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 Medical Center
Residency Program Director Name: Anthony Fischetti, J
Residency Program Director Email: anthony.fischetti@amcny.org

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, June 25, 2022

Objectives

Succinctly state the objectives of the training program.

The Schwarzman Animal Medical Center’s Diagnostic Imaging Residency Program is a clinically-focused, high-caseload training program. The primary objective of the program is to prepare residents for the preliminary and certifying examinations of the American College of Veterinary Radiology.

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?**

While not mandatory for sitting the exams, residents are expected to participate in some form of Board examination preparation (self-study, short courses, didactic lectures), research, 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?** 90

**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 diplomats 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 diplomats 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: Alexandre Le Roux, DVM, MS, DACVR, DECVI
Hours/Year: 1320 (~30 hours/week training residents; 44 weeks/year)
Specific Areas and/or Limitations of Instructional Responsibility: Radiology, CT, MR, Ultrasound, PET
Institution: Schwarzman Animal Medical Center

Name: Antonia DeJesus, DVM, DACVR
Hours/Year: 1320
Specific Areas and/or Limitations of Instructional Responsibility: Radiology, CT, MR, Ultrasound
Institution: Schwarzman Animal Medical Center

Name: Eunbee Kim, DVM
Hours/Year: 1320
Specific Areas and/or Limitations of Instructional Responsibility: Radiology, CT, MR, Ultrasound, PET
Institution: Schwarzman Animal Medical Center - Eunbee is our third-year resident, joining us as staff in 2022!
Name: Kemba Clapp, DVM, DACVR (LOCUM)

Hours/Year: 300 (~10 weeks/year fill-in for staff doctor vacations)

Specific Areas and/or Limitations of Instructional Responsibility: Radiology, Ultrasound, CT, MR, and Large Animal Imaging

Institution: PetRays

Name: Shannon P. Holmes, DVM, MSc, DACVR (LOCUM)

Hours/Year: 120 (~4 weeks/year fill-in for staff doc vacations and assist in MRI protocols)

Specific Areas and/or Limitations of Instructional Responsibility: MRI and Large Animal Imaging

Institution: Animal Cross Sectional Imaging Specialists

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: Shannon P. Holmes, DVM, MSc, DACVR

% of Hours: 40% Locum radiologist hours

Specific Areas of Instructional Responsibility: MRI and Large Animal Imaging

Institution: Animal Cross Sectional Imaging Specialists
Name: Kemba Clapp, DVM, DACVR

% of Hours: 60% Locum radiologist hours

Specific Areas of Instructional Responsibility: Radiology, Ultrasound, CT, MR, Large Animal Imaging

Institution: PetRays

Name: Peter V. Scrivani, Philippa J. Johnson, Assaf Lerer, Ian R. Porter, Margret S. Thompson, Christopher R. Tollefson

% of Hours: Residents spend 4-6 weeks (~2% of residency at Cornell); one or two of 6 Cornell Faculty will supervise the AMC resident during this time

Specific Areas of Instructional Responsibility: Large Animal and Nuclear Medicine

Institution: Cornell

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  Douglas Palma
ACVIM Member Institution  Internal Medicine
ACVIM Member Email  douglas.palma@amcny.org
ACVS Member Name  Daniel Spector
ACVS Member Institution  ACVS-Small Animal
ACVS Member Email  daniel.spector@amcny.org
ACVP Member Name  Taryn Donavan
ACVP Member Institution  
ACVP (Anatomic Pathology)

ACVP Member Email  
taryn.donavan@amcny.org

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.

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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)

Two Radiology Suites: Canon DR plates and software
Toshiba Aquillion 64-detector
Philips Intera 1.5T MR; upgrading to a Seimens 1.5T MR in late 2022
Two fluoroscopy units, one in Interventional Radiology, the other in Internal Medicine
Two Ultrasound Units: Canon Aplio i700 (times two)

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

On their rotation at Cornell, the resident will get hands-on training

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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.

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.

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

**Small animal radiology** 12563

**Large animal radiology** 0

**Abdominal ultrasound** 5893

**Non-abdominal ultrasound** 300

**Computed tomography** 892

**Magnetic Resonance Imaging** 527

**Nuclear scintigraphy** 50

**Other (Specify)** IR/Fluoroscopy 400
Indicate the approximate species breakdown of the imaging caseload at the primary institution in the following categories:

- Small animals (canine, feline): 90
- Large animals (equine, bovine, porcine, etc.): 0
- Avian, Exotic, and Wildlife animals: 10

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).

The Schwarzman Animal Medical Center (AMC) in New York City and Cornell Hospital for Animals (CUHA) in Ithaca, NY have long had an affiliation agreement whereby AMC residents partake in a 4-6 week out-rotation in Ithaca, concentrating in large animal imaging (all modalities) and nuclear scintigraphy. AMC residents also participate in ACVR-related learning opportunities, including the nuclear medicine short course and the LADIS course.

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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?

- 80%
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?

90

What is the average turnaround time for resident-generated preliminary reports to be finalized by training diplomates?

Turnaround time for radiographs is 24-36 hours. Abdominal ultrasound turnaround time is approximately 2-3 hours. CT/MR turnaround time is 24-48 hours.

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?

95

Please describe how after-hours/weekend/holiday cases are handled at the primary institution. How does this affect resident-reported imaging caseload?

Sunday is the one day of the week where one or two residents are in-house without an in-house staff radiologist. The radiologist works from home that day and is available for consult. Saturday is similar to all other days of the week (fully staffed).

Staff and resident answer email requests for emergency radiographs until approximately 10 pm each night. No after-hour comprehensive ultrasound exams are performed by the radiology department.

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: 7707
- Large animal radiology: 150
- Abdominal ultrasound: 2994
- Non-abdominal ultrasound: 60
- Computed tomography: 729
- Magnetic resonance Imaging: 438
- Nuclear scintigraphy: 30
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.

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: Yes
- Radiobiology: Yes
- Nuclear Medicine: Yes
- 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.

Dr. Pat Zanzonico, PhD and medical physicist (Memorial Sloan Kettering) gives our resident and faculty a course in radiation physics, radiation biology and MR physics. He gives this class every other year, in-person at the AMC. Last year, because of COVID, it took place over Zoom. The class consists of two hours class once per week for just over 2 months. Class includes notes and self-study quizzes.

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)

12

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?

90

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.

- Research ideas are provided to residents, usually by the residency director or supervisor
- Residents are encouraged to literature search and data gather; depending on progress, time is allotted away from clinics to do this
- Preliminary work is shared with a hired veterinary biostatistician visiting AMC quarterly
- Co-authors tend to be AMC faculty that have advanced degrees in statistics
- Prior to any presentations, residents are given 2-4 weeks off-clinics for preparation

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.

- CE presentations given to the AMC family in form of grand rounds, intern rounds, or senior resident research seminar (1-2 during the course of residency)
- Presenting their research at the ACVR’s annual conference

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

AMC residents are responsible for distribution of syllabus to interns before they rotate with us. Daily dictations are in the same reading room as the visiting interns. The residents mentor the interns in their first imaging reports. Residents also give interns quizzes and self-study materials. Diagnostic
imaging residents participate in a yearly ultrasound lab for the internal medicine department.

**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 materials tagged in PACS
- Teaching cases added to a shared google-drive
- Interesting cases are tagged and added to the list each day

**How many Known Case Conferences are conducted annually?**

40

**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.**

Daily rounds are meant to review the drafted cases of residents and discuss interesting cases. Rounds is generally over 2 hours, usually once a day, but towards the end of the week, occurring twice daily. Rounds is conducted with a in-house radiologist. During COVD spikes, a work-from-home staff radiologist may conduct rounds via Microsoft Teams.

**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.**

- AMC has a veterinary library
- All AMC employees have access to the Cornell-Weill Medical Library (three blocks away from AMC).

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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.**

Chelsea O'Toole: chelsea.otoole@amcny.org, 2019-2022
Eumbee Kim: eunbee.kim@amcny.org, 2019-2022
Amit Sidhu: amit.sidhu@amcny.org, 2020-2023
Samantha Soltau: Samantha.solatau@amcny.org, 2021-2024

**Did all of your current residents adequately complete the last 6 months of training?**

Yes

**List the current members of the resident review committee.**

Anthony Fischetti, Alexandre Le Roux, Antonia DeJesus

**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.**

Every six months, a detailed evaluation of each resident is completed by the residency supervisor. The evaluation is approved by the AMC’s Human Resources department. Questions and concerns are addressed as a group with HR. AMC’s HR department serves all employees, including residents.

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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

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<th>Number of Residents That Took Prelim Exam</th>
<th>Number of Residents That Passed On 1st Attempt</th>
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**Certifying Board Exam Pass Rate**

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Number of Residents That Took Certifying Exam: 2
Number of Residents That Passed On 1st Attempt: 2
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

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.

Affiliation Agreements