



**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="(540) 231-2430"/>
E-mail:	<input type="text" value="tepdvm@vt.edu"/>
Mailing Address:	<input type="text" value="SA Clin. Sci., VA-MD Regional CVM
Phase II, Duckpond Dr.
Blacksburg, VA 24061-0442"/>

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.

Karen Inzana John Rossmeisl Avril Arendse Theresa Pancotto

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

Karen Inzana - Neurology
John Rossmeisl - Neurology, SAIM
Avril Arendse - Neurology
Theresa Pancotto - Neurology

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

Jonathan Abbott - Cardiology
Sunshine Lahmers - Cardiology
Michael Leib - SAIM
William Monroe - SAIM
David Panciera - SAIM
Stephanie DeMonaco - SAIM
Michele Borgarelli - SAIM
David Grant - SAIM
W. Scarratt - LAIM
Virginia Buechner-Maxwell - LAIM
Harold McKenzie - LAIM
David Hodgson - LAIM
Sharon Witonsky - LAIM
Katherine Wilson - LAIM
Rebecca Funk - LAIM
Nikolaos Dervisis - Oncology
Shawna Klahn - Oncology

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)
Richard Shinn 7.1.2016 - 7.1.2019 (Joshn Rossmeisl)

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**



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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:

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)

Name of Sponsoring Institution (Residency Training Program):

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.

2. Length of Training Program:

	Yes
2 years	<input type="checkbox"/>
3 years	<input checked="" type="checkbox"/>
Other -provide details	<input style="width: 600px; height: 20px;" type="text"/>

3. Advanced Degree:

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

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

funding by the fall semester year 2. The project is completed during designated off blocks throughout the next two years, and defended during the last semester of the residency.

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
There are no off-site supervising diplomates	

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
Kevin Lahmers Geoffrey Saunders Tanya LeRoith Tom Cecere Sheryl Coutermarsh-Ott Kurt Zimmerman Katie Boes Sarah Barrett	Gross Gross Gross Gross Gross Clinical Clinical Clinical	

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
Gregory Daniel Martha Larson Jeffrey Ruth Kemba Clap	

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
Otto Lanz Robert Gilley Sabrina Barry Ian Herring Natalia Henao-Guerrero Joao Soares	ACVS ACVS ACVS ACVO ACVAA ACVAA	

Noah Pavlisko Jeff Wilson William Swecker Sherrie Clark Julie Cecere Megan Shepherd Marion Ehrich Jeff Wilcke Heng Tam	ACVAA ACVAA ACVN ACT ACT ACVN ACVCP ACVCP ACVD	
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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)
Jamie N King	7/15/2017	No
Samantha Emch	7/15/2015	Yes
Kelli Kopf	7/15/2013	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)
Richard Shinn	3	7/15/2016	7/15/2019	John H. Rossmeisl Jr.

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

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 *	31	35	35
Neurosurgery			
Neurology/Neurosurgery - Direct Supervision	31	35	27
Neurology/Neurosurgery - Indirect Supervision			9
Internal Medicine	6	3	
Clinical Pathology			
Radiology			
Neuropathology			
Other Rotation (please list the name of each rotation):			

Other: Soft Tissue Surgery	3		
Other:			
Research	8	12	12
Independent Study	3		2
Vacation	1	2	2
Total *	52	52	52

*The totals should add up to 52 weeks.

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

At least one faculty is assigned to clinic duty each block. They remain on the floor all day unless they have teaching obligations in the veterinary curricula. Faculty review cases multiple times during the day as necessary. Evening rounds include an indepth discussion of each case with review of diagnostic results for that day and treatment plans for the next 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.

Resident is assigned to evaluate all cases on the neurology service. All special procedures (Myelography, CT, and MRI scans) are interpreted by the resident in concert with both the radiologist and neurologist on duty. A dedicated graduate course (Alternate Imaging) is required as part of the master's program. Radiology rounds are conducted with available radiologists, neurologist, radiology residents, and neurology residents on a bi monthly basis.

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

There are three clinical pathologists on faculty. They routinely assist residents in interpretation of laboratory data and cytological specimens. A clinical pathology course is available every other year that can be taken as part of the master's program.

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.

Residents are required to take a graduate level neuropathology course each semester as part of their masters degree requirement. The following course requires 30 contact hours between student and board certified pathologist.

BMVS 5794 - Clinical Neuropathology

This course uses necropsy tissues of clinical cases to present the mechanisms involved in neurological disease of animals. Gross, Microscopic, and radiologic approaches will be employed. Emphasis will be placed upon the correlation of clinical and pathological findings. May be repeated. Pre: Instructor's approval required. Credit hours 1

Lectures hours 1 Levels(s) Graduate Instruction type Lecture

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.

The neurology service manages both medical and surgical cases on a daily basis. Acute thoracolumbar cases (likely type I IVDD) are seen on a rotating weekly schedule by soft tissue surgery, orthopedic surgery, and neurology. Therefore, the resident is on call one week out of three for these types of cases. The neurology service routinely receives all animals with intracranial disease, all tetraparetic/plegic dogs, and all feline neurological cases. The neurology resident assists with all neurosurgical procedures. Most are performing routine laminectomies and ventral slot procedures by the second year on their own. Surgical stabilization procedures and craniotomies are typically accomplished with assistance from the neurologist by the end of the third year

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 has hands on experience with EMG, MNCV, Spinal Cord and Cortical Evoked Potentials, BAER, and EEG. A graduate training course is also offered as part of the masters where theory and interpretation of different cases are emphasized.

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:

Journal Club is held the first and third Tuesday (Neurology Specific) and alternating Tuesdays (includes all Internal Medicine). Topic rounds for all ACVIM candidates are held every Friday morning. Additional intern/resident seminars are given 8 times per year.

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:

At the end of each block, faculty fill out resident evaluations. Resident advisor meets with the resident every 6 months to go over these evaluations. Additional progress meetings occur with the residents masters' committee each semester to ensure adequate progression through the degree program and thesis.

17. The neurology specialty requires that the resident complete a significant research 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.

A research (Thesis) master's degree is a requirement of our program. Resident must select major professor and general area of interest by the end of the first semester, form a committee and submit a proposal for the project by the end of the second semester. The data is collected over the second year of the residents and the thesis written and defended during the third year.

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"/>	
b) Ultrasonographic equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c) Clinical Pathology capabilities: (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, and endocrinology)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Electrocardiography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e) Blood Pressure Measurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f) Radiation Therapy Facility	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Cases referred to NCSU, UT, OSU, or Specialty Practice in Northern Virginia
g) Veterinary Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
h) Computerized Medical Records w/Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
i) Medical Library w/Literature Searching Capabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
j) Electromyography and nerve conduction velocity testing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
k) Evoked Response Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
l) Electroencephalography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
m) Computed Tomography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
n) Magnetic Resonance Imaging (include field strength)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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*:

Resident can travel to external blocks during periods of independent study. Dr. Michael Nolan comes to VT once per year to provide a seminar on radiation oncology.

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:

Alternating Tuesdays – Neurology specific journal club/ACVIM internal medicine journal club
 Every Wednesday – Neuropathology course/rounds
 Every Friday – ACVIM Topic Rounds (all sub-specialties)
 8 Fridays/year – Intern/Resident Seminar
 Once per month/every other month – Topic Radiology Rounds
 Once per year – Graduate school research day

On years when 2 residents are enrolled, additional semester long courses are offered in the area of electrophysiology, neurophysiology, clinical pathology, radiology, and neuroanatomy. These are a part of the masters program and taught by neurology faculty and neuroscience faculty at the college.

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.

Residents deliver 1 hour lecture in our didactic veterinary curriculum during their 3rd year. They lead morning rounds with clerkship students on a regular basis, they are required to present 4 seminars to department on a neurology related topic and 1 research seminar to University population. Residents are encouraged to present at one regional or national conference (SEVeN, VNS, ACVIM, or ACVS).

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: Residents are supported for ACVIM attendance year 2 and 3. Resident support exists for attendance to the neurology specialty summer course when delivered in the US. Most residents are also supported to attend at least one SEVeN conference during their 3 years.

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

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

Comments:

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

Although not required, most residents have published by the time they complete the 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.