

**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](http://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:	<a href="tel:(865)974-8387">(865) 974-8387</a>
E-mail:	<a href="mailto:egalban@vet.upenn.edu">egalban@vet.upenn.edu</a>
Mailing Address:	<a href="#">Dept. of Clinical Sciences and Advanced Medicine</a> <a href="#">3900 Delancey St.</a> <a href="#">Philadelphia, PA 19104</a>

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.

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

[Evelyn Galban - Neurology](#)  
[Leontine Benedicenti - Neurology](#)  
[Jonathan Wood - 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)
<a href="#">Alex Tun 7.15.15 - 7.15.18 (Leontine Benedicenti)</a>
<a href="#">Scott Petesch 7.18.2016 - 7.14.2019 (Jonathan Wood)</a>
<a href="#">Linda Hyatt 7.17.17-7.12.2020 (Evelyn Galban)</a>

**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: 2/28/18

Program Director Name: Evelyn Galban

(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): University of Pennsylvania

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.

[Empty text box for secondary site details]

2. Length of Training Program:

Form with checkboxes for Yes/No for 2 years, 3 years, and Other -provide details.

3. Advanced Degree:

Form with checkboxes for Yes/No/Optional for Masters and PhD.

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

[Empty text box for degree integration explanation]

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 Diplomat(e)s	Comments

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 Diplomat(e)s	Clinical or Gross	Comments
Elizabeth Mauldin Amy Durham Molly Church Charles Bradley Elizabeth Buza Koranda Walsh Nicole Weinstein Natalie Hoepf	Gross Gross Gross Gross Gross Clinical Clinical Clinical	All on site

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 Diplomat(e)s	Comments
Wilfried Mai Yael Porat-Mosenco Jennifer Reetz Ana Caceres Jantra Suran	All on site

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 Diplomat(e)s	Specialty	Comments
Giacomo Gianotti, Ciara Barr, Monique Pare  Carlo Siracusa  Daniel Morris, Elizabeth Mauldin,  Christine Cain, Katherine Rook  Elaine Holt, Gus Aguirre, William	ACVA  ACVB ACVD	All on site

Beltran, Brady Beale, Patricia Mundy, Keiko Myadera	ACVO	
Cynthia Otto, Kenneth Drobatz, Kim Slensky, Dana Clarke, Lori Waddell, Deborah Silverstein, Deborah Mandell, Erika Reineke, Vince Thawley	VECC	
Lillian Aronson, Dorothy Brown, Susan Volk, David Holt, Kimberly Agnello, Jeffrey Runge, Michael Mison	ACVS	
Alex Reiter, Mary Buelow	ADVC	
Katherine Michel	ACVN Clin Nutrition	
Urs Geiger, Magi Casal	ACVIM Med Genetic and Reproduction	

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)
Laura Krzykowski	7/14/2017	Yes
Jonathan Wood	7/15/2016	Yes
Leontine Benedicenti	7/14/2015	Yes
Emily Davis	7/15/2014	Yes
Adam Moeser	7/14/2013	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)
Alex Tun	3	7/15/2015	7/15/2018	Leontine Benedicenti
Scott Petesch		7/18/2016	7/14/2019	Jon Wood
Linda Hyatt		7/17/17	7/12/2020	Evelyn Galban

**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:**

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

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 *	19	19	
Neurosurgery			
Neurology/Neurosurgery - Direct Supervision	18	19	
Neurology/Neurosurgery - Indirect Supervision			
Internal Medicine	2		
Clinical Pathology	1	1	
Radiology	1	1	
Neuropathology	1		
Other Rotation (please list the name of each rotation):			
Other:			
Other:			
Research	2	2	
Independent Study	6	8	
Vacation	2	2	
<b>Total *</b>	<b>52</b>	<b>52</b>	

\*The totals should add up to 52 weeks.

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

Student rounds are held at the beginning and/or end of each day (Monday through Friday). Cases are discussed with residents sitting down reviewing the record for transfer or outpatient cases or are discussed at cage side. An ACVIM diplomate is generally present during the rounds. Resident and faculty rounds are daily as necessary and as a section group meeting weekly. Weekend cases are discussed as needed on an emergent basis or at Monday morning rounds.

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](http://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.

Residents rotate through radiology in 1 week rotations. Images are reviewed during the study and at subsequent rounds. Residents review MR/CT at daily MR/CT rounds when cases are available. Residents attend radiology teaching rounds.

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

Residents spend one week rotating through clinical pathology service. Clinical pathology instruction is entirely case based. Residents consult with clinical pathologist at least weekly.

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 attend necropsy review held ~3x's/week whenever a neuro case is presented. Neuro-histology sessions: independent study of 10 cases/ alt. weeks held monthly (2.5 hours of independent study and one hour group discussion). A one hour session is held with the pathologist monthly. Residents consult with clinical pathologist at least weekly.

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.

Neurology residents perform surgery on a rotating schedule (assist or as a primary surgeon) on a weekly basis under the direct supervision of ACVIM (Neurology) diplomates or ACVS board-certified surgeons. We participate in neurosurgical rounds with the surgery service.

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:

EMG, nerve conduction and EEG are performed at least once per week on patients seen at our hospital and are taught by faculty. Dr. Colette Williams from UC Davis is an expert in EEG and as Adjunct Faculty at Penn teaches 2 days (16 hours) of lecture and lab on performing and interpreting EEG once every 3 years.

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:

Current and basic literature is discussed informally but frequently. We also devote 4 hours/month to formal neuro journal club sessions.

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:

Advisor and resident have regular meetings, but at least twice yearly meet for a more formal review. This is an opportunity to give guidance, offer compliments (and criticism) and to discuss short-term goals for



the next period.

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.

As in the past, a research project is necessary for completion of the residency. A resident cannot complete the residency until one is performed. In general, the project may be associated with the work done in Dr. Vite's lab, researchers at the medical school, or may be retrospective research done on client owned pets. All residents are required to complete the research within the first 2.5 years.

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 checked="" type="checkbox"/>	<input type="checkbox"/>	
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:*

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:

Department Grand Rounds Bi-weekly
Pathology (gross)- 3x's weekly
Histology-2x's monthly
Neurology journal club-4x's monthly
Internal Medicine Board review- weekly
Large Animal Rounds Bi-weekly
Human Medical Neurology (Hospital of the UPenn) rounds once weekly

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 are required to give a research presentation once every two years and are required to prepare and give two didactic lectures to students every year. They are encouraged to present at the ACVIM meeting every year.
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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 checked="" type="checkbox"/>	<input type="checkbox"/>
Comments: _____			

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

Yes	No	Number
<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Comments: <u>It is expected but not required that the research project will be published.</u>		

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

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**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.**