



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 Friday, January 20, 2023

Your Name Melanie Anne Moore

Your Address Veterinary Medical Center, 736 Wilson Road
East Lansing, MI, 48824

Your Email Address moore231@msu.edu

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

Fir st N a m e	La st N a m e	Title /Cre denti als	Email	Phon e	Number of weeks per year Diplomate is available to supervise* the resident
M e l a n i e	M o o r e	DA CV R- RO	moore231@ msu.edu	517 353 542 0	48

First Name	Last Name	Title /Credentials	Email	Phone	Number of weeks per year Diplomate is available to supervise* the resident
Leanne	Morgan	DA CV R-RO	Leanne.Magestro@bluepearlvet.com	(248) 354-6640	48

*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.

Melanie Moore

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

Comments:

The resident will split time between Michigan State University (MSU) and BluePearl- Southfield (BP). The resident will spend approximately 55% of their time with MSU and approximately 45% with BP. During time at each location the resident will have a DACVR-RO on site to supervise for 40hrs/wk.

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? 3 years

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): 26 months

Primary Site: Michigan State University

Hospital/University: Veterinary Medical Center

Department: Small Animal Clinical Science

Address 736 Wilson Road
East Lansing, MI, 48824

Cooperating Institution(s) (if applicable)

Cooperating Institution (if applicable)	Hospital / University	Department	Street Address	City	State/Province	Postal/Zip Code
BluePearl	BluePearl Pet Hospital Southfield		29080 Inkster Road	Southfield	MI	48034

Advanced Degree and Research/Publication Requirement

Masters	No
PhD	No
Research Project	Optional
Publication	Optional

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

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

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

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.

Resident will be trained via self study (2 hours a week of protected study time) and then meet for at least 1 hour a week with DACVR-RO to review material. Please see attached document for outline of radiation biology material and timeline for review.

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

Melanie Moore, DACVR-RO

Leanne Magestro, DACVR-RO

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.

Resident will be trained via self study (2 hours a week of protected study time) and then meet for at least 1 hour a week with DACVR-RO to review material. Please see attached document for outline of cancer biology material and timeline for review.

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

Melanie Moore, DACVR-RO
Leanne Magestro, DACVR-RO

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.

Resident will be trained via self study (2 hours a week of protected study time) and then meet for at least 1 hour a week with DACVR-RO to review material. Please see attached document for outline of radiation biology material and timeline for review.

The resident will also be encouraged and supported to enroll in either physics boot camp at UCD or the biology/physics intensive course at University of Maryland.

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

Melanie Moore, DACVR-RO
Leanne Magestro, DACVR-RO

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.

Resident will spend one week with the medical physicist (David Sieffert) and be expected to observe and participate in QA protocols, plan reviews and other aspects. The physicist Rob Sieffert reviews all portal dosimetry QA on every VMAT plan, the resident will be expected to discuss the results of the PDQA with the physicist, especially if certain parameters are out of accepted range.

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

First Name	Last Name	Title/Credentials	Physicist on-site? Y/N
Robert	Sieffert	MS	Yes
David	Sieffert	MS	No

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 resident will be expect to attend Journal Club every other week to review medical literature. The resident will have the option of attending either the ACVR or VCS annual scientific conference each year.

The resident is required to present at least 2 lectures or scientific presentations during the course of the residency. Please describe how the program will fulfill this requirement:

The resident will be required to give a presentation once a year through the MSU Resident/Intern Seminar Series, held weekly for the entire college.

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 Trilogy - MSU
Varian True Beam - BP

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:

Varian Aria and Eclipse, v15.6, is utilized at both MSU and BP (BP will be transferring to the cloud-based version, with an upgrade to v16.0 in the near future). This software is capable of both inverse and forward planning and is used clinically to deliver treatments.

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?

Manual set-ups for photon treatment occur frequently at both institutions.

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?

Manual set-ups for electron treatment occur frequently at both institutions. At MSU there is the capability to create individual cerrobend blocks.

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

This type of planning is available through Varian Eclipse v15.6 and residents will be encouraged to create 3DCRT plans in appropriate situations.

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

This type of planning is available through Varian Eclipse v15.6 and residents will be encouraged to create IMRT plans in appropriate situations.

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?

Both linear accelerators have cone-beam CT capability.

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

Both linear accelerators can obtain KV digital radiographs.

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

Both linear accelerators can obtain MV portal images.

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
Jody	Lawver	DACVR	Yes
Michelle	Rose	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?

This residency will be split between 2 institutions. At MSU a DACVR is on-site at minimum 26 weeks a year. At BP a DACVR is on-site 48 weeks a 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 4 weeks of formal DI training with a ACVR diplomate. While on rotation the resident will be expected to read and write imaging reports under the guidance of the ACVR diplomate.

During time on radiation oncology clinics, the resident will review each CT simulation scan with the ACVR-RO diplomate to confirm target volumes and organs at risk. Radiologists will also be available for the resident if there are any questions regarding the imaging.

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?

Both institutions have digital radiograph equipment, CT scanners and multiple ultrasound machines in each location.

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

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Alison	Masyr	DACVIM (Oncology)	Yes
Angela	Kozicki	DACVIM (Oncology)	Yes

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?

There is a full time (48+ weeks) medical oncologist at each location.

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:

Formally, the resident will have 8 weeks seeing cases with the medical oncologists. The resident will be expected to have primary case responsibility with supervision from the medical oncologist. The resident will be expected to create problem lists, create a diagnostic plan (if needed) and create a treatment plan for each patient.

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

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Maureen	Spinner	DACVS-SA	Yes
Bharadhwaj	Ranganathan	DACVS-SA	Yes
Halley	Gallaher	DACVS-SA	Yes
Eric	Hans	DACVS-SA	Yes
Karyn	Maxworthy	DACVS	Yes

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?

MSU currently has 6 full time ACVS Diplomates and BP-Southfield currently has 2 full time ACVS Diplomates to support the resident.

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

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Dalen	Agnew	DACVP	Yes
Jennifer	Thomas	DACVP	Yes
Rebecca	Smedley	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?

MSU Veterinary Diagnostic Laboratory currently has 30 faculty pathologists (both clinical and anatomic), with 17 of those pathologists specifically ACVP diplomates. Pathologists are available readily to review findings from reports.

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 spend a one-week rotation with a MSU clinical ACVP diplomate.

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

First Name	Last Name	Title/Credentials	Diplomate on-site? Y/N
Christopher	Thibault	DACVAA	Yes
William	Horne	DACVAA	Yes
Deborah	Wilson	DACVAA	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 complete a rotation with the Anesthesia department, with supervision by 3 ACVAA diplomates. The resident will be expected to construct appropriate anesthetic plans for patients of the anesthesia service and execute the plan during this rotation.

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
Kathryn	Winger	DACVIM (Neurology)	Yes

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.

The resident will complete a rotation with the Neurology department, with supervision by the ACVIM (Neurology) diplomate. The resident will be expected to have primary case responsibility with supervision from the neurologist. The resident will be expected to create problem lists, create a diagnostic plan (if needed) and create a treatment plan for each patient.

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?

An evaluation rubric (see attached documents) will be reviewed every 6 months with the resident.

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





CV mdr 1.doc



JEL CV JAN2022.docx



Melanie Moore CV 2023 SH... .docx



ShortCV2023.pdf

Resident Calendar



Resident Calendar.xlsx

Letters of Agreement From Cooperating Institutions



Affiliation Agreement Rad On... .pdf



Letter of support MSU Blue... .docx

Letter of Agreement from Medical Physics Support for Clinical Training



RS Physics Letter.pdf

Residency Evaluation Forms



Evaluation for Radiation On... .docx

Syllabi for Coursework



SYLLABUS AND BOOK CLU... .docx