



Monday, March 2, 2020

ACVR Residency Training Program Application

This document is to act as a guide for institutions desiring ACVR accreditation of their residency training program. It should be used in concert with the requirements set out in the ACVR Essentials of Residency Training document and it follows the headings of that document. It is intended to streamline the application process and help define what information the RSEC needs to evaluate the program. All terms used in this application have same definitions as defined in the Essentials.

Institution Name:

MedVet Columbus

Email

atwatson@gmail.com



ACVR Residency Training Program Application

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

Provide clinical training in all modalities of veterinary diagnostic imaging to prepare graduates for successful completion of the American College of Veterinary Radiology board certification examination.



ACVR Residency Training Program Application

Training Period:

What is the total length of the training program?

36 months

What are the responsibilities of the resident in the remaining non-clinical portion of the program?

1. Self-study and board exam preparation
2. Attend short courses at other institutions
3. Research
4. Vacation



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Direction and Supervision:

Program Director:

Who is the Director of Residency training?

Adam T Watson, DVM, Dipl. ACVR

What percentage of this individual's time is committed to clinical service and teaching of residents?

90%

Faculty:

Please list the faculty member of the program accepting PRIMARY responsibility for training in each of the following core areas:

Roentgen diagnosis

Jonathan T. Shiroma, DVM, MS, Dipl. ACVR 85%

Diagnostic ultrasound

Jonathan T. Shiroma, DVM, MS, Dipl. ACVR 85%

Computed Tomography

Adam T Watson, DVM, Dipl. ACVR 90%

Magnetic Resonance Imaging

Adam T Watson, DVM, Dipl. ACVR 90%

Nuclear Medicine

Adam T Watson, DVM, Dipl. ACVR 90%

List the names and percentage clinical commitment of additional imaging faculty in the program, and their area(s) of instructional responsibility.

Matthew L. Baron-Chapman, DVM, Dipl. ACVR - 90%

Chase Constant, DVM, Dipl. ACVR - 90%

Kyle Vititoe, DVM, MS, Dipl. ACVR - 90%

The above radiologists contribute in training via video conferencing during resident rounds (KCC, topic rounds, physics, journal club, tumor rounds).

Using the button below, please provide a one page CV documenting their expertise in the area(s) of assigned responsibility for each imaging faculty in the program.



ChaseConstantCV2020.pdf



AWatson CV 2020.pdf



Kyle Vititoe CV short.pdf



Shiroma CV Feb 2020 .pdf

For each speciality colleges listed below please list at least two Diplomates of these colleges who can be expected to regularly interact with radiology residents:

ACVIM

Roger Hostutler

ACVIM

Stephen Martinez

ACVS

Robert Dudley

ACVS

Shawn Kennedy

ACVP

Mark Chalkley

ACVP

Stephanie Corn



ACVR Residency Training Program Application

Affiliation Agreement:

Using the button below, provide a copy of the affiliation agreement(s) in place if all of the training will not be accomplished on-site. Include the scope of the training and amount of time the resident will be away from the home institution.



OSU-MedVet resident training agreement.pdf



ACVR Residency Training Program Application

Facilities:

Briefly describe how the program meets the facility requirements.

MedVet Columbus is a premier AAHA-accredited multispecialty and emergency practice. The radiology department is composed of two board-certified ACVR diplomates and two diagnostic imaging residents onsite. This department plays an essential diagnostic role for the specialty departments within this location, the referral veterinary community and for multiple satellite MedVet hospitals throughout the nation. Through advanced video teleconferencing capabilities, the radiologists and residents at both the Columbus and Cincinnati locations collaborate in didactic residency training including known case conference, journal club, neuroradiology rounds, imaging topics rounds and multispecialty tumor rounds. IDEXX pathology is located within an adjacent building shared by MedVet fostering direct interaction with pathologists to correlate imaging findings with disease. Through an affiliation with The Ohio State University, the resident will be trained in large animal imaging and nuclear medicine via direct visits at set points in the program.

MedVet Medical and Cancer Centers for Pets:
Columbus
Radiology (small animal)

Two Sedecal high frequency x-ray machines
with Canon DR plates

Fluoroscopy

GE 9800 digital C-arm fluoroscope

Ultrasonography

Two GE Logiq E10
Computed Tomography
GE LightSpeed 16 slice
MRI
1.5 Tesla GE Signa Echospeed Plus MRI scanner

The Ohio State University
Radiology (large animal)

- Large animal room1: 80kw three-phase generator. Maxiray 100-18 X-ray tube with
 - Advantx digital fluoroscopy system and Agfa CR system
 - Large Animal room 2: Mobile Maxiray 75-18N
- Nuclear Medicine
- Gamma Camera: Scinttron VI with embedded motion correction from Medical Imaging Electronic



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Clinical Resources:

Indicate the approximate number of patients seen annually by the home institution?

41,750 small animal patients

What is the annual imaging caseload?

18,250

Indicate in percentages the approximate breakdown of the patient population according to species.

Type a question

Small Animals (canine, feline): 99% (MedVet)

Large Animals (equine and food animals): 13% (OSU)

Exotic Animals: 1% (MedVet and Columbus Zoo)

What is the approximate annual imaging caseload of the program in:

Type a question

Small Animal Radiology: 14,500 (MedVet)

Large Animal Radiology: 900 (OSU)

Abdominal Ultrasound: 3300 (MedVet)

Computed Tomography: 350 (MedVet)

Nuclear Medicine: 100 (OSU)

Magnetic Resonance Imaging: 725 (MedVet)

Other (specify):

Please check which of the following types of imaging cases the residents will have exposure to during the residency:

Small Animal Echocardiography

Large Animal Ultrasound

Nonabdominal Small Animal Ultrasound (i.e. cervical, musculoskeletal)

Food Animal

Exotics

Teleradiology/Referral Imaging



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Training Content:

What percentage of imaging reports are typically available within 48 hours after the examination is conducted in typewritten or electronic form?

95%

Of the preliminary reports generated from the imaging caseload what percentage are initially produced by the resident?

The percentage of reports will increase over the course of the residency but we anticipate that over the 3 years, the resident will generate up to 25% of the total imaging caseload reports.

What percentage of the resident reports are reviewed by the imaging faculty prior to finalization of the report?

We review 100% of imaging reports generated during the weekdays and some reports from the weekends.

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?

Both faculty are generally not concurrently available to review the radiographic, CT and MRI resident reports. Reports on challenging cases are oftentimes reviewed by both faculty. Ultrasound studies are only reviewed by one of the faculty.

For each category below, approximate the number of cases a single resident will be involved in the interpretation of during the course of the entire program.

Type a question

Small Animal Radiology: 10,000

Large Animal Radiology: 75 (OSU)

Abdominal Ultrasound: 3,000

Computed Tomography: 500

Nuclear Medicine: 10 (OSU)

Magnetic Resonance Imaging: 350

Elective (any of above):

Required elective (specify):

Total: 13,885

Please indicate the course number and unit assignment residents are required to take to meet the educational objectives for formal instruction as outlined in the Essentials in the following:

If your program does not offer formal courses in any or all of these topics please indicate how these educational objectives for each are met. Use the button below to upload additional information as necessary.

No formal courses will be offered to cover the above objectives. Instead, these objectives will be covered by scheduled topics rounds and organized study modules. A written practice exam will follow each board objective studying period to assess the resident's progress during the 1st and 2nd years. The ACVR board objective notes will serve as a basic framework for studying. Textbooks, journal articles and faculty board studying notes will also be provided for each of the objectives. An outline for studying each board objective is listed below.



ACVR Residency Training Program Application

Summer/Fall (1st year) – Anatomy – Emphasis will be placed on clinical radiographic and cross-sectional anatomy. Study modules using PowerPoint format will be used requiring labeling of images.

Winter (1st year) – Pathophysiology – The resident will be instructed to reference The Textbook of Veterinary Internal Medicine and Small Animal Cardiovascular Medicine.

Spring (1st year) - Radiobiology – Faculty-driven study modules will be constructed reviewing chapters in Radiobiology for the Radiologist (Hall) and following the ACVR board objectives.

Summer (2nd year) – Physics of Diagnostic Radiology – The resident will be required to read The Essential Physics of Medical Imaging, Vol 3 (Bushberg) and reference Christensen's Physics of Diagnostic Radiology, Vol 4, when applicable. Organized self-study modules will be constructed.

Fall (2nd year) – Special Procedures – The board objectives will serve as a basic framework for studying. Board studying notes will be supplied. Archived echocardiography movie files and notes will be provided for this aspect of the training.

Winter (2nd year) – Alternative Imaging – MRI, CT, ultrasound and nuclear medicine will be covered individually beginning with the physics of each modality and then reviewing the applicable literature/journal articles. Board studying notes will be supplied for each modality. The resident will be expected to read The Handbook of Nuclear Medicine (Daniel) and Diagnostic Ultrasound: Principals and Instruments (Kremkau). Physics of MRI and CT will be covered in The Essential Physics of Medical Imaging (Bushberg). Additionally, the resident will attend the Nuclear Medicine Short Course and MRI short course when offered. Organized lectures by a staff radiologist will be given to residents annually in topics rounds via video conferencing discussing the physics of MRI and CT.

After completing each board objective, a mock exam will be given to the resident to evaluate study progress and the results will be discussed.

Research Environment:

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

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

1

Is an advanced degree a requirement of the training program?

No



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Educational Environment:

How many lectures or scientific presentations are expected of each resident during the course of their training?

Two hospital grand rounds presentations are required per year. Additional imaging topics rounds and CE lectures to the local veterinary community will be incorporated into the program.



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Evaluation 'Evaluation of residents and protection mechanisms':

Did all of your current resident(s) adequately complete the last six months of training?

Yes

List the current members of the residents'

review committee.

Adam T Watson, DVM, Dipl. ACVR - Resident director
Katie Quinter, DVM - Hospital Medical Director

Biannual reviews that include feedback from staff within the hospital (radiology department and other departments) are performed. Informal reviews are also done to track the progress of the resident (typically quarterly).

List the internal mechanisms in place to protect your resident if conflicts arise.

The resident is encouraged to bring problems to the resident director first for guidance. They also have the ability to go to the hospital medical director (Dr. Quinter) or the human resources department depending on the situation.



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Teaching File:**What is the nature and scope of the teaching file available to residents?**

A large imaging teaching file has been organized including radiography, special procedures, CT, MRI and ultrasound cases that include cases from all MedVet practices where reports are generated. The file is in Microsoft Excel format and is searchable using different coded parameters. All digital images are stored and searchable on a PACS system and RIS. OSU collaboration will also allow for exposure to a large animal teaching file.

How is it maintained/updated?

All digital images are archived on the PACS for retrieval and searchable and updated via RIS and

Excel spreadsheet.



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Conferences:

**On average how many Known Case
Conferences are conducted annually?**

24



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Literature Resources:

**What is the geographic relationship between
the nearest medical library and the training
program?**

The Ohio State University College of Veterinary Medicine is the nearest medical library located approximately 15 minutes from MedVet. We maintain our own library of small and large animal imaging textbooks (books and e-books) and digital database of journal articles and electronic access

to many applicable online journals.



ACVR Residency Training Program Application

Appendix:

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	1		1		1
Passed preliminary exam 2nd time					
Passed preliminary exam after 2nd time					
Passed certifying exam 1st time					
Passed certifying exam 2nd time			1		1
Passed certifying exam after 2nd time					
Unsuccessful in all attempts					

Provide a clinical schedule for your resident(s). This schedule should provide a weekly or monthly outline of the resident's clinical responsibilities. This may be in the form of a master schedule or duty roster for your entire radiology section if desired. Use the button below.



Resident Master Schedule.pdf