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.

ACVR Residency Training Program Application

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  
Veterinary Specialty and Emergency Center/Blue Pearl Levittown-Philadelphia

Residency Program Director Name  
Ana Caceres

Residency Program Director Email  
anacaceres@bluepearlvet.com

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?  
Friday, July 15, 2022

Objectives

Succinctly state the objectives of the training program.

To provide a well-rounded Diagnostic imaging program that engages the trainee in all aspects of didactic and clinical radiological applications to graduate competent, professional, and independent practitioners with enough education and experience to pass the certifying examination and to train the
Training Period

What is the total length of the training program? 38

What is the anticipated length of supervised clinical training a resident will experience during this program? 33

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?
To prepare 12 (or more) KCC per year
2x per month journal/textbook club, topic rounds, Morbidity and Mortality [M&M] Rounds
Participate in Physics class- 1st year
NM class- 1st year
MRI class- 2nd year (MRI VETS fellowship 3rd year before boards)
CT class- 2nd year
Vacation
Time to study for boards
Prepare Lectures and presentations for the Hospital
Time for Research
Rotation to other departments (IM, Pathology, IR, Cardiology)

ACVR Residency Training Program Application

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? 100

How many weeks per year will the Residency Director be on clinical service and teaching residents at the primary training institution? 48

ACVR Residency Training Program Application

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 diplomates that are located at an external institution (see Affiliation Agreement section at the end of this application).

Excluding the Residency Director, please list all training diplomates 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: Alexander MacLeod
Hours/Year: 1400
Specific Areas and/or Limitations of Instructional Responsibility: Involved in all areas except Nuclear Medicine

Name: Joseph Sweeny
Hours/Year: 1400
Specific Areas and/or Limitations of Instructional Responsibility: Involved in all areas except Nuclear Medicine
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).

<table>
<thead>
<tr>
<th>Name</th>
<th>% of Hours</th>
<th>Specific Areas of Instructional Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander MacLeod</td>
<td>25</td>
<td>Mainly instructing small animal ultrasound and CT</td>
</tr>
<tr>
<td>Joseph Sweeny</td>
<td>25</td>
<td>Involved in small animal ultrasound, radiography and MRI</td>
</tr>
</tbody>
</table>

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. Upon completion of this application, the below individuals will receive an email requesting acknowledgement of their support of your residency program.

<table>
<thead>
<tr>
<th>ACVIM Member Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Chapman</td>
<td></td>
</tr>
<tr>
<td>ACVIM Member Institution</td>
<td>Blue Pearl Specialist Levittown</td>
</tr>
<tr>
<td>ACVIM Member Email</td>
<td><a href="mailto:peter.chapman@bluepearlvet.com">peter.chapman@bluepearlvet.com</a></td>
</tr>
<tr>
<td>ACVS Member Name</td>
<td>Catherine Popovitch</td>
</tr>
<tr>
<td>ACVS Member Institution</td>
<td>Blue Pearl Specialist Levittown</td>
</tr>
<tr>
<td>ACVS Member Email</td>
<td><a href="mailto:catherine.popovitch@bluepearlvet.com">catherine.popovitch@bluepearlvet.com</a></td>
</tr>
<tr>
<td>ACVP Member Name</td>
<td>Kristin Owens</td>
</tr>
<tr>
<td>ACVP Member Institution</td>
<td>Antech at Blue Pearl Levittown</td>
</tr>
<tr>
<td>ACVP Member Email</td>
<td><a href="mailto:kristin.owens@antechmail.com">kristin.owens@antechmail.com</a></td>
</tr>
</tbody>
</table>

**ACVR Residency Training Program Application**

**Resident:Supervising Diplomate Ratio**
The number of residents in the program cannot exceed twice the number of ACVR/ECVDI Supervising Diplomates on-site.

**What is the maximum number of residents you will have enrolled in this training program at any given time?**

1

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**ACVR Residency Training Program Application**

**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?

<table>
<thead>
<tr>
<th>Modality</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital or Computed Radiography</td>
<td>Yes</td>
</tr>
<tr>
<td>Fluoroscopy</td>
<td>Yes</td>
</tr>
<tr>
<td>Ultrasound with Doppler Capability</td>
<td>Yes</td>
</tr>
<tr>
<td>MRI</td>
<td>Yes</td>
</tr>
<tr>
<td>Fan-beam CT</td>
<td>No</td>
</tr>
<tr>
<td>Nuclear scintigraphy</td>
<td>No</td>
</tr>
</tbody>
</table>

**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 section at the end of this application.)**

Radiography: Three Innovet 20kHz high-frequency generators with sound Eklin TRUDR plate

CT: Three Toshiba Aquilon ASURE 64 slice

MRI: One Siemens Magnetom symphony 1.5T

Fluoroscopy: GE OEC 9800 9 INCH SUPERC MOBILE C-ARM

Ultrasound: 2 Philips EPIQ Elite, 1 Phillips EPIQ 7, and 1 Phillip EPIQ 5

For Nuclear medicine, the plan is to have the resident attend the Nuclear medicine short course and review the previous, current, and new publications on the topic.

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**ACVR Residency Training Program Application**

**Clinical Resources**
Review the clinical resource 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.

50377

**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.

18149

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

- **Small animal radiology**: 9562
- **Large animal radiology**: 0
- **Abdominal ultrasound**: 7002
- **Non-abdominal ultrasound**: 935
- **Computed tomography**: 331
- **Magnetic Resonance Imaging**: 317
- **Nuclear scintigraphy**: 0
- **Other (Specify)**: Fluroscopy

**Indicate the approximate species breakdown of the imaging caseload at the primary institution in the following categories:**

- Small animals (canine, feline): 99%
- Large animals (equine, bovine, porcine, etc.): 0
- Avian, Exotic, and Wildlife animals: 1%

**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 section at the end of this application.)

The resident will be attending a nuclear scintigraphy imaging course, will be attending a diagnostic radiology physics course, and will be encouraged to review peer view papers and material posted on the ACVR website.

Online rounds and course Modules will support large Animal and food animal imaging.

ACVR Residency Training Program Application

Training Content

Review the Training Content requirements listed in the RPE document.

What percentage of the total imaging caseload at the primary institution results in a report written by the resident(s) and/or training 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?  20

Does this institution concurrently support the training of diagnostic imaging interns?  Yes

If yes, indicate what percentage of the preliminary reports generated from the imaging caseload are initially produced by the intern(s) and how this affects the resident imaging report caseload.

There are plenty of cases to be read. At the moment the intern is on radiology duty 2 times a week. The resident will be on radiology duty on different days.

What percentage of resident-generated reports are reviewed by training diplomates prior to finalization of the report?  100
What is the average turnaround time for resident-generated preliminary reports to be finalized by training diplomates?

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?

90%

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.

<table>
<thead>
<tr>
<th>Category</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small animal radiology</td>
<td>5737</td>
</tr>
<tr>
<td>Large animal radiology</td>
<td>0</td>
</tr>
<tr>
<td>Abdominal ultrasound</td>
<td>5251</td>
</tr>
<tr>
<td>Non-abdominal ultrasound</td>
<td>521</td>
</tr>
<tr>
<td>Computed tomography</td>
<td>250</td>
</tr>
<tr>
<td>Magnetic resonance Imaging</td>
<td>190</td>
</tr>
<tr>
<td>Nuclear scintigraphy</td>
<td>0</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>0</td>
</tr>
</tbody>
</table>

How many ultrasound exams will a single resident perform with radiologist feedback during the course of the entire program? Scans for which the resident writes a report but does not acquire images are excluded.

5251

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: Yes
Computed Tomography: Yes
Magnetic Resonance Imaging: Yes
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.

Will the resident(s) in this program attain an advanced degree (MS, PhD) at the conclusion of the program?

No

ACVR Residency Training Program Application

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)

3

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?

0

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.
Ideas for investigation usually surface during rounds, journal clubs, and clinics based on daily challenges. The ideas are often the result of unanswered questions to or from the residents or radiologists. We encourage further investigation of those unanswered questions by enforcing deep investigation into the matter with the goal of creating a sound hypothesis that later is reviewed by the radiologists. Time for investigative work will be given to the resident with the goal of peer view publication. Guidance is provided by the resident director.

**Educational Environment**

Review the Educational Environment expectations listed in the RPE document.

**How many formal presentations (e.g. didactic lectures, departmental seminars, scientific presentations, Continuing Education conferences, etc) are expected of each resident during the course of their training? In general, informal topic rounds, journal club, small group teaching, student labs, and similar events should not be included.**

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

The resident is in charge of:
1. Teaching the house officers (interns and rotating residents from other specialties) during clinics and radiology rotation.
2. Anual radiology lecture to the interns
3. Anual radiology lecture to the IM resident
4. Orthopedic lecture to the Surgery residents
5. Radiology lecture to the referral community

**Briefly describe the nature and scope of the teaching file available to the resident(s) in this program and how it is maintained/updated.**

All the images with the patient information and finalized reports are stored in our PACS system. Teaching file folders were created in the PACS system and organized by modality and anatomic section. All files contain case studies with definitive diagnoses determined by surgery, cytology, or histopathology.

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

**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?**

Blue Pearl Doctors have access to an online library. The online library includes a comprehensive collection of peer view veterinary and human journals including Radiology/Diagnostic Imaging, radiation oncology, cardiology, Internal medicine, dermatology. Avian & Exotic, Neurology, Oncology, ER & ECC, Ophthalmology, Surgery, General Veterinary medicine, Business Management, Technician journals, IT, and finance.

The online library included a Pubmed research database.

There will be an onsite radiology library in the hospital that will include the following books:
- Veterinary Diagnostic Radiology Thrall 7th edition,
- Small animal ultrasonography (d'Anjou/Penninck 2nd edition)
- Small Animal Diagnostic Ultrasound (Nyland/Matton 3rd edition)
- Feline Diagnostic imaging (M. Holland)
- Diagnostic MRI in dogs and cats (Dr. W. Mai)
- Normal radiographic anatomy and anatomic variants in the dog and cat 2nd edition (Don Thrall and Ian Robertson)
- Veterinary Computed tomography (T. Schwartz and Jimmy Saunders)
- Atlas of small animal CT and MRI (Erik Wisner and Allison Zwingenberger)
- Body MDCT in small Animals: Basic Principles, Technology, and clinical applications (G. Bertolini)
- Miller’s anatomy of the dog 4th edition
- Color Atlas of Veterinary Anatomy S H. Done 2nd edition
- Veterinary Image-guided interventions (C. Weisse and Allyson Berent)
- Handbook of small animal radiology and ultrasound: techniques and differential diagnoses (Ruth Dennis)
- Diagnostic Imaging of exotic pets: Birds-small mammals-reptiles
- Veterinary Diagnostic Imaging: Bird, Exotic pets and wildlife (Farrow)
- Essential physics of medical imaging (J Bushberg)
- Christensen’s Physics of Diagnostic Radiology (Ill Curry, Thomas S. (author) James E. Dowdey (author), Jr.Murry, Robert C. (author)

ACVR Residency Training Program Application

Evaluation and Protection of Residents

Did all of your current residents adequately complete the last 6 months of training?  
No current residents

List the current members of the resident review committee.
Ana V. Caceres DACVR  
Joe Sweeney DACVR  
Alexander Macleod DACVR  
Johanna Murray Practice limited to Radiology  
Laura Tseng DACVECC  
Peter Chapman DACVIM  
Catherine Popovitch DACVS

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.

The hospital is part of the BluePearl Veterinary Partners network. Internally residents report both to their residency supervisor and to the Medical Director and can report concerns to either. If a conflict of interest arises then residents may also contact the Group Medical Director. The BluePearl House Officer Programs Director is available as an additional resource. Finally, as part of the Mars Group, any associate may seek support from the Mars Ombudsman.

ACVR Residency Training Program Application

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

### 2020

- Number Of Prelim Board Eligible Residents: 0
- Number of Residents That Took Prelim Exam: 0
- Number of Residents That Passed On 1st Attempt: 0
- Number of Residents That Passed After Multiple Attempts: 0
- Number of Residents That Have Not Passed: 0

### 2019

- Number Of Prelim Board Eligible Residents: 0
- Number of Residents That Took Prelim Exam: 0
- Number of Residents That Passed On 1st Attempt: 0
- Number of Residents That Passed After Multiple Attempts: 0
- Number of Residents That Have Not Passed: 0

### 2018

- Number Of Prelim Board Eligible Residents: 0
- Number of Residents That Took Prelim Exam: 0
- Number of Residents That Passed On 1st Attempt: 0
- Number of Residents That Passed After Multiple Attempts: 0
- Number of Residents That Have Not Passed: 0
### 2017

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Of Prelim Board Eligible Residents</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Took Prelim Exam</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Passed On 1st Attempt</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Passed After Multiple Attempts</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Have Not Passed</td>
<td>0</td>
</tr>
</tbody>
</table>

### 2016

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Of Prelim Board Eligible Residents</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Took Prelim Exam</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Passed On 1st Attempt</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Passed After Multiple Attempts</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Have Not Passed</td>
<td>0</td>
</tr>
</tbody>
</table>

### Certifying Board Exam Pass Rate

#### 2020

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Certifying Board Eligible Residents</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Took Certifying Exam</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Passed On 1st Attempt</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Passed After Multiple Attempts</td>
<td>0</td>
</tr>
<tr>
<td>Number of Residents That Have Not Passed</td>
<td>0</td>
</tr>
</tbody>
</table>
2019
Number of Certifying Board Eligible Residents: 0
Number of Residents That Took Certifying Exam: 0
Number of Residents That Passed On 1st Attempt: 0
Number of Residents That Passed After Multiple Attempts: 0
Number of Residents That Have Not Passed: 0

2018
Number of Certifying Board Eligible Residents: 0
Number of Residents That Took Certifying Exam: 0
Number of Residents That Passed On 1st Attempt: 0
Number of Residents That Passed After Multiple Attempts: 0
Number of Residents That Have Not Passed: 0

2017
Number of Certifying Board Eligible Residents: 0
Number of Residents That Took Certifying Exam: 0
Number of Residents That Passed On 1st Attempt: 0
Number of Residents That Passed After Multiple Attempts: 0
Number of Residents That Have Not Passed: 0
2016

- Number of Certifying Board Eligible Residents: 0
- Number of Residents That Took Certifying Exam: 0
- Number of Residents That Passed On 1st Attempt: 0
- 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**

- BP DI Resident schedule template draft.xlsx
- Externship and time off clinics schedule.docx

### Affiliation Agreements

Upload digital copies of any affiliation agreement(s) in place for the following:

**External rotations or remote institutional affiliations used to supplement resident imaging caseload numbers, species variety, modalities, or study types. Agreement letters should include the scope of training and the amount of time the resident will be training with the affiliate institution. If affiliations are required to support resident caseload numbers in any core modality/category (radiology/fluoroscopy, CT, MRI, or US), agreement letters should include the expected number of reports that the individual resident(s) can expect to generate (with radiologist feedback) for cases in those categories over the course of the external rotation or agreement.**

- Caceres Edwards final.pdf
- Final_AD-472 Oral Pathology Sheet v10.pdf
- Pet Cancer Pathology Service. New Logo Flye...