

ACVR Residency Training Program Application Form:

Institution Name Texas A&M University

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:

The goal of this three year program is to provide post graduate clinical training in veterinary radiology following a formal internship or equivalent experience. This program is designed to meet the requirements as established by the American College of Veterinary Radiology (ACVR), and successful progression through the program should qualify an individual to take the ACVR written board examination during the third year. No academic degree will be awarded. The training program begins on July 15.

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 3 rd 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? 6 months of the program are designated for research, teaching, studying, and vacation.

IV. Direction and Supervision:**Program Director:**

Who is the Director of Residency training? Jay Griffin
What percentage of this individual's time is committed to clinical service and teaching of residents? 50%

Faculty:

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

Roentgen diagnosis:

Faculty: Cathy Ruoff
Percentage clinical service: 60%

Diagnostic ultrasound:

Faculty: Kathy Spaulding
Percentage clinical service: 60%

Computed Tomography

Faculty: Lindsey Gilmour
Percentage clinical service: 60%

Magnetic Resonance Imaging:

Faculty: Jay Griffin
Percentage clinical service: 50%

Nuclear Medicine:

Faculty: Andra Voges
Percentage clinical service: 60%

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

Large Animal: Kent Carter, Keith Chaffin, Noah Cohen, Michelle Coleman, Philippa Gibbons, Meredyth Jones, Cristobal Navas de Solis, Allen Roussel, David Schmitz, Kevin Washburn
Small Animal: Claudia Barton (oncology), Beth Boudreau (neurology), Audrey Cook (internal medicine), Sonya Gordon (cardiology), Jesse Grayton (oncology), Johanna Heseltine (internal medicine), Jonathan Levine (neurology), Jonathan Lidbury (internal medicine), Joseph Mankin (neurology), Ashley Saunders (cardiology), Jörg Steiner (internal medicine), Mike Willard (internal medicine), Heather Wilson-Robles (oncology)

ACVS

Large Animal: Carolyn Arnold, Joanne Hardy, Amanda Hartnack, Jeffrey Watkins, Ashlee Watts, Canaan Whitfield
Small Animal: Jacqueline Davidson, Lisa Howe, Don Hulse, Sharon Kerwin, Laura Peycke, W. Brian Saunders, Kelley Thieman Mankin,

ACVP

Angela Arenas, John Edwards, Mark Johnson, Gwendolyn Levine, Joanne Mansell, Mary Nabity, Roy Pool, Brian Porter, Aline Rodrigues Hoffmann, Karen Russell, Brad Weeks

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. **NA**

VI. Facilities:

All radiographic suites are equipped with VetRocket Direct Digital Radiography units and connect to a PACS. In the small animal clinic, there are 2 standard radiographic rooms which are used for routine radiography. In addition, there is a special procedures room which houses a digital fluoroscopy system (GE OEC 9800). Ultrasound machines include a Siemens Antares, Siemens S2000, and Siemens Sequoia, which have color flow, spectral, and power Doppler capabilities. In our on-site Diagnostic Imaging and Cancer Treatment Center, there is a 40-slice Siemens Somatom Definition AS Computed Tomography unit and 3T MRI (Siemens Verio) unit. These machines and the facility are used for the scanning of both small and large animal patients (<http://vetmed.tamu.edu/dictc/imaging>). In the large animal clinic, there are 3 rooms for standard radiographic imaging which employ the use of both Eklin Direct Digital and an AGFA computed radiography system. Our on-site nuclear medicine facility provides service for both large and small animal patients (Ultrascan IS2 large animal system with Mirage software). This unit, along with all other modalities, is connected to the PACS. Residents also have training and research opportunities at the Texas A&M Institute for Preclinical Studies (TIPS). Imaging equipment at TIPS includes 128-slice CT and PET/CT Time-of-Flight with respiratory and cardiac gating (<http://tips.tamu.edu/services/imaging>).

VII. Clinical resources:

Indicate the approximate number of patients seen annually by the home institution?
25,000

What is the annual imaging caseload? **14966**

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

Small animals (canine, feline)	80%
Large animals (equine and food animals)	16%
Exotic animals	4%

What is the approximate annual imaging caseload of the program in:

Small Animal Radiology: 7913
Large Animal Radiology: 1887
Abdominal Ultrasound: 2478

Computed Tomography: 1061
Nuclear Medicine: 54
Magnetic Resonance Imaging: 859
Other (specify):

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? 90%
What percentage of resident reports are reviewed by the imaging faculty prior to finalization of the report? 100%
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? 60%

Please complete the table below

	Approximate number of cases in the 30 months clinical experience
Small Animal Radiology:	19783
Large Animal Radiology:	4717
Abdominal Ultrasound:	2065
Computed Tomography:	2650
Nuclear Medicine:	135
Magnetic Resonance Imaging:	2148
Elective (any of above)	

Required elective (specify):	
Total	31498

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:		
The Physics of:		
Diagnostic Radiology:		
Nuclear Medicine:		
Ultrasonography:		
CT:		
MRI:		
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. See Appendix C		

IX. Research Environment:

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? 35 articles, averaging 7 articles per year
What is the number of publications/submissions 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? 100%
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? **3**

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

- 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?
- List the current members of the residents' review committee.
- List the internal mechanisms in place to protect your resident if conflicts arise.

All residents successfully completed the prior 6 months of the program. The current members of the resident's review committee include Jay Griffin, Kathy Spaulding, Andra Voges, Lindsey Gilmour and Cathy Ruoff.

Residents are invited to share grievances with the Residency Program Director or Department Head. The university has robust resources aimed at assisting employees in the following areas: mental health counseling services, alcohol and drug abuse, crisis intervention, and workplace violence prevention. In addition, there are University-mandated online training modules that inform residents to whom they should report instances of inappropriate behavior or discrimination. More information can be found at:

(<http://employees.tamu.edu/eap/services>)

XII. Teaching File:

What is the nature and scope of the teaching file available to residents? **We keep lists of digital cases in our PACS with teaching value. Our electronic medical records are searchable. We keep physical film-based radiographic cases in shelving, organized by list.**

How is it maintained/updated? **Each radiologist adds to teaching case lists as cases are identified.**

XIII. Conferences:

On average how many Known Case Conferences are conducted annually? **24**

XIV. Literature resources:

What is the geographic relationship between the nearest medical library and the training program? **The medical library is located directly across the street from our hospital and is physically connected by a tunnel hallway.**

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			100%	100%	100%
Passed prelim exam 2 nd time					
Passed prelim after 2 nd time					
Passed certifying exam 1 st time			100%	0%	100%
Passed certifying exam 2 nd time				100%	
Passed certifying exam after 2 nd time					
Unsuccessful in all attempts					

NOTE: Our current third year resident did not pass the preliminary exam in 2015.

- (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.

Texas A&M University Typical Radiology Resident Schedule

Year 1		Year 2		Year 3	
Week	Assignment	Week	Assignment	Week	Assignment
1	SA Rad	1	SA Rad/CT/MRI/NM	1	OFF
2	SA US	2	SA US	2	OFF
3	LA Rad	3	LA Rad/CT/MRI/NM	3	OFF
4	SA Rad	4	SA Rad/CT/MRI/NM	4	OFF
5	SA US	5	SA US	5	OFF
6	LA Rad	6	LA Rad/CT/MRI/NM	6	OFF
7	SA Rad	7	SA Rad/CT/MRI/NM	7	SA Rad/CT/MRI/NM
8	SA US	8	SA US	8	SA US
9	LA Rad	9	LA Rad/CT/MRI/NM	9	LA Rad/CT/MRI/NM
10	OFF	10	OFF	10	OFF
11	SA Rad	11	SA Rad/CT/MRI/NM	11	SA Rad/CT/MRI/NM
12	SA US	12	SA US	12	SA US
13	LA Rad	13	LA Rad/CT/MRI/NM	13	LA Rad/CT/MRI/NM

Institution Name

Date

14	OFF	14	OFF	14	OFF
15	SA Rad	15	SA Rad/CT/MRI/NM	15	SA Rad/CT/MRI/NM
16	SA US	16	SA US	16	SA US
17	LA Rad	17	LA Rad/CT/MRI/NM	17	LA Rad/CT/MRI/NM
18	SA Rad	18	SA Rad/CT/MRI/NM	18	SA Rad/CT/MRI/NM
19	SA US	19	SA US	19	SA US
20	LA Rad	20	LA Rad/CT/MRI/NM	20	LA Rad/CT/MRI/NM
21	OFF	21	OFF	21	OFF
22	SA Rad	22	SA Rad/CT/MRI/NM	22	SA Rad/CT/MRI/NM
23	SA US	23	SA US	23	SA US
24	LA Rad	24	LA Rad/CT/MRI/NM	24	LA Rad/CT/MRI/NM
25	SA Rad	25	SA Rad/CT/MRI/NM	25	SA Rad/CT/MRI/NM
26	SA US	26	SA US	26	SA US
27	LA Rad	27	LA Rad/CT/MRI/NM	27	LA Rad/CT/MRI/NM
28	OFF	28	OFF	28	OFF
29	SA Rad	29	SA Rad/CT/MRI/NM	29	SA Rad/CT/MRI/NM
30	SA US	30	SA US	30	SA US
31	LA Rad	31	LA Rad/CT/MRI/NM	31	LA Rad/CT/MRI/NM
32	SA Rad	32	SA Rad/CT/MRI/NM	32	SA Rad/CT/MRI/NM
33	SA US	33	SA US	33	SA US
34	LA Rad	34	LA Rad/CT/MRI/NM	34	LA Rad/CT/MRI/NM
35	SA Rad	35	SA Rad/CT/MRI/NM	35	SA Rad/CT/MRI/NM
36	SA US	36	SA US	36	SA US
37	LA Rad	37	LA Rad/CT/MRI/NM	37	LA Rad/CT/MRI/NM
38	SA Rad	38	SA Rad/CT/MRI/NM	38	SA Rad/CT/MRI/NM
39	SA US	39	SA US	39	SA US
40	LA Rad	40	LA Rad/CT/MRI/NM	40	LA Rad/CT/MRI/NM
41	OFF	41	OFF	41	OFF
42	SA Rad	42	SA Rad/CT/MRI/NM	42	SA Rad/CT/MRI/NM
43	SA US	43	SA US	43	SA US
44	LA Rad	44	LA Rad/CT/MRI/NM	44	LA Rad/CT/MRI/NM
45	OFF	45	OFF	45	SA Rad/CT/MRI/NM
46	SA Rad	46	SA Rad/CT/MRI/NM	46	SA US
47	SA US	47	SA US	47	LA Rad/CT/MRI/NM
48	LA Rad	48	LA Rad/CT/MRI/NM	48	SA Rad/CT/MRI/NM
49	SA Rad	49	SA Rad/CT/MRI/NM	49	SA US
50	SA US	50	SA US	50	LA Rad/CT/MRI/NM
51	LA Rad	51	LA Rad/CT/MRI/NM	51	SA Rad/CT/MRI/NM
52	SA Rad	52	SA Rad/CT/MRI/NM	52	SA US

(c)

The resident will participate in mandatory daily radiology rounds to review radiology reports. No formal didactic training will be required. Instead, the resident will have assigned topics of focused learning during the training program. The residency program director will supervise and guide the residents study on each topic. At the end of each section, a comprehensive written exam will be administered. The examinations cover all of the ACVR preliminary examination objectives. A typical schedule follows:

<u>Exam</u>	<u>Time of Examination</u>
Anatomy	November 1 st year
Physics (includes Radiology, CR, DR artifacts)	March 1 st year
Pathophysiology	July between 1 st & 2 nd year
Special procedures	November 2 nd year
Alternate imaging (includes NM, CT, MRI, US artifacts)	April 2 nd year
Radiation biology, monitoring, protection, statistics and artifacts (Radiology, CR, DR, NM, CT, MRI, US)	July between 1 st & 2 nd year
ACVR Preliminary Exam	September of 3 rd year