

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



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.



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

1. Date of Application Thursday, March 7, 2024

Date of Initial Program Approval Tuesday, May 28, 2013

Date of Last Re-Approval Sunday, January 31, 2021

Your Name Tracy Gieger

Your Email Address tracy.gieger@gmail.com

Your Address 1052 William Moore Dr, NC State College of Veterinary Medicine, Terry center
Raleigh, NC, 27607

2. Program Director:

Must be a Diplomate of ACVR Recognized Veterinary Specialty of Radiation Oncology.

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 #
Tracy	Gieger	DVM, DACVIM, DACVR	tracy.gieger@gmail.com	9195136690	30	9195136669

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?

From a time period starting August 2023, Dr. Nolan is in an interim administrative role and is not expected to return to clinics until June 2024 at the soonest. During this time, Dr. Siegel was/is scheduled to provide

locum coverage for approximately 10 weeks (two other locums covered a total of 3 weeks as well).

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

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

Yes

Additional Radiation Oncologists in support of the program (Diplomate of ACVR recognized Veterinary Specialty of Radiation Oncology):

First Name	Last Name	Title/Credentials	Number of weeks per year each individual boarded ACVR-RO Diplomate is available to resident on a daily basis	Faculty Member on site (yes or no)?
Michael	Nolan	DVM, PhD, DACVR	0-15	yes
Sheri	Siegel	DVM, DACVR	5-10	no (locum)
David	Ruslander	DVM, DACVR	3-10	no (resident outrotations)

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

 2 page_BioSketchRuslander....docx

 SheriSiegel CV (1) (1).pdf

 CV_dossier format_Nolan 2... .docx

 Dec 2023_NIH biosketch gie... .doc

Residents

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

Yes

Residents

First Name	Last Name	Dates of Training
Clarissa	Freemyer	July 2021-July 2024
Brianne	Karten	July 2022-July 2025



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

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:

North Carolina State University

Hospital/University:

NC State Veterinary Hospital

Department:

Clinical Sciences

Address:

1052 William Moore Dr , CVM Terry Center
Raleigh, NC, 27607

Cooperating Institution Information

6. Cooperating Institution (if applicable):

Duke University

Department:

Radiation Physics

Hospital/University:

Medical Center

Address:

3295 DUMC
Durham, NC, 27710

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

 NCSU letter of support 2024.pdf



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

Training Period

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

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.) 24

8. Advanced Degree:

Masters	No
PhD	No

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

 NC State_2024_RO-RSEC Cal... .pdf



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

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):

Must be Diplomate(s) of the ACVR or ECVDI


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)?
Nathan	Nelson	DVM, DACVR	30 weeks on clinics	yes
Gabriela	Seiler	DVM, DACVR	23 weeks on clinics	yes
Nicholas	Petrovich	DVM, DACVR	42 weeks on clinics	yes


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

52
There are locum radiologists that also provide coverage throughout the year. A NC State radiologist is always present during normal work hours in addition to the locum.

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

 Gabi Seiler CV short 2024 (1).pdf

 NPP Short CV 2023.pdf

 Biosketch.pdf

b. Medical Oncologist(s):

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

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)?
Joanne	Intile	DVM, MS, DACVIM	30-32 weeks on clinics	yes
Paul	Hess	DVM, DACVIM	10- 12 weeks on clinics	yes
Steve	Suter	DVM, DACVIM, PhD	10-12 weeks on clinics	yes
Michael	Mastrom auro	DVM, DACVIM	30-32 weeks on clinics	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?

52

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



Suter 2 page CV 2023.pdf



mastromauro 2 page cv.docx



Biosketch 2023.pdf



HessPR_BiosketchForRadO... .docx

c. Surgeon(s):

Must be Diplomate(s) of the ACVS

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

First Name	Last Name	Title/Credentials	Faculty Member on site (yes or no)?
Marine	Traverson	DVM, DACVS	yes
Kyle	Mathews	DVM, DACVS	yes
Valerie	Scharf	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?

52 (locums are also available when faculty are unavailable)

d. Pathologist(s):

Must be Diplomate(s) of the ACVP

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

First Name	Last Name	Title/Credentials	Drop down	Faculty Member on site (yes or no)?
Devorah	Stowe	DVM, ACVP (clinical pathology)	Clinical Pathology	yes
Erica	Gruber	DVM, ACVP (clinical pathology)	Clinical Pathology	yes
Hiro	Mochizuki	DVM, ACVP (clinical pathology)	Clinical Pathology	yes
Jennifer	Luff	DVM, ACVP (anatomic pathology)	Anatomic Pathology	yes
Danielle	Meritet	DVM, ACVP (anatomic pathology)	Anatomic Pathology	yes

First Name	Last Name	Title/Credentials	Drop down	Faculty Member on site (yes or no)?
Panchan	Sitthicharoenchai	DVM, ACVP (anatomic pathology)	Anatomic Pathology	yes
Elizabeth	Rose	DVM, ACVP (anatomic pathology)	Anatomic Pathology	yes
Abigail	Armwood	DVM, ACVP (anatomic pathology)	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?

52

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
Peter Early	ACVIM	neurology	
Chris Mariani	ACVIM	neurology	
Natasha Olby	ACVIM	neurology	
Karen Munana	ACVIM	neurology	
Jessica Briley	ACVA	anesthesia	
Lynelle Graham	ACVA	anesthesia	
Kelly Varner	ACVA	anesthesia	
Lydia Love	ACVA	anesthesia	
Adam Birkenheuer	ACVIM	internal medicine	

Name	Certifying College/Board	Subspecialty (if applicable)	If offsite, please explain relationship
Melissa Lewis	ACVIM	neurology	
Julie Balko	ACVA	anesthesia	
Juan Pavez	ACVA	anesthesia	
Karyn Harrell	ACVIM	internal medicine	
Karen Tefft	ACVIM	internal medicine	
Shelly Vaden	ACVIM	internal medicine	
Allison Kendall	ACVIM	internal medicine	
Katie Tolbert	ACVIM	internal medicine	
Katie McCool	ACVIM	internal medicine	
Ed Breitschwerdt	ACVIM	internal medicine	
Petra Bizikova	ACVD	dermatology	
Marcy Murphy	ACVD	dermatology	
Ina Herrmann	ACVD	dermatology	
Teresa deFrancesco	ACVIM	cardiology	
Bruce Keene	ACVIM	cardiology	
Kursten Pierce	ACVIM	cardiology	
Sandra Tou	ACVIM	cardiology	
Brian Gilger	ACVO	ophthalmology	
Hans Westermeyer	ACVO	ophthalmology	
Annie Oh	ACVO	ophthalmology	
Jody Gookin	ACVIM	ACVIM	
10			

Name	Certifying College/Board	Subspecialty (if applicable)	If offsite, please explain relationship
Bernard Hansen	ACVECC	emergency medicine	
Ronald Li	ACVECC	emergency medicine	
Alex Lynch	ACVECC	emergency medicine	
Sarah Musulin	ACVECC	emergency medicine	
Michala Henriksen	ACVO	ophthalmology	



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

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:

RO residents have primary case responsibility for ongoing and new patients. They perform physical exams, write records, communicate with clients, supervise and perform sedation and procedures such as biopsies and fine needle aspirates. They are directly supervised by the RO faculty. They are also on call for emergency backup for RO patients 1/3 to 1/2 of the year (they do not have primary emergency duty).

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:

They spend a minimum of 8 weeks on the medical oncology, where they receive cases and are directly supervised by the medical oncology faculty. They also take transfers from the ER service while on medical oncology and attend medical oncology journal club. As described below, RO residents also round for at least 1- 1.5 hours with medical oncology every week. Informally, the two services consult with each other on a nearly daily basis.

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:

They spend a minimum of 4 weeks on the DI service, where they round with DI residents and faculty for at least 1-2 hours per day. Informally, RO residents consult with DI faculty and residents on a nearly daily basis.

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

3 weeks total-

two weeks of anesthesia with the anesthesia service under direct supervision of the anesthesia faculty - they attend all student and technician rounds and anesthetize small animal cases of any type; also one week of anesthesia with our RO service anesthesia technician for RO patients only

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

Dr. Nolan is a radiation biologist and radiation biology is often discussed during daily topic rounds. The residents also have a radiation biology course that is taken once during the residency, via WebEx through UNC.

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

The Duke Cancer Center seminar series commonly has cancer biology topics. Radiation oncology journal club topics are commonly cancer biology-related as well.

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

The residents have a medical physics course that is taken once during the residency, via WebEx through UNC. As described in the schedule, they also spend 1-2 weeks with a medical physicist at a human hospital in our area. Radiation oncology journal club topics are commonly physics-related as well. We also have weekly physics rounds as described in the schedule and also have frequent interaction with our institutional medical physicist.

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 contract medical physicist that does weekly chart checks, monthly and annual QA- he is also readily available for questions about cases and trouble-shooting. He teaches the residents how to do hand calculations and he meets with them on some weekends for annual and monthly QA; they also spend at least 1 week with him at his hospital (Rex Cancer Center). The residents also spend 1 week at Duke Cancer Center with a different medical physicist that does some of the QA work for NC State.

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:

1. Radiation biology course- Duke, Dr. Christine Eyeler
2. Medical physics course- UNC, Dr. Eric Schreiber

The syllabi are up-to-date and the most recent offerings are listed.

Upload syllabi here:



2022-2023 Biology Course Sy....pdf



Physics of Radiation Oncology.pdf

Upload instructor credentials here:



NCSU attestation statementpdf



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

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:

Case rounds are held twice daily - 7:30 am and 3 pm, total of 1-1.5 hours/day - rounds are attended by at least 1 RO and review ongoing cases and new cases seen that day

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

Yes

Please describe how rounds are attended and supervised:

Case rounds are held twice daily - 7:30 am and 3 pm, total of 1-1.5 hours/day - rounds are attended by at least 1 RO and review ongoing cases and new cases seen that day

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

Yes

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

mandatory-

1. radiation oncology journal club with RO faculty and residents and graduate students - weekly, 42 weeks/year, 1 hour/session
2. weekly rounds on a rotating basis- oncology rounds (surgery/oncology or oncology/pathology) or cancer research seminar- 48 weeks/year, 1 hour/session
3. radiation oncology service physics rounds- to discuss ongoing cases and review treatment plans and physics topics- held every week, 1 hour/session
4. radiation and medical oncology clinical rounds- 30 minute rounds with HO and faculty from both groups- every other week throughout the year to discuss service cases
5. Duke Cancer Center seminar series- zoom meeting held 8-10 times/year, 1 hour each- cancer and radiation biology topics

optional-

1. medical oncology journal club - 1 hour/week- RO residents attend during medical oncology rotations

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 house officer seminar series runs Aug-May every year. RO residents present a 30-minute talk in each of years 2 and 3, typically about their research project and the results.

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:

All residents are allowed to attend at least 1 meeting during the program, and may attend 2 meetings if they present an abstract at at least one of them.

26. Does the training program require a research project?

Yes

Please indicate the number of research projects required:

One - this is a prospective or retrospective study that is initiated after the first 6-8 months of the residency program, in collaboration with the resident and at least one faculty RO.

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

No

Comments:

All residents finishing prior to 2023 have had publications, but this is not required.



ACVR - RO Residency Training Program Re-Approval Application

28. Facilities and Equipment

Do you have a megavoltage teletherapy machine available?

Yes

Is the megavoltage teletherapy machine on-site?	<input checked="" type="checkbox"/> Yes
Please specify the manufacturer and model:	Varian Novalis TX
Do you have a multileaf collimator available?	<input checked="" type="checkbox"/> Yes
Is the multileaf collimator on-site?	<input checked="" type="checkbox"/> Yes
Please specify number of leaves and width of leaves:	120 leaves, 0.25 - 0.5 cm leaves
Do you have on-board portal or CT imaging available?	<input checked="" type="checkbox"/> Yes
Is the on-board portal or CT imaging on-site?	<input checked="" type="checkbox"/> Yes
Please specify type:	Varian OBI for kV CBCT and kV radiographs and portal imager for MV port films
Do you have a 3D - computer (non-IMRT) based treatment planning system available?	<input checked="" type="checkbox"/> Yes
Is the 3D - computer (non-IMRT) based treatment planning system on-site?	<input checked="" type="checkbox"/> Yes
Please specify manufacturer and model:	Varian Eclipse
Do you have intensity modulated radiation therapy available?	<input checked="" type="checkbox"/> Yes
Is intensity modulated radiation therapy on-site?	<input checked="" type="checkbox"/> Yes
Do you have stereotactic radiation therapy or radiosurgery available?	<input checked="" type="checkbox"/> Yes
Is stereotactic radiation therapy or radiosurgery on-site?	<input checked="" type="checkbox"/> Yes
Do you have strontium-90 plesiotherapy available?	<input checked="" type="checkbox"/> Yes
Is strontium-90 plesiotherapy on-site?	<input checked="" type="checkbox"/> 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)	Yes
Do you have computerized medical records with searching capabilities available?	Yes
Do you have computerized medical records with searching capabilities available on-site?	Yes

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

**Megavoltage Gamma/X-ray
teletherapy:** 245

LDR brachytherapy:	0
HDR brachytherapy:	0
Radioiodine:	0
Strontium plesiotherapy:	10



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.

ARIA record and verify system is used for all external beam RT. Sr-90 treatment sheets are scanned into the medical record and also kept in a folder with all Sr-90 treatment details. All RT details (Rx and type of treatment) are recorded into the electronic medical record. Dose calculation sheets for photon and electron calculations (manual setups) are completed and scanned into the medical record, and RadCalc is used as an electronic second check. An institutional medical physicist performed weekly chart checks and these are signed off on on paper, which is then scanned into the medical record.

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?

1. RO-specific patient data base is an excel file that has been active since 2013 (all patients treated with RT of any type are included) and is searchable. The system highlights when recheck/follow up information is required to prompt the RO clinical team to contact the pet owner or referring DVM. This reminder system is set to seek follow up at 4-month intervals. If the patient is not seen at NC State, the owner and/or referring DVM is contacted to gain follow up information.

2. The standard recheck schedule for most patients is 2-3 weeks after RT then every 3-4 months for the first year then every 4-6 months after that, but this varies somewhat with tumor type.

32. By what mechanisms and how often will trainees be evaluated? Please comment on radiation therapy specific evaluation as well as general clinical evaluation.

They are evaluated in person every 6 months and are provided written feedback on their clinical, research, board preparation, and interpersonal skills. Once annually, they are asked to provide a written self-assessment as part this semi-annual review.

Please upload form used in evaluations.



Evaluation for Resident in RO.docx

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.

all are RO diplomates- Jason Strasberg (private practice in TN), Maegan Watson Skaggs (private practice in CA), Katherine Sweet (private practice in Canada), James Elliott (private practice in UK), Leanne Magestro (private practice in MI)

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

Radiation oncology residency handbook is attached and is updated annually

Additional Documentation Upload



June 2023_RadOncResGuid... .docx