

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="(631) 587-0800"/>
E-mail:	<input type="text" value="helena.rylander@wisc.edu"/>
Mailing Address:	<input type="text" value="Dept. of Medical Sciences, SVM"/>
	<input type="text" value="2015 Linden Dr. West"/>
	<input type="text" value="WI 53706-1102"/>

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.

[Helena Rylander](#)
[Heidi Barnes Heller](#)

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

[Helena Rylander - Neurology](#)
[Heidi Barnes Heller - Neurology](#)
[Starr Cameron - Neurology](#)

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

[Harriet Bortnowski - SAIM](#)
[Ruthanne Chun - Oncology](#)
[Rebecca Stepien - Cardiology](#)
[Lauren Trepanier - SAIM](#)
[David Vail - Oncology](#)
[Michelle Turek - Oncology](#)
[Jonathan Bach - SAIM](#)
[Heidi Kellihan - Cardiology](#)
[Sonja Tjostheim - Cardiology](#)
[Michael Wood - SAIM](#)
[Katrina Viviano - SAIM](#)
[Jessica Pritchard - SAIM](#)
[Mackenzie Pellin - 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)

[Laura Barnard 7.15.15 - 7.14.18 \(Helena Rylander\)](#)
[Daniel Blake Webb 7.15.16 - 7.14.19 \(Heidi Barnes Heller\)](#)
[Casey Smith 7.15.17 - 7.14.20 \(Helena Rylander\)](#)

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:

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 GIG 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 type="text"/>

3. 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:

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
Dr. Julien Guevar	Diplomate ECVN, is ON SITE, but I could not find any other place to insert his name.

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
Howard Steinberg Marie Pinkerton Leandro Teixeira Kristen Friedrichs Allison Dusick	Gross Gross Gross 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 Diplomat(e)s	Comments
Lisa Forrest Michelle Turek Neil Christensen Ken Waller Alexane Durand	Radiology and radiation oncology Radiology and radiation oncology Radiation oncology Radiology Radiology

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
Dr Peter Muir Dr Susan Schaefer Dr. Jason Bleedorn Dr Dale Bjorling Dr Jonathan McAnulty Dr Robert Hardie Dr Sara Colopy Dr Lesley Smith Dr Lindsey Culp Snyder Dr Rebecca Johnson Dr Tatiana Ferreira Dr Paul Miller	orthopedic surgery orthopedic surgery orthopedic surgery soft tissue surgery soft tissue surgery soft tissue surgery soft tissue surgery Anesthesia Anesthesia Anesthesia Anesthesia Ophthalmology	

Dr Ellison Bentley Dr Gillian McLellan Dr Douglas deBoer Dr Karen Moriello Dr Harry Momont Dr. Jonathan Bach Dr Julie Walker Dr Katrina Viviano	Ophthalmology Ophthalmology Dermatology Dermatology Theriogenology ECC ECC ACVCP	
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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)
Dr. Roger Pettigrew	July 2008	Yes
Dr. Lisa Lipitz	July 2011	Yes
Dr. Katherine Finnerty	July 2013	Yes
Dr. Joy Delamaide Gasper	July 2014	Yes
Dr. Bonnie Oliphant	July 2016	Yes
Dr. Mona Qahwash	July 2017	No

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)
Dr. Laura Barnard	3 years	7/15/2015	7/14/2018	Helena Rylander
Dr. Daniel Blake Webb	3 years	7/15/2016	7/14/2019	Heidi Barnes Heller
Dr. Casey Smith	3 years	7/15/2017	7/14/2020	Helena Rylander

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.

N/A

11. The ACVIM Neurology General Information Guide (GIG) 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 GIG) 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 *	35	34	36
Neurosurgery			
Neurology/Neurosurgery - Direct Supervision	35	34	32-35
Neurology/Neurosurgery - Indirect Supervision	0	0	1-4
Internal Medicine	4	2	0
Clinical Pathology	0	50 hrs	0
Radiology	0	0	1

Neuropathology	0	0	0
Other Rotation (please list the name of each rotation):see below	0	0	0
Other: ophthalmology, cardiology, anesthesia, oncology	4	1	0
Other: orthopedic surgery	1	0	1
Research	6	7	7
Independent Study	0	5	5
Vacation	2	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:

Clinical rounds daily with attending diplomate present all the time. Discussion around each case when it is presenting, and rounds in the evening about cases seen.

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.

The findings on images (radiographs, CT, MRI) from each patient that is being treated by the neurology service will be discussed in person with the radiologist on duty. MRI rounds are being held 1 hour every other week, where residents present cases. This totals 26 hours/year. Neurology-Radiology-pathology rounds are held in 1 hour sessions 3-4 times per year and organized by the neurology residents. Radiographic and MRI findings are discussed in correlation with clinical findings, gross pathologic and histopathologic findings. The radiology, neurology and pathology faculty lead the rounds. Discussions are held about image alternative, imaging artefacts and imaging technique, gross pathology and correlation to clinical and image findings, histopathologic stains. The residents will also rotate one week through the radiology service, totaling 40-50 hours. In addition total didactic rounds for 3 years is: 87-90 hours

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

Pathology rounds (necropsy rounds) are held every day for 30 minutes, which is 2.5 hours per week. Histopathology and cytology rounds are being held one hour per week respectively and attendance is encouraged,

but not always possible due to other rounds being priority. Rotation with a clinical pathologist is scheduled for 1 week and 2 days (56 hours) during the residency.

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.

Rounds with a human neuropathologist (Dr. Shariar Salamat) at the UW medical school is held one hour per month approximately 10 times per year in total. Histopathology is also discussed at the neurology-radiology-pathology rounds held 3-4 times per year. The resident is also sent to a neuropathology course or to spend 1 week with a neuropathologist at another institution (varies from year to year depending on availability and finances) during the 3 year residency, Neurology-Radiology-pathology rounds are held in 1 hour sessions 4 times per year and organized by the neurology residents. Radiographic and MRI findings are discussed in correlation with clinical findings, gross pathologic and histopathologic findings. The radiology, neurology and pathology faculty lead the rounds. Discussions are held about image alternative, imaging artefacts and imaging technique, gross pathology and correlation to clinical and image findings, histopathologic stains. Total didactic hours for rounds in 3 years is: 42 hours, plus the neuropathology course or 1 week rotation of gross pathology/necropsy including reviewing neuropathology. The neuropathology course has been done by all residents so far and will be offered to all residents as long as a course is offered word wide, but is not mandatory.

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

Neurosurgery is done by the neurology service at least two entire days per week and often two afternoons in addition to that. In addition the resident spends a 2 weeks rotation with the orthopedic service and also has the opportunity to join the orthopedic service for out of hour neurology emergency cases. All 4 mentors in neurology were trained in neurosurgery as part of their residency and have the neurosurgery certificate. The residents initially assist in surgery and then do the surgeries with the faculty assisting. Surgery cases are approximately 65-75 per resident in 3 years amounting to 170-190 hours of surgery for each resident.

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 service has an electrodiagnostic machine and performs electrodiagnostic work up including EMG, nerve conduction, somatosensory evoked potentials and BAER on a regular basis on clinical patients. EEG is available and done occasionally. Didactics and rounds is conducted to go over electrodiagnostics including EEG. A 1 week course is going to be organized every 2-3 year, so each resident participates in this course at least once during their residency.

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:

One hour Journal clubs are held once a week in neurology and once a week in internal medicine. The resident alternates with the faculty to choose articles from journals and book chapters and the content are critically reviewed. Total approximate journal club time in 3 years: 120 hours neurology 120 hours internal medicine.

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:

Evaluations from all faculty that have worked with the resident are summarized and the advisor meets with the resident every 6 month to review evaluations and clinical performance. The mentors regularly meet with the resident to discuss and plan usage of the off clinic time. The evaluation is given both orally and in written form.

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.

One retrospective or prospective study or case series report presented as a poster, abstract or paper is required by the resident. This should be presented at the annual ACVIM, ECVN or ACVR meetings. This is a requirement for the resident to complete the 3 year residency program.

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

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:*

N/A

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:

All rounds described below are held approximately 10 months per year:

1. Neurology topic rounds are held twice a month. The literature for a specific topic is reviewed by the resident and the diplomates and discussed.
2. Medicine topic rounds are held weekly. These are extensive literature reviews on a disease or other topic scheduled by an ACVIM diplomate. Each ACVIM residents prepares 2-3 rounds per year and the faculty members prepare 1 lecture year.
3. Journal clubs are held once a week in neurology and once a week in internal medicine. The resident alternates with the faculty to choose articles from journals and book chapters and the content is critically reviewed
4. Case presentations with only resident and diplomates in neurology are held 2 times per month. The resident(s) present and reviews all aspects of clinical cases encountered in the clinic.
5. Neuropathology rounds with a human neuropathologist (Dr. Shariar Salamat) at the UW medical school is held one hour per month.
6. Radiology rounds are held 2 times (each 1 hour) per month with the radiology diplomates and the radiology residents. Cases are presented by the residents (radiology and neurology) and presentation completeness and interpretation of findings are discussed. The rounds are focused on interpreting MRI.
7. Neurology-radiology-pathology rounds are held 3-4 times per year. Clinical cases are discussed and clinical findings are compared to findings on imaging, gross pathology and histopathology. The residents prepare the cases for the rounds.
8. Gross pathology (necropsy) rounds are held 30 minutes per day and is attended as often as clinic schedule allows, but at least when neurology cases are presented.

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.

The resident is required to give an oral presentation or present a poster at one ACVIM, ECVN or ACVR meeting. The resident gives formal presentation in medicine topic rounds (see above) at a resident level to all other ACVIM residents, and at least one presentation to the veterinary students as part of their curriculum (neuroanatomy class, clinical pharmacology or other). Each resident also gives at least one grand round presentation during the 3 year residency.

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

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

Comments: ACVIM annual meeting the second and third year of the residency. The resident is also encouraged to attend a neuropathology course (Barcelona, Spain), and the biannual neuroscience course.

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

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

Comments: The research is a prospective or retrospective study. We require that the candidate presents the work as a poster or oral abstract presentation at the ACVIM meeting and that the candidate writes a manuscript suitable for publication.

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

No change from last year in structure of program. Two board certified neurologists added: Julien Guevar (DECVN) and Dr. Starr Cameron (DACVIM).

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

X 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.

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