



RESIDENCY TRAINING PROGRAM REGISTRATION
2018-2019
NEUROLOGY

Part One

New applications for ACVIM Residency Training Programs must be received by the Residency Training Committee 90 days prior to any residents beginning training. Before completing this form, please review the general and specific requirements for Neurology Residency Training Programs in the ACVIM Certification Manual (CM). The most current version of the CM is available on the ACVIM website at www.ACVIM.org. If there is a discrepancy between this form and the CM, the CM will be considered correct, however, please contact the ACVIM office or the Residency Training Committee Chairperson for clarification.

Prior to making significant changes in a Residency Training Program, approval of the ACVIM and Neurology Residency Training Committee must be obtained. The Candidate and/or Program Director must notify ACVIM, in writing. Significant changes could include, but are not limited to: 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: This form contains questions for three separate purposes; data collection that ACVIM must maintain for its accreditation as a specialty college; data collection for each specialty to evaluate what is appropriate for residency programs; and data collection to evaluate this Residency Training Program for renewal. It is important that all questions be answered accurately and completely, even if the answer to a specific question is not essential for a program's renewal.

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, are listed in Part Two.

Program Director Name :

(Must be a Diplomate of ACVIM in the Specialty of Neurology or an approved Diplomate of the European College of Veterinary Neurology)

Program Director's Contact Information:

Work Phone:	<input type="text" value="(734) 369-9555"/>
E-mail:	<input type="text" value="drisaacs@me.com"/>
Mailing Address:	<input type="text" value="4920 Ann Arbor Saline Rd"/>
	<input type="text" value="Ann Arbor, MI 48103"/>

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

Primary Site and Length of Program:

Multi-site programs, if any, are listed in Part Two.

2. Resident Advisor(s): Must be a Diplomate of ACVIM in the Specialty of Neurology or a Diplomate of ECVN.

Andrew Isaacs

3. Supervising Diplomates in Neurology: Must be a Diplomate of ACVIM in the Specialty of Neurology or a Diplomate of ECVN.

[Jared Galle - Neurology](#)
[Andrew Isaacs - Neurology](#)
[Matthew Holan - Neurology](#)

4. All Diplomates of ACVIM or ECVIM responsible for supervision of clinical training who are specialists in areas other than Neurology.

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.

Resident Name, Dates of Program, (Resident Advisor)
Kelli Mossine 9.1.14 - 8.31.18 (Andrew Isaacs)
Logan Dolansdon 7.22.2016 - 7/21/2020 (Andrew Isaacs)

Please note, any Program Director or Candidate that significantly changes or alters their 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



**RESIDENCY TRAINING PROGRAM REGISTRATION
2018-2019
NEUROLOGY**

Part Two

Part Two of the Neurology Residency Training renewal process addresses general features of the program that apply to all current residents. These questions will be used to provide the Residency Training Committee with information needed to judge the structure, quality, scope, and consistency of training provided.

Current Date: 2/25/17

Program Director Name: Andrew Isaacs

(Must be a Diplomate of ACVIM in the Specialty of Neurology or an approved Diplomate of the European College of Veterinary Neurology)

Name of Sponsoring Institution (Residency Training Program): Dogwood Veterinary Referral Center

1. For multi-site residency programs: To ensure uniformity of training and compliance with current Certification Manual (CM) requirements, training programs that include multiple sites must provide detailed information regarding supervision and facilities available at each specific site(s).

Secondary Site/Outside Rotations (if applicable):

(Please include the following for each site: Supervising Diplomate (ACVIM or other specialty), amount of time scheduled at the site and training requirements to be met.

- 1) Neuropathology Outside Rotation: Michigan State University College of Veterinary Medicine, Dr. Jon Patterson (DACVP), 50 hours of direct supervision in veterinary neuropathology.
- 2) Clinical Pathology Outside Rotation: Auburn University College of Veterinary Medicine, Dr. Peter Christopherson (DACVP), 50 hours (90% direct supervision, 10% indirect supervision) in clinical pathology.
- 3) Radiology Outside Rotation: Auburn University College of Veterinary Medicine, Dr. John Hathcock (DACVR), 50 hours (50% direct supervision, 50% indirect supervision) in radiology.

2. Length of Training Program:

2 years	Yes <input type="checkbox"/>
3 years	<input type="checkbox"/>
Other -provide details	4 years: The program is the equivalent of a three year program, but divided over four years. (nine months on and three months off per year).

3. Advanced Degree:

	Yes	No	Optional
Masters:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PhD:

Briefly explain how the degree is integrated into the residency program:

4. Please list all ACVIM Supervising **Diplomates** (Cardiology, Large Animal Internal Medicine, Neurology, Oncology, Small Animal Internal Medicine, ECVIM, or ECVN Diplomates) providing supervision off-site and explain the situation and the agreements provided for contact with the resident. (Note, in Part One, current ACVIM Supervising Diplomates are included; and you are requested to provide additional comments for off-site supervision here).

Name of Diplomate(s)	Comments
Steve Carey Kate Holan John Kruger Daniel Langlois Robert Sanders Jeffery Dennis Heather Vaske	Off-site, direct supervision internal medicine rotation at Michigan State University College of Veterinary Medicine Off-site, direct supervision internal medicine rotation at Blue Pearl Veterinary Partners, Overland Park, KS

5. Please list all **Diplomates** of the American College of Veterinary Pathology or the European College of Veterinary Pathologists 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	Comments
Peter Christopherson Jon Patterson	Clinical Gross	Off-site, clinical pathology rotation at Auburn University College of Veterinary Medicine Off-site, neuropathology rotation at Michigan State University College of Veterinary Medicine

6. Please list all **Diplomates** of the American College of Veterinary Radiology or the 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)	Comments
John Hathcock	Off-site, 3 week rotation at Auburn University College of Veterinary Medicine. Also available for consultations remotely.

7. Please list all **Diplomates** available for consultation in the areas of dermatology, surgery, ophthalmology, anesthesiology, emergency/critical care, clinical nutrition, clinical pharmacology, behavior, and/or theriogenology. If off-site, please explain the situation and the arrangements provided for contact with the resident.

Name of Diplomate(s)	Specialty	Comments
Annette Petersen Edmund Rosser Loic Dejardin Bryden Stanley	Dermatology Dermatology Surgery Surgery	Michigan State University College of Veterinary Medicine faculty available for consultation

Simon Petersen-Jones Andras Komaromy Matthew Beal Ari Jutkowitz Amy Koenigshof	Ophthalmology Ophthalmology Emergency/CC Emergency/CC Emergency/CC	
--	--	--

8. Please list the residents who have completed the training program within the last five years, including the year that each individual's training program ended and whether the individual has completed the Board certification process.

Name(s)	Program End Date (mm/dd/yyyy)	Diplomate? (Yes or No)
Matt Holahan	09/01/2016	Yes

9. Please list the 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.

Resident Name(s) (first/last)	Length of Program (in years)	Program Start Date (mm/dd/yyyy)	Program End Date (mm/dd/yyyy)	Resident Advisor Name(s)
Kelli Mossine	4	09/01/2014	08/31/2018	Andrew Isaacs
Logan Dolandson	4	07/22/2016	07/21/2020	Andrew Isaacs

The following questions will be used to provide the Residency Training Committee with information needed to judge the structure, quality, scope, and consistency of training provided.

NOTE: Direct supervision is required during clinical training, with the time required specified by each particular specialty. Direct supervision is defined as follows: The Supervising Diplomate and resident are participating in a clinical practice in which both the Diplomate and the resident are on duty and interactively and concurrently managing cases. The Diplomate need not personally examine each patient seen by the resident, but must remain physically available for consultation. Please use this definition when responding to the following questions regarding clinical rotations.

10. Is this a traditional or non-traditional residency training program? A traditional neurology residency is a two (2) or three (3) year postgraduate training program, with a minimum of ninety six (96) weeks of supervised clinical training with a majority of the time spent at one location. A non-traditional neurology residency allows for training that may occur in non-contiguous blocks of time over an extended time period.

Traditional	<input type="checkbox"/>
Non-traditional	<input checked="" type="checkbox"/>

For non-traditional programs, please provide a detailed description of the residency program, including length of program, proposed annual schedule, and the amount of time of direct Diplomate supervision for each location of the residency.

[4 years: The program is the equivalent of a three year program, but divided over four years \(nine months on and three months off per year\). See attached planned yearly schedule \(N-DVRC-18, Yearly Breakdown\).](#)

11. The ACVIM Neurology Certification Manual (CM) requires that each resident experience 75 weeks (minimum) of clinical Neurology training under the supervision of either a Diplomate of ACVIM in the Specialty of Neurology or a Diplomate of ECVN. **The 75 weeks should include at least 50 weeks of direct supervision (see definition in CM) and the remainder as indirect supervision (indirect supervision is satisfied by the Supervising Diplomate Neurologist being available for face-to-face contact with the resident at least 4 days per week).**

Please provide an outline of planned yearly schedule, including number of weeks of direct and indirect supervision (i.e. in year 1, the resident will be directly supervised for 25 weeks etc.) A table similar to the example below outlining the proposed weekly schedule of duties for the residents should be provided:

EXAMPLE TABLE ONLY:

	Year I	Year II	Year III
Medical Neurology *			
Neurosurgery			
Neurology/Neurosurgery Direct Supervision	36	36	
Neurology/Neurosurgery - Indirect Supervision			34
Internal Medicine	4	2	2
Clinical Pathology	2		
Radiology	2		
Neuropathology		2	2
Other Rotation (please list the name of each rotation)			
		1	
	2	4	4
Research	4	5	8
Independent Study			
Vacation	2	2	2
Total	52	52	52

Numbers indicated are in “weeks”.

* Many residencies are a combined neurology / neurosurgery program with no distinct separation between the services. Some programs, however, have separate training with a surgery service and this example includes that possibility in describing the weekly rotations.

The example table is only a listing of a proposed weekly schedule for each of the three years of a typical 3-year residency program, including all that is required by ACVIM without making any specific recommendations.

Please indicate the outline of planned yearly schedule here:

	Year I	Year II	Year III
Medical Neurology *			
Neurosurgery			
Neurology/Neurosurgery - Direct Supervision			
Neurology/Neurosurgery - Indirect Supervision			
Internal Medicine			
Clinical Pathology			
Radiology			
Neuropathology			
Other Rotation (please list the name of each rotation):			
Other:			
Other:			

Research			
Independent Study			
Vacation			
Total *			

*The totals should add up to 52 weeks.

12. Describe how daily clinical case rounds are conducted and supervised:

Morning: Resident and supervising diplomate meet to discuss patients and daily plan between 8 and 9 AM
 Evening: Resident and supervising diplomate meet to discuss daily events, patients, and plan for following day

13. The neurology specialty requires that the resident spend at least 50 hours during the residency in the following rotations: Radiology, Clinical Pathology, Neuropathology and Neurosurgery. A Training Agreement Form must be completed and signed by the Diplomate supervising the required training, regardless of whether the training occurs on site or off-site. **Please use the standardized “Training Agreement Form” found on the ACVIM website (www.ACVIM.org) to document proof of supervision for all required contact hours (clinical pathology, radiology, neuropathology surgery, etc.) in rotations other than neurology.** 1 Training Agreement form is required per rotation per resident at the beginning of the residency. Forms do not need to be resubmitted each year as long as a valid Training Agreement Form is on file.

In addition, please provide a brief description of how each phase of this required training is accomplished.

Radiology: 50 hours with a Board-certified radiologist interpreting radiographs, attending seminars and participating in and evaluating the results of special radiographic procedures.

Formal 3-week rotation at Auburn University College of Veterinary Medicine focusing on banked neuroradiology cases. When on the neurology blocks the resident will also review the previous week's cases with an ACVR diplomate. There will be an oral evaluation at the end of the 3-week rotation.

Clinical Pathology: 50 hours with a Board-certified pathologist or clinical pathologist evaluating clinical pathologic findings, attending clinicopathologic conferences, and examining surgical sections.

Formal 2-week rotation at Auburn University College of Veterinary Medicine focusing on clinical pathology with review and interpretation of hematology, urinalysis, and clinical chemistry data, cytologic samples, blood smears, and bone marrow aspirates. The resident will participate in weekly clinical pathology rounds and journal club discussions. Most of the instruction is one-on-one, resident and pathologist, often with the use of a dual or multi-headed microscope. There will be an oral and/or written evaluation at the end of the 2-week rotation.

Neuropathology: 50 hours devoted to review of veterinary neuropathology. This time may be spent in lecture series, seminars, or a formal training program recognized and approved by the college.

Lectures on “Gross Examination of the Nervous System” and “Cellular Response to Injury in the Nervous System”; review of histopathology slide set (45 cases), with accompanying gross lesions; review of full cases which include history, imaging studies, gross pathology, and histopathology. Trainee will work independently on slide sets and

full cases before review with Dr. Patterson.

Neurosurgery: 50 hours participating in veterinary neurosurgical procedures. Please provide a specific description of the type of participation [i.e. observation, performance of neurosurgery], and credentials of those providing the training [i.e. ACVS vs. ACVIM Neurology]. A Training Agreement Form must be completed if this training is provided by individuals other than the ACVIM (Neurology) or ECVN supervising Diplomate for the residency training program.

Neurosurgery experience will be through neurology/neurosurgery blocks at Dogwood Veterinary Referral Center. The resident scrubs in on the majority of surgeries. They start by assisting, and then progress into performing the approach and closure, then most of the surgery, and eventually the entire surgery with assistance only when requested. Supervision is by the following diplomates ACVIM (Neurology): Andrew Isaacs, Jared Galle, and Matt Holahan.

14. The neurology specialty requires that the resident be able to perform and interpret current electrodiagnostic procedures. Briefly state how the concepts of electrodiagnostics (including EEG) and their clinical application will be taught to residents during the training program. Specifically state whether or not the resident will have hands-on electrodiagnostics experience:

The resident participates with hands on electrodiagnsotic testing performed on clinical patients, with supervision by the following diploates ACVIM (Neurology): Andrew Isaacs, Jared Galle, and Matt Holahan. Principals are also reviewed during journal club.

15. The college requires that the resident spend a minimum of 80 hours involved in routine and regular participation in a critical review of the literature (e.g. journal club) during the residency training program. Please explain how this requirement is met:

Neurology journal club is held weekly. Articles are also reviewed regularly regarding patients managed in the hospital.

16. The neurology specialty requires that the advisor meet with the resident at 6 month intervals to assess, review and critique the resident's progress and weekly schedule of activities. Please explain how this is accomplished:

Meetings with the resident are held every 6 months to review performance and ensure important deadlines pertaining to completion of the residency are met.

17. The neurology specialty requires that the resident complete a significant resech or clinical investigative project. Please describe how you plan for the resident to undertake, monitor, and complete a project. Include a timeline that the resident and mentor will use as a guide for completion of the project. Note that publication of this research project is not a requirement.

The resident selects the topic for the prospective study within the first 6 months of the residency. After 2.5 years the resident has completed all data collection and statistical analysis. By the end of year three the research is submitted for publication.

18. Please indicate the availability of the following facilities or equipment. Indicate if these are available 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. Please also provide the manufacturer and model of the unit for electrodiagnostic and imaging equipment.

	Available?		Location of equipment?
	Yes	No	(On-site or list site name)
a) Standard radiological equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
b) Ultrasonographic equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
c) Clinical Pathology capabilities: (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, and endocrinology)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site and Off-site reference labs (Idexx, MSU, Comp. neuromusc lab, etc.)
d) Electrocardiography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
e) Blood Pressure Measurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
f) Radiation Therapy Facility	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Animal Cancer & Imaging Center, Canton MI
g) Veterinary Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
h) Computerized Medical Records w/Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site
i) Medical Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Michigan State University
j) Electromyography and nerve conduction velocity testing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site (Cadwell Sierra 6200A)
k) Evoked Response Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site (Cadwell Sierra 6200A)
l) Electroencephalography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Michigan State University
m) Computed Tomography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Animal Cancer & Imaging Center, Canton MI
n) Magnetic Resonance Imaging (include field strength)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-site (.25T Esote-Grande)

If any of the above equipment or facilities is available off-site, please explain how the resident can access them for case management, research, or study, *especially with respect to the use of imaging equipment*:

Arrangements are in place for the resident to utilize off site radiation therapy facility and CT located at Animal Cancer & Imaging Center, Canton MI.

19. Describe the formal conferences, such as clinicopathologic conferences, journal clubs, or seminars that are held on a regular basis. Please provide a description and the typical schedule for these:

Friday 7 AM: Neurology journal club - review of current neurology/neurosurgery journal articles. Third Wednesday of the month 7 AM: Neuroradiology rounds - review of interesting cases that were imaged the prior month. First Wednesday of the month 7 AM: Neuroanatomy rounds - review of neuroanatomy

20. Detail the teaching responsibilities expected of the resident during the training program. This may include lectures in departmental courses for veterinary students, grand rounds presentations, presentation of papers or seminars at conferences, or participation in continuing education programs.

Resident helps teach students and interns in the hospital. As the resident gains experience, they will lead the daily case rounds and topic rounds discussions with the students. Resident presents CE lectures at a CE conference in the midwest. Resident is encouraged to present their research at a meeting, such as ACVIM Forum.

21. How many major veterinary medical or medical meetings are each resident able to or expected to attend during his/her training program?

None	One	Two	> Two
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: [ACVIM Forum and "Brain Camp"](#)

22. Are one or more publications required as part of the training program?

Yes	No	Number
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

Comments: [A manuscript is required to be submitted for publication.](#)

23. Please describe any additional pertinent information that the Residency Training Program should consider in its evaluation of this Training Program.

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

I verify that the above information is an accurate reflection of this Residency Training Program.

Per the Certification Manual, each year, the Program Director (PD) must certify to the RTC/ RTCC and ACVIM, in writing, that they have read the ACVIM Certification Manual and understands their role in residency training.

Checking this box is an indication I have read the ACVIM Certification Manual and understand my role in the Residency Training Program.

Yearly Schedule (Weekly Breakdown)

	Year 1	Year 2	Year 3	Year 4
Neurology/Neurosurgery				
Direct Supervision	34	32	32	20
Indirect Supervision	0	0	2	11
Internal Medicine	3	0	0	0
Clinical Pathology	0	3	0	0
Radiology	0	0	0	3
Neuropathology	2	0	2	0
Research/Study	0	4	3	5
Off	13	13	13	13
Total (weeks)	52	52	52	52