ACVR | Diagnostic Imaging

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.

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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   Animal Emergency and Referral Center of Minnesota

Residency Program Director Name   Travis Saveraid

Residency Program Director Email   tsaveraid@gmail.com

Program Type

What type of residency program is being requested?   Traditional Residency Program

If approved, what is the proposed start date of this residency program?   Saturday, October 1, 2022

Objectives

Succinctly state the objectives of the training program.

Develop experienced motivated veterinarians into excellent diagnostic radiologists who will serve future patients and clinicians through imaging support of private practices and academic teaching hospitals.

Success is demonstrated through completion of the training program and ACVR board certification.

Training Period

What is the total length of the training program?   39

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?

Non-clinical portion of time will be spent in self study and board preparation, working on independent project and presentations, and 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?   44

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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 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: Jonathan Nevins DVM DACVR

Hours/Year: 500 hours/year or more

Specific Areas and/or Limitations of Instructional Responsibility: All areas - small animal.

Institution: AERC-MN

Please list all training diplomates who will act as Supporting Diplomates of this residency program. Indicate how many hours per year each Supporting Diplomate 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: Stacie Aarsvold DVM DACVR, DACVR - EDI

Hours/Year: 350

Specific Areas of Instructional Responsibility: All areas, but primarily large animal imaging (MR, CT, NM, Rads).

Institution: AERC-MN

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   Kate Jones

ACVIM Member Institution   AERC-MN

ACVIM Member Email   KRJones@aercmn.com

ACVS Member Name	Greg Anderson
ACVS Member Institution	AERC-MN
ACVS Member Email	greganderson@aercmn.com
ACVP Member Name	Denise Wunn
ACVP Member Institution	IDEXX
ACVP Member Email	denise-wunn@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.) Refer to the RPE document for an explanation of what information should be included in such agreements.

📄 pdf Radiology support letter.pdf

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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? 0

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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	Yes
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 item at the end of this section)

Current AERC-MN imaging equipment includes
1. Two digital radiography rooms with Canon DR plates.
2. Multiple ultrasound systems (GE Logiq E10, GE Logiq S8, GE Vivid E90 and GE Vivid E95 full console systems and multiple laptop portable machines)
3. CT: GE 4-slice
4. MR: GE Signa 1.5T
5. C-arm Fluoroscopy: GE OEC 9800

Completion of physically adjacent new hospital facility in August 2022 will have additional equipment including table RF system, two DR radiology rooms, Siemens 1.5T MR, and 16-64 slice CT system.

On site I-131 therapy is performed at AERCMN. Diagnostic scintigraphy training will be done via combination active clinical teleradiology cases, training case files and participation in nuclear medicine training courses.

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

During initial portions of the first year, the resident will spend time assigned weeks with imaging technicians (certified RT and CVT) and attending radiologists in set-up and image acquisition of diagnostic radiographs (first 4 weeks) fluoroscopic (attend procedures when in hospital), CT and MR studies. Ultrasound training will be on-going throughout the residency via attending supervising radiologist.

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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.	26360
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.	15255

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

Small animal radiology	11200
Large animal radiology	0
Abdominal ultrasound	2980
Non-abdominal ultrasound	125
Computed tomography	444
Magnetic Resonance Imaging	506
Nuclear scintigraphy	0
Other (Specify)	Teleradiology: 8500 Echo: 1300

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

Small animals (canine, feline): 95%

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

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	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 item at the end of this section).

Dr. Aarsvold is DACVR and DACVR-EDI and is active (daily) in large animal teleradiology consulting service with personal annual caseload of 1500+ studies (50% CT, 25% MR, 20% Rads, 5% NM). The resident will be assigned weekly large animal cases studies to review and interpret (active and study

file cases). Drs. Aarsvold or Saveraid will review reports and discuss.

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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?

99

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

30

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

No

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?

24 hours or less

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?

98

Please describe how after-hours/weekend/holidaycases are handled at the primary institution. How does this affectresident-reported imaging caseload?

After-hours cases are reported the following day (weekdays) or Monday after weekend/holidays. Approximately 4-5 diagnostic radiography cases/month (less than 0.5% of total) are submitted to outside teleradiology service for after hours STAT review.

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

8400

Large animal radiology	225
Abdominal ultrasound	2235
Non-abdominal ultrasound	93
Computed tomography	400
Magnetic resonance Imaging	455
Nuclear scintigraphy	56
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.	2235
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	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.

Resident(s) will be on a scheduled, independent study of ACVR board review objectives for the first 24 months and will have bi-monthly scheduled meetings (Friday mornings) with a supervising radiologist for questions, clarifications, and further guidance on board objectives. Residents will be taking

scheduled board prep mock exams for the first two years - using the ACVR board exam prep tests (as available for each section from In Training Exam Committee) or furnished by the supervising radiologist. Anticipated order of board prep mock exams: Anatomy, Pathophysiology, Physics, Special Procedures, Alternative Imaging, Radiobiology.

Expectations and performance evaluation on each exam will be discussed with the resident.

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?	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)	1
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.

The residency director and attending radiologists strongly support and encourage the resident to dive deep and develop an area of clinical imaging interest or expertise which may lead to a new marketable clinical skill, journal publication or meeting presentation. The resident will be supported via personal guidance and if needed, institutional financial support, to pursue a feasible clinical project with the goal of creating a tangible product, such as an article for journal publication or ACVR/CE presentation. The training schedule will allow for requested off-clinic time to complete as needed.

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.

Resident will present 1 department/hospital imaging topic seminar yearly (3 total); 2 CE education presentations and/or ultrasound labs to local clinicians (years 2-3) and 1 national meeting presentation during residency.

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

Besides lectures/presentations described above, resident will assist with personalized basic ultrasound training to in-house rotating interns and visiting 4th year externs each year. Resident will also assist with informal clinic case teaching opportunities to rotating interns and externs on diagnostic imaging rotations.

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

Teaching file cases maintained online (Google drive) and accessible to AERC radiologists, residents and radiology staff. Cases indexed by modality, species and area of imaging.
Corresponding image files are stored in cloud based server and accessible to radiologists, residents and staff. Cases added and updated frequently by AERC radiologists with staff help.

How many Known Case Conferences are conducted annually?   18

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.

1. Bi-weekly journal club rounds (Friday 8:00am).
2. Bi-monthly board objective review rounds (Friday mornings), Years 1-2.
3. For initial resident: Monthly to bi-weekly KCC (Friday or Wednesday morning):
   - Monthly Year 1-2 until qualifying exam; increasing frequency to bi-weekly for Year 3 leading to certifying exam.
4. Monthly cross-sectional imaging specific rounds (CT, MR) (Wednesday).
5. Resident will be encouraged to participate in ACVR organized rounds - such as RIVDI

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.

Current editions of all books (and many related ancillary imaging texts) listed in the ACVR Preliminary Examination guide are available in the AERC radiology department.
Print and online access is available to all journals listed in the ACVR Preliminary Exam study guide. Other relevant journals and specialty specific journals (print/online access) are available as needed within AERC hospital library and departments.
University of Minnesota - College of Veterinary Medicine and College of Medicine library resources are available in person (21 minute drive/16 miles away).
Other means of online journal access will be used.

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Evaluation and Protection of Residents

For existing programs, list the names, email contact information, and start/end dates of your current residents.

New Program

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.

Travis C. Saveraid DVM, DACVR (Residency Director)
Kate Jones DVM, MS, DACVIM (Director of Medical Specialties)

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.

Resident is encouraged to first speak to Residency Director initially for most issues. For issues that require a pathway external to radiology department, resident will contact a member of the institutional management committee comprised of Director of Medical Specialities (Kate Jones, DVM, DACVIM), Chief Medical Officer (Steve Shadwick DVM DACVIM) or Leah Wilson - Director of Human Operations.

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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: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2019

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2018

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2017

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2016

Number Of Prelim Board Eligible Residents: n/a

Number of Residents That Took Prelim Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

Certifying Board Exam Pass Rate

2020

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2019

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2018

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2017

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

2016

Number of Certifying Board Eligible Residents: n/a

Number of Residents That Took Certifying Exam: n/a

Number of Residents That Passed On 1st Attempt: n/a

Number of Residents That Passed After Multiple Attempts: n/a

Number of Residents That Have Not Passed: n/a

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

[docx] AERC MN Diagnostic Imaging Resident Progr…

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.