



RESIDENCY TRAINING PROGRAM REGISTRATION  
2019-2020  
CARDIOLOGY

Part One

New applications for ACVIM Residency Training Programs must be received by the Residency Training Committee (RTC) 90 days prior to any residents beginning training. Before completing this form, please review the general and specific requirements for Cardiology Residency Training Programs in the ACVIM Certification Manual (CM). The current version of the CM is available on the ACVIM website at [www.ACVIM.org](http://www.ACVIM.org).

Prior to making significant changes in a residency training program, approval of the ACVIM and Cardiology RTC must be obtained. The Candidate and/or Program Director must notify ACVIM, in writing before the changes are made to ensure that the proposed changes are approved. Significant changes could include, but are not limited to the following: changes in Program Director or advisors, transferring from one program to another, alterations in program duration, locations of secondary site training, switching to a 'dual board' program or enrolling in an institutional graduate program.

**Notice:** The data collected in this form is necessary both for the ACVIM to maintain its accreditation as a Registered Veterinary Specialty Organization and also is required for renewal of the residency training program. Some of the data collected is required of every specialty and some is specific to the specialty of Cardiology.

**For multi-site residency programs:** To ensure uniformity of training and compliance with current CM requirements, training programs that include multiple sites must provide detailed information regarding supervision and facilities available at each specific site(s). Multi-site programs, if any, will be addressed by the Program Director in Part Two.

Program Director Name: [Dr. Brian A. Scansen](#)

Must be an active Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology

Program Director's Contact Information:

Work Phone:	<a href="tel:(970)297-5000">(970) 297-5000</a>
Mobile Phone:	
E-mail:	<a href="mailto:Brian.Scansen@colostate.edu">Brian.Scansen@colostate.edu</a>
Mailing Address:	<a href="#">CVMBS-VTH, Clinical Sciences</a> <a href="#">300 W. Drake Rd.</a> <a href="#">Ft. Collins, CO 80523</a>

1. Location of Sponsoring Institution (Primary Site of Residency Training Program):

Primary Site Location:	Length of Training Program:
<a href="#">Colorado State University</a>	<a href="#">3 year</a>

2. Resident Advisor(s): Must be a Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology. There is no restriction on the number of Resident Advisors; however, **each Resident Advisor can supervise up to two residents concurrently.**

[Marisa Ames](#)  
[Brian Scansen](#)  
[Kurstien Pierce](#)

3. Supervising Diplomate(s) on-site: Must be an active Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology.

[Marisa Ames - Cardiology](#)  
[Janice Bright - Cardiology](#)

Brian Scansen - Cardiology  
 Kursten Pierce - Cardiology

4. Diplomates of ACVIM responsible for supervision of clinical training who specialize in areas other than Cardiology. If off-site, please explain the situation, and the method of providing direct contact with the resident.

Name and Specialty	Comments
Robert Callan - LAIM Franklyn Garry - LAIM David Van Metre - LAIM Gabriele Landolt - LAIM Yvette Nout-Lomas - LAIM Stacey Byers - LAIM Rebecca Packer - Neurology Stephanie McGrath - Neurology Lisa Bartner - Neurology Susan Lana - Oncology Douglas Thamm -	

5. Residents currently participating in your training program, along with the beginning date of the program, expected ending date of the program, and designated resident advisor. All current residents and incoming residents (if known) should be listed here. Unless specifically approved, in advance, by the CRTC, the ratio of cardiology residents to on-site Cardiology Diplomates who are actively involved in resident training cannot exceed 2 to 1.

Resident Name	Start date (mm/dd/yyyy)	End Date (mm/dd/yyyy)	Resident Advisor Name*
Allison Gagnon Caroline Sloan Hillary Hammond	7.15.17 7.16.18 7.15.19	- 7.15.20 - 7.16.21 - 7.15.22	(Brian Scansen) (Brian Scansen) (Marissa Ames)



American College of **Veterinary** Internal Medicine

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**Part Two**

**Part Two of the Cardiology Residency Training Program addresses general features that apply to all current residents. These questions will be used to provide the Residency Training and Credentials Committees with information needed to judge the structure, quality, scope, and consistency of training provided. (Part Three must be completed and submitted for each resident.)**

Current Date:

Program Director Name:

(Must be a Diplomate of ACVIM in the Specialty of Cardiology or an approved ECVIM Diplomate in Cardiology)

Name of Sponsoring Institution (Residency Training Program):

1. Please list **all Diplomates of the American College of Veterinary Pathology and the European College of Veterinary Pathology** in the areas of clinical pathology or gross/histopathology associated with residency training. If off-site, please explain the situation, and the method of providing direct contact with the resident.

Name of Diplomate(s)	Clinical or Gross	ACVP or ECVP	Comments
Tawfik Aboellail	Gross	ACVP	
Patricia Cole	Gross	ACVP	
Colleen Duncan	Gross	ACVP	
Chad Frank	Gross	ACVP	
Sushan Han	Gross	ACVP	
Forgivemore Magunda	Gross	ACVP	
Gary Mason	Gross	ACVP	
Paula Schaefer	Gross	ACVP	
Terry Spraker	Gross	ACVP	
Paul Avery	Clinical	ACVP	
Andrea Bohn	Clinical	ACVP	
Gregg Dean	Clinical	ACVP	
Amy MacNeill	Clinical	ACVP	
Russell Moore	Clinical	ACVP	
Christine Olver	Clinical	ACVP	
Kelly Santangelo	Clinical	ACVP	
Linda Vap	Clinical	ACVP	

2. Please list **all Diplomates of the American College of Veterinary Radiology and European College of Veterinary Diagnostic Imaging** associated with residency training. If off-site, please explain the situation, and the arrangements for direct contact with the resident.

Name of Diplomate(s)	ACVR or ECVDI	Comments
Myra Barrett	ACVR	
Lynn Griffin	ACVR	
Lukas Kawalilak	ACVR	

Linda Lang	ACVR	
Angela Marolf	ACVR	
Elissa Randall	ACVR	
Kurt Selberg	ACVR	
Keara Boss	ACVR-RO	
Susan LaRue	ACVR-RO	

3. Please list all Diplomates of the American College or equivalent European colleges of Dermatology, Surgery, Ophthalmology, Anesthesiology, ECC, clinical nutrition, clinical pharmacology, and/or theriogenology associated with residency training. . If off-site, please explain the situation and the arrangements provided for contact with the resident.

Name of Diplomate(s)	Specialty	Comments
Pedro Boscan	Anesthesia	
Gregg Griffenhagen	Anesthesia	
Rachel Hector	Anesthesia	
Peter Hellyer	Anesthesia	
Khursheed Mama	Anesthesia	
Marlis Rezende	Anesthesia	
Jennifer Schissler	Dermatology	
Amanda Cavanaugh	E/CC	
Tim Hackett	E/CC	
Geoff Heffner	E/CC	
Lauren Sullivan	E/CC	
Jonathan Stockman	Clinical Nutrition	
Michala Henriksen	Ophthalmology	
Kathryn Wotman	Ophthalmology	
Felix Duerr	SA Surgery	
Nicole Ehrhart	SA Surgery	
Clara Goh	SA Surgery	
Nic Lambrechts	SA Surgery	
Catriona MacPhail	SA Surgery	
Sarah Marvel	SA Surgery	
Eric Monnet	SA Surgery	
Chris Orton	SA Surgery	
Ross Palmer	SA Surgery	
Bernard Seguin	SA Surgery	
Howard Seim III	SA Surgery	
Dan Smeak	SA Surgery	
Deanna Worley	SA Surgery	
David Frisbie	LA Surgery	
Laurie Goodrich	LA Surgery	
Eileen Hackett	LA Surgery	
Diana Hassel	LA Surgery	
Dean Hendrickson	LA Surgery	
Chris Kawcak	LA Surgery	
Richard Wheeler	Theriogenology	

4. Please indicate the availability of the following facilities or equipment. Indicate if these are available on-site at the primary training site, or at a different location. (In the Location column, indicate on-site for primary location or the name of the facility where the equipment is located if off-site.) For facilities that are not on-site, please describe the situation and availability in the space at the end of this section. See CM 5.D for details.

	Available?		Location of equipment? (On-site or list site name)
	Yes	No	
a) Blood pressure equipment (must be on site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
b) Cardiac catheterization capability (must be on-site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
c) Echocardiography equipment (must be on-site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
d) Fluoroscopy (must be on site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
e) Pacemaker interrogation (must be on site or available off-site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
f) Standard radiological equipment (must be on-site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
g) Electrocardiography (must be on-site)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
hi) Brainstem Auditory Evoked Response Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
i) Clinical Pathology capabilities: (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, endocrinology, anatomic and histopathology)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
j) Colloid oncotic pressure measurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
k) Computed Tomography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
l) Electroencephalography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
m) Electromyography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
n) Endoscopy equipment			
GI equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
Bronchoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
Cystoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
Rhinoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
Laparoscopy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
o) Hemodialysis capability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
p) Intensive Care Facility – 24 hours	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
q) Magnetic Resonance Imaging	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
r) Nuclear Medicine [access is desirable]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
s) Radiation Therapy Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
t) Serum osmolality measurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
u) Total parenteral nutrition capability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
v) Ultra sonographic equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
w) Urethral pressure profile & cystometrography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
x) Computerized Medical Records w/Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
y) Medical Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
z) Veterinary Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site

If any of the above equipment or facilities are available off-site, please explain how the resident can access them for case management, research, or study.

5. Clinical caseload information (this information should reflect the caseload of the prior 12 months at the primary site)

Total Cardiology caseload per year:	2030
Number of echocardiographic examinations per year:	1800
Number of cardiac catheterizations per year:	112

**6. Didactic Learning Opportunities and Research Requirements:** In recognition of the importance of scientific discovery as a critical mission of the ACVIM, all Residency Training Programs shall include an assessment period or instruction and/or participation in creative scholarship which will foster an appreciation of, competency in, and contribution to the knowledge base of their respective specialty and which will support their development as clinician scientists. This requirement is fulfilled through satisfactory completion of A, B and one of C [See CM 5.E and 5.F]:

- A. Journal Club: Critical review of literature, minimum of eighty (80) hours during the program. Describe how this requirement is met or exceeded.

General cardiology journal club is a requirement and meets weekly for 1 hour, providing 150 hours total during the training program.

Interventional cardiology / cardiac surgery journal also occurs weekly for 1 hour, providing an additional 150 total hours during the training program.

- B. Cardiology-focused Educational Experiences: Minimum of one hundred fifty (150) hours during the program. Describe how this requirement is met or exceeded. [See CM 5.E.2]

There is a cardiology-specific curriculum composed of a 6-part non-sequential series with each section offered every Fall/Spring semester throughout the 3-year cardiology residency. In total, the series is believed to cover the basic science and clinical training required to gain competence in veterinary cardiovascular medicine and to also provide sufficient background for board certification by the ACVIM in the subspecialty of cardiology. The specific courses are:

- VS 665a – Cardiopulmonary Pathophysiology
- VS 665b – Heart Failure & Cardiac Biomarkers
- VS 665c – Cardiac Catheterization & Hemodynamics
- VS 665d – Electrophysiology & Electrocardiographic Interpretation
- VS 665e – Advanced Cardiac Imaging
- VS 665f – Congenital Heart Disease

The courses are taught 2 mornings per week for 1 hour each morning, providing 30 hours of cardiology-focused education per semester and 180 hours over the course of the residency.

In addition, multidisciplinary rounds are held weekly for 1 hour where surgical, interventional, or complex medical cases are discussed with all faculty present, providing an additional 120 to 150 hours of cardiology-focused education throughout the course of the residency.

- C. Successful completion of any one of the options listed below. Describe how this will be fulfilled or exceeded in the individual trainee's specific application.

1. Successful completion of at least two (2) of the following three (3) short courses/workshops offered by ACVIM either on-line or at the Forum:
  - A. Critical evaluation of veterinary medical/biomedical literature
  - B. Grant Writing
  - C. Study, design and participation in clinical trials
2. Documented submission of a grant proposal (by advisor letter)
3. Acceptance and presentation at a scientific meeting of an abstract (oral or poster) of original work
4. Documented completion (by advisor letter) of a prospective or retrospective research program pertinent to the candidate's specialty
5. Documented completion (by advisor letter) of graduate course work in biostatistics, research methods, and/or research ethics.

Residents are required to write a hypothesis driven research proposal (#2 above) during the first year of the program. The research is carried out in years 1 and 2, with completion in year 3 (#4 above). They are also required to present the results of their research at a national meeting during the final year (#3 above). They are required to take a graduate level biostatistics course as part of their Masters degree program (#5 above).

Note: Letters of documentation by advisors will need to accompany the final submission of the Resident Logs to the Residency Training Committee in order to qualify for a resident certificate.

Please note, any Program Director or Candidate that significantly changes or alters this Residency Training Program before completion must notify ACVIM, in writing, before the changes are made to ensure that the proposed changes are approved.

Significant changes could include, but are not limited to:

- transferring from one program to another
- alterations in program duration
- switching to a 'dual board' program
- enrolling in an institutional graduate program
- change of Program Director or Resident Advisor

As Program Director, I verify that I have read the Certification Manual and that the above information is an accurate reflection of this Residency Training Program.