

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="(608) 265-3112"/>
E-mail:	<input type="text" value="WThomas@utk.edu"/>
Mailing Address:	<input type="text" value="Small Animam Clinical Sciences
2407 River Drive
Knoxville, TN 37996-4544"/>

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

Primary Site Location:	<input type="text" value="University of Tennessee"/>	Length of Training Program:	<input type="text" value="2 year"/>
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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.

<input type="text" value="Kimberly Anderson
Aude Castel
William Thomas"/>

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.

Kimberly Anderson - Neurology
 Aude Castel - Neurology
 William Thomas - 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
Rebecca Gompf - Cardiology Olya Martin - Oncology Dianne Mawby - SAIM Jennifer Stokes - SAIM Jacqueline Whittemore - SAIM Amy Holdford - SAIM Shelly Olin - 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*
Linda Hyatt	7/15/17	6/30/20	Kim Anderson



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:

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

2. Advanced Degree:

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

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

[Optional for resident, none of our current residents are enrolled](#)

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
		All on site

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 Diplomat(e)s	Specialty Certifying Body (ACVP or ECVP)	Clinical or Gross	Comments
Michael Fry	ACVP	Clinical	All on site
Bente Flatland	ACVP	Clinical	
Bob Donnell	ACVP	Gross	
Mike McEntee	ACVP	Gross	
David Rotstein Kim Newkirk	ACVP ACVP	Gross Gross	

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 Diplomat(e)s	Specialty Certifying Body (ACVR or ECVDI)	Comments
Silke Hecht	ACVR, ECVDI	All on site
Federica Morandi	ACVR, ECVDI	
Marie DeSwarte	ACVR, ECVDI	
Connie Fazio	ACVR	
Adrien Hespel	ACVR	

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 Diplomat(e)s	Specialty Certifying Body	Comments
Linda Frank	ACVD	All on site
Elizabeth May	ACVD	
Daryl Millis	ACVS	
Joe Weigel	ACVS	
Karen Tobias	ACVS	
Cassie Lux	ACVS	
Kyle Snowden	ACVS	
Chris Smith	ACVA	
Christine Egger	ACVS	
Reza Seddighi	ACVA	
Thomas Martin-Jimenez	ACVCP	
Sherrri Cox	ACVP	
Julie Albright	ACVB	
Maryanne Murphy	ACVN	
Angela Rollins	ACVN	
Diane Hendrix	ACVO	
Dan Ward	ACVO	
Thomas Chen	ACVO	
Adesola Odenayo	AVECC	
Julie Schildt	AVECC	
Kristen Marshall	AVECC	

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 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. 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.

The resident (Linda Hyatt) started her residency at another program (University of Pennsylvania) but left the program during her first year and is completing her second 2 years at the University of Tennessee

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 *	0	0	0
Neurosurgery			
Neurology/Neurosurgery - Direct Supervision	24 (16 weeks at Penn, 8 weeks Tennessee)	34	26
Neurology/Neurosurgery - Indirect Supervision	0	0	08
Internal Medicine	6	0	0
Clinical Pathology	2	2	0
Radiology	0	0	2
Neuropathology	0	0	0
Other Rotation (please list the name of each rotation):			
Other: Brain camp		2	
Other:			
Research	0	6	6
Independent Study	0	6	8
Vacation	28 (transition between programs)	2	2
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:

9:00 am: Resident and supervising diplomate meet to discuss patients and daily plan

4:00 pm or later: Resident, supervising diplomate meet along with students and technician to discuss patients and plan for the next day

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.

Resident spends 2 weeks on the radiology service, Resident attends weekly MRI seminar series

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

2 weeks on clinical pathology service

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.

Resident attends monthly neuropathology rounds organized by one of our pathologists interested in neuropathology. The pathology residents and neurologists also attend. This entails clinical cases, including in-house and send-in cases. The residents review slides before rounds and then during rounds the pathologist leads the discussion. Resident also attends a week-long graduate neuropathology course at Michigan State College of Veterinary Medicine

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.

The resident participates on electrodiagnostic testing performed on clinical patients, with supervision by William Thomas (DACVIM-N), Aude Castel (DACVIM-N) and Kim Anderson (DACVIM-N) This includes BAER on clinical patients and puppy screening, nerve conduction studies and EMG and EEG on clinical patients. We also review principles during journal club

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.

Our neurology/neurosurgery service does all the neurosurgery for the hospital. This is approximately 250 cases per year. The resident scrubs in on almost of the surgeries. They start by assisting, then progressively move to performing the approach and closure, and eventually most or all of the surgery. We also have cadaver labs twice a year for the resident to learn anatomy and practice approaches, drilling and placing implants.

Neurosurgery training is supervised by William Thomas DACVIM(Neurology), Aude Castel DACVIM (Neurology), and Kim Anderson DACVIM(Neurology)

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.

Residents are on call for medical neurology cases (50 weeks) and neurosurgery (22 weeks). After hours cases are initially seen by our emergency service who then will consult with the neurology/neurosurgery person on call. In some cases of medical neurology emergencies, the on-call resident will come in to see the patient. In all cases of emergency neurosurgery, the on-call doctor comes in to do the surgery. A faculty neurologist is always on call for back up as needed by the resident.

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:

We have journal club every week (Tuesday). On the first and third week of the month, this is a videoconference with the neurologists at Missouri, Virginia Tech, and Mississippi State. On the fourth week of the month we have an in-house journal club.
We also regularly review pertinent articles regarding patients we are managing in the hospital.
We also have a statistics seminar

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:

We meet with each resident every 6 months to review performance and schedule. The resident also receives a written evaluation

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.

During the first year of the program, the resident chooses a research project. We help the resident put together a research committee and submit grant proposals and IACAU requests, as needed. The department has in-house funds available to fund resident projects. The resident has dedicated time each year to complete the research and write a paper. The department requires the resident submit a publication

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: (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology, and endocrinology)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
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"/>	On site
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"/>	On site
j) Electromyography and nerve conduction study testing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
k) Evoked Response Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
l) Electroencephalography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
m) Computed Tomography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site
n) Magnetic Resonance Imaging (include field strength)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	On site 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*:

All on site

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 8:00 am Resident seminars. This is a organ-based lecture series with each section consisting of 10-12 weekly 1 hour lectures. Sections include neurology/neurosurgery, endocrinology, orthopedics, immunology, oncology, etc. The entire series rotates on a 3-year basis so the resident is exposed to all sections. Lectures are by faculty, outside speakers and residents and are designed at the level of residents and interns.

Tuesday 8:00 am, Medicine journal club and surgery journal club. Resident attends one or the other depending on the topic.

Tuesday 9:00 am: Neurology journal club. The first and 3rd Tuesday of the month is a video-conference with the neurology groups at Missouri, Virginia Tech, and Mississippi State and discuss two current journal articles. The 2nd Tuesday is neuroapthology rounds. We meet with the pathology group and dsicuss neuropath cases, both gross and microscopic. The coordinator puts out the slides of 4-6 cases several weeks in advance for the residents to study on their own. The 2nd and 4th Tuesday is in-house journal club, where we usually review several older articles on a particular topic.

Wednesday 7 am: MRI rounds

Thursday 8:00 am: 1 hour serminar series including emergency-critical care, EKG rounds, Morbidity and mortality rounds, Statistics, and Radiology, on a rotating basis

Friday 8:00 am: Faculty rounds, two 30-minute presentations by faculty, residents and interns in Small Animal, Large Animal, and Exotics. This is usually a case presentation with literature review although it is sometimes a research presentation. The residents present 2 sessions per year

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.

- The resident helps teach students and interns in the hospital. As the resident gains experience, they will lead the daily case rounds and topic rounds with the students.
- Residents present at least 1 continuing education presentation at the college's annual CE conference for veterinarians.
- Residents present a total of 6 presentations during Friday Faculty Rounds and 1-2 presentations during the neurology section of the Monday Resdient Rounds (see #10).
- Residents are encouraged to present their research at a meeting, such as ACVIM Forum.

-Third year residents have the option of a lecture or lab session for the neurology course for the second year students.

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.

ACVIM in 2nd year and 3rd year,
"Brain camp" once during program
SEVEN, regional veterinary neurology meeting once a year, but we don't go every year, depending on location

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 in 2nd year and 3rd year,
"Brain camp" once during program
SEVEN, regional veterinary neurology meeting once a year, but we don't go every year, depending on location

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

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

Comments: Residents is required to submit at least one paper for their research project

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

NA

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.

