



Thursday, September 9, 2021

ACVR 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	MedVet Indianapolis
Residency Program Director Name	Kyle Vititoe
Residency Program Director Email	kyle.vititoe@medvet.com

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 11, 2022
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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.

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?

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

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? 100

How many weeks per year will the Residency Director be on clinical service and teaching residents at the primary training institution? 49

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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 section at the end of this application).

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: MedVet Cincinnati

Hours/Year: 500

Specific Areas and/or Limitations of Instructional Responsibility: Supervision in most areas of diagnostic imaging remotely (except hands-on ultrasound) - including reviewing resident reports and providing live feedback (in radiography, CT, MRI) and in weekly rounds (KCC, topic rounds, physics, journal club, tumor rounds, etc).

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: Matthew L. Baron-Chapman, DVM, Dipl. ACVR

% of Hours: 33.3

Specific Areas of Instructional Responsibility: Supervision in most areas of diagnostic imaging remotely (except hands-on ultrasound) - including reviewing resident reports and providing live feedback (in radiography, CT, MRI) and in weekly rounds (KCC, topic rounds, physics, journal club, tumor rounds, etc).

Name: Chase Constant, DVM, Dipl. ACVR

% of Hours: 33.3

Specific Areas of Instructional Responsibility:
Supervision in most areas of diagnostic imaging remotely (except hands-on ultrasound) - including reviewing resident reports and providing live feedback (in radiography, CT, MRI) and in weekly rounds (KCC, topic rounds, physics, journal club, tumor rounds, etc).

Name: Kryssa Johnson, DVM, Dipl. ACVR

% of Hours: 33.3

Specific Areas of Instructional Responsibility:
Supervision in most areas of diagnostic imaging remotely (except hands-on ultrasound) - including reviewing resident reports and providing live feedback (in radiography, CT, MRI) and in weekly rounds (KCC, topic rounds, physics, journal club, tumor rounds, etc).

Please list all training diplomates who will act as Supporting Diplomates of this residency program. Indicate how many hours per year each Supporting Diplome will be scheduled on clinical duty with primary support of residents and any specific areas of instructional responsibility and/or limitations in the scope of this support (e.g. only trains residents in ultrasound, does not participate in large animal training, does not finalize imaging reports, etc).

Name: Jonathan T. Shiroma, DVM, MS, Dipl. ACVR

Hours/Year: 75

Specific Areas of Instructional Responsibility:
Contributes in training via video conferencing during resident rounds (KCC, topic rounds, physics, journal club, tumor rounds).

Name: Adam T. Watson, DVM, Dipl. ACVR


Hours/Year: 75


Specific Areas of Instructional Responsibility:
Contributes in training via video conferencing during resident rounds (KCC, topic rounds, physics, journal club, tumor rounds).

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. Upon completion of this application, the below individuals will receive an email requesting acknowledgement of their support of your residency program.

ACVIM Member Name	Emily Klosterman
ACVIM Member Institution	MedVet Indianapolis
ACVIM Member Email	emily.klosterman@medvet.com
ACVS Member Name	Brian Martin
ACVS Member Institution	MedVet Indianapolis
ACVS Member Email	Brian.Martin@medvet.com
ACVP Member Name	Mark Chalkley
ACVP Member Institution	Idexx
ACVP Member Email	mark-chalkley@idexx.com

Upload any affiliation agreement(s) with Supervising Diplomates, Supporting Diplomates, or Diplomates in other specialties that are located at external institutions. (see Affiliation Agreement section at the end of this application.)

 Indianapolis Agreement Letter (1)_encrypted...

 Indianapolis Agreement Letter Signed.pdf

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Resident:Supervising Diplomate Ratio

The number of residents in the program cannot exceed twice the number of ACVR/ECVDI Supervising Diplomates on-site.

What is the maximum number of residents you will have enrolled in this training program at any given time? 2

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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	No
Fan-beam CT	Yes
Nuclear scintigraphy	No

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 section at the end of this application.)

MedVet Indianapolis is an AAHA-accredited multispecialty and emergency practice. The local radiology department is composed of one board-certified ACVR diplomate and is supported by five MedVet Supervising and Supporting diplomates remotely. 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, we collaborate with the radiologists, interns and residents at both the Columbus and Cincinnati locations in didactic residency training including known case conference, journal club, neuroradiology rounds, imaging topics rounds and multispecialty tumor rounds. Three of the other 5 radiologists will spend more than 500 hours/year supervising the local residents. IDEXX pathology is located within an adjacent building to MedVet Columbus 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 Indianapolis: Radiology (small animal)

Radiology machine (Innovet Select, High Frequency, 20 KHz)

Fluoroscopy (GE Stenoscope, Mono-phase, 60 Hz)

Ultrasonography (Toshiba Aplio 300 Ultrasound Imaging System – Platinum

- 5.3-18 MHz 38mm Linear “T” Probe
- 3.3-9.2 MHz R40 65 degree Standard Convex Probe
- PVT712BT 10.2-4.2 Mhz 110 degree Microconvex Probe

Computed Tomography (Siemens Somatom Scope 16)

MRI (not in-house) - We read for multiple MedVet hospitals, all with high field MRI's including at Commerce (large neurology based specialty hospital), Dallas, New Orleans, etc. Resident will also have access to attend MRI short courses and visit the other MedVet hospitals, if necessary.

The Ohio State University

Radiology (large animal)

• Large animal room 1: 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

Affiliation Agreement, if applicable



MedVet_Agreement_Indy.pdf

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Clinical Resources

Review the clinical resource 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. 15000

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. 9500

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

Small animal radiology	6000
Large animal radiology	0
Abdominal ultrasound	2300
Non-abdominal ultrasound	150
Computed tomography	450
Magnetic Resonance Imaging	600
Nuclear scintigraphy	0

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

Small animals (canine, feline): 99%

Large animals (equine, bovine, porcine, etc.): 0

Avian, Exotic, and Wildlife animals: 1%

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

No

Nonabdominal small animal ultrasound (i.e. cervical, musculoskeletal)

Yes

Food/fiber animal imaging

No

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 section at the end of this application.)

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.

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Training Content

Review the Training Content requirements listed in the RPE document.

What percentage of the total imaging caseload at the primary institution results in a report written by the resident(s) and/or training diplomates in this program? 95

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

Some of the orthopedic studies (i.e. surgical planning for TPLO's) do not require a report.

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? Yes

If yes, indicate what percentage of the preliminary reports generated from the imaging caseload are initially produced by the intern(s) and how this affects the resident imaging report caseload.

50% of the reports will be generated by the resident and 50% from the intern/other resident. One will be on ultrasound and the other on rads/CT/MRI, and will not affect individual caseload.

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?

By the end of the day.

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? 100

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 7500

Large animal radiology 0

Abdominal ultrasound 2700

Non-abdominal ultrasound 150

Computed tomography 600

Magnetic resonance Imaging 600

Nuclear scintigraphy 0

How many ultrasound exams will a single resident perform with radiologist feedback during the course of the entire program? Scans for which the resident writes a report but does not acquire images are excluded. 2700

Please indicate whether this training program includes formal courses in any of the following topics:

Physics of Diagnostic Imaging	No
Radiobiology	No
Nuclear Medicine	No
Ultrasonography	No
Computed Tomography	No
Magnetic Resonance Imaging	No
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.

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.

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.

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) 2

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.

There is strong encouragement and support by the residency director for the resident to actively pursue research (i.e. original investigative study) with hopes of publishing in the Journal of VRU. Our organization allots the residents and diplomates discretionary funds to support this research. The resident will also be given off clinic time to solely concentrate on this accomplishment.

Educational Environment

Review the Educational Environment expectations listed in the RPE document.

How many formal presentations (e.g. 6 didactic lectures, departmental seminars, scientific presentations, Continuing Education conferences, etc) are expected of each resident during the course of their training? In general, informal topic rounds, journal club, small group teaching, student labs, and similar events should not be included.

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

Resident will share teaching responsibilities of the Diagnostic Imaging intern, visiting rotating interns and fourth year veterinary students. Two hospital grand rounds presentations are required per year. Additional imaging topics rounds, CE lectures and hands-on labs to the local veterinary community will be required in the program.

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 large imaging teaching file has been organized including radiography, special procedures, CT, MRI and ultrasound cases as well as Powerpoint lectures and board study guides from all the current and past residents, interns, and radiologists. The files are all in Microsoft Teams and sorted into different categories, which are easily searchable. 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 many Known Case Conferences 24 are conducted annually?

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?

MedVet provides residents and diplomates a subscription to a medical library called Ovid Discovery, with a searchable interface similar to PubMed.

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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.

Kyle P. Vititoe, DVM, MS, DACVR - Radiology Resident Director
Emily Klosterman, DVM, MS, DACVIM - Hospital Medical Director

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.

The resident is encouraged to bring problems to the resident director first for guidance. They also have the ability to go to the radiology clinical manager, then hospital medical director (Dr. Emily Klosterman) or the human resources department, depending on the situation.

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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: 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

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: 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

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: 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

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



Diagnostic Imaging Resident Clinical Schedu...

Affiliation Agreements

Upload digital copies of any affiliation agreement(s) in place for the following:

External training diplomates (supervising, supporting); Agreement letters should include a statement on the scope of their resident training duties.



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External rotations or remote institutional affiliations used to supplement resident imaging caseload numbers, species variety, modalities, or study types. Agreement letters should include the scope of training and the amount of time the resident will be training with the affiliate institution. If affiliations are required to support resident caseload numbers in any core modality/category (radiology/fluoroscopy, CT, MRI, or US), agreement letters should include the expected number of reports that the individual resident(s) can expect to generate (with radiologist feedback) for cases in those categories over the course of the external rotation or agreement.



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