

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 Neurology 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.

Prior to making significant changes in a Residency Training Program, approval of the ACVIM and Neurology 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 Neurology.

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 :

Must be a Diplomate of ACVIM in the Specialty of Neurology or an approved Diplomate of the European College of Veterinary Neurology (ECVN) for at least 5 years with 3 years' experience training residents

Program Director Contact Information:

Work Phone:	<input type="text" value="(407) 644-1287"/>
E-mail:	<input type="text" value="knight_kara@hotmail.com"/>
Mailing Address:	<input type="text" value="9905 S. US Hwy. 17-92 Maitland, FL 32751"/>

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

Primary Site Location:	Length of Training Program:
<input type="text" value="Affiliated Veterinary Specialists"/>	<input type="text" value="3 year"/>

2. Resident Advisor(s): Must be a Diplomate of ACVIM in the Specialty of Neurology or a Diplomate of the ECVN and boarded for at least one year. Each RA advises and supervises no more than two residents at one time.

3. Supervising Diplomates: Must be a Diplomate of ACVIM in the Specialty of Neurology or a Diplomate of the ECVN. The supervising diplomate must be active in the practice of the specialty and must maintain clinical competency in the field. **The sponsoring institution must provide resident with onsite presence of any combination of at least two ACVIM or ECVN Neurology Diplomates with full-time clinical responsibilities.**

Jessica Miller - Neurology
Mary Smith - Neurology

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

Name and Specialty	Comments
Christine Chan - SAIM Teresa Goodson - SAIM Tara Lampman - SAIM Diana McGovern - SAIM Kristen Olsen - SAIM Pamela Smyth - SAIM Jennifer Stafford - SAIM	

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	Start date (mm/dd/yyyy)	End Date (mm/dd/yyyy)	Resident Advisor Name*
Dana Sengewald	7/10/17	7/9/20	Mary Smith
Amanda Landry	7/15/19	7/14/22	Kara Knight



RESIDENCY TRAINING PROGRAM REGISTRATION
2019-2020
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:

Program Director Name:

Program Director Email Address:

Must be a Diplomate of ACVIM in the Specialty of Neurology or an approved Diplomate of the European College of Veterinary Neurology (ECVN) for at least 5 years with 3 years' experience training residents

Name of Sponsoring Institution (Primary Site):

1. Length of Training Program:

	Yes
2 years	<input type="checkbox"/>
3 years	<input checked="" type="checkbox"/>
Other -provide details	<input type="text"/>

2. Advanced Degree:

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

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

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

Name of Diplomate(s)	Specialty Certifying Body	Comments
Stephen Reed, DVM, DACVIM	ACVIM	Rood and Riddle Equine Hospital, Lexington, KY - 2 week clinical equine rotation

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4. 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)	Specialty Certifying Body (ACVP or ECVP)	Clinical or Gross	Comments
Karen Velguth, DVM, DACVP	ACVP	Clinical	Off site, Idexx Laboratories St. Petersburg, FL; the resident will complete a two week rotation in clinical pathology. Please see Training Agreement Form
Jon S. Patterson, DVM, PhD, DACVP	ACVP	Anatomical/Clinical/Gross	Michigan State University CVM: the resident will complete a rotation and resident neuropathology course with Dr. Patterson. Please see Training Agreement Form

5. 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)	Specialty Certifying Body (ACVR or ECVDI)	Comments
Eric Ferrell, DVM, DACVR	ACVR	On site, full time

6. 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 Certifying Body	Comments
Soraya V. Jurabe-Diaz, DVM, DACVB	ACVB	On site, part time
Jeffrey N. Peck, DVM, DACVS	ACVS	On site, full time
Cheryl A. Tano, DVM, DVSc, DACVS	ACVS	On site, full time
Jacek J. de Haan, DVM, DACVS	ACVS	On site, full time
Jean K. Frazho, DVM, DACVS	ACVS	On site, full time
Mariana T. Quina, DVM, DACVS	ACVS	On site, part time
Dana M. DeSandre, DVM, DACVS	ACVS	On site, full time
Kevin S. Kirchofer, MS, DVM, DACVECC	ACVECC	On site, full time
Jennifer R. Stafford, DVM, DACVIM, DACVECC	ACVIM ACVECC	On site, full time
Daniel Priehs, DVM, DACVO	ACVO	On site, full time
Heidi Denis, DVM, DACVO	ACVO	On site, full time
Melanie Church, DVM, DACVO	ACVO	On site, full time
Dawn Logas, DVM, DACVD	ACVD	On site, full time
Marcia Schwassmann, DVM, DACVD	ACVD	On site, full time
Katherine Doerr, DVM, DACVD	ACVD	On site, part time

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.

7. 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. The resident must complete the residency in blocks of time no less than four weeks in length and attend a minimum of 20 weeks of training per year. The training period may not exceed a total of five years.

8. 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)			
		7	
	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 *	14-15	15-16	16-17
Neurosurgery			
Neurology/Neurosurgery - Direct Supervision	36 weeks	34 weeks	36 weeks
Neurology/Neurosurgery - Indirect Supervision			
Internal Medicine	5 weeks	5 weeks	
Clinical Pathology		2 weeks	
Radiology	1 week	1 week	
Neuropathology		2 weeks	
Other Rotation (please list the name of each rotation): ACVIM Symposium	1 week	1 week	1 week
Other: Neuroscience Course	2 weeks		2 weeks
Other: Surgery	4 weeks		4 weeks
Research		2 weeks	2 weeks
Independent Study	2 weeks	4 weeks	6 weeks
Vacation	1 week	1 week	1 week
Total **	52	52	52

* 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.

**The totals should add up to 52 weeks.

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

Residents and interns on the Neurology service meet with the Neurology Diplomates every morning at or before 8:00 am and conduct a review of every in-patient, including clinical examination of every in-patient. Evening rounds are held at the end of the day, where cases are reviewed with the residents and overnight doctor and technicians. Because the Neurology Diplomates are on the clinic floor throughout the day, teaching of interns and residents also occurs throughout the day, during examination and discussion of each patient.

10. The neurology specialty requires that the resident spend at least 50 hours during the residency in the following rotations: Imaging, Clinical Pathology, Neuropathology, Electrodiagnostics and Neurosurgery as well as participate in emergency duties on a rotational basis. A training hour (see CM 7.C.7) will be defined as a minimum of one (1) continuous hour of direct contact time with a supervising specialist in the other field. 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 (imaging, clinical pathology, neuropathology, electrodiagnostics and neurosurgery) in rotations other than neurology.** One 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.

Imaging: 50 hours with a Board-certified radiologist interpreting images, learning and evaluating the results of special imaging techniques and attending imaging rounds or seminars.

Eric Ferrell, DVM, DACVR (on site full time and available for consultation out of hours), face-to face interactions between the resident and radiologist on every neurology patient undergoing radiographic procedures (radiographs, CT scan, MRI, myelography, ultrasonography, nuclear medicine, fluoroscopy, etc) occur on a daily basis. Minimum of two weeks rotation on the radiology service during the residency program.

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

Residents spend two weeks with Dr. Karen Velguth, DVM, DACVP at Idexx Laboratories in St. Petersburg, FL reviewing sample preparation and techniques for cytology, hematology and fluid analysis. They will have interactive discussions on principles of cytologic analysis, fluid analysis and hematologic analysis. Independent evaluation of samples (cytologic, fluid analysis and hematologic) is performed.

Neuropathology: 50 hours with a board-certified anatomic pathologist devoted to review of veterinary neuropathology. This time may be spent in lecture series, seminars, or a formal training program approved by the Residency Training Committee.

Jon Patterson, DVM, PhD, DACVP, Michigan State University. Rotation on service with Dr. Patterson as well as participation in a two week neuropathology course for pathology residents and other residents, offered every 2 years. Dr. Patterson specializes in neuropathology and is well published in the field. The resident also with participate in the Neuroscience Course ("brain camp") in the summer of 2020 and again in 2022.

Electrodiagnostics: 50 hours devoted to reviewing, evaluating, and interpreting different aspects of electrodiagnostics; including but not limited to, electroencephalography, electromyography, motor and sensory nerve conduction study and evoked potentials. 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 electrodiagnostic experience.

We have in-house electrodiagnostic equipment (Cadwell Sierra II) that is used to work up clinical cases. There is additional didactic (one-on-one) teaching of the principles and practice of electrodiagnostics (including EEG) by Dr. Smith, Dr. Knight and Dr. Miller. The resident will also attend the Neuroscience course 1-2 times during the residency.

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/ECVN]. 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.

Mary O. Smith BVM&S, PhD, DACVIM (Neurology). Dr. Smith holds the ACVIM Neurosurgery certificate of training. Board certified since 1990.
Kara C. Knight, DVM, DACVIM (Neurology). Dr. Knight holds the ACVIM Neurosurgery Certificate of Training. Board certified since 2007.
Jessica A. Miller, DVM, DACVIM (Neurology). Board certified since 2018.
Jeffrey N. Peck, DVM, DACVS. Board certified since 1997.

Cheryl A. Tano, DVM, DACVS. Board certified since 1999.

All of the above have been performing neurosurgeries since Board-certification. Approximately 250 neurosurgeries are performed annually at AVS. Drs Smith, Knight and Miller perform or supervise residents in performing 90% of the neurosurgeries. The resident actively participates in at least 350 neurosurgeries during the course of the residency and is expected to take the role of primary surgeon on many of these cases during the second and third years of the residency. It is expected that the resident will have completed approximately 100 neurosurgeries as primary surgeon by the end of the residency. The resident also completes 8 weeks of surgery rotations during the residency, divided equally between soft tissue and orthopedic surgery.

Emergency Duty: Participation in emergency service on a rotational basis; cases seen may be limited to neurology. Please provide a specific description of the type of participation.

The neurology service receives emergency cases on a daily basis during business hours. Residents also participate in overnight emergency and critical care for hospitalized patients.

11. The neurology specialty 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 with at least one board-certified neurologist in attendance at each journal club meeting. Please explain how this requirement is met:

Small group literature review once weekly with the resident, interns, and the neurology Diplomates, including both human and animal literature. Weekly internal medicine and surgery journal clubs under the supervision of Diplomates in those specialties. The resident presents 50% of the papers reviewed. The medicine journal club, which includes some papers in the field of neurology, requires a Power Point presentation and must include background research and literature.

12. 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. The advisor must provide written documentation of the review that will be signed by both advisor and resident. Please explain how this is accomplished:

A written evaluation of the resident's progress (with a specific rating of performance in a large number of specific areas) is presented to the resident at least every 6 months. After she/he has had the time to read the evaluation, a face-to-face meeting occurs with both supervising Diplomates to discuss the evaluation. The resident has the opportunity to respond to the evaluation and challenge any assessment that she/he does not think is accurate.

13. The neurology specialty requires that the resident must complete a basic science or clinical research project that follows the scientific method approach and receives approval by the resident advisor (review CM section 7.E.5.c). 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 clinical or retrospective study is required of all residents and publication of the study is encouraged. The current resident has already completed data acquisition and is in the process of finishing her manuscript.

14. 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:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CBC, chemistry, blood gases, urinalysis- onsite; others off site

- (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, and endocrinology)
- d) Electrocardiography
 - e) Blood Pressure Measurement
 - f) Radiation Therapy Facility
 - g) Veterinary Library w/Literature Searching Capabilities
 - h) Computerized Medical Records w/Searching Capabilities
 - i) Medical Library w/Literature Searching Capabilities
 - j) Electromyography and nerve conduction study testing
 - k) Evoked Response Equipment
 - l) Electroencephalography
 - m) Computed Tomography
 - n) Magnetic Resonance Imaging (include field strength)

		through Idexx Laboratories
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Off site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site Toshiba Aquilon 64 slice
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Siemens Symphony 1.5T

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 and electrodiagnostic equipment*:

Electronic access to VIN, PubMed and numerous veterinary journals. Access to US and international and medical journals with access through TAMU and Colorado State University

15. Residents must attend formal teaching conferences, resident seminars, grand rounds sessions, medicine journal clubs, neurobiology classes, etc. Residents must participate in these activities an average of four times per month, regardless of their duty status. Please describe the formal conferences, such as clinicopathologic conferences, journal clubs, or seminars that are held on a regular basis.

Monday- Medicine Journal Club
 Tuesdays- House Officer Seminars and Resident Rounds- internal clinical rounds led by residents and may be topic or case based. Each house officer is required to present two seminars per year- topics may include new developments in medicine or surgery, results of research projects, detailed review of key medical or surgical topics.
 Wednesdays- Specialist Rounds- topic based rounds led by ACVIM and ACVS specialists
 Thursdays- Neurology Journal Club- see above for details of surgery journal club
 Friday- Surgery Journal Club- see above for details of surgery journal club
 All sessions are held from 7 or 7:30 am to 8:00am daily.

16. The resident must give a presentation at a formal conference at least once per year. 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. Documentation of these presentations must be included in the neurology credentials packet of the resident.

Two formal thirty minute presentations are required for all residents and interns at AVS. Topics are chosen by the house officer and approved by the mentor. Presentations (posters, oral presentations) are encouraged but not required. The resident may also present a lecture at CE for referral veterinarians at AVS.

17. A Neurology Residency Training Program must provide at least 40 hours per year of intensive formal review sessions for residents on topics covered in the General and Specialty Examinations. The requirement could be met in part by attending an ACVIM Advanced Continuing Education (ACE) course, the ACVIM Neuroscience Course (Brain Camp) or an ACVIM Forum. Please describe how these opportunities will be made available to the resident.

Residents will be required to attend 'Brain Camp' at least once during their residency program and will attend the ACVIM Forum once per year. Residents are encouraged to attend ACVIM ACE courses during their residency.

18. 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 all 3 years of residency. Other meetings such as NAVC, ECVN, ECVN neuropathology course, and Brain Camp all may be attended or must be attended \(Brain Camp\)](#)

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

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

Comments: [Publication is encouraged but not required.](#)

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

Please note: The Program Director must report substantive changes within a Neurology RTP affecting compliance with Specialty of Neurology requirements to the Neurology RTC Chair within 14 days. This must be done in writing through the ACVIM office before the changes are made to ensure they are acceptable to the Neurology RTC.

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.