ACVR Radiation Oncology

ACVR-RO Residency Program One-Time Re-Approval Application

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In April 2020, ACVR Executive Council approved updated radiation oncology residency training requirements outlined in RO Residency Program Essential Training Standards and Requirements. Residency programs approved before April 2020 that are not able to immediately implement these new requirements are eligible to apply for a one-time re-approval of the current program to include one more cycle of residents (i.e. one more year of resident enrollment with the program being on probation while that/those resident(s) complete their program). After that, submission of a new program application is required.

ONE-TIME RE-APPROVAL INSTRUCTIONS:
The application must be received by January 31st of the third year following initial program approval / last re-approval. The RO RSEC will evaluate the application and a vote will be taken. The results of the vote and the majority recommendation of the committee will be forwarded to the President of the Recognized Veterinary Specialty for consideration by Executive Council at one of the two annual meetings.

For the required ACVR and ACVIM (Oncology) Diplomates, please provide a brief, 2-page curriculum vitae up-to-date within one year.

When filling out the application, the first full page of information is entered and you hit next, the form will automatically save the information entered to the emailed link for the submitter to stop and start the application with the emailed link. Once a page is started it must be completed and next hit for that page to save.

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1. Date of Application	Friday, January 28, 2022
Date of Initial Program Approval	Friday, January 3, 2014
Date of Last Re-Approval	Thursday, April 11, 2019

Your Name	Rachel St-Vincent
Your Email Address	rachel.stvincent@amcny.org
Your Address	510 East 62nd St New York, NY, 10918

2. Program Director:

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 #
Rachel	St-Vincent	DVM, MVSc, DACVR	rachel.stvincent@amcny.org	12123298800	45	212-308-1017

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?

I always have my cell phone available whenever possible. I usually call in at least once daily for an update and discuss cases over the phone as needed. Remote computer access also allows me to access patient records, diagnostic imaging as well as computer treatment planning. Whenever this is not possible/available, then our medical oncologists are made available to radiation oncology residents.

Additional ACVR-RO Diplomates supporting the program (not Program Directors)

Do you have additional ACVR-RO Diplomates in support of the program?

No

Upload CVs of the Program Director and any supporting Radiation Oncologists:

pdf CURRICULUM VITAE Rachel St-Vincent 2022....

pdf Note regarding a temporary modification of ...

Residents

3. Do you have a radiation oncology resident in training at this time?

Yes

Residents

First Name	Last Name	Dates of Training
Samantha	Yeh	July 2020 to July 2023

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The following conditions define an Alternative Program:

- If the program is not at least a minimum two-year continuous radiation oncology training program which fulfills all the trainee requirements of the training program guidelines, it will be defined as an Alternative Program.
- If exemption from any other requirement for a Standard program is requested in the application, the program must be submitted as an Alternative Program.

4. Application is made for (check one):

Standard Program

5. Primary Site:

Animal Medical Center

Hospital/University:

Animal Medical Center - private practice Hospital

Department:

Radiation Oncology

Address:

510 East 62nd Street
New York , NY, 10065

Cooperating Institution Information

6. Cooperating Institution (if applicable):

Mount Sinai Hospital

Department:

Radiation Oncology

Hospital/University:

Icahn School of Medicine at Mount Sinai

Address:

One Gustave Levy Place
New York, NY, 10029

For cooperating institutions, attach current letters of agreement signed on behalf of the institutions by appropriate individual(s):

pdf Radiation and Cancer Biology course Revised...

Cooperating Institution (if applicable): Columbia University College of physicians and surgeons

Department: Department of Radiation Oncology

Hospital/University: University Hospital

Address: 622 West 168th Street, CHONY North Bsmt, Room 11
New York , NY, 10032

For cooperating institutions, attach current letters of agreement signed on behalf of the institutions by appropriate individual(s):

pdf Letter invitation for Physics of Radiation cour...

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Training Period

7. What is the total length of the training program? 36 months

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 of 28 months

8. Advanced Degree:

Masters	No
PhD	No

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

docx Three year Calendar 2023-2026.docx

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9. Faculty

Essential Program Faculty:
*If dual-boarded, individual faculty member may serve in only one capacity
*Please list all qualified faculty in support of program

a. Diagnostic Radiologist(s):

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)?
Anthony	Fischetti	DVM, MS, DACVR	45	yes

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)?
Alexandre	LeRoux	DVM, DECVDI, DACVR	45	yes
Antonia	DeJesus	DVM, DACVR	45	yes

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

a minimum 45 weeks and typically almost 52 weeks

Upload CVs (up-to-date within 1 year and maximum of 2 pages each) of diagnostic radiologists listed:

pdf Antonia DeJesus Resume.pdf

pdf CV Le Roux - Resume.pdf

pdf Resume Fischetti CV 1_2022 ONE PAGE.pdf

b. Medical Oncologist(s):

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)?

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)?
Nicole	Leibman	DVM,MS,DACVIM(onc)	45	yes
Ann	Hohenhaus	DVM,DACVIM (ONC, SAIM)	45	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?

minimum of 45 weeks

Upload CVs (up-to-date within 1 year and maximum of 2 pages each) of medical oncologists listed:

doc AEH 2 page CV RT residencey.doc

docx CURRICULUM VITAE -NICOLE LEIBMAN - 202...

c. Surgeon(s):

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

First Name	Last Name	Title/Credentials	Faculty Member on site (yes or no)?
Katie	Kennedy	DVM,MS, DACVS (SA + Fellow in Surg Onc)	yes
Pamela	Schwartz	DVM, DACVS, CCRP	yes
Daniel	Spector	DVM, DACVS	yes
Robert	Hart	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?

a minimum of 45 weeks and typically 52 weeks.

d. Pathologist(s):

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

First Name	Last Name	Title/Credentials	Drop down	Faculty Member on site (yes or no)?
Taryn	Donovan	DVM, DACVP	Anatomic Pathology	yes
Michael	Wiseman	DVM, MS, DACVP	Clinical Pathology	yes
Andrea	Siegel	DVM, DACVP	Clinical Pathology	yes
Heather	Baverio	DVM, 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?

Minimum of 45 weeks and typically more

10. All Other Board Certified Specialists:

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
Chad	West	DVM,DACVIM(Neuro)	
Abbie	Lebowitz	DVM, DACVIM(Neuro)	
Douglas	Palma	DVM,DACVIM (SAIM)	
Elizabeth	Appleman	DVM, DACVIM(SAIM)	
Dennis	Slade	DVM, DACVIM(SAIM)	
Jennifer	Prittie	DVM, DACVIM(SAIM), DACVECC	
Leilani	Alvarez	DVM,CVA,CCRT,CVCHM	

Name	Certifying College/Board	Subspecialty (if applicable)	If offsite, please explain relationship
Katherine	Quesenberry	DVM,MPH,DABVP	
Philip	Fox	DVM, MS,DACVIM/ECVIM (Cardio) DACVECC	
Betsy	Bond	DVM, DACVIM/ECVIM(Cardio)	
Allyson	Berent	DVM, DACVIM(SAIM)	
Chick	Weiss	VMD, DVACS	
Nahvid	Etedali	DVM, DACVIM(SAIM)	
Djangо	Martel	DVM,DAVCD	
Melissa	Smith	DVM,PhD, DACVAA	
Joel	Weltman	DVM, DACVECC, PhD	
Mellisa	Milligan	DVM, DACVIM(SAIM)	
Eileen	Seage	VMD, DACVIM(SAIM)	
Dava	Cazzolli	DVM, DACVECC	
Christine	Keyserling	DVM, DACVECC	
Alicia	Mastrocco	DVM, DACVECC	
Mary	Pfeifer	DVM, DACVECC	
Meridith	von Roedern	DVM, DACVECC	

Name	Certifying College/Board	Subspecialty (if applicable)	If offsite, please explain relationship
Ann Marie	Zollo	DVM, DACVECC	
La Toya	Latney	DVM,DECZM(Zoo management),DABVP (Reptiles+amphibians)	
Robert	Moore	DVM,DABVP (Avian)	
Alexandra	van der Woerdt	DVM, MS, DACVO, DECVO	

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Course Overview

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 radiation oncology resident acts as a primary clinician to all radiation oncology patient. They are responsible for seeing initial consultation of patients referred for Radiation therapy. They are responsible
for discussing all the treatment options, including radiation, chemotherapy, immunotherapy and surgical
resection of tumors whenever indicated if these patients are being seen by Rad. Onc first. They are responsible for discussing only briefly the options of medical and surgical oncology options to help the owners understand the purposes of each option and they are responsible to facilitate further follow up consultation with the appropriate departments. They are responsible to cover in depth the options of radiation with the owners to help them understand the options and decide which options are best suited
for them and their pets. Complete workup and staging of cancer patients is expected if not fully performed on initial consultation. For patients electing to follow up with Radiation, it is the responsibility of the resident to proceed with the diagnostic and Treatment set up imaging of each patient
when indicated. The residents will perform manual versus 3DCRT versus IMRT treatment planning

based on the individual case. Assignment of protocol is also the responsibility of the resident after discussion with the owners (hypo versus hyperfractionation). The resident will discuss with the owners the different protocols available, their pros and cons and potential side effects and determine with the owner which protocol is most appropriate for each individual patient. Morning responsibilities include the examination of all ongoing treatment patients and preparation of their treatments during the day. Evaluation of side effects as they develop and decision making on treatment of side effects are also their
responsibility. Residents are also expected to consult with the other specialty doctors in the hospital as
well as outside referring veterinarians as they refer cases to the radiation oncology department

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:

Formal training experience: Resident will spend one month per year during the first 2 years of the program, in Medical Oncology. The resident will participate in discussions during daily rounds. The resident will act as primary care giver on cases assigned (which will include new cases as well as recheck or ongoing cases). The Resident will be responsible for the initial consultation (evaluation), full staging (procedures, lab work interpretation and imaging interpretation), setting prognosis and recommendations and administration of treatments. The resident will be responsible for the full writing of records and referral letters to the referring vets. The case and the written reports will be overlooked and reviewed by the supervising Medical Oncologist. Resident will be expected to attend weekly Medical Oncology teaching rounds with Medical Oncology Residents year round (takes place once a week for 1 hour covering multiple subjects, occasional book reading assignments or journal club style).
Informal Medical Oncology training experience: The resident will be consulting on a regular basis on cases being managed by both the Medical and Radiation Oncology departments. These cases may also be further discussed at weekly chart rounds. Residents rotate on the weekend on-call schedule during which they are responsible for both Radiation and Medical oncology inpatients and responsible for taking client or referring vet calls. The resident will also be expected to attend morning Tumor boards that take place once to twice a month. At these boards, the resident will be expected to present interesting cases on occasion to Staff doctors and residents of other specialties and discuss all alternatives. Alternatively, when not presenting, resident will be encouraged to join in the group interaction on the case discussions following presentations.

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:

The resident will spend one month per year during the first 2 years of the program in diagnostic imaging.
During this time the entire focus will be spent on the interpretation of diagnostic imaging including, radiography, ultrasonography, CT and MRI imaging. During this time the resident will be responsible for generating reports under the supervision of Dr. Anthony Fischetti and Dr. Alex Le Roux. The resident will attend all diagnostic imaging morning rounds during this rotation. In addition to these rounds, the resident will be expected to attend Neurology Imaging rounds whenever possible based on scheduling. This will have a focus on MRI and CT imaging of neurological disease. Both the Diagnostic imaging and Neurology department is available on every working day of the Radiation Oncology department therefore informally, these specialists are available for us to discuss cases and imaging and consultation
as needed.

14. Will the resident be provided with training in anesthesia? If yes, please include a description of the training:

We do have available to us a full time anesthesiologist to consult with whenever necessary. For the most

part, each individual doctor is responsible for the anesthesia protocols of their patients and prescribe the
required control drugs for all procedures (RT treatments as well as diagnostic imaging or any minor procedure). A two week rotation working under the supervision of the Anesthesiologist is now required in the program.
Our residents also get a rather broad exposure to a variety of types of cases (including brain tumor patients, cardiac patients, patients with renal insufficiency, laryngeal/tracheal dysfunction etc...) and they do consult with the anesthesiologist
whenever needed for complex high risk patients. The residents will also have exposure to anesthesia requiring the use of
atracurium for certain SBRT cases. The anesthesiologist will occasionally remain present on-site during the course of any
procedures when requested for complicated cases, otherwise, she reviews the protocol with the resident and is available by page or phone whenever needed.

15. How is resident trained in radiation biology? Please provide description of formal and informal training experiences:

The resident will be required to attend an 18 month course, which begins in July at The Mount Sinai Medical Center (Icahn School of Medicine at Mount Sinai) . The course titles: Radiation/Cancer Biology Course. It covers both radiobiology as well as cancer biology materials required for the residency program in Human medicine, for preparation of their radiation oncology boards. The course instructor is
Dr. Barry Rosenstein, who covers both subjects (see attached syllabus, credentials and agreement letter).

The book Radiobiology for the Radiologist, written by Eric J. Hall and Amato J.
Giaccia (7th edition) is covered in Radiation Oncology teaching rounds (for Medical and Radiation Oncology Residents) at least once every 2 years. These rounds are presented by myself (Dr. Rachel St-Vincent). Occasional articles on Radiobiology is also assigned for discussion during rounds for Journal club and article review portion of the teaching rounds.

16. How is resident be trained in cancer biology? Please provide a description of formal and informal training experiences:

The resident will be required to attend an 18 month course, which begins in July at The Mount Sinai Medical Center (Icahn School of Medicine at Mount Sinai) . The course titles: Radiation/Cancer Biology Course. It covers both radiobiology as well as cancer biology materials required for the residency program in Human medicine, for preparation of their radiation oncology boards. The course instructor is
Dr. Barry Rosenstein, who covers both subjects (see attached syllabus, credentials and agreement letter).

The book The Basic Science of Oncology (6th edition) written by Lea Harrington et al, is also covered during Radiation Oncology Rounds once every three years, directed by myself (Dr. Rachel StVincent). Various articles pertaining to Cancer biology from the Human medical literature and some from the veterinary literature are also discussed during these rounds. The book The biology of Cancer, written by Robert Weinberg is also covered during the Medical Oncology Teaching rounds which is directed by Dr. Nicole Leibman.

17. How is resident trained in radiation oncology physics? Please provide a description of formal and informal training experiences:

The resident will be required to attend the Radiation Physics course at Columbia University College of Physicians and Surgeons through their Department of Radiation Oncology. The course is to be attended on site at Columbia University. This course is instructed by Dr. ChengShie Wuu, who is the Director of Medical Physics at Columbia University College. The student will have the opportunity to take the Raphex exam with the Radiation Oncology residents at Columbia University at the end of the year as

well as during the following two years through the same program.

Individual Physic problems are reviewed on occasion during separate Radiation Oncology teaching rounds attended by Radiation Oncology residents only.

18. Please include a description of the medical physics support available at your institution and any role medical physics support may provide in training of the resident:

We have a medical physicist who reviews all of our patient records in treatment every 1-2 weeks on site with us. They are also available by phone, text or email during the week if we have any questions or concerns when they are not on site. The Linac QAs and Strontium wipe tests are typically performed in the afternoon or at the end of the day so not to interfere with patient treatment schedules. The Resident is able to shadow the physicists during this time and participate in the process of the QA. The Resident is expected to attend to at least one full annual scheduled LINAC QA as well as two scheduled quarterly LINAC QA during the course of their residency. Yearly radiation safety review is require by law in NYC, which is performed by the Physicist. The Resident is encouraged to present this safety review under the supervision of the physicist at least once in their residency program.

19. 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:

Radiation Physics course – Instructed by ChengShie Wuu, Ph.D., F.A.C.R. from Columbia University College of Physicians and Surgeons. Dr. Wuu is a world renowned physicist and is the Director of Radiation Therapy Physics and Professor of Clinical Radiation Oncology of the Radiation Oncology Residency program at Columbia University. He is also the Co Director of the Medical Physics graduate program at Columbia University for the Division of Environmental Health Sciences and for the Department of Applied Physics, School of Engineering. He has a Ph.D. in Radiation Biophysics from University of Kansas and has his Board Certification in ABR –Radiological Therapy Physics. Attendance is taken at each class and our resident will be expected to take all the same exams as the other students and will be provided a grade. This course will be mandatory and will start the first or second year of
the residency program from September to June.

Radiation and Cancer Biology – Instructed by Dr. Barry
Rosenstein at Icahn School of Medicine at Mount Sinai The Mount Sinai Medical Center. Dr. Rosenstein has a B.A. in Biology since 1973, a Master's degree in Radiation biology and Biophysics since 1976, and a PhD in Radiation Biology and Biophysics since 1978. All degrees were achieved at the University of Rochester. He has been the course director for this course since 1980 and also directs Radiation Biology for Diagnostic radiology and Medical Physicists residents. He also is the Chair of the ASTRO Radiation and Cancer Biology Teaching and Curriculum subcommittee since 2005. See attached Syllabus. This course will be mandatory and will start the first year of the residency program.

Upload syllabi here:

docx Lecture Schedule for Residents - Physics of …

pdf Radiation and Cancer Biology course Syllabu…

Upload instructor credentials here:

Credentials Rosenstein.pdf

Credentials_Wuu_0114.pdf

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Ancillary Training Opportunities and Research

20. Will the resident participate in clinical patient rounds on a daily basis while on clinical rotations?

Yes

Please describe clinical patient rounds:

Clinical rounds generally involves going over all patients that are seen each day while on clinics - For New consultations we discuss signalment, history and any diagnostics accumulated prior to appointment, pertinent examination findings, all procedures done that day or scheduled for a later day, prognosis and typical behavior of disease in question, treatment options, concerns and plan. If any decisions have been made by the patient owner, this will also be discussed. For recheck appointment patients, a brief summary of signalment and history as well as PE, summary of treatments and medications, patient progress, discussion of any present side effects or resolution of side effect, and recommendations/prognosis. For on-going treatment patients a brief summary of signalment and history including condition and site being treated, course of treatment prescribed, any anesthesia complications or start of side effects are also discussed and any changes in plans. For patients scheduled for any kind of imaging (x-rays, Ultrasound, CT or MRI imaging, endoscopic procedures), a brief summary of signalment, history and pertinent PE findings, any anesthesia or procedure complication that may have occurred, any additional procedures that my have taken place (Cytology, biopsy, submission of lab samples) with results if available, interpretation of images accumulated, recommendations and plan. For all patients seen, we also discuss all other non-oncologic medical history they may have and how these can potentially complicate treatment or require any modifications or special considerations.

Any lab results and Diagnostic imaging results from past submissions are also discussed if made available that day.

21. Is a supervising Radiation Oncology Diplomate available for the majority of rounds?

Yes

Please describe how rounds are attended and supervised:

Each primary care veterinarian (whether it be a Rad Onc Resident, rotating resident or intern) is responsible for presenting their cases individually. However participation of all clinicians present is welcome in the discussion of each case. All primary care veterinarians working with the Radiation Oncology Department that day is expected to attend and participate. The supervising Radiation Oncologist is almost always available and simply directs the rounds by assuring all patients were discussed and making sure that all questions have been answered.

22. Are formal conferences, such as clinicopathologic conferences, journal clubs, or seminars held on a weekly basis?

Yes

Comments:

Not all year round. During the summer months (July and August) there are not Grand Rounds and weekly conferences.

23. Please provide a description of the conferences, etc., that are provided and the typical schedule. Please specify which conferences are mandatory vs. optional:

Resident Radiation Oncology Teaching rounds – Every Thursday from 89 am covers a combination literature search, journal club and book reviews on various topics pertaining to radiobiology/cancer biology, basics of radiation physics, clinical radiation oncology and comparative oncology. These rounds
are scheduled from 78 am on days when Tumor Boards take place. Required. Resident Medical Oncology Teaching rounds – Every Wednesday 23 pm covers book reviews, such as Small Animal Clinical Oncology by Withrow and MacEwen, Topic reviews, review of the Journal of Veterinary and Comparative Oncology, JAVMA and other… Required Tumor Board rounds – combined rounds with oncology, pathology, surgery, Internal Medicine, Neurology and radiology to address clinical cases presented by residents. Faculty doctors from each above specialty are expected to attend. These rounds
are for open discussion for debate of various treatment options and recommendations pertaining to active
cases or to spark discussion pertaining to interesting recently deceased cases regarding alternative options or regarding pathophysiology of outcome. The primary goal is to provide a multidisciplinary approach to patient care. Cases are analyzed throughout regarding imaging, clinical and anatomical pathological differentiation and grading, staging procedures performed or recommended as well the various treatment options available and their pros and cons. These are held once a month on Thursday mornings between 89 am except for during summer months. Required. Morbidity/mortality rounds – held once every 4 to 8 weeks alternately on a Monday or Wednesday. Typically one department as a group presents these to discuss challenging clinical cases. On occasion, two departments may present their parts if the case was significantly handled by more than one specialty. Staff doctors and residents are expected to attend and participate to these rounds. Required. Radiation Oncology Chart rounds – these are held every week to 2 weeks on Thursday from 910 am to review oncology patients that require
therapy from both Med Onc and Rad Onc departments. On occasion, these will be limited to Rad. Onc. records where portal images, plans for current patients are reviewed. This is run by the staff radiation oncologist (will be run by the radiation oncology resident and assisted by the staff Radiation oncologist
once the resident has had sufficient training in planning). When not limited to Rad. Onc. cases, cases presented will be a review of ongoing patients to discuss as a group an appropriate complete treatment

plan recommendation pertaining to both radiation and medical oncology therapy. These rounds require participation of both Med Onc and Rad Onc residents. We also take this opportunity to discuss any need
for adjustment in treatment or discuss recommended adjuvant treatment recommendations that has not
yet been addressed to the owners. Required. Resident Pathology Teaching rounds – residents and faculty
present current cytology, punch biopsies or surgical biopsies to once a week, which includes viewing the
slides as a group and discussion of the findings and diagnosis. The pathologist will also at the same time
present various interesting cases that she may receive that week from outside of the clinic. Clinical pathology rounds are given regularly every Friday and Anatomical pathology is given approximately once every 4 to 6 weeks. Required. Intern Grand Rounds presented by the interns on clinical cases that they have worked on during the first half of the year. Interns work side by side with the appropriate staff doctor to help prepare them on their chosen subject and present during the second half of the year. These
rounds take place in the morning at 8 am and are scheduled Monday to Friday depending on other scheduled rounds from February to the end of June. Required when not in conflict with Physics, Radiobiology and cancer biology courses and Radiation Oncology Rounds. Resident seminars/ Grand rounds are held Monday to Thursday at 8 am throughout the year (mostly between January and June). Scheduling depends on other scheduled rounds and conferences and on resident's schedules. These seminars help residents in preparation of giving formal presentations at future conferences. It also provides continuing education in a variety of specialty fields. Residents are evaluated in their performances with written constructive criticism by faculty. All residents are expected to present a minimum of once in their residency program. Required. *** The resident is exempt from the required rounds/seminars on days that conflict with their didactic course load (Physics and biology) or clinical schedule

24. 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 describe these conferences or educational settings:

The resident is expected to do a formal presentation at least once for tumor boards. Since these are open
to residents from surgery, Internal medicine, neurology and diagnostic imaging etc..., all residents are encouraged to take a turn in presentations. Medical oncology and radiation oncology residents are more
likely to present more than once in the duration of their program however.

Each resident is expected to present at Resident Seminars/Grand rounds presentation during their second year. This presentation is meant to cover a specific subject in detail and linked to a interesting (usually complicated or unusual)
patient case in their expertise. They try to cover all aspects of the disease (histopath, metabolic changes,
cancer biology an radiobiology, technology used and comparisons of treatment options etc...). This is usually a 3/4 hour presentation with 15 minutes for questions.

Each resident is expected to present results of their research project during the third year of their residency program as well. This is supposed to be a 15 minute presentation followed by questions and is meant to mimic a typical setting for
presenting at specialty annual veterinary conferences.

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

One

Please list the meetings attended:

We encourage the residents to attend either the ACVR annual meeting or the Veterinary Cancer Society annual meeting. This unfortunately cannot be attended every year since these two conferences tend to both run at the same time with some degree of overlap. Since a good part of the medical oncology department attends VCS, some residents need to stay behind to look after patients of both departments.
Each resident however will have the opportunity to attend at least one time during their program. We do attend local conferences offered by the Radiation Oncology Departments of local human hospitals as a group. Since these are often only one day and tend to be Fridays, we usually try to attend as a group. Every year we attend the Best of Radiation Oncology meetings in Manhattan.

26. Does the training program require a research project?

Yes

Please indicate the number of research projects required:

One research project is required for the full duration of the program

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

No

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28. Facilities and Equipment

Do you have a megavoltage teletherapy machine available?

Yes

Is the megavoltage teletherapy machine on-site?

Yes

Please specify the manufacturer and model:

Elekta Infinity

Do you have a multileaf collimator available?

Yes

Is the multileaf collimator on-site?	Yes
Please specify number of leaves and width of leaves:	160 leaves of 0.5mm width with effective leaf tip speed of up to 6.5cm/sec capable of interdigitation and island shapes.
Do you have on-board portal or CT imaging available?	Yes
Is the on-board portal or CT imaging on-site?	Yes
Please specify type:	The OB cone beam CT offers 4D IGRT4
Do you have a 3D - computer (non-IMRT) based treatment planning system available?	Yes
Is the 3D - computer (non-IMRT) based treatment planning system on-site?	Yes
Please specify manufacturer and model:	Elekta Monaco
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
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? (Electronic or in-person)

Yes

Do you have a veterinary library with literature searching capabilities available on-site? (Electronic or in-person)

Yes

Do you have a medical library with literature searching capabilities available? (Electronic or in-person)

Yes

Do you have a medical library with literature searching capabilities available on-site? (Electronic or in-person)

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:

Please note:
AMC is in the process of upgrading the Radiation Oncology department and therefore in reality we are presently (January 2022) without a linear accelerator. The old linear accelerator is in the process of removal and a new linear accelerator is scheduled to be installed in April 2022. The entire workspace is also under construction in the hopes to make it a more efficient space. This full project is due to be completed by the end of September 2022. The equipment mentioned above is the equipment that is scheduled to be installed, but is obviously not on-site yet.

AMC will therefore not accepting a new resident this year of 2022. The present resident is scheduled for a temporary transfer May 16 to September 16th (or later should construction lag behind) at The Ohio State University, Veterinary Medical Center under the supervision of Dr. Eric Green. The Ohio

State University has an approved radiation oncology residency program and this temporary transfer has been approved by the AVCR RSEC.

Presently we have on site a Eclipse Version 13.6 computer treatment program, which will also be upgraded to the Elekta Monaco planning program which will be best compatible with the Infinity MLC. This program will be delivered to AMC months ahead of the Linac so that adequate training time will be provided before the Linac is ready.

All AMC staff members have access to the Medical Library at the Weill Cornell Medical Center a few blocks down the road from AMC.

29. Please list numbers of patients treated in the last 12 months using the listed radiation treatment modalities.

Megavoltage Gamma/X-ray teletherapy:	140
LDR brachytherapy:	0
HDR brachytherapy:	0
Radioiodine:	0
Stronium plesiotherapy:	6
Other (please specify):	

ACVR-RO Residency Program One-Time Re-Approval Application

Procedures

30. Describe procedures for recording of radiation treatment details of all patients. Is a record

and verify system used? If so, please specify.

All patients hold a paper file recording the patient's data (tumor type, grade and stage, tumor measurement log, prescription
and adjuvant treatments), treatment plan, treatment log, patient set up, verification documents with Rad Calc, QA documents for IMRT cases, DVH graphs, and anesthesia log. All patient folders are reviewed by our physicist.

These records are kept separately in the Radiation Oncology department area. Full patient records are computerized with treatments summarized. These files remain on site for residents to refer to during the
patient course of treatment and then are scanned in the computer files. In addition to medical record, all
patients (including hand calculated patients) are logged into Elekta's Mosaiq Oncology Information Management System (record and verify system). Mosaiq is a software program that combines a full featured electronic medical treatment record/electronic health record with a treatment verify and recording
log all in one system with the ability to directly interface with the linear accelerator (Clinac 2100C) and the
treatment planning system (Eclipse). Since holding a patient Log Book is no longer an ACVR requirement
resident will not be required but will still be encouraged to keep his/her own Log Book recording of all the
patients they treated during their three years holding the same data as above, including follow up exam information.

With our upgrading, we will upgrade to a new version of Mosaiq but will continue with this same product.

31. 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?

The medical records for all patients are computerized using the Cornerstone software by Idexx. This program has an available search mode, which can search all patients with a specific given diagnosis desired. All information recorded includes initial consultation, client and rDVM communications, diagnostic and therapeutic procedure reports, diagnostic procedure results (lab, CT, biopsies…), followup
recheck exams and anesthesia, radiation and chemotherapy logs. Follow up recommendations: Follow up protocols for patients are based on the individual case and depend on several factors including
the client's ability to physically return to the clinic and their financial circumstances. In most cases, follow up is recommended 12 weeks post completion of treatment (depending on degree of present acute side effects or expected side effects) and weekly after that until acute side effects are fully healed.
In the case of more severe acute side effects, we may follow up every day to every other day until significant improvement is noted. Once acute side effects are resolved, most patients are rechecked on
average every 23 months (depending on the type of tumor treated). Some patients will also follow up with chemotherapy, in which case rechecks are coordinated with the medical oncologist so that both medical and radiation oncology services can examine them on the same day. Follow up CT/MRI exams are recommended most often at 36 months post-RT when indicated for restaging and if pursued by owner. Due to financial circumstances, most clients do not follow up with CTs or MRIs unless there is concern for recurrence or other medical issues. The few that do follow up rarely follow up more frequently than every 6 to 12 months. Follow up radiography or ultrasonography may also be recommended every 212 months when indicated for restaging (depending on the diagnosis). More or less frequent recheck exams of any kind may be dictated by results of follow ups and individual

patient's
medical state the type of cancer being followed and expected prognosis. For some cases, such as low or
moderate grade soft tissue sarcomas, a follow up every 6 months after the first year is typically recommended. In cases where earlier recurrences may be a concern, patients may be monitored more frequently. In the case of clients travelling from great distances where return visits for follow up exams
may not be practical, these follow up exams may then be performed by the referring veterinary practitioner and faxed/emailed reports are filed in the record. Additionally we may place phone calls to

32. 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 given verbal evaluation by Medical Oncology and Diagnostic Imaging following their rotations with them. This will also be the case after optional specialty rotations. A formal evaluation of the trainee will also be given every 6 months (see evaluation form) as well as a sit down one on one discussion of the evaluation. Discussion of strengths and weaknesses will be discussed and a
plan towards improvements during the following 6 months. These evaluations will also be attended by the Head of Oncology (Dr. Leibman). Discussion in between evaluations may also take place if either the
resident or supervisor feels the need

Please upload form used in evaluations.

pdf Resident evaluation- RO supervisor revised 2...

33. 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 of each individual with respect to the board certification process.

Dr. Joseph Jacovino completed his program in July 2017. He succeeded his board certification in September 2018.
He now practices in California at the VCA West Los Angeles Animal Hospital.
Work address: 1900 S Sepulveda Blvd Los Angeles, CA 90025, 909-524-2448.

Dr. Erica Buckanan completed her program in July 2019. She succeeded her board certification in September 2020.
She now practices in Maryland at the Veterinary Radiation Oncology of the Chesapeake.
Work address: 808 Bestgate Road, Annapolis, MD 21401, 443-458-5657

Dr. Jean Rogers completed her program in July 2021. She now practiced at MedVet in Cincinnati, Ohio. She is not board certified yet. Work address: 3964 Red Bank Rd., Fairfax, OH 45227, 513-561-0069

34. Please list any additional information of interest in support of this residency application.

Unfortunately we are temporarily closed down but through our upgrading of the department we will hopefully have a more efficient work place as well as complete state of the art equipment.

When we re-open we will have a CT overlay to match our Linac HexaPod couch table. The HexaPod couch table will allow sub-millimeter patient positioning accuracy in six degrees of freedom with the ability to correct translational errors (x, y, z) and rotational errors (roll, pitch, yaw). This will allow us more accuracy in our treatment planning targeting and more accurate administration of IMRT, VMAT and Stereotactic plans. The Linac will have Cone Beam CT that will allow for 4D IGRT to track patient

respiration, which we are excited to try hoping that this will be feasible in Small animals. We will also have an a set of Elekta SRS small field circular cones designed by Aktina which will give residents the opportunity to learn SRS planning with the use of IMRT technology as well as SRS cone technology and learn the differences between the two as well as advantages and disadvantages. We also plan on adding a second board certified radiation oncologist to the team for more diversity and a better structures residency program.

35. How is the resident training experience presently impacted by the COVID-19 pandemic? Please comment on the following:

- **On-site presence of residents and radiation oncology faculty**
- **Caseload**
- **Faculty oversight of radiation treatment planning and patient management**
- **Rounds/seminars/journal club and other didactic courses**
- **Non-radiotherapy clinical rotations**
- **External rotations**

Presently, the on-site presence of residents and radiation Oncology faculty is not affected by COVID.
The case load did drop at the very beginning of COVID, but this has since increased back to the norm and the case load is ample big enough for our residency program. In certain departments the case load has actually increased.
The faculty oversight of Planning and patient management is not affected.
Rad Onc rounds have switched to virtual rounds via Teams where each resident is able to work at their own desktop.
Seminars are also given virtually. I do feel that the virtual presentation for seminars has led to a much less interactive experience since these tend to involve larger groups, which becomes very difficult in the virtual setting. The research presentations have become pre-recorded with e-mailed question, which I do not believe prepares the residents for a true Specialty Annual Meeting setting.
The residents continue their non-radiotherapy clinical rotations as before. I do not believe that the quality of these have been significantly impacted, except for possibly the Radiology rounds. More of our radiologists have started to work from home to allow more ease of distancing for COVID. This therefore has led to a change in the daily radiology rounds session. I myself have not attended to see if there is significant impact but I do feel that the actual presence of individuals makes a big difference as opposed to half present and half virtual. Those that are virtual become more easily forgotten. Radiology however is the only department to my knowledge where the whole department is not necessarily on-site.
We presently have no external rotations for our residency program.