6 months, will also include review of clinical performance • Two 45-minute seminar will be prepared/delivered in the Small Animal Clinical Sciences seminar series
Off-Clinic Time	• 3 weeks for vacation • 4 weeks for independent study/masters research

Year 2

Clinical Duty	• Rotation through roster/afterhours schedule as indicated above • 6 and 12 month review (see below, Master of Science)
ACVR/Examination Preparation	• Maintain registration as a Resident with ACVR • Continue working on board objectives including suggested reading list (see below) • Apply to write the qualifying examination at the beginning of third year, by the deadline
Master of Science	• Maintain registration as a graduate student (Master of Science, project-based) in Small Animal Clinical sciences • Register for graduate classes VSAC 821.4 (Clinics II), VSAC 990 (Seminar), VSAC 922 (Research), VSAC 980 (Clinics), VSAC 899.6 (Advanced Diagnostic Imaging) • Data collection should be complete by the end of second year • Review of progress every 6 months, will also include review of clinical performance • Two 45-minute seminar will be prepared/delivered in the Small Animal Clinical Sciences seminar series
Off-Clinic Time	• 3 weeks for vacation • 2 weeks for independent study/masters research • 6 weeks board preparation (qualifying examination)

Year 3

Clinical Duty	• Rotation through roster/afterhours schedule as indicated above • 6 and 12 month review (see below, Master of Science)
ACVR/Examination Preparation	• Maintain registration as a Resident with ACVR • Focus on preparation for the certifying examination
Master of Science	• Maintain registration as a graduate student (Master of Science, project-based) in Small Animal Clinical sciences • Register for graduate classes VSAC 822.4 (Clinics III), VSAC 990 (Seminar), VSAC 922 (Research), VSAC 980 (Clinics) • Manuscript preparation will be completed by the end of the third year • Review of progress every 6 months, will also include review of clinical performance

	• Two 45-minute seminar will be prepared/delivered in the Small Animal Clinical Sciences seminar series
Off-Clinic Time	• 3 weeks for vacation • 3 weeks for independent study/masters research • If the resident is not successful in the qualifying examination, time-off for preparation will be allowed for but masters research time may be reduced to 2 weeks

Year 4

Clinical Duty	• Rotation through roster/afterhours schedule as indicated above • 6 and 12 month review (see below, Master of Science)
ACVR/Examination Preparation	• Maintain registration as a Resident with ACVR • Focus on preparation for the certifying examination • Apply to sit the certifying examination by deadline
Master of Science	• Maintain registration as a graduate student (Master of Science, project-based) in Small Animal Clinical sciences • Register for graduate classes VSAC 990 (Seminar), VSAC 922 (Research), VSAC 980 (Clinics) • Manuscript submission must be completed in the fourth year (or sooner) • Review of progress every 6 months, will also include review of clinical performance • Two 45-minute seminar will be prepared/delivered in the Small Animal Clinical Sciences seminar series
Off-Clinic Time	• 3 weeks for vacation • 3 weeks for independent study/masters research/job interviews