ACVR RO Residency Training Program Application

Submission ID	3919369787711745720
Submission Date	2018-01-19 09:13:23
Date of Application	01-16-2018
Your Name:	Jessica Lawrence
Your Address:	1365 Gortner Ave University of Minnesota College of Veterinary Medicine St Paul MN 55108
Your Email Address:	jlawrenc@umn.edu

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

First Name	Last Name	Title/Credentials	Email	Phone #	Number of weeks per year faculty member is available to resident on a daily basis	Fax #
Jessica	Lawrence	DVM, DACVIM (Onc) DACVR (Radiation Oncology)	jlawrenc@umn.edu	612-624-8841	48	612-624-0751

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).	CV_Lawrence.pdf BioSketch_Lawrence.pdf
Application is made for (check one):	Standard Program
Primary Site:	University of Minnesota
Hospital/University:	University of Minnesota
Department:	Veterinary Clinical Sciences

Address:	1365 Gortner Ave University of Minnesota College of Veterinary Medicine St Paul MN 55108
Cooperating Institution (if applicable):	Marshfield Labs
Department:	NA
Hospital/University:	NA
Address:	Marshfield Labs, Veterinary Services 1000 North Oak Ave Marshfield WI 54449
For cooperating institutions, attach current letters of agreement signed on behalf of the institutions by appropriate individual(s):	UMinn radiation oncology residency letter.pdf
What is the total length of the training program?	24 months (2 year program) OR 36 months (3 year program): The program will be 36 months unless the candidate is board-certified or board-eligible having completed a residency in a related specialty (ACVIM-Onc, ECVIM_Onc, ACVR, ECVDI) or has completed advanced graduate training in oncology. This decision will be at the discretion of the program director.
If greater than 2 years, will this period include 24 months of continuous training in radiation oncology?	Yes
Number of months dedicated solely to radiation oncology training (excluding time on Medical Oncology service, Radiology/Imaging, etc.)	Minimum 18 mo (2 year); Minimum 22 mo (3 year)

Advanced Degree:

	Yes	No	Optional
Masters	-	✔	-
PhD	-	✔	-

Upload calendar of resident's activities (24 or 36 month) including required rotations and vacations	Tentative Weekly Schedule_Radiation Oncology Resident.pdf Activities.pdf

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

First Name	Last Name	Title/Credentials	Number of weeks per year faculty member is available to resident on a daily basis	Faculty Member on site (yes or no)?
Christopher	Ober	DVM, PhD, DACVR	38	yes
Kari	Anderson	DVM, DACVR	37	yes

If off-site, please explain relationship:

Note while Dr. Daniel Feeney is currently at UMN & supportive of an RO residency, he is in phased retirement and it is anticipated he will be retired when an RO resident starts.

Diagnostic Radiologist Faculty CVs (if applicable)

KAnderson-biosketch-2017.pdf
Ober Biosketch.pdf

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

First Name	Last Name	Title/Credentials	Number of weeks per year faculty member is available to resident on a daily basis	Faculty Member on site (yes or no)?
Antonella	Borgatti	DVM, DACVIM (Oncology), DECVIM (Oncology)	10	yes
Brain	Husbands	DVM, DACVIM (Oncology), DACVIM (Internal Medicine)	36	yes
Michael	Henson	DVM, PhD, DACVIM (Oncology) DACVIM (Internal Medicine)	33	yes

Medical Oncologist Faculty CVs (if applicable)

BioSketch_Husbands.pdf
BioSketch_Henson_2page.pdf
Borgatti_biosketch for JL.pdf

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

First Name	Last Name	Title/Credentials	Number of weeks per year faculty member is available to resident on a daily basis	Faculty Member on site (yes or no)?
Betty	Kramek	DVM, DACVS	40	yes
Michael	Conzemius	DVM, PhD, DACVS	12	yes
Wanda	Gordon-Evans	DVM, PhD, DACVS, DACVSMR	16	yes
Elizabeth	Pluhar	DVM, PhD, DACVS	8	yes
Pierre	Amsellem	DVM, DACVS, DECVS, ACVS Fellow in Surgical Oncology	30	yes
Shiori	Arai	DVM, PhD, DACVS	34	yes

If off-site, please explain relationship:

*Note: Drs. Amsellem and Arai will start at the University of Minnesota in February 2018.

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

First Name	Last Name	Title/Credentials	Drop down	Number of weeks per year faculty member is available to resident on a daily basis	Faculty Member on site (yes or no?
Davis	Seelig	DVM, PhD, DACVP	Clinical Pathology	10	yes
Daniel	Heinrich	DVM, DACVP	Clinical Pathology	38	yes
Jill	Shappa	DVM, DACVP	Clinical Pathology	8	yes
Erin	Burton	DVM, DACVP	Clinical Pathology	8	yes
Anibal	Armien	DVM, PhD, DACVP	Anatomic Pathology	12; Variable * see note	yes
Cathy	Carlson	DVM, PhD, DACVP	Anatomic Pathology	8; Variable * see note	yes
James	Collins	DVM, PhD, DACVP	Anatomic Pathology	12; Variable * see note	yes
Jaclyn	Dykstra	DVM, PhD, DACVP	Anatomic Pathology	12; Variable * see note	yes

Christina	Foutz	DVM, MPH, DACVP	Anatomic Pathology	12; variable * see note	yes
Timothy	O'Brien	DVM, PhD, DACVP	Anatomic Pathology	8; Variable * see note	yes
Erik	Olson	DVM, PhD, DACVP	Anatomic Pathology	16; Variable * see note	yes
Matthew	Sturos	DVM, DACVP	Anatomic Pathology	20; Variable * see note	yes
Marshfield Labs		DVM, DACVP	Anatomic Pathology	52	no

If off-site, please explain relationship:

Please note that routine surgical pathology tissue samples for histologic evaluation are routinely sent to Marshfield Laboratories for analysis. Marshfield pathologists are available for discussion of cases, IHC, second opinions, and additional testing as needed 52 weeks a year (Letter of cooperation attached on previous page). Moreover, specific pathologists can be requested where indicated to ensure the same pathologist assesses all potentially similar cases. Second opinion histology can be requested free of additional charge.

The Anatomic pathologists in the University of Minnesota Diagnostic Laboratory on site (which includes all the pathologists listed below except for Marshfield Labs) interpret large samples (i.e. limbs) and are available for second opinion pathology or unique testing (electron microscopy). The Diagnostic Laboratory can also perform IHC for tissue blocks that are sent from Marshfield if desired. The on-site pathologists are available for discussion and pathology residents attend weekly surgical-oncology-pathology rounds to discuss cases of interest.

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
Erin Wendt-Hornickle	ACVAA		
Daniel Almeida	ACVAA		
Sandra Allweiler	ACVAA		
Caroline Baldo	ACVAA		
Alonso Guedes	ACVAA		
Christopher Stauthammer	ACVIM	Cardiology	
Chad Lothamer	AVDC		*Note: to start March 2018
Lindsay Merckel	ACVIM	Internal Medicine	
Jennifer Granick	ACVIM	Internal Medicine	
Ned Patterson	ACVIM	Internal Medicine	
Rita Miller	ACVIM	Internal Medicine	
Jody Lulich	ACVIM	Internal Medicine	
David Polzin	ACVIM	Internal Medicine	

Eva Furrow	ACVIM	Internal Medicine	
Michelle Ritt	ACVIM	Internal Medicine	
Robert Washabau	ACVIM	Internal Medicine	
Alistair McVey	ACVIM	Neurology	
Julie Churchill	ACVN		
Kelly Tart	ACVECC		
Jeffrey Todd	ACVECC		
Rosalind Chow	ACVECC		
Steve Friedenberg	ACVECC		
Sheila Torres	ACVD		
Sandra Koch	ACVD		
Peggy Root-Kustritz	ACT		

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

Medical oncology and radiation oncology are integrated to provide optimal patient management and primary case responsibility resides with medical oncology thus daily communication occurs between clinicians to ensure proper care. The radiation oncology resident will have a weekly schedule that includes primary case responsibility. New and recheck cases will be seen on Monday, Tuesday and Wednesday with new starts, CT setups and treatment planning will occur around cases. The radiation oncology resident will see only cases referred for radiation unless on medical oncology. Additionally, weekly radiation rounds occur with medical oncology in which discussion revolves around current cases, recently completed cases, potential cases, and recheck patients (previously received radiation therapy).

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:

The radiation resident will spend a minimum of 8 weeks in medical oncology, where they will participate in primary medical oncology patient management; these will be done in minimum 2-week blocks. Note that medical oncology and radiation oncology are integrated and operate out of the same oncology room, facilitating communication and smooth care management. Oncology journal club involves medical oncology and radiation oncology literature as well as weekly textbook rounds occur that work through cancer biology (Tannock and Hill), veterinary oncology (Withrow, Page and Vail. Small Animal Clinical Oncology), and cancer principles and therapy (DeVita). Additionally, weekly clinical pathology rounds occur in which cytologic slides are discussed. The radiation oncology resident is expected to behave as a medical oncology resident when on medical oncology, taking new cases, rechecks, chemotherapy/immunotherapy cases, and any transfers. Radiation oncology duties will be performed by the radiation faculty when the resident is on medical oncology. Please see a list of seminars the resident is expected to attend further in the application.

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:	Aside from participating in any radiation patient undergoing CT or MRI (RT planning CT and/or follow-up imaging), the radiation oncology resident will spend 4 weeks exclusively in diagnostic imaging, where they will actively participate in radiography, fluoroscopy, ultrasound and advanced imaging (CT/MRI/NucMed) under the guidance of the radiology faculty on duty. The radiation oncology resident in a 3 year program will have the option to pursue additional diagnostic radiology rotations should there be an interest (in lieu of research time).
Will the resident be provided with training in anesthesia? If yes, please include a description of the training:	The resident will work in conjunction with the anesthesia service and the radiation therapy technician who manages anesthesia for that block (1 month block). Currently, radiation technicians rotate monthly through case setup/therapist, anesthetist, and oncology “runner” (paperwork, CT setups, client contact, medonc-radonc coordination). A 2-week anesthesia rotation will also be arranged in the beginning of the program to promote awareness and comfort with various sedation, anesthesia & analgesia protocols; ultimately this 2-week block is at the discretion of the anesthesiology service. The resident on anesthesia is expected to take primary cases as would the anesthesia resident.
How will the resident be trained in radiation biology? Please provide description of formal and informal training experiences:	Radiation biology will be trained via: 1) Participation (auditing) of radiation biology courses in conjunction with the radiation oncology/medical physics residents at the Department of Radiation Oncology, University of Minnesota Medical School. It is offered every other year in the Fall Semester. 2) Biweekly journal club 3) Radiobiology review to be done every other week in the first year 4) The resident will be encouraged to attend (in person or via webex) any academic seminars relevant to radiation biology at the Masonic Cancer Center/University of Minnesota Medical School when feasible. These will likely correspond to monthly Rad Onc Research Rounds (one Wednesday afternoon/month during fall/spring semester) 5) The resident is expected to competently and routinely utilize principles of radiation biology when determining radiation protocls/fractionation and combination approaches
How will the resident be trained in cancer biology? Please provide a description of formal and informal training experiences:	1) The resident will be expected to attend at least one academic seminar in the Masonic Cancer Center once monthly (and/or related centers if applicable) - this can include the monthly Radiation Oncology Research Seminar (Wed 4pm/once monthly) OR Wednesday morning contouring rounds (as a cancer topic is presented each week during rounds)– the resident can attend in person or watch via Webex. 2) The resident will attend review sessions offered at VCS / ACVR when applicable 3) The radiation oncology resident will participate in medical oncology cancer biology training – weekly meetings to summarize texts including The Basic Science of Oncology (Tannock & Hill), and Cancer: Principles and Practice of Oncology (Devita). The exact time will be determined following appointment of a rad onc resident. 4) The resident will also participate in oncology journal clubs weekly 5) The resident is expected to use principles of cancer biology when discussing/determining treatment plans for all cancer patients

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:	1) The resident will be an active participant in the radiation oncology physics coursework provided by the Department of Radiation Oncology, University of Minnesota Medical School. Radiation oncology residents, medical physics residents and medical physics graduate students attend core courses together and the veterinary radiation oncology resident will also participate in this work. 2) A medical physicist performs weekly machine and chart checks (including manual calculations), assists in planning complicated cases, and performs patient-specific QA for IMRT cases; these will provide routine (4-6h) interactions with the UMN medical physicists.
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:	Note: Syllabi attached for courses in which it is relevant. Credentials for each instructor are provided within syllabi and provided in a separate document. Note that Dr. Bruce Gerbi has just retired but remains Professor Emeritus in Medical Physics. Dr. Eric Ehler and Dr. Parham Alaei will assume all duties by Dr. Gerbi. Dr. Damien Mathews will join lecturing duties in the 2018 and ongoing semesters. Note: The first 3 courses will be audited by all residents; courses 4-6 are available to the resident pending interest and time. While the resident can attend in person (transit time ~ 25-30 min by shuttle), the courses can be made available by Webex. 1. MPHY 5138, Research Seminar – Fall Semester, Instructors include all staff within the Department of Radiation Oncology. Year 1. 2. MPHY 5-170, Medical Physics – Fall Semester. Year 1. 3. MPHY 5-172, Radiation Biology – Spring Semester. Year 1 or 2. 4. MPHY 5-173, Medical and Health Physics of Radiation Therapy, Spring Semester 5. MPHY-177, Medical Physics Laboratory – Spring Semester 6. MPHY 8-149, Advanced Topics in Radiation Therapy – Fall Semester
Upload syllabi here:	MPHY 5-138 SYLLABUS and Grading policy v.2.pdf MPHY 5170 Syllabus.pdf MPHY 5172.pdf MPHY 8149 Syllabus and Grading Policy.pdf MPHY5177_lab_schedule.pdf MPhy 5173 Syllabus.pdf
Upload instructor credentials here:	UofM Dept Radiation OncologyFaculty.pdf
Will the resident participate in clinical rounds on a daily basis while on clinical rotations?	yes
If no, please describe how rounds are attended and supervised:	The radiation oncology resident will be expected to brief with medical oncology daily to ensure good case continuity – An ACVIM oncologist is available at rounds and there are 2 opportunities to do this (Monday through Thursday) The Diplomate RO will also round with the radiation oncology resident daily to ensure guidance for the day's schedule.
Is a supervising Diplomate available for the majority of rounds?	yes

If no, please describe how rounds are attended and supervised:	Addendum to Resident Oversight: While there is one radiation oncologist on site, there is no protected off-clinic time therefore the resident will be supervised all weeks other than holiday time. The faculty radiation oncologist currently juggles clinics and research weekly and touches base with the technical team daily to ensure there is a plan in place for each day. Effort will be made to ensure the radiation oncology resident is placed on an off rotation when the faculty is on holiday.
Are formal conferences, such as clinicopathologic conferences, journal clubs, or seminars held on a weekly basis?	yes
Comments:	Please see below for details on weekly or biweekly seminars. *Addendum - an additional attachment was provided with the resident's schedule earlier in the application to provide a tentative overview of the weekly schedule.
Please provide a description of the conferences, etc., that are provided and the typical schedule. Please specify which conferences are mandatory vs. optional:	Mandatory unless otherwise indicated: 1. Daily radiation oncology rounds – To be instituted when there is a radiation oncology resident in which all radiation cases are discussed with the radiation oncologist. 2. Weekly Grand Rounds – Faculty/Clinical Scholars/Researchers present novel topics and research findings 3. Weekly Oncology Journal Club – Predominantly medical oncology journal articles pertaining to veterinary medicine 4. Weekly Book Club - books covered include The Basic Science of Oncology (Tannock & Hill), and Cancer: Principles and Practice of Oncology (Devita) 5. Biweekly Radiation Oncology Journal Club – Currently instituted with visiting residents in which current radiation oncology literature is reviewed (human and veterinary) 6. Weekly Radiation Oncology Clinical Rounds – Discussion of recheck, recently completed, current, and pending radiation therapy patients 7. Weekly Radiation Contouring Rounds – Webex or physical presence weekly at the UMN Department of Radiation Oncology in which challenging cases (human) are discussed amongst therapists, dosimetrists, radiation oncology faculty and residents, and physicists. The resident shall attend at least one contouring rounds each week when on radiation oncology. 8. Weekly surgery-oncology-pathology rounds (includes dentistry and radiology) – Discussion of integrated cases to ensure collaborative management 9. Daily medical oncology rounds – occur daily between Monday through Thursday generally in the late afternoon to discuss the day’s cases. To be attended if cases are completed. Recommended (not mandatory) if Oncology brief rounds have not been attended. 10. Monthly Comparative Oncology Rounds: To be attended unless engaged in a new start. 11. Monthly Surgical-Oncology Rounds: Material presented relevant to the fields of surgical oncology; presentation will be required. 12. Biweekly Oncology Service Meetings – Routine discussion of research updates, clinical management, hospital workflow 13. Monthly Morbidity and Mortality rounds 14. (optional) Weekly Medicine Rounds – September through April 15. (optional) Weekly Clinical Pathology Rounds – Discussion/presentation of clinical pathology samples (cytology). The resident is expected to attend unless there is a case requiring attention. 16. (optional) Weekly Imaging Rounds with radiology

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:	At least one formal presentation will be required – either at a local, national or international meeting or conference. Additionally, at least 1 grand rounds presentation will be expected each year in which either primary research or advanced clinical topics will be formally presented.
How many major veterinary medical or medical meetings is each resident able to or expected to attend during his/her training program?	Two
Comments:	Attendance at ACVR-RO and ASTRO will be encouraged however other conferences such as ESTRO, AAPM, ASCO, VCS may be permissible. In a 2-year program, only 1 meeting may be attended; in a 3-year program, the resident will be expected to attend 2 meetings.
Does the training program require a research project?	Yes
If yes, please list the number of research projects and any comments:	While completion of an entire research project is not required within the 2-year program, participation in and/or development of at least 1 research project will be required. Every effort will be made to ensure the resident has the opportunity to contribute to a project that interests that individual. It will be expected that a candidate would complete a research project and publication with a 3-year program; although a primary author publication is not necessary.
Are one or more publications required as part of the training program?	No
If yes, please list the number of publications and any comments:	While publication is not required, it will be strongly encouraged and every effort will be made to ensure the resident has an opportunity to identify an achievable project within the first 6 months.
Do you have a megavoltage teletherapy machine available?	Yes
Is the megavoltage teletherapy machine on-site?	Yes
Please specify the manufacturer and model:	Varian Clinac iX
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 MLC; Field size 40x40cm, Central 20cm of field - 5mm leaf width, Outer 20cm of field - 10mm leaf width
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:	MV Imaging E-Arm AS500; kV Imager OBI v.15
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:	Pinnacle 9.6; MIM Maestro contouring software; Eclipse, Tomotherapy planning, & Velocity are available at the medical school
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?	Yes

Is LDR brachytherapy treatment and planning available on-site?	No
Do you have HDR brachytherapy treatment and planning available?	Yes
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?	Yes
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?	No
Do you have computerized medical records with searching capabilities available?	Yes

Do you have computerized medical records with searching capabilities available on-site?	Yes
If any of the above equipment or facilities are available off-site, please explain how the resident can access them for case management, research or study:	The University of Minnesota College of Veterinary Medicine is located in St Paul. The University of Minnesota is an expansive campus and the Medical School (with the Department of Radiation Oncology) is located on the Minneapolis (East Bank) campus, which is accessible by campus shuttle (approx 20 min transit time by shuttle). LDR, HDR planning capabilities, Eclipse/Velocity/Tomotherapy, and a large medical library are available on the East Bank campus. The veterinary school and medical school utilize the same medical physics group and through this relationship and via collaborative research projects, the resident will also be integrated with the radiation oncology resident and medical physics resident group. The Medical Physics and clinical Radiation Oncology group is fully supportive of establishing a collaborative training effort and invites the veterinary radiation oncology resident to participate in planning of LDR/HDR brachytherapy and/or to evaluate 2D plans. PET/CT is located at the University of Minnesota and is organized through the Department of Veterinary Clinical Sciences Clinical Investigation Center. Technicians participate in all scans to facilitate anesthetic support and patient care; all scans are organized in advance for any studies/indications. PET/CT may be utilized during normal business hours.
Megavoltage Gamma/X-ray teletherapy:	98
Intensity modulated radiation therapy:	1
Stereotactic radiation therapy or radiosurgery:	0
LDR brachytherapy:	0
HDR brachytherapy:	0
Injectable radionuclide therapy:	0
Radioiodine:	38
Other (please specify)	Note: radioiodine is administered & managed with the internal medicine service.
Stronium plesiotherapy:	1

Describe procedures for resident record recording of radiation treatment details of all patients.	The radiation oncology resident will maintain a case log of patients treated that will include basic information including tumor type and location, date range of treatment, radiation prescription, radiation plan characteristics (manual, computer-plan with description of GTV, CTV, PTV and OAR), dose constraints/goals and/or DVH goals, and clinical outcome (if available). For manual plans, mu check is used to check manual calculations and a generic calculation worksheet is used for each patient. Mu Check plan details are stored in the patient's Mosaiq chart. For treatment planning information from Pinnacle, all plan details are stored in Mosaiq. Additionally, the resident will prepare radiation oncology written summaries of consultations in the hospital record system, and will provide a radiation summary generated following completion of the radiation prescription +/- treatment plan (prepared in MIM Maestro following Pinnacle plan generation and stored in the patient's Mosaiq chart. All written documentation will be maintained in the patient file but summarized by the resident in the case log.
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?	Currently, weekly radiation oncology meeting discuss current and recently rechecked patients. Additionally, radiation patients are entered into a searchable database thus if they are rechecked by a separate service, details on the case can be found. If patients are not seen by the veterinary hospital, the referring veterinarian can be contacted by phone. All clients are encouraged to return for a routine recheck schedule following treatment (i.e. every 3 months x 18 months, every 6 months x 18 months, yearly thereafter).
By what mechanisms and how often will trainees be evaluated? Please comment on radiation therapy specific evaluation as well as general clinical evaluation.	The resident will be assessed by the faculty radiation oncologist on the following schedule: an informal evaluation will take place at 3 months (earlier if needed) and formal evaluations will occur at 6 months and then every 6 months until completion of the program. A standard, online University of Minnesota Department of Veterinary Clinical Sciences resident evaluation form will be completed that includes key elements such as patient care, radiation oncology, biology and physics knowledge, clinical approach, communication and collegiality. The standard, departmental written form is provided below for review. Inadequate progress may lead to non-renewal and will be cleanly documented. Comprehensive reviews will be performed which will include feedback from medical oncology, diagnostic imaging, radiation technical staff, medical physics, surgery, and any other services that routinely interact with the resident. Addendum: An additional radiation-oncology specific section has been added to the review form (addendum below) although this will not be part of the department's standard residency evaluation (which is a standard online form). It can be maintained in the hard file.
Please upload form used in evaluations.	UMN Resident Evaluation_Radiation Oncology_Addendum.pdf Eval.pdf

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.	N/A - new radiation oncology residency program.
Please list any additional information of interest in support of this residency application.	Previous ACVIM medical oncology residents trained in radiation oncology: Owen Davies (Royal Veterinary College) Sofia Carvalho (Royal Veterinary College) Anneliese Stell (Royal Veterinary College) Previous ACVR-RO resident trained in medical oncology: Dr. Valeria Meier, DACVR-RO (University of Zurich)