



## ACVR - RO New Residency Program Application

Please review the [Radiation Oncology \(RO\) Residency Program Essentials Training Standards and Requirements](#) document prior to completing this form.

The following documents will be needed to complete the application:

- CVs (current within 1 year and a maximum of 2 pages each) for radiation oncology, diagnostic imaging, and medical oncology Diplomates involved in the training program
- Syllabi for coursework in medical physics, cancer biology, and radiation biology (including internal and external courses)
- Letters of agreement from cooperating institutions
- Letter of agreement from medical physics support for clinical training
- Resident calendar that includes the following:
  - 24 months of RO-specific activities (primary case responsibility, treatment planning, 1 week/year of radiation therapist activities)
  - 8 weeks of medical oncology
  - 4 weeks of diagnostic imaging
  - 40 hours of medical physics
  - 40 hours of clinical pathology
  - 80 hours of anesthesia in minimum 1-week blocks
  - 2 weeks of neurology
  - 2-week minimum off-clinic time per year (study, research, etc) not including vacation
  - Vacation time as mandated by state/institution
  - Required outrotations at cooperating institutions
- Resident evaluation forms

**Submission Date** Sunday, January 31, 2021

**Your Name** Jayme Shay Looper

**Your Address** 1909 Skip Bertman Dr.  
Baton Rouge, LA, 70803

**Your Email Address** jlooper@lsu.edu

**Radiation Oncologists in support of the program (Must be Diplomate(s) of the ACVR):**

First Name	Last Name	Title/Credentials	Email	Phone	Number of weeks per year Diplomate is available to supervise* the resident
Jayme	Looper	DVM, DACVR (RO)	jloop@lsu.edu	225-578-9600	46

\*Resident supervision is defined as being available on-site 40 hours/week (defined as a 4- or 5-day work week to equal a minimum of 40 hours) to support the resident in radiation oncology-related activities including patient consultation/management, review of treatment plans, position verification and participation in daily case-based rounds.

**Which of the Radiation Oncology Diplomates listed above will serve as the Residency Director? This individual will be the primary contact for the residency program and will be responsible for completing all necessary forms/reviews and notifying the RO RSEC of any changes to the program. The Residency Director must be a Diplomate of the ACVR and must be located at the primary training institution.**

Jayme Looper

**Please confirm that during the minimum 24 months of RO-specific activities, a Supervising Diplomate will be present on site to supervise the resident as defined above for 40 hours/week (4-5 days).**

Yes

A standard residency program is one that meets all of the residency program requirements set forth in the [ACVR-RO Residency Essentials Training Standards](#) document. An alternative or amended program is designed for one specific individual/resident and satisfactorily meets all of the residency program requirements, but is completed in an extended timeline (more than 3 years but fewer than 5 years).

**This application is made for (check one):**

Standard Program

**What is the total length of the training program?** 36 Months

**Number of months dedicated solely to radiation oncology-specific activities as defined in the ACVR-RO Residency Essentials Training Standards document (RO-specific activities include primary case responsibility, treatment planning, 1 week/yr of therapist activities):** 27 months

Primary Site:

LSU School of Veterinary Medicine

Hospital/University:

LSU School of Veterinary Medicine

Department:

Veterinary Clinical Sciences

Address

1909 Skip Bertman Drive  
Baton Rouge, LA, 70803

Cooperating Institution(s) (if applicable)

Cooperating Institution (if applicable)	Hospital / University	Department	Street Address	City	State/Province	Postal/Zip Code
Texas A&M	Texas A&M College of Veterinary Medicine	Clinical Sciences	4474 TAMU	College Station	TX	77843

Advanced Degree and Research/Publication Requirement

Masters	No
PhD	No
Research Project	Yes
Publication	No

Documentation of residency completion is required to obtain Diplomate status. Is receipt of residency certificate dependent on completion of advanced degree/research/publication?

No

It is required that a residency in veterinary radiation oncology provide the trainee with experience in formulation of radiation treatment plans, dose calculation, and treatment administration for veterinary patients with cancer. This includes generation of both manual and computer-based treatment plans for megavoltage external beam irradiation. External beam planning experience must include both forward and inverse planning, even if only one of those types is utilized for treatment at the primary facility. Does the program fulfill these requirements?

Yes

Comments:

We utilize 6MV Photon and 6, 9, 12, 16, and 20 MeV Electron treatments. We perform manual point dose calculations, 3D

Conformal forward planning and IMRT inverse planning via Varian Eclipse TPS. We utilize the Diamond dose check program for 3D conformal planning dose check. We utilize MapCheck for QA/plan validation.

**It is required that a residency in veterinary radiation oncology provide the trainee with experience in primary case responsibility, including new referrals, ongoing radiation patients, and follow-up visits. This includes receiving patients, clinical rounds, client/referring DVM communications, and medical records keeping. Does the program fulfill these requirements as described on page 12 of the RO Essentials document?**

Yes

**Comments:**

The radiation and medical oncology service are integrated and receive cases daily, Monday through Thursday. Ongoing radiation patients and emergencies are treated Monday through Friday. The resident has primary case responsibility on new, recheck, and ongoing radiation patients during all radiation oncology rotations.

**It is required that a residency in veterinary radiation oncology provide the trainee with a minimum of 1 week per year of radiation therapist activities to include daily linear accelerator quality assurance and warm up, patient positioning for treatment planning CT and therapy, radiation delivery (as allowed by the state/province), and acquisition of position verification imaging. Does the program fulfill these requirements?**

Yes

**Comments:**

The first 1-2 weeks of the program entail dedicated department training in machine function, warm-ups and daily QA, patient positioning, and imaging verification training. The resident is responsible for assisting the nurses in ongoing daily warm-ups and ongoing treatments as time allows, plus all new setups throughout the residency. A minimum of one week per year is also allotted of additional technical contact time.

**How will the resident be trained in radiation biology? Please provide a description of formal and informal training experiences, or indicate time allotted for self-study.**

Formal Training: Radiation biology training consists of one class with the LSU Medical Physics department in the Spring semester of Year one (MDEP 7121), Informal Training: Weekly Book club with the radiation oncologist in year one covering Hall, Radiobiology for the radiologist and Joiner/Van der Kogel Basic Clinical Radiobiology, and ongoing journal/book club topics throughout the residency.

**Please provide instructors' names and credentials for radiation biology formal and informal training:**

Jeff Chancellor, PhD, Assistant Professor, Department of Physics and Astronomy, LSU Baton Rouge- Course Coordinator MDEP 7121 Radiation Biology.  
Jayme Looper, DVM, DACVR (RO), Associate Professor, LSU SVM, Book Club/Journal Club

**How will the resident be trained in cancer biology? Please provide a description of formal and informal training experiences, or indicate time allotted for self-study.**

Informal training: Weekly book club includes covering Tannock and Hill, The Basic Science of Oncology and relevant journal articles. Weekly Medical Oncology Book club will also be attended when additional relevant tumor biology topics are covered.

**Please provide instructors' names and credentials for cancer biology formal and informal training:**

Informal training: Jayme Looper, DVM, DACVR (RO) Associate Professor of Radiation Oncology for Radiation Oncology Book club; Sita Withers, DVM, DACVIM (O), Assistant Professor of Oncology for Medical Oncology book club.

**How will the resident be trained in medical physics? Please provide a description of formal and informal didactic (non-clinical) experiences, or indicate time allotted for self-study.**

Formal training: year 1- Radiological Physics for Residents, Years 2 and 3- MDEP 7331 Radiation Therapy Physics  
Informal training: Ongoing book club covers Khan chapters in year 1.

**Please provide instructors' names and credentials for didactic (non-clinical) medical physics formal and informal training:**

Rui Zhang, PhD, Assistant Professor of Physics, LSU Department of Physics and Astronomy, Radiation Therapy Physics Course Coordinator;  
Joyoni Dey, PhD, Associate Professor of Physics, LSU Department of Physics and Astronomy, Radiological Physics for Residents (LSU Health Center) Course Coordinator  
Jayme Looper, DVM, DACVR (RO), Associate Professor, Book Club Coordinator.

**Medical physics training requires 1 week or 40 hours of clinical contact with a qualified medical physicist. Please provide a description of the training experience.**

On-site physics support will be provided in 4-8 hour segments during weekly and monthly QA/QC for a minimum of 40 hours throughout the program.

**Medical Physicist(s) in support of clinical training in the residency program**

First Name	Last Name	Title/Credentials	Physicist on-site? Y/N
Daniel	Neck	MS, DABR	Yes

**A minimum of 1 hour of medical literature review with an ACVR-RO Diplomate is required monthly. Please describe this experience, and any additional formal or informal conferences available to the resident (including journal clubs, seminars, book reviews, etc.) that are not already listed above:**

The ACVR-RO Diplomate meets twice weekly for journal club and book club throughout the residency. Additionally, the resident will attend clinical pathology rounds one hour weekly, medical oncology journal club one hour weekly, and house officer seminar one hour weekly. These 5 hours of didactic rounds are mandatory and occur one hour daily (Monday-Friday) during designated didactic times throughout the hospital, typically 8 or 9 am depending on the day.

**The resident is required to present at least 2 lectures or scientific presentations during the course of the**

All LSU house officers are required to present at least 2

**residency. Please describe how the program will fulfill this requirement:**

abstract or lecture-style presentations each year as part of the house officer program. Attendance is mandatory for all house officers. The radiation oncology resident will present at least 6 of these presentations total during the residency (2 per year).

The program must include an external beam radiation therapy machine in the megavoltage range and 3D computerized radiation treatment-planning capabilities to create treatment plans used for treatment delivery. Residents must have on-site access to treatment planning systems capable of forward and inverse planning even if both types of planning techniques are not deliverable at that institution.

**Please list the manufacturer and model of the on-site external beam radiation therapy delivery system:**

Varian Clinac 21EX with 6MV photons and 6,9,12,16, and 20 MeV electrons, MLC Millenium 120 leaf

**Please list the manufacturer and model of the on-site radiation therapy treatment planning system(s). Please indicate whether they are capable of forward or inverse planning, or both, and whether or not they are used clinically to deliver treatments:**

Eclipse version 13 with Aria Record and Verify, capable of performing forward and inverse planning.

The clinical training requirements in the following six questions, described on pages 15 and 16 of the [RO Essentials](#) document can be fulfilled at a cooperating institution if the primary institution lacks resources to accomplish them. Training at cooperating institutions must be supervised by a Supervising or Supporting ACVR-RO Diplomate and a letter of agreement from the cooperating institution is required. The training requirements can be combined into a single minimum 2-week learning experience at the cooperating institution.

**The residency program requires hands-on clinical experience to develop expertise and self-sufficiency in manual setups and manual treatment planning with photons. How does the program fulfill this requirement?**

We plan manual point dose calculations with photons on-site. All setups, port films, and treatments are performed with the radiation oncologist and therapist in years 1 and 2, with all dose calculations checked by the radiation oncologist and medical physicist. In late year 2 and year 3, the resident is expected to perform these treatments independently but with port films and doses checked by the radiation oncologist prior to beam-on.

**The residency program requires hands-on clinical experience to develop expertise and self-sufficiency in manual setups and manual treatment planning with electrons. How does the program fulfill this requirement?**

We plan manual treatments with electrons on-site. All setups and treatments are performed with the radiation oncologist and therapist in years 1 and 2, with all dose calculations checked by the radiation oncologist and medical physicist. In late year 2 and year 3, the resident is expected to perform these treatments independently but with setup and doses checked by the radiation oncologist prior to beam-on. We train the resident in creating custom electron blocks based on field shape/outline.

**The residency program requires hands-on clinical experience with forward planning for 3D conformal radiotherapy (non-IMRT). How does the program fulfill this requirement?**

We plan 3D conformal radiotherapy using Eclipse v. 13 and administer these forward plans to clinical patients. We also plan 3D conformal treatments and compare them to IMRT plans on clinical patients that are receiving IMRT, to demonstrate the differences in dose distributions between the forward and inverse planning techniques. While this is not performed on every IMRT case, it is performed at least

monthly to maintain fluency in forward planning throughout the residency.

**The residency program requires hands-on clinical experience with inverse planning for IMRT. How does the program fulfill this requirement?**

We routinely perform IMRT inverse planning on multiple patients each week. We utilize Eclipse v. 13 and all treatments undergo physics QA prior to beam on.

**The residency program requires hands-on clinical experience in on-board imaging verification with MV or KV CT. How does the program fulfill this requirement?**

The 21EX linear accelerator has a KV on-board imaging so daily KV CTs are obtained. CT QA is performed daily, and all IMRT patients receive at least one weekly cone beam KV CT for positioning verification. For patients receiving stereotactic planning, daily CTs are obtained prior to each fraction.

**The residency program requires hands-on clinical experience in on-board imaging verification with kV digital radiographs. How does the program fulfill this requirement?**

The 21EX has KV digital radiograph capabilities. The resident performs daily KV QA during warm ups, and also we perform KV digital radiographs on both manual plan patients and 3D conformal and IMRT patients. We occasionally image patients with MV and KV to compare and contrast image quality.

**The residency program requires hands-on clinical experience in on-board imaging verification with MV portal imaging. How does the program fulfill this requirement?**

The 21EX has on-board MV image verification. Most manual setup patients receive an MV portal image for image verification.

**Radiologist(s) in support of the residency program [Must be Diplomate(s) of the ACVR or ECVDI]**

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Nathalie	Rademacher	DVM, DACVR	Yes
Abbigail	Granger	DVM, DACVR	Yes
Hayley	Paradise	DVM, DACVR	Yes

**The residency program requires at least 26 weeks/year of on-site diagnostic imaging support from a ACVR or ECVDI Diplomate and availability for remote support for at least 45 weeks/year. How will the institution fulfill this requirement?**

With three board-certified radiologists on-site, we have full time support 52 weeks per year.

**How will the resident be trained in diagnostic imaging? Please provide a description of formal and informal training experiences as well as a description of the resident's role while rotating on a diagnostic imaging service:**

The resident will have 6 weeks of Diagnostic Imaging throughout the residency. During these 2-week rotations, they will participate in image interpretation, generate reports, and attend all radiology rounds and KCC. They will focus on imaging of the cancer patient with an emphasis on thoracic radiograph, CT, and MRI interpretation. We also perform nuclear scintigraphy so some exposure will be given to that modality as well. Informal training will also consist of regular consultation with diagnostic imaging specialists on image interpretation of clinical radiation



**The program must have on-site access to modern radiographic equipment, including digital or computed radiography, ultrasound, and CT. Does the institution fulfill this requirement?**

**Medical Oncologist(s) in support of the residency program [Must be Diplomate(s) of the ACVIM, Specialty of Oncology]**

**The residency program requires at least 26 weeks/year of on-site medical oncology support from an ACVIM (Oncology) Diplomate. How will the institution fulfill this requirement?**

**How will the resident receive training in medical oncology? Please provide a description of formal and informal training experiences as well as a description of the resident's role while rotating on a medical oncology service:**

**Surgeon(s) in support of the residency program [Must be Diplomate(s) of the ACVS]**

**The residency program requires at least 26 weeks/year of on-site surgical support from an ACVS Diplomate. How will the institution fulfill this requirement?**

**Pathologist(s) in support of the residency program [Must be Diplomate(s) of the ACVP (Anatomic or Clinical Pathology) or ECVP (Clinical Pathology)]**

oncology patients throughout their training.

LSU diagnostic imaging department contains digital radiography (2 small animal and one large animal suite), ultrasound (2 suites), CT (GE 16 slice helical), MR (1.5 T), fluoroscopy, and nuclear scintigraphy.

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Bonnie	Boudreaux	DVM, MS, DACVIM (O)	Yes
Sita	Withers	BVSc (Hons), PhD, DACVIM (O)	Yes

There is a board-certified medical oncologist on-site 52 weeks/year.

The medical oncology rotations will consist of four 2-week rotations for a total of 8 weeks. During these rotations, the resident will focus on oncology cases not referred for radiation therapy. They will have primary case responsibility and participate in the diagnosis, staging, and treatment recommendations including chemotherapy administration and surgical referrals. They will perform aspirates, biopsy procedures, and other technical procedures. They will participate in ongoing medical oncology journal clubs and book reviews for cancer biology, basic science techniques, immunotherapy and chemotherapy.

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Karanvir	Aulakh	DVM, DACVS	Yes
Chuck	Walls	DVM, DACVS	Yes

The ACVS surgery faculty are on-site at least 50 weeks/year. An additional ECVS surgeon is on-site at least 26 weeks/year.

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Shannon	Dehghanpir	DVM, DACVP	Yes



First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Courtney	Nelson	DVM, DACVP	Yes
Ingeborg	Langhor	DVM, DACVP	Yes
Fabio	Del Piero	DVM, DACVP	Yes
Rudy	Bauer	DVM, DACVP	Yes
Daniel	Paulsen	DVM, DACVP	Yes

**The residency program requires at least 45 weeks/year of anatomic and clinical pathology support by ACVP Diplomates. If not on-site, a letter of support must be submitted. How will the institution fulfill this requirement?**

There is at least 1 clinical pathologist and 1 anatomic pathologist on-site and on clinical duty 52 weeks/year. There are 2 clinical pathologists and 4 anatomic pathologists on staff. Both have active residency training programs as well.

**At least 1 week or 40 hours in a clinical rotation or rounds with a clinical pathologist are required during the residency program. If off-site, a letter of agreement must be submitted. How will the institution fulfill this requirement?**

The resident will attend at least 1 week of a clinical pathology rotation on-site. Additionally, the resident will attend weekly clinical pathology rounds and quarterly Oncologic pathology rounds, which involves medical and radiation oncology, clinical pathology, anatomic pathology, and surgery faculty and house officers.

**Anesthesia Specialists in support of the residency program [Must be Diplomate(s) of the ACVAA or ECVA, or Veterinary Technician Specialists (VTS)]**

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Chiara	Hampton	DVM, DACVAA	Yes
Jeanette	Cremer	DVM, DACVAA	Yes
Nicole	Fitzgerald	RVT, VTS	Yes
Jill	Lanclos	RVT, VTS	Yes

**The residency program requires two 1-week (40-hour per week) clinical rotations (80 hours in total) in anesthesia with an Anesthesia Specialist, as defined above. Please provide a description of this training experience and the resident's role on this rotation.**

The resident will attend two 1-week Anesthesia rotations. During this time, the resident will formulate anesthetic plans and be primary anesthetist on clinical patients of all types. Focus will be on the oncologic patient receiving anesthesia for staging, CT, and radiation therapy setups.

**Neurologist(s) in support of the residency program [Must be Diplomate(s) of the ACVIM, Specialty of Neurology or ECVN]**

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Joseph	Mankin	DVM, DACVIM (N)	No

The residency program requires a 2-week clinical rotation supervised by a Diplomate of the ACVIM (Neurology) or ECVN. Please provide a description of the training experience and resident's role on this rotation.

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

The neurologist will provide a 2-week clinical rotation at Texas A&M University College of Veterinary medicine. During this rotation, the resident will shadow the neurology team with a focus on the neurologic oncology patient diagnosis and workup. The resident will have opportunities to perform neurologic exams, interpret MRI and other advanced imaging techniques, CSF analysis, and observe neurosurgeries pertaining to the oncologic patient. They will also participate in the medical management of the neurologic patient including management of increased intracranial pressure, seizures, and other neurological emergencies.

Name	Certifying College/Board	Subspecialty (if applicable)	Explain Relationship if offsite
Kirk	Ryan	DACVIM	
Fred eric	Gaschen	DACVIM	
Andr ea	Johnston	DACVIM	
Har meet	Aulakh	DACVIM	
Ryan	Smith	DACVECC	
Virgi nie	Wurlod	DACVECC	
Alber to	Gines	DECVS	
Mark	Mitchell	DECZM (Herpetology)	
Tho mas	Tully	DACVP, DECZM	
Javie r	Nevarez	DACZM, DECZM	
Rene e	Carter	DACVO	
Andr ew	Lewin	DACVO	
Aliya	Magee	DACVIM (Cardio)	
Henr y	Green	DACVIM (Cardio)	
Cheri e	Pucheu-Haston	DACVD	

Name	Certifying College/Board	Subspecialty (if applicable)	Explain Relationship if offsite
Joseph	Taboada	DACVIM	

**Evaluation of resident performance and progress must be documented every 6 months through appropriate techniques, including faculty appraisal, or oral or written tests, or a combination of these. Institutional resident evaluation forms should be submitted as part of the residency application. How will the program fulfill this requirement?**

LSU house officer program requires e-value house officer evaluations biweekly. Additionally, the LSU RO residency evaluation takes place quarterly the first year, then semiannually in years 2 and 3.

**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 possible, provide the status of each individual with respect to the board certification process.**

Lauren Fout- 2019  
Jennifer Merkle- 2021 (current)

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

1. On-site presence of residents and radiation oncology faculty
2. Caseload
3. Faculty oversight of radiation treatment planning and patient management
4. Rounds/seminars/journal club and other didactic courses
5. Non-radiotherapy clinical rotations
6. External rotations

1. No impact on resident and faculty on-site availability
2. Caseload has returned to pre-COVID levels and was only affected for about 8 weeks in summer 2020.
3. COVID-19 has not affected oversight of patient care or treatment planning.
4. Most didactic courses have converted to virtual with the exception of rad onc journal club, which is often done in person.
5. No impact on clinical rotations
6. External rotations have not been needed to this point. We have reasonable assurance that our neurology rotation will be in person within the coming 3 years, but will make a contingency plan with alternate institutions if we are still not allowed external rotations after the end of academic year 2021-22.

**Upload the following information**

- CVs (current within 1 year and maximum of 2 pages) for each radiation oncologist, radiologist and medical oncologist involved in the training program
- Resident calendar that includes the following:
  - 24 months of RO-specific activities (primary case responsibility, treatment planning, 1 week/year of radiation therapist activities)
  - 8 weeks of medical oncology
  - 4 weeks of diagnostic imaging
  - 40 hours of medical physics
  - 40 hours of clinical pathology
  - 80 hours of anesthesia in minimum 1-week blocks
  - 2 weeks of neurology
  - 2-week minimum off-clinic time per year (study, research, etc) not including vacation
  - Vacation time as mandated by state/institution
  - Required outrotations at cooperating institution(s)
- Letters of agreement from cooperating institutions
- Letter of agreement from medical physics support for clinical training
- Residency evaluation forms
- Syllabi for any formal or informal coursework

## CVs



2020-11-09\_BioSketch\_Withers (1).pdf



ACVR Short CV - Granger.docx.pdf



ACVR Short CV - Looper.docx.pdf



ACVR Short CV Rademacher.doc



Biosketch BB 2019 (1).docx



HAYLEY PARADISE CV 2020.pdf

## Resident Calendar



Radiation Oncology Residency Schedule 202...

## Letters of Agreement From Cooperating Institutions



LSU radonc.pdf



Dr. Joe Mankin email letter of support.pdf

## Letter of Agreement from Medical Physics Support for Clinical Training



Residency Support Letter\_Signed (1).pdf

## Residency Evaluation Forms



Resident Evaluation Form 2021.pdf

## Syllabi for Coursework



Course Syllabus MEDP 7331 Spring 2021 fina...



MEDP-7121\_Spring2020\_syllabus.pdf



Radiological Physics course (2020-2021) (1)....