

ACVR Residency Training Program Application Form:

The Royal Veterinary College, University of London
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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:

To enable the trainee to

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| <ul style="list-style-type: none"> • gain clinical proficiency in veterinary diagnostic imaging • gain a critical understanding of veterinary diagnostic imaging • pass the professional Board examinations in Veterinary Diagnostic Imaging |
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III. Training period:

What is the total length of the training program in months? 36
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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.
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What is the total duration of supervised clinical training in the program? 30m
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What are the responsibilities of the resident in the remaining non-clinical portion of the program?

Complete a clinical research project on the subject of imaging and submit manuscript for publication in a peer-reviewed veterinary journal.

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

Who is the Director of Residency training? C. R. Lamb

What percentage of this individual's time is committed to clinical service and teaching of residents? 55%

Faculty:

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

Roentgen diagnosis:

Faculty: C. R. Lamb DipACVR
Percentage clinical service: 50%

Diagnostic ultrasound:

Faculty: P. Mantis DipECVDI
Percentage clinical service: 60%

Computed Tomography

Faculty: R. Drees DipACVR
Percentage clinical service: 50%

Magnetic Resonance Imaging:

Faculty: R. Lam DipECVDI
Percentage clinical service: 70%

Nuclear Medicine:

Faculty: R. Drees DipACVR
Percentage clinical service: 50%

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

Dr Bettina Dunkel
Dr Rosanne Jepson
Professor Virginia Luis Fuentes
Professor Richard Piercy
Professor Harriet Syme

Professor Oliver Garden
Mr Patrick Kenny
Dr Ana Lara
Dr Angela Taylor

ACVS

Mr. David Bolt
Professor Daniel Brockman
Dr Thomas Witte
Dr Pilar Lafuente

ACVP

Miss Norelene Harrington
Dr Simon Priestnall
Laureen Peters
Balázs Szladovits

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.

n/a

VI. Facilities:

Small Animal hospital
Radiography
<ul style="list-style-type: none"> • Room 1: 50kW generator, Eklin DR system. • Room 2: Siemens Iconos R200 R/F system, 65kW generator, tilting table with Bucky and phototimer, 40cm digital image intensifier • Also in Room 2: Fuji Capsula computed radiography system • Operating theatre: Mobile Siemens SireMobil digital C-arm

Ultrasonography

- Samsung RS80A system with four transducers, 1-16MHz
- GE Vivid 7 cardiac system with 3, 7 & 10MHz transducer and dedicated workstation running EchoPAC software
- Ausonics Impact portable unit with 2.5, 3.5, 6, 7.5MHz transducers

Computed tomography

- Philips Mx8000iDT, 16 detector CT system

MRI equipment:

- Philips Intera 1.5T magnetic resonance imaging system with access for small and large animals

Large Animal hospital**Radiography**

- Siemens Polydoros ceiling mounted high-output generator with linked grid system
- Fuji direct radiography system
- 4 Eklin Sprint portable x-ray units: 1 for theatre, 3 for ambulatory use
- Mobile Philips BV21 C-arm for fluoroscopic studies in theatre

Ultrasonography

- GE Vivid E9
- Piemedical scanner for foal unit
- Micromax and Sonosite Titan for farm animal use
- 4 Honda HS 2100 scanners for ambulatory use
- 2 DP 6900 scanners for student learning and research

Computed tomography

- Equine referral hospital: GE Ultralight 16 slice for standing horses and horses under GA

Nuclear medicine

- MIE gamma camera with in-built and separate workstation

MRI equipment:

- Equine referral hospital: Hallmark standing Equine 0.27T MRI System

PACS & viewing software:

- Hospital owned server hosting Visbion PACS software
- All imaging modalities for all species are connected to the PACS
- Visbion Image Viewer DICOM viewing software with unlimited (remote) access for authorised users
- Selected Mac computer workstations with Osirix DICOM viewing software
- CRIS: clinical record information system

VII. Clinical resources:

Indicate the approximate number of patients seen annually by the home institution:
22,000

What is the annual imaging caseload? 8,400

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

Small animals (canine, feline)	6,200
Large animals (equine and food animals)	2,200
Exotic animals	<20

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

Small Animal Radiology: 2200
Large Animal Radiology: 1200
Abdominal Ultrasound: 1900
Computed Tomography: 1600
Nuclear Medicine: 160
Magnetic Resonance Imaging: 900
Other (specify): Small animal non-abdominal ultrasound: 350
Equine orthopedic ultrasound: 550

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? 70%
What percent resident reports are reviewed by the imaging faculty prior to finalization of the report? >95%
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? <10%

Please complete the table below

	Approximate number of cases <i>seen by each resident</i> in the 30 months clinical experience
Small Animal Radiology:	1250
Large Animal Radiology:	1000
Abdominal Ultrasound:	1200
Computed Tomography:	1000
Nuclear Medicine:	100
Magnetic Resonance Imaging:	550
Elective (any of above)	-
Required elective (specify):	-
Total	5100

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:	Ionising Radiation Physics: Interactions and Dosimetry (MPHYGB30)	Total 36h for MPHYGB30, MPHYGB10 and MPHYGB11

The Physics of:

Diagnostic Radiology:	Ionising Radiation Physics: Interactions and Dosimetry (MPHYGB30); Medical Imaging (MPHYGB10 and MPHYGB11)	
Nuclear Medicine:	Medical Imaging (MPHYGB10 and MPHYGB11)	
Ultrasonography:	Medical Imaging (MPHYGB10 and MPHYGB11)	
CT:	Medical Imaging (MPHYGB10 and MPHYGB11)	
MRI:	Medical Imaging (MPHYGB10 and MPHYGB11)	
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.		

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? 6/y
What is the number of publications/submissions expected of a resident completing the program? 2 papers accepted by peer-reviewed veterinary journal
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? Yes - MVetMed

X. Educational Environment:

How many lectures or scientific presentations are expected of each resident during the course of their training? 6 in-house; at least 1 to national or international imaging meeting
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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? The most recent 10 full-time resident all completed their training satisfactorily.
- List the current members of the residents' review committee. C. R. Lamb, R. Drees, P. Mantis, R. Lam
- List the internal mechanisms in place to protect your resident if conflicts arise.
 - Annual review of progress with participation of 2 faculty members not directly involved in radiology resident training
 - Interim review may be called by supervisor or resident as required
 - Scholars experiencing difficulties can discuss these with Masters course director, the Head of the Graduate School or Chairman of PG Academic Progress Committee
 - Grievances may be considered through the College's Complaints procedures. Complaints specifically about bullying or harassment should follow the procedure outlined in the College's Dignity at Work policy.

XII. Teaching File:

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

Compilation of patient information, clinical history, imaging findings and notes available on shared database. Numbers of cases held currently are canine/feline cases 420; rabbits 80; large animals 1800.

How is it maintained/updated?

New cases are reviewed by faculty and teaching file updated weekly by residents.

XIII. Conferences:

On average how many Known Case Conferences are conducted annually? 40

XIV. Literature resources:

What is the geographic relationship between the nearest medical library and the training program? Multiple medical libraries and The British Library are in London, a 20min train journey from Hawkshead campus.

The RVC library holds in excess of 50,000 volumes of books and journals, which are searchable by computer. Bibliographic databases (Medline, EMBASE, CAB abstracts, etc) are available. The library currently subscribes to more than 2,500 electronic journals.

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.

	2011	2012	2013	2014	2015
Passed preliminary exam 1st time*	Y	Y	Y	Y	Y
Passed prelim exam 2 nd time					
Passed prelim after 2 nd time					
Passed certifying exam 1 st time	Y	1 Y, 1N	Y	Y	Y
Passed certifying exam 2 nd time		1Y			
Passed certifying exam after 2 nd time					
Unsuccessful in all attempts					
*ECVDI exam					

- (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.

See attached 'Copy of Master resident schedule updated Nov2015'