

## ACVR Residency Training Program Application

**Submission Date**

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**Institution Name:**

University of Florida

**Email**

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

**IMPORTANT NOTE:** This is an amendment to our current program since we would like to move from a 4 year Master program to a 3 year non-Master program.

1. Training in the research investigative methodology by completing and presenting a prospective or retrospective diagnostic imaging project that either addresses a clinically relevant or basic science question related to the field of veterinary diagnostic imaging.
2. Training in scientific writing. The resident is expected to apply for ACVR resident research project funding for their project by the middle of their first clinical year.
3. Advanced training in diagnostic imaging.
  - a. Develop clinical skills in diagnostic radiology.
  - b. Develop clinical skills in special procedures including fistulography, fluoroscopic evaluation of dynamic processes (swallowing, tracheal evaluation) and routine special procedures (evaluation of the gastrointestinal and urogenital systems).
  - c. Develop interpretative skills in selective angiography and interventional radiography.
  - d. Develop clinical skills in small and large animal diagnostic ultrasound, computed tomography, magnetic resonance and nuclear imaging.
  - e. Receive instructional training in the physics of radiography, alternate imaging modalities (including ultrasound, computed tomography, magnetic resonance imaging, and nuclear medicine), radiobiology, radiation protection, and radiation dosimetry and safety. Radiation safety, radiobiology and physics of diagnostic imaging are taught during the first year and will be taken with the MD diagnostic imaging House Officers at the University of Florida, College of Medicine.
4. Training in critical current literature evaluation through the participation in weekly journal club.
5. Participate in the clinical training of veterinary students during their radiology clerkship rotations (VEM 5783 and VEM 5883 – Juniors and Seniors).
6. Training in the presentation of current relevant research data through abstract submission and presentation at appropriate scientific presentations. This would include the presentation of a current research project at the Annual House Officer's seminar as well as the submission of an abstract and presentation at the Annual ACVR meeting.
7. Preparation for qualifying and certifying examinations offered by the American College of Veterinary Radiology by three Mock written examinations (taken at the end of the second year in preparation for the qualifying examination) and weekly Mock oral examinations (Known Case Conference – in preparation for the certifying examination).
8. Develop appropriate communication skills with clinicians and referring veterinarians. Become competent with digital imaging manipulation and the use of presentation software for the preparation and presentation of teaching and scientific related materials using digital images

<b>What is the total length of the training program?</b>	3
<b>What are the responsibilities of the resident in the remaining non-clinical portion of the program?</b>	The non-clinical portion of the program will be used for ACVR board preparation, lecture preparation, completion of resident research project, attending clinical rounds, known case conference and vacation.
<b>Who is the Director of Residency training?</b>	Aitor Gallastegui, LV, MSc, DACVR
<b>What percentage of this individual's time is committed to clinical service and teaching of residents?</b>	75%
<b>Roentgen diagnosis</b>	Federico Vilaplana 75%
<b>Diagnostic ultrasound</b>	Federico Vilaplana 75%
<b>Computed Tomography</b>	Erin Porter 70%
<b>Magnetic Resonance Imaging</b>	Erin Porter 70%
<b>Nuclear Medicine</b>	Aitor Gallastegui 80%
<b>List the names and percentage clinical commitment of additional imaging faculty in the program, and their area(s) of instructional responsibility.</b>	Robson Giglio - 70% Clinics Matt Winter -15% Clinics  Clinics implies radiology (DI, CT, MR) or Ultrasound services
	<a href="#">UF residency program Addendum 2018.zip</a>
<b>ACVIM</b>	Richard Hill
<b>ACVIM</b>	Kirsten Cooke
<b>ACVS</b>	Gary Ellison
<b>ACVS</b>	Brad Case
<b>ACVP</b>	Mary Lessinger
<b>ACVP</b>	Jeff Abbott

## Briefly describe how the program meets the facility requirements.

Facilities include small (5 rooms) and large animal (2 rooms) diagnostic radiology, interventional suite with DR video fluoroscopy and digital subtraction, complete digital radiography system (6 DR Canon Plates), portable radiology units (2 equine and 1 DR plate portable unit for small animal surgery), two real-time B-mode ultrasound with pulsed wave Doppler, power and color Doppler and elastography, 160 slice Toshiba Aquilion Prime helical multidetector-row computed tomography and 1.5 T Toshiba magnetic resonance imaging is available. The CT and MR have both small and large animal capabilities. The imaging service remains paperless and filmless department with 8 fully integrated diagnostic imaging workstations (one of which has [4] 3MP monitors and seven of which have [2] 3 MP monitors). The hospital uses a mature PACS (Merge® PACS) and RIS (Empiric® Fuji) system for full integration of all imaging modalities and reporting. Direct dictation systems are used for each workstation based on a server driven Dragon Medical Nuance software program.

### Ultrasound

Philips Epic 5 with 3 transducers (C9-2 MHz, L15-7IOS, C8-5 MHz, C5-1, L18-5 MHz, L12-5 MHz)

Philips iU22 with 4 transducers (C8-5 MHz, Lio12-15 MHz, L8-15 MHz and C9-4 MHz probes)

Hitachi Prierus with 4 transducers, shear wave elastography and CT/US fusion

### Computed tomography

Toshiba Aquilion Prime®, 160 Multi-detector helical CT unit with CT fluoroscopy

### Small animal radiography

#### SA Radiography room one

Quantum Medical Imaging overhead tube, CPI generator (1000 mA ,150 kVp) with Control X floating bucky table and wall bucky. Canon DR 17" x 17" plate. Routine small animal radiography.

#### SA Radiography room two

Sedecal x-ray machine (800mA, 125 KVp) with floating table-top. Canon DR 17" x 17" plate. Routine small animal radiography.

#### SA Radiography room three

Sedecal x-ray machine (800mA, 125 KVp) with floating table-top. Canon DR 17" x 17" plate. Routine small animal radiography.

#### SA Radiography room four

Sedecal x-ray machine (800mA, 125 KVp) with floating table-top. Canon DR 17" x 17" plate. Routine small animal radiography.

#### SA Radiography room five

Sedecal x-ray machine (400mA, 125 KVp) with floating table-top. Canon DR 17" x 17" plate. Emergency/ICU small animal radiography.  
SA Post-operative surgery portable mobile x-ray unit

One Sedecal portable high frequency mobile x-ray unit with Canon DR 17" x 17" plate. Full Dicom integration with PACS and RIS.

### SA Special procedures

Phillips radiographic/fluoroscopic system with overhead tube (1000 mA 125 kVp). Medrad Mark-IV® and Mark VII pressure/power injectors for CT angiography and interventional radiography. Routine small animal radiography and special procedures.

### Large animal radiography

#### LA Radiography room one

CPI Indico high frequency generator (1000 mA, 150kVp) all-purpose machine with a custom slaved cassette holder system. Routine large animal radiography and special procedures.LA

#### Radiography room two

Sedecal high frequency generator (800 mA, 150kVp) all-purpose machine with a custom slaved cassette holder system.

Routine large animal radiography and special procedures with wall Bucky tray for horizontal beam thorax and other radiographic procedures.

Routine large animal radiography.

Two portable high frequency machines are available for stall side and intraoperative radiography.

### Magnetic Resonance Imaging

Toshiba Titan 1.5 T, 16 channel, 33 mT/m gradient MRI unit.

In addition, there are 3T, 4.7T, and 11T units available for small animal (rodent) imaging at the University of Florida McKnight Brain Institute.

### Nuclear Medicine

MIE Scintron® VI with mobile stand for equine and small animal nuclear medicine. Large field of view gamma camera with dedicated computer system and software (Scintron® dedicated nuclear medicine acquisition and processing software).

### Radiation Therapy

An isolation facility for the routine treatment (I-131) of hyperthyroid cats is available. External beam radiotherapy (Varian 2100 EX)

including a full CT guided radiosurgery treatment facility (6 MeV photon and variable energy electron beams) and stereotactic radiosurgery/multi-leaf collimated therapy unit for IMRT.

**Indicate the approximate number of patients seen annually by the home institution?**

36,781

**What is the annual imaging caseload?**

15,036

	<p>Small Animals (canine, feline): 87%</p> <p>Large Animals (equine and food animals): 10%</p> <p>Exotic Animals: 3%</p>
	<p>Small Animal Radiology: 7924</p> <p>Large Animal Radiology: 919</p> <p>Abdominal Ultrasound: 3034</p> <p>Computed Tomography: 1280</p> <p>Nuclear Medicine: 95</p> <p>Magnetic Resonance Imaging: 519</p> <p>Other (specify): 226 (fluoroscopy)</p>
<p><b>Please check which of the following types of imaging cases the residents will have exposure to during the residency:</b></p>	<p>Small Animal Echocardiography</p> <p>Large Animal Ultrasound</p> <p>Nonabdominal Small Animal Ultrasound (i.e. cervical, musculoskeletal)</p> <p>Food Animal</p> <p>Exotics</p> <p>Teleradiology/Referral Imaging</p>
<p><b>What percentage of imaging reports are typically available within 48 hours after the examination is conducted in typewritten or electronic form?</b></p>	<p>90%</p>
<p><b>Of the preliminary reports generated from the imaging caseload what percentage are initially produced by the resident?</b></p>	<p>99%</p>
<p><b>What percentage of the resident reports are reviewed by the imaging faculty prior to finalization of the report?</b></p>	<p>95%</p>
<p><b>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?</b></p>	<p>60%</p>
	<p>Small Animal Radiology: 4700</p> <p>Large Animal Radiology: 620</p> <p>Abdominal Ultrasound: 1800</p> <p>Computed Tomography: 800</p> <p>Nuclear Medicine: 50</p> <p>Magnetic Resonance Imaging: 380</p> <p>Elective (any of above):</p> <p>Required elective (specify): 150 (fluoroscopy)</p> <p>Total: 8500</p>
<p><b>Radiobiology</b></p>	<p>n/a</p>

<b>Nuclear Medicine</b>	n/a
<b>Ultrasonography</b>	n/a
<b>CT</b>	n/a
<b>MRI</b>	n/a
<b>If your program does not offer formal courses in any or all of these topics please indicate how these educational objectives for each are met. Use the button below to upload additional information as necessary.</b>	A medical physics course is taught by the physicists at the medical school that is taught each year. The radiology residents take this course the first year of the residency but receive no official credit for the course (no official course number). This course includes radiation safety and radiobiology as well as all aspects of the physics of medical imaging for all modalities.
<b>Over the last five years, what is the average number of peer reviewed publications, on which the IMAGING faculty listed under Direction and Supervision in IV, are included as authors?</b>	5/ year/ author
<b>What is the number of publications/submissions expected of a resident completing the program?</b>	1
<b>If this is an established program, what percentage of residents have made formal research presentations at the annual ACVR or equivalent national meeting?</b>	3 from 6 current residents
<b>Is an advanced degree a requirement of the training program?</b>	No
<b>How many lectures or scientific presentations are expected of each resident during the course of their training?</b>	3
<b>Did all of your current resident(s) adequately complete the last six months of training?</b>	Yes
<b>List the current members of the residents' review committee.</b>	Erin Porter Aitor Gallastegui Matt Winter

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

1. Direct communication between the resident and the individual
2. Intervention with the resident advisor between the resident and the individual with resident advisor as intermediary
3. Intervention with the residency program director between the resident and the individual with residency program director as intermediary
4. Intervention with the department chair if needed
5. Intervention with the resident/intern committee if needed
6. Intervention with human resources department within the college of veterinary medicine if needed

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

A teaching file of interesting cases is maintained in the radiology office and online using our RIS and PACS systems. An imaging PACS archive with all DICOM cases was begun in 2005. Currently 11 years of digitized cases are available that are catalogued and searchable in RIS including over 174,000 cases.

**How is it maintained/updated?**

This is maintained when faculty are reviewing cases in rounds with the residents and keywords are added to the report along with specific codes (KCC, etc.) that are all searchable. The RIS has a robust search function that allows one to search via terms in the description, conclusion, keywords, as well as by species, modality and body part.

**On average how many Known Case Conferences are conducted annually?**

50

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

Small library in the veterinary teaching building and on campus (health science center - about 3/10 of a mile away)

Residents have direct access to all eJournals and electronic books on line from any computer in the college and home.

**Provide the pass rate for first time, second time, etc for both the preliminary and certifying exams for your residents for the past 5 years. For example, for all residents finishing your program 5 years ago (Year 5): x number passed prelim 1st time, y number passed certifying exam 1st time, z number was unsuccessful.**

	Year 5	Year 4	Year 3	Year 2	Year 1
<b>Passed preliminary exam 1st time</b>	2			1	2
<b>Passed preliminary exam 2nd time</b>		1			
<b>Passed preliminary exam after 2nd time</b>					
<b>Passed certifying exam 1st time</b>	1				1
<b>Passed certifying exam 2nd time</b>	1				
<b>Passed certifying exam after 2nd time</b>					1
<b>Unsuccessful in all attempts</b>					

[Spring-Summer Schedule 2018.xlsx](#)