

ACVR Residency Training Program Application Form:

Animal Medical Center

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.

II. Objectives:

Succinctly state the objectives of the training program.
Provide clinical training in all modalities of veterinary diagnostic imaging so as to foster accountability in diagnoses made for the benefit of animal welfare. Additionally, we will prepare residents for successful completion of the American College of Veterinary Radiology board examination.

III. Training period:

What is the total length of the training program in months? *36 months*

If this is a 4 year program, during what year will the resident be eligible to take the ACVR Preliminary Exam? If the resident is not eligible to take the exam during the beginning of the 3rd year (September), please state the reason.

What is the total duration of supervised clinical training in the program? *30 months*

What are the responsibilities of the resident in the remaining non-clinical portion of the program?
Self-study for board exam preparation; participation in short courses at other institutions; research; and vacation.

IV. Direction and Supervision:

Program Director:

Who is the Director of Residency training? *Anthony Fischetti, DVM, MS, DACVR*

What percentage of this individual's time is committed to clinical service and teaching of residents? *85%*

Faculty:

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

Roentgen diagnosis:

Faculty: <i>Anthony Fischetti, DVM, MS, DACVR</i>
Percentage clinical service: <i>85%</i>

Diagnostic ultrasound:

Faculty: <i>Alexandre Le Roux, DVM, DECVDI, DACVR</i>
Percentage clinical service: <i>85%</i>

Computed Tomography

Faculty: <i>Alexandre Le Roux, DVM, DECVDI, DACVR</i>
Percentage clinical service: <i>85%</i>

Magnetic Resonance Imaging:

Faculty: <i>Anthony Fischetti, DVM, MS, DACVR</i>
Percentage clinical service: <i>85%</i>

Nuclear Medicine:

Faculty: <i>Anthony Fischetti DVM, MS, DACVR</i>
Percentage clinical service: <i>85%</i>

List the names and percentage clinical commitment of additional imaging faculty in the program, and their area(s) of instructional responsibility. For each imaging faculty in the program please provide a one page CV documenting their expertise in the area(s) of assigned responsibility.

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

ACVIM

<i>Douglas Palma DVM, DACVIM (SAIM) Full time staff at AMC</i>
<i>Chadwick West DVM, DACVIM (Neurology) Full time staff at AMC</i>

ACVS

<i>Robert Hart DVM, DACVS Full time staff at AMC (orthopedics)</i>
<i>Pamela Schwartz DVN, DACVS Full time staff at AMC (soft tissue)</i>

ACVP

<i>Taryn Donovan DVM, DACVP Full time staff at AMC</i>
<i>Jamie Haddad DVM, DACVP Full time staff AMC, IDEXX</i>

V. Affiliation agreement:

If all of the training will not be accomplished on-site, please attach a copy of the affiliations agreement(s). Include the scope of the training and amount of time the resident will be away from the home institution.

See attached

VI. Facilities:

Briefly describe how the program meets the facility requirements.

The Animal Medical Center in New York City is a federally recognized non-profit veterinary center that has been a national leader in animal care since 1910. As an academic veterinary hospital, The AMC promotes the health and well-being of companion animals through advanced treatment, research and education. Residencies in veterinary specialties flourished at AMC since the late 1960's. Our staff is comprised of over 80 veterinarians who utilize an interdisciplinary team approach combining expertise in more than 25 key specialties and services to care for pets 24 hours a day, 365 days a year. Our emergency department has recently been granted Level II Trauma Center status.

The department of diagnostic imaging is comprised of two board certified radiologists, 4 certified veterinary technicians, 8-10 veterinary assistants, and two residents providing 7 day/week service in diagnostic radiology, ultrasound, computed tomography, and magnetic resonance imaging. Dr. Fischetti (DACVR), the department head of diagnostic imaging, has been a staff member since 2005. Dr, Alexandre Le Roux, DACVR and DECVDI joined our team in July of 2013.

VII. Clinical resources:

Indicate the approximate number of patients seen annually by the home institution? *In 2014, 52,000 visits were documented at AMC.*

What is the annual imaging caseload? *Between referral and in-house imaging, the caseload is a total of approximately 18,000 cases, all modalities at AMC (number generated from PACS, 2012)*

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

Small animals (canine, feline)	<i>75% (AMC)</i>
Large animals (equine and food animals)	<i>20% (Cornell)</i>

Exotic animals	5-10% (AMC)
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What is the approximate annual imaging caseload of the program in:

Small Animal Radiology: 11,213 (AMC PACS 2014); 930 Referrals
Large Animal Radiology: 5,000 (Cornell); highest caseload in August/September, when the resident is in Ithaca.
Abdominal Ultrasound: 3645 (AMC PACS 2014)
Computed Tomography: 763 (AMC PACS 2014)
Nuclear Medicine: 300 (Cornell)
Magnetic Resonance Imaging: 595 (AMC PACS 2015)
Other (specify): 1230 dental radiographs (AMC PACS 2014); 437 Interventional radiology procedures (AMC PACS) Although radiology does not generate a report for dental radiographs (DR) or interventional radiology images (XA), we are often called upon to consult and discuss cases, incorporating all imaging modalities.

VIII. Training content:

What percentage of imaging reports are typically available within 48 hours after the examination is conducted in typewritten or electronic form? 95%
If your answer is less than 75% please explain how reports are generated and how long it takes for the report to be available for review in typewritten form.
Of the preliminary reports generated from the imaging caseload what percentage are initially produced by the resident? 55-60% of the caseload is generated initially as a preliminary report by one of the residents at AMC.
What percentage of resident reports are reviewed by the imaging faculty prior to finalization of the report? 100% for the first two years. Upon successful completion of the preliminary examination, residents are allowed to finalize approximately 25% of the reports, depending on modality, perceived difficulty, and resident competence as determined by staff radiologists. This percentage has decreased from past years because we have a three year program (the percentage of cases read and finalized by a resident was greater in a four year program, particularly in that

resident's fourth year).

All CT and MRI reports are finalized by a board-certified radiologist but most receive a preliminary report by a 2nd or 3rd year radiology resident.

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?

At AMC, 50% of the time.

At Cornell, radiology rounds are conducted with two or more board-certified imaging faculty every day.

Please complete the table below

	Approximate number of cases in the 30 months clinical experience
Small Animal Radiology:	<i>12,000</i>
Large Animal Radiology:	<i>2,000</i>
Abdominal Ultrasound:	<i>3,000</i>
Computed Tomography:	<i>800</i>
Nuclear Medicine:	<i>300</i>
Magnetic Resonance Imaging:	<i>800</i>
Elective (any of above)	
Required elective (specify):	<p><i>Neurology (1-2 weeks, focused on neuroanatomic localization) 40-50 cases</i></p> <p><i>Interventional Radiology (1 week) 20-30 cases</i></p> <p><i>Anatomic Pathology (2 weeks) 20-30 cases</i></p> <p><i>Cardiology (1 week) 40-50 cases</i></p>

Total	20,000
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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:

Topic	Course number	Units
Radiobiology:	<i>At AMC, Dr. Pat Zanonico, PhD from Sloan Kettering, gives 2 hrs/week lectures for 8 weeks, every other year. Focuses on Imaging Physics and Radiobiology</i>	

The Physics of:

Diagnostic Radiology:	<i>At AMC, Dr. Zanonico, PhD from Sloan Kettering, gives 2 hrs/week lectures for 8 weeks, every other year. Focuses on Imaging Physics and Radiobiology</i>	
Nuclear Medicine:	<i>Nuclear Medicine Short Course: U of Tennessee</i>	
Ultrasonography:	<i>Self study and... At AMC, Dr. Zanonico, PhD from Sloan Kettering, gives 2 hrs/week lectures for 8 weeks, every other year. Focuses on Imaging Physics and Radiobiology</i>	
CT:	<i>Self study and... At AMC, Dr. Zanonico, PhD from Sloan Kettering, gives 2 hrs/week lectures for 8 weeks, every other year. Focuses on Imaging Physics and Radiobiology</i>	

MRI:	<p><i>Self study and...</i></p> <p><i>At AMC, Dr. Zanonico, PhD from Sloan Kettering, gives 2 hrs/week lectures for 8 weeks, every other year. Focuses on Imaging Physics and Radiobiology</i></p>	
<p>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 attached sheets if necessary.</p> <p><i>Ultrasound, CT, and MRI physics and basic concepts are discussed as small groups. Additionally, first year residents are required to participate in the RSNA on-line short courses in radiation physics and MR physics.</i></p> <p><i>In January of year 2 of the residency, a mock preliminary exam (125 multiple choice questions) is given to the resident. The resident is timed. The questions are mix of anatomy, physiology, special procedures, physics, etc. The questions are not separated into sections like the objectives. The exam is meant to be similar to the actual preliminary exam (four choices, multiple choice)</i></p> <p><i>Known case conference is conducted either once every two weeks (as the certifying exam approaches) or once a month by Dr. Fischetti. It is meant to simulate the certifying exam.</i></p>		

IX. Research Environment:

<p>Over the last 5 years, what is the average number of peer reviewed publications, on which the IMAGING faculty listed under Direction and Supervision in IV above, are included as authors?</p> <p><i>Anthony Fischetti: ~5 peer reviewed publications</i> <i>Alexandre Le Roux: ~5 peer reviewed publications</i> <i>Peter Scrivani: ~30 peer reviewed publications</i></p>
<p>What is the number of publications/submissions expected of a resident completing the program?</p> <p><i>At least one</i></p>
<p>If this is an established program, what percentage of residents have made formal research presentations at the annual ACVR or equivalent national meeting?</p> <p><i>Our current third year resident won the ACVR resident research grant award and presented his results at the ACVR meeting in Minneapolis. The manuscript has been submitted to VRU and is awaiting review.</i></p> <p><i>Our current second year resident has had a What's Your Diagnosis? accepted to JAVMA and is working on a retrospective study of the CT characteristics of tonsillar neoplasia in dogs and cats.</i></p>

A past resident presented an abstract at the ACVR in Chicago (2007). The manuscript was later accepted to VRU... Bony and soft tissue thickening associated with head and neck CT in cats with acromegaly, 2011.

Is an advanced degree a requirement of the training program? *No*

X. Educational Environment:

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

*2 lectures per year (referring veterinarian CE, interns/residents)
At least one scientific presentation, namely the ACVR meeting*

XI. Evaluation 'Evaluation of residents and protection mechanisms':

Once every 6 months a detailed evaluation form is completed by the supervisor. The evaluation is approved by the AMC's Human Resources department. Questions and concerns are addressed as a group with HR.

- At the 6 months reviews did your resident(s) successfully complete their residency training or did any of your resident(s) not adequately complete the last 6 months of training?

They all successfully completed their reviews

- List the current members of the residents' review committee.

Anthony Fischetti, Alex Le Rouxe, and Linda Faison (Human Resources)

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

Conflicts are to be addressed to AMC's Human Resources department. At first, conflicts are discussed verbally. The resident or staff doctor would then be asked to submit a formal complaint letter detailing grievances. The HR director is in charge of mediating and determining solutions. We have not had to use this process at any point during the AMC's Diagnostic Imaging residency.

XII. Teaching File:

What is the nature and scope of the teaching file available to residents?

"Radiographs of Interest" are on our server. There are over 3000 studies.

Cornell has a similar system, with easier search engine. Residents have access to this throughout the residency.

How is it maintained/updated? *Anthony Fischetti and Alex Le Rouxe add the interesting cases to the server. The database is updated DAILY.*

XIII. Conferences:

On average how many Known Case Conferences are conducted annually?

1-2 per month (more are conducted as the certifying exam approaches).

XIV. Literature resources:

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

Cornell-Weill Medical Library, 3 blocks away from AMC. All AMC staff and students have access to the library with AMC ID badge.

AMC and Cornell (Ithaca) have their own veterinary libraries.

XV. Appendix:

- (a) 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), check the appropriate box. Complete the table for residents finishing 4 years ago (Year 4), 3 years ago (Year 3), etc.

	Year 5	Year 4	Year 3	Year 2	Year 1
Passed preliminary exam 1st time			<i>Two Residents</i>		<i>One resident</i>
Passed prelim exam 2 nd time					
Passed prelim after 2 nd time					
Passed certifying exam 1 st time					
Passed certifying exam 2 nd time			<i>Two Residents</i>		
Passed certifying exam after 2 nd time					
Unsuccessful in all attempts					

- (b) 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.

1st year: 5 days/week clinical duty (minimum of 8 hours/day) plus emergency.

2nd year: 5 days/week clinical duty (minimum of 8 hours/day) plus emergency, until March, at which point the resident will work 4 days/week. 6 weeks prior to the preliminary exam, the resident is given off-clinic time for self-study.

3rd year: 5 days/week clinical duty (minimum of 8 hours/day) plus emergency until graduation.

At AMC, the resident is expected to have a minimum of 10 radiology cases completed by 10:30 AM, 5 days per week. After 10:30 AM, if the resident is on radiology (3 days per week), he/she are expected to have at least 10 cases completed by 5 PM for additional review/rounding.

Residents not on radiology duty are working in ultrasound or CT/MR..If the resident is on ultrasound, he/she will perform initial exams with close monitoring by an ACVR diplomate. Close monitoring with direct supervision is maintained the entire first year of residency. The resident will perform approximately 10 ultrasounds per day. CT/MRI reports are also generated by all residents, generally 1-5 per week (a much smaller percentage than the caseload for the first two years). In third year, the resident is expected to generate a report for almost all CT/MR imaging.

Emergency MRI is not longer an expectation of our diagnostic imaging residents. Also, after-hours comprehensive ultrasounds are not performed (not by residents or staff). The critical care/emergency department performs focused exams for emergency cases that can then be reviewed by the radiology department the following day. After approximately 5 months of residency, the residents are expected to work one weekend day ALONE (without an in-house radiologist as back up). The resident focus on ultrasound that day but emergency radiographs are also interpreted and preliminary reports is generated for all studies. Dr. Fischetti reviews all preliminary reports with the resident early Monday morning.

Radiology staff and residents are always on-call for reading radiographs made by the emergency department. A schedule is updated monthly and given to the emergency department so they can contact us as needed. This allows AMC to be a level II trauma hospital in the eyes of the College of Emergency and Critical Care.

The relationship with Cornell is for fulfilling the Large Animal and Nuclear Medicine requirements needed to sit for the ACVR board exam. As with past years, the AMC resident moves to Ithaca, NY for two months (8 weeks, August and September) in the first year of residency. An affiliation agreement is attached. The resident has the same learning opportunities and clinical responsibilities as the in-house Cornell residents, with concentration in large animal diagnostic imaging and nuclear medicine.