



Wednesday, March 4, 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 Cincinnati

**Email**

mattbaron79@gmail.com



## ACVR Residency Training Program Application

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

To train residents in the field of veterinary diagnostic imaging in accordance with ACVR guidelines not only so they can successfully pass the ACVR qualifying and certifying exams, but also so they may lead fulfilling and productive professional lives as radiologists committed to contributing to the expansion of veterinary diagnostic imaging knowledge.



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## Training Period:

**What is the total length of the training program?**

36 months (3 years)

**If the resident is not eligible to take the exam during the beginning of the third year (September), please state the reason.**

N/A

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

The resident is expected to contribute to the ACVR by designing and performing a research project to be presented at the annual scientific meeting. The resident is also expected to contribute to MedVet continuing education initiatives through lectures to veterinary technicians, general practice veterinarians, and specialist. Most importantly, the resident is expected to focus the bulk of her/his/hir non-clinical time to studying for the board examinations.

In the first year, the resident will be expected to work as an emergency veterinarian on some weekends, not to exceed 50 hours/month. These shifts will be during daytime or evening hours, but not overnight, will be approximately 3-4 shifts a month, only on weekends, and will not interfere with the resident's radiology clinical schedule. These emergency shift will be phase out over the first year and be replaced with some weekend ultrasound coverage.



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## Direction and Supervision:

Program Director:

**Who is the Director of Residency training?**

Matthew L. Baron-Chapman DVM, DACVR

**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**

Matthew Baron-Chapman DVM, DACVR 50%

### **Diagnostic ultrasound**

Chase Constant VMD, DACVR 35%

### **Computed Tomography**

Chase Constant VMD, DACVR 5%

### **Magnetic Resonance Imaging**

Matthew Baron-Chapman DVM, DACVR 10%

### **Nuclear Medicine**

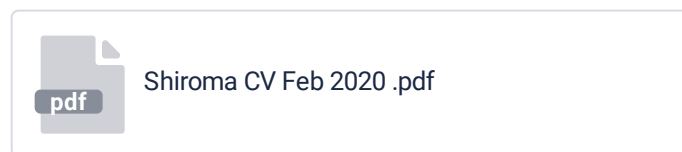
Matthew Baron-Chapman DVM, DACVR 0%

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

Adam T. Watson DVM, DACVR - KCC, Journal Club  
Jon T. Shiroma DVM, DACVR - KCC, Journal Club  
Kyle Vititoe DVM, DACVR - KCC, Journal Club

**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.**



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

**ACVIM**

Michael Lane

**ACVIM**

Michael Della Ripa

## **ACVS**

Karl Maritato

## **ACVS**

Susana Schwartz

## **ACVP**

Mark Chaulkley

## **ACVP**

David Gardner

### **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.**

The MedVet Cincinnati radiology department is equipped with a 1.5T Siemens MRI scanner, 16 slice helical CT scanner, digital C-arm fluoroscopy, two digital x-ray rooms with Canon DR plates, and one GE LOGIQ 8 ultrasound machine with Doppler imaging. The residents have continually access to eFilm, Clear Canvas, and a cloud-based PACS with its own proprietary

viewer program (VetRocket). Each resident is provided with their own laptop, two medical grade monitors, and can purchase dictation software equipment and/or text expander software with discretionary funds provided by MedVet. For large animal imaging and nuclear medicine, externship out rotation to the Ohio State University College of Veterinary Medicine will provide exposure to these imaging fields (please see affiliation agreement).

OSU:

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: Scintron 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?**

26,152

**What is the annual imaging caseload?**

14,100

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

**Type a question**

Small Animals (canine, feline): 100

Large Animals (equine and food animals): 0

Exotic Animals: 0

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

**Type a question**

Small Animal Radiology: 9,998

Large Animal Radiology: 900 (the Ohio State University)

Abdominal Ultrasound: 3,120

Computed Tomography: 390

Nuclear Medicine: 100 (the Ohio State University)

Magnetic Resonance Imaging: 572

Other (specify): 0

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

Small Animal Echocardiography

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

Food Animal

Exotics

Teleradiology/Referral Imaging

**If the residents do NOT have exposure to any of the above types of imaging cases at your institution, please explain if/how they get the experience during the residency.**

The residents will get exposure to large animal and food animal imaging and exotic imaging during out rotation (externship) with the Ohio State University's veterinary imaging department. Residents will also get exposure to large animal, food animal, and exotic animal imaging during KCC, journal club, and book club.



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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?**

43%

**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?**

1% - due to clinic responsibilities, it is difficult to have multiple faculty available for report review outside of rounds.

**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: 12,497

Large Animal Radiology: 25

Abdominal Ultrasound: 2,100

Computed Tomography: 244

Nuclear Medicine: 5

Magnetic Resonance Imaging: 358

Elective (any of above):

Required elective (specify):

Total:

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 are offered to cover the above objectives. Instead, these objectives are covered by scheduled topics rounds and organized study modules. A written practice exam follows each board objective studying period to assess the resident's progress during the 1st and 2nd years. The ACVR board objective notes serve as a basic framework for studying. Textbooks, journal articles and faculty board studying notes are also provided for each of the objectives. An outline for studying each board objective is listed below.



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Summer/Fall (1st year) – Pathophysiology – The resident is instructed to reference The Textbook of Veterinary Internal Medicine and Small Animal Cardiovascular Medicine.

Winter (1st year) – Anatomy – Emphasis is placed on clinical radiographic and cross-sectional anatomy. Study modules using PowerPoint format will be used requiring labeling of images. Online resources as well as textbooks such as Miller's Anatomy of the Dog are recommended.

Spring (1st year) - Radiobiology – the resident is encouraged to read Radiobiology for the Radiologist (Hall) and follow the ACVR board objectives.

Summer (2nd year) – Physics of Diagnostic Radiology – it is recommended that the resident read Radiology Science for Technologists (Bushong), The Essential Physics of Medical Imaging, Vol 3 (Bushberg), and/or Christensen's Physics of Diagnostic Radiology, Vol 4, when

applicable.

Fall (2nd year) – Special Procedures – The board objectives 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 is covered individually beginning with the physics of each modality and then reviewing the applicable literature/journal articles. Didactic lectures of MRI physics, Ultrasound Physics, and CT physics are provided. Board studying notes are supplied for each modality. The resident is encouraged to read The Handbook of Nuclear Medicine (Daniel) and The Essentials of Ultrasound Physics (Kremkau). Physics of MRI and CT is covered in The Essential Physics of Medical Imaging (Bushberg). Additionally, the resident are encouraged to attend the Nuclear Medicine Short Course, the MRI short course, and/or the CT short course.

After completing each board objective, a written exam is given to the resident and the results will be discussed.

In addition to the books listed above, book club rounds are held weekly with at least one faculty and books covered include Atlas of Small Animal Ultrasonography (Pennick and D'Anjou), Textbook of Veterinary Diagnostic Radiology (Thrall), Atlas of Small Animal CT and MRI (Wisner and Zwingenberger), Veterinary Computed Tomography (Schwarz and Saunders), and Clinical Radiology of the Horse (Butler).

### **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?**

1.2 publications per imaging faculty over the last five years (6 publications among the 5 faculty).

**What is the number of publications/submissions expected of a resident completing the program?**

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

100%

**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?**

One hospital grand rounds presentation is required per year. Two hours of lecture/year to technicians and/or technician students are highly encouraged. Additional imaging topics rounds and continuing education lectures to the local veterinary community is encouraged required. An abstract presentation at the ACVR conference is required either at the beginning or end of the resident's 3rd year in training.



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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.**

Jennifer Wells DVM, DACVIM (Internal Medicine)  
Matthew Baron-Chapman DVM, DACVR  
Chase Constant DVM, DACVR  
Jon Fletcher DVM, DACVIM (Internal Medicine) -  
Director of Post Graduate Education at MedVet

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

Currently, the residents have weekly if not daily interaction with all five imaging faculty and are encouraged to access us if interpersonal conflict arises. If they feel uncomfortable doing so, they are also encouraged to approach the medical director, Dr. Jennifer Wells, who periodically checks in with them and has a good standing relationship with both residents. In addition, we plan to have a residency advocacy program established by July of 2020 with dedicated faculty to act as advocates for the residents and provide residents with information regarding access to free or affordable mental health and well being and emotional support.



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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 associated MedVet practices where reports are generated. The file is in Microsoft excel format and is searchable using different coded parameters. As of this writing, there are currently 2142 imaging cases in this teaching file. All digital images are saved and searchable on a PACS system and RIS. OSU collaboration will also allow for exposure to a large animal teaching file. The resident will be required to attend weekly didactic tumor rounds, morbidity and mortality rounds, and twice monthly hospital grand rounds.

### **How is it maintained/updated?**

Imaging faculty as well as imaging residents have 24 hour access to the teaching file and can add cases to the file at their will, such that the file continues to grow and grow. Supporting information (histopathology, cytology, surgical findings) are included as notes in this file. All digital images are archived on the PACS system for retrieval. Case information is updated using the Excel spreadsheet described above and is also searchable via the RIS.



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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 nearest medical library is on the campus of the University of Cincinnati. This library is approximately 7.7 miles (17 minutes) from MedVet Cincinnati.




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## 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	
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				1	
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.

 MedVet Cincinnati Residency Schedule.docx