ACVR RO Residency Training Program Application

Submission ID	4226936724713892335
Submission Date	01-30-2019 11:22:03
1. Date of Application	01-29-2019
Your Name:	Kim Selting
Your Address:	1008 W. Hazelwood Dr. Urbana IL 61802
Your Email Address:	seltingk@illinois.edu

Program Director(s): (Must be a Diplomate of ACVR Recognized Veterinary Specialty of Radiation Oncology)

a. First Name	Last Name	Title/Credentials	Email	Phone #	Number of weeks per year faculty member is available to resident on a daily basis	Fax #
Kim	Selting	DVM, MS, DACVIM (Onc), DACVR (RadOnc)	seltingk@illinois.edu	217-333-5300	48	217-244-9554

For institutions with only one RO Diplomate, please describe how you will be participating in resident training and overseeing his/her patient care while off clinics?	My office is part of the new radiation area so I will constantly be available to the resident for consultation, and will review all plans. Since I am currently the only RO diplomate here, we are planning to construct a schedule that both provides clinic coverage and allows me to get other work done. This will be accomplished with a weekly schedule wherein certain days of the week are dedicated to patient intake and treatment planning, and other days of the week are dedicated to other duties. By limiting receiving to certain days of the week, we hope to provide the needed balance (rather than being on or off of clinics on a week by week basis). In this way, there will be days when the resident is planning cases or seeing rechecks and I will be available to check in with them but will have more time in my office when needed.
Do you have additional radiation oncologists in support of the program?	no
Please upload the CVs of the Program Director and any supporting Radiation Oncologists (if applicable).	curriculum vitae current.doc

a. Application is made for (check one):	Standard Program
4. Primary Site:	University of Illinois
Hospital/University:	Veterinary Teaching Hospital
Department:	Veterinary Clinical Medicine
Address:	1008 W. Hazelwood Dr. Urbana IL 61802
What is the total length of the training program?	24
If greater than 2 years, will this period include 24 months of continuous training in radiation oncology?	Yes
7. Number of months dedicated solely to radiation oncology training (excluding time on Medical Oncology service, Radiology/Imaging, etc.)	18

8. Advanced Degree:

	Yes	No	Optional
Masters	-	✔	-
PhD	-	✔	-

Upload calendar of resident's activities (24 or 36 month) including required rotations and vacations

Calendar of activities for radiation oncology resident_v2b.docx

Diagnostic Radiologist(s): (Must be Diplomate(s) of the ACVR or ECVDI):

First Name	Last Name	Title/Credentials	Number of weeks per year each individual boarded radiology Diplomate is available to resident on a daily basis	Faculty Member on site (yes or no)?
Cintia	de Oliveira	DVM, DACVR	48	no
PJ	Hamel	DVM, DACVR	48	Yes

How many weeks per year is at least one boarded radiology Diplomate on site and available to a resident on a daily basis?	48

If off-site, please explain relationship:

Dr. Cintia de Oliveira is on faculty at the University of Illinois and reads many of our studies. She is available by phone but is not located here and works only remotely. The resident would only have interactions with her as needed by phone to consult about cases.

Diagnostic Radiologist Faculty CVs (if applicable)

PJHamel_CV_Oct2019.pdf
CV Oliveira.doc

Medical Oncologist(s): (Must be Diplomate(s) of the ACVIM, Specialty of Oncology:

First Name	Last Name	Title/Credentials	Number of weeks per year each individual ACVIM-Oncology Diplomate is available to resident on a daily basis	Faculty Member on site (yes or no)?
Laura	Garrett	DVM, DACVIM (Oncology)	26 (clinics) + 18 (off clinics but available)	yes
Tim	Fan	DVM, PhD, DACVM (Oncology)	10 weeks on clinics, 36 weeks off clinics but available	yes
Alycen	Lundberg	DVM, DACVIM (Oncology), PhD candidate	16 weeks on clinics, 32 weeks off clinics but available	yes

How many weeks per year is at least one boarded ACVIM-Oncology Diplomate on site and available to a resident on a daily basis?

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Medical Oncologist Faculty CVs (if applicable)

Lundberg CV.pdf
TimothyFan Biosketch Feb 2019.docx
Garrett short biosketch 2018.docx

Surgeon(s): (Must be Diplomate(s) of the ACVS:

First Name	Last Name	Title/Credentials	Faculty Member on site (yes or no)?
Heidi	Phillips	DVM, DACVS	yes
Tisha	Harper	DVM, DACVS	yes
Clara	Moran	DVM, DACVS	yes

How many weeks per year is at least one boarded ACVS Diplomate on site and available to a resident on a daily basis?

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Pathologist(s): (Must be Diplomate(s) of the ACVP:

First Name	Last Name	Title/Credentials	Drop down	Faculty Member on site (yes or no?
Anne	Barger	DVM, MS, DACVP	Clinical Pathology	yes
Amy	Schnelle	DVM, MS, DACVP	Clinical Pathology	yes
Sarah	Connolly	DVM, DACVP	Clinical Pathology	yes
Miranda	Vieson	DVM, PhD, DACVP	Anatomic Pathology	yes
Jonathon	Samuelson	DVM, MS, DACVP, PhD candidate	Anatomic Pathology	yes
Patrick	Roady	DVM, PhD, DACVP	Anatomic Pathology	yes
Mike	Rosser	DVM, MS, DACVP	Anatomic Pathology	yes
Keith	Bailey	DVM, PhD, DACVP	Anatomic Pathology	yes
Wes	Baumgartner	DVM, PhD, DACVP	Anatomic Pathology	yes

How many weeks per year is at least one boarded ACVP Diplomate on site and available to a resident on a daily basis?

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Please list all additional board certified specialists in direct support of the program. If offsite, please explain relationship:

Name	Certifying College/Board	Subspecialty (if applicable)	If offsite, please explain relationship
Jordan Vitt	ACVIM	Cardiology	
Ryan Fries	ACVIM	Cardiology	
Devon Hague	ACVIM	Neurology	
Kari Foss	ACVIM	Neurology	
Jason Pieper	ACVD		
Bianca da Costa Martins	ACVO		
Katie Fleming	ACVO		
Stephanie Keating	ACVAA		
Tamas Ambrisko	ACVAA		
Arnon Gal	ACVIM	Internal medicine	
Kim Hooi	ACVIM	Internal medicine	
Jennifer Reinhart Dungar	ACVIM	Internal medicine	
Marcella Ridgway	ACVIM	Internal medicine	
David Williams	ACVIM	Internal medicine	
Clarissa Souza	ACVD		

Jenica Haraschak	AVECC		
Caroline Tonozzi	AVECC		
Saki Kadotani	ACVIM	Cardiology	
Danielle Strahl	ACVAA		

11. Please describe the role of the radiation oncology resident and the radiation oncology service in the daily clinical management of patients and clients:

The oncology service at the University of Illinois is an integrated medical, radiation, and surgical oncology service (currently seeking to fill our recently vacated surgical oncology position). The radiation resident will be expected to attend and participate in morning rounds to review incoming cases each day, and when they are actively managing cases they will also attend afternoon rounds for teaching and case discussions. Initially the resident will focus on the delivery of radiation therapy, then will transition to seeing rechecks as the primary clinician under the supervision of the radiation oncologist, and then when ready will begin intake of new cases for radiation therapy consultation. The resident will be expected to field initial questions and consultations from any service in the hospital, and will also be expected to discuss their recommendations with the supervising radiation oncologist prior to finalizing them with the requesting service. When managing clinical patients, the resident is responsible for all first-line communication, working with the student assigned to the case, developing a diagnostic and therapeutic plan, and completing all paperwork and needed telephone communications.

12. How will the resident receive training in Medical Oncology? What is the time allotted to this training? Please provide description of formal and informal training experiences as well as description of the resident's role while rotating on a medical oncology service:

As an integrated service, the resident will have daily access to medical oncologists. The current radiation oncologist is also board-certified by ACVIM in oncology, and there are 3 additional ACVIM (Oncology) diplomates in direct support of the program. One of those 3 will be supervising the oncology rotation at all times and the resident will be able to receive feedback on case management during daily case rounds when applicable. In addition, the resident will be assigned to the medical oncology service for a minimum of 8 weeks, and during those weeks the resident will not manage or receive radiation therapy cases but will be assigned medical oncology cases with an emphasis on those that are unlikely to require radiation therapy. In addition to case management and rounds, the resident will attend all book and journal clubs, and will be expected to contribute material to these rounds.

13. How will the resident be trained in diagnostic imaging? What time is allotted for this training? Please provide description of formal and informal training experiences. Please specify if the resident is required to generate imaging reports while on diagnostic imaging rotation:	We will be rebuilding our diagnostic radiology service beginning in 2019 beginning with the addition of a radiologist who recently completed his residency at the University of Florida. The University of Illinois funded him and another radiology resident who will join him the following year. The two of them will develop a radiology curriculum so some details of this are not yet clear. We also have an additional boarded radiologist on faculty currently but she is not on site and will primarily be available to the radiation resident for consultation by phone on clinical cases. In addition to a dedicated 4 weeks on diagnostic radiology, during which time the radiation resident will not see cases and will not contribute to radiation therapy treatments, the resident will also consult directly with the radiologists for the purpose of identifying contours on cases to be planned, and will attend any imaging rounds that are applicable to the practice of radiation oncology. The resident will be required to generate preliminary imaging reports for any studies relevant to the diagnosis, staging, or monitoring of cancer with emphasis on advanced cross-sectional imaging (primarily CT and MRI). These reports will be reviewed and finalized by the radiologist. The resident will be expected to spend as much time as possible with positioning, acquiring and interpreting CT scans since this is relevant to treatment planning. The resident will be expected to identify the extent of all normal structures (organs at risk) in addition to tumor margins, with an emphasis on late responding tissues such as brain, spinal cord, and eyes. The resident will also be required to correlate MR images with CT images of the same patient for CNS neoplasia since these two modalities will be used to define target volumes during planning.
14. Will the resident be provided with training in anesthesia? If yes, please include a description of the training:	The resident will shadow and assist the technician who is dedicated to anesthesia when needed. We have one technician dedicated to this position who has spent her technical career in anesthesia. All patients will be assigned a risk score and managed accordingly. When the anesthesia technician is absent, another will substitute and on occasions when the resident does the anesthesia, a full staff of anesthesia technicians and anesthesiologists are available for consultation or trouble shooting as needed. Thus any training in anesthesia will be acquired in the course of managing ongoing cases.
15. How will the resident be trained in radiation biology? Please provide description of formal and informal training experiences:	The radiation oncologist will direct training in radiation biology. This will be accomplished primarily through book clubs using “Radiobiology for the Radiologist” by Eric Hall, as well as “Basic Clinical Radiobiology” by Michael Joiner and Albert van der Kogel. One book per year will be covered, including responsibility of the resident to summarize and present the contents. Currently there is no formal radiation oncology course. Any opportunity to support the attendance of the resident at a forum (workshop, online course, other) that will augment this training will be considered. A tentative syllabus has been developed and modeled on our molecular oncology course. The syllabus is attached to this application. When we have faculty radiologists and begin training diagnostic imaging radiologists in addition to radiation oncologists, this will be submitted as a course. Consideration will be given to either combining this with physics (designated as Radiation Biology and Physics I, II, III, and IV over 4 semesters) or keeping them separate depending on the wishes of the radiology faculty.

16. How will the resident be trained in cancer biology? Please provide a description of formal and informal training experiences:	Every fall semester, the medical oncology residents work through a textbook on the Biology of Cancer such as those by Tannock and Hill (The Basic Science of Oncology), Pecorino (The Molecular Biology of Cancer), and Weinberg (The Biology of Cancer). This is a formal course taught by Dr. Tim Fan. The resident will be required to audit this class and to participate fully. If funds are available, the resident will be released to attend the ACE course for oncology that is hosted by the ACVIM each year in Las Vegas. Finally, the resident will attend the Veterinary Cancer Society at least one year and will attend the resident review workshop.
17. How will residents be trained in radiation oncology physics? Please include a description of the medical physics support for your program and the role of medical physicist(s) in the training of the resident:	The resident will be trained in radiation oncology physics in various ways, mostly informal. The radiation oncologist will spend one semester reviewing “The Physics of Radiation Therapy” by Khan. One hour per week during the academic semester will be planned to meet and review the assigned reading, working through the chapters sequentially. In addition, our physicist is willing and enthusiastic about contributing to the training of the resident. Based in Chicago (2 hours away), he will be traveling to the University of Illinois for monthly and annual quality assurance. The resident will be present during monthly and annual physics QA of the linear accelerator, and will be asked to complete QA (once trained to do so) for all IMRT, VMAT, and SRT plans. The physicist has also offered to review a series of lectures on radiation physics in a one-on-one setting with the resident. He has proposed using the online content at http://www-naweb.iaea.org/nahu/DMRP/slides.html to guide his discussions with the resident. The radiation oncologist will also be present for these meetings as time permits to facilitate and contribute to discussion. We plan to arrange for a lecture each month when the physicist is at the facility for QA. The physicist is also available by phone, email, or text to answer any questions when needed. He is employed by the University of Illinois as an adjunct faculty. In addition, the resident will be supported to attend one physics workshop (radiation physics bootcamp) if it is offered (most recently at the University of California at Davis).
18. Please list any formal courses and their instructors included in the residency training curriculum. Please attach syllabi and instructor credentials for each listed course. NOTE: Please ensure syllabi are up-to-date within the last year:	There are currently no formal courses in radiation at this institution. The course in cancer biology is coordinated by Dr. Tim Fan and the syllabus is included here. His credentials are included as an ACVIM diplomate in support of the program.
Upload syllabi here:	SyllabusRadPhysics.docx Radiobiology tentative syllabus.doc Molecular Oncology 2018 final syllabus.doc
Upload instructor credentials here:	SeltingNIHbiosketch5pg_Jan2019.docx TimothyFan Biosketch Feb 2019.docx
19. Will the resident participate in clinical rounds on a daily basis while on clinical rotations?	yes
20. Is a supervising Diplomate available for the majority of rounds?	yes

21. Are formal conferences, such as clinicopathologic conferences, journal clubs, or seminars held on a weekly basis?	yes
Comments:	When classes are in session, we hold journal club once weekly, cytology rounds with clinical pathology once weekly, and in the spring (taking the place of the molecular oncology course) we do an additional book club rounds with Withrow, MacEwen and Vail "Small Animal Clinical Oncology". We will occasionally cover select reading from other texts such as Chabner "Cancer chemotherapy, immunotherapy, and biotherapy, principles and practice". These are organized by the oncology second year resident. All oncology residents and interns attend. I oversee the journal club (official course) and unofficially oversee the book club. The residents will alternate supervising content (with my input when requested) for each session, and are primarily in charge of running the discussion. Additional details are included below.
22. Please provide a description of the conferences, etc., that are provided and the typical schedule. Please specify which conferences are mandatory vs. optional:	Journal club is every Thursday from 8-9 am Book club is every Tuesday from 8-9 am Cytology rounds are every Friday from 8-9 am The RO resident will be required to attend journal club, with cytology and book club optional depending on their schedule and the content. When an oncology textbook such as Small Animal Clinical Oncology (Withrow) is being reviewed, the resident will be required to attend all sessions. When topics that are heavily oriented to medical oncology are being reviewed, such as chemotherapy, the resident will be encouraged to go, but only required to attend when discussions surrounding the role of radiation in those situations, or radiosensitization, are planned. Journal club is typically arranged by tumor type (a different tumor type or topic each week) and 4-6 articles are selected to be discussed. The medical oncology resident in charge of selecting articles for each week is also in charge of leading the discussion. Sometimes additional methods of review are used such as power point presentations by the residents to summarize what they have ready.
23. Is the resident required to give one or more formal presentations at a conference or in an educational setting on a yearly basis?	yes
If yes, please provide a description of the requirement:	Each house officer must provide a Friday morning seminar once per year that highlights an area of interest or their area of research, if applicable. Typically these are 15-20 minute power point presentations that are very well attended by students, house officers, and faculty.
24. How many major veterinary medical or medical meetings is each resident able to or expected to attend during his/her training program?	Two

Comments:	The resident will be expected to attend VCS their first year and ACVR their second year. There is a departmental allowance for residents to offset the cost of attendance.
25. Does the training program require a research project?	No
26. Are one or more publications required as part of the training program?	No
Do you have a megavoltage teletherapy machine available?	Yes
Is the megavoltage teletherapy machine on-site?	Yes
Please specify the manufacturer and model:	Varian TrueBeam
Do you have a multileaf collimator available?	Yes
Is the multileaf collimator on-site?	Yes
Please specify number of leaves and width of leaves:	120 leaves, high definition, 2.5 mm central leaves
Do you have an on-board portal or CT imaging available?	Yes
Is the on-board portal or CT imaging on-site?	Yes
Please specify type:	kV CBCT
Do you have a 3D - computer based treatment planning system available?	Yes
Is the 3D - computer based treatment planning system on-site?	Yes
Please specify manufacturer and model:	Eclipse with Aria
Do you have a 2D or 2 1/2D computer based treatment planning system available?	No

Is the 2D or 2 1/2D computer based treatment planning system on-site?	No
Do you have intensity modulated radiation therapy available?	Yes
Is intensity modulated radiation therapy on-site?	Yes
Do you have stereotactic radiation therapy or radiosurgery available?	Yes
Is stereotactic radiation therapy or radiosurgery on-site?	Yes
Do you have strontium-90 plesiotherapy available?	Yes
Is strontium-90 plesiotherapy on-site?	Yes
Do you have LDR brachytherapy treatment and planning available?	No
Is LDR brachytherapy treatment and planning available on-site?	No
Do you have HDR brachytherapy treatment and planning available?	No
Is HDR brachytherapy treatment and planning available on-site?	No
Do you have diagnostic radiology/imaging services available?	Yes
Is diagnostic radiology/imaging services available on-site?	Yes
Do you have conventional radiography available?	Yes
Is conventional radiography available on-site?	Yes

Do you have fluoroscopy available?	Yes
Is fluoroscopy available on-site?	Yes
Is ultrasound available?	Yes
Is ultrasound available on-site?	Yes
Is nuclear medicine available?	Yes
Is nuclear medicine available on-site?	Yes
Do you have computed tomography available?	Yes
Do you have computed tomography available on-site?	Yes
Do you have magnetic resonance imaging available?	Yes
Do you have magnetic resonance imaging available on-site?	Yes
Do you have positron emission tomography available?	No
Do you have positron emission tomography available on-site?	No
Do you have an intensive care facility (24 hours) available?	Yes
Do you have an intensive care facility (24 hours) available on-site?	Yes
Do you have clinical pathology capabilities (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology and endocrinology) available?	Yes

Do you have clinical pathology capabilities (includes CBC, serum chemistries, blood gases, urinalysis, cytology, parasitology, microbiology and endocrinology) available on-site?	Yes
Do you have a veterinary library with literature searching capabilities available?	Yes
Do you have a veterinary library with literature searching capabilities available on-site?	Yes
Do you have a medical library with literature searching capabilities available?	Yes
Do you have a medical library with literature searching capabilities available on-site?	Yes
Do you have computerized medical records with searching capabilities available?	Yes
Do you have computerized medical records with searching capabilities available on-site?	Yes
Megavoltage Gamma/X-ray teletherapy:	27
Intensity modulated radiation therapy:	5
Stereotactic radiation therapy or radiosurgery:	0
LDR brachytherapy:	0
HDR brachytherapy:	0
Injectable radionuclide therapy:	0
Radioiodine:	0

Other (please specify)	Our TrueBeam has been installed and we began treating patients on June 18. Our cobalt unit is still on site awaiting decommissioning. This should be removed long before this residency starts. At initial submission, cases treated with cobalt over the preceding 12 months were reported. Since June and only on the TrueBeam, we have treated approximately 27 patients as noted above. The final training and installation of our QA soft and hardware will occur this month (October 2019) and then the number of IMRT/VMAT cases will increase.
Stronium plesiotherapy:	12
29. Describe procedures for resident record recording of radiation treatment details of all patients. Is a record and verify system used? If so, please specify.	Yes, Aria will be our V&R system. We print an "RT Summary" after completion of each course of therapy to be signed and scanned to the electronic medical record.
30. What procedures are in place to facilitate collection of follow up information of patients treated? What is a standard recheck schedule for patients? In the absence of routine patient rechecks at the facility, is there a system in place to obtain follow-up?	Patients will be seen 2 weeks following completion of RT, then 2 months later, then every 3 months as a general rule. This will be modified to accommodate a given patient. We can use our EMR system to track cases, but will also keep a case log of all patients treatment with RT. We currently do this with cobalt cases. We do not have a specific system in place now for follow up but will plan to task our RT technician with this to call every 3 months if we have not seen the animal.
31. By what mechanisms and how often will trainees be evaluated? Please comment on radiation therapy specific evaluation as well as general clinical evaluation.	Trainees will be evaluated biannually using a standard form (attached). The resident will be evaluated for ability to communicate with faculty, staff, and clients; teaching aptitude and ability; ability to make independent decisions; precision in patient set up; ability to trouble shoot with interlocks; ability to create a plan that accurately depicts target contours.
Please upload form used in evaluations.	Resident review form_v2.doc
32. If applicable, 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. If at all possible, please provide an address, and any information you have on the status if each individual with respect to the board certification process.	None, this is a new application