THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center

Making Cancer History®

RESIDENT HANDBOOK: IMAGING PHYSICS RESIDENCY PROGRAM

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June 30, 2025

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3SCR – South Campus Research III

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PROGRAM OVERVIEW

The Residency Program in Diagnostic Imaging Physics provides residents with structured training that will prepare them to work in diagnostic imaging as a professional medical physicist. The program offers a two-year clinical residency training or a three-year hybrid residency training (hybrid pathway). The program follows the recommendations outlined in the American Association of Physicists in Medicine (AAPM) Report 249 Essentials and Guidelines for Clinical Medical Physics Residency Training Programs and the Commission on Accreditation of Medical Physics Education Programs (CAMPEP) Guidelines for Accreditation of Medical Physics Residency Programs. The clinical experiences gained in the program may be applied toward the experience requirement to qualify for examination by the American Board of Radiology (ABR), the American Board of Medical Physics (ABMP), or the American Board of Science in Nuclear Medicine (ABSNM).

The mission of the hybrid pathway is to provide combined clinical and research training to residents who aim to practice professional imaging physics in an academic environment. The hybrid pathway includes 24-month clinical training, which contains identical training experience and objectives as the two-year clinical residency, combined with 12-month postdoctoral research training. Residents enrolled in the hybrid pathway are named MD Anderson Fellow in Medical Physics (Fellow).

PROGRAM OBJECTIVES

The program objectives are consistent with the CAMPEP requirement which includes the development in the resident of:

- an understanding of the role of patient safety in the clinical practice of medical physics;
- the technical knowledge, skills and competency required for the safe application of the technologies used in the practice of medical physics;
- an appreciation of the clinical purpose and applications of sophisticated technologies;
- an understanding of the protocols and practices essential to the employment of technologies to detect, diagnose and treat various illnesses and injuries;
- the ability to use analytical and research methods to solve problems arising in the clinical environment;
- the ability to deploy new strategies within the clinical environment;
- the ability to critically evaluate research and scholarship in medical physics;
- the communication and interpersonal skills that are necessary to function in a collaborative, multidisciplinary environment;
- the professional attributes and the ethical conduct and actions that are required of medical physicists; and
- a valuing of career-long continuing education to keep professional knowledge and skills current.

Residents, under the supervision of Board-certified medical physicists, will participate in the routine clinical duties of a medical imaging physicist. At the conclusion of the program,

the resident will be expected to demonstrate competence in each area by passing an oral exam modeled closely after the national board certification examinations. The specific clinical duties that are addressed include the following:

- evaluation of radiological and medical nuclear imaging equipment performance,
- developing quality control procedures,
- estimate patient radiation doses,
- monitoring a radiation safety program,
- investigating abnormal radiation exposures,
- providing consultation regarding technical aspects of equipment purchase,
- consulting on imaging problems, quality, and artifacts,
- planning for the purchase of equipment, site preparation and testing,
- providing in-service instruction regarding radiation safety and imaging physics, and
- performing clinical investigation in medical imaging physics.

Residents participate in residency journal clubs with the guidance of the Clinical Coordinators, and attend seminars, colloquia, Grand Rounds, and other educational opportunities, particularly those directly related to their area of specialization, as determined to be appropriate by the Program Director.

The program is intended to develop skills appropriate for persons seeking to attain certification in Diagnostic Radiological Physics or Medical Nuclear Physics. Clinical experience will be gained in the science and technology of diagnostic radiography and fluoroscopy (including mammography, digital fluorography, digital radiography, and special procedures), x-ray computerized tomography (CT), magnetic resonance imaging (MRI), ultrasound (US), and image display systems, and picture archival and communication systems (PACS) for those specializing in Diagnostic Radiological Physics, and planar scintigraphy, single-photon emission tomography (SPECT), positron emission tomography (PET), internal dosimetry of unsealed radioactive sources, and safe operation of radiopharmacy facilities for those specializing in Medical Nuclear Physics.

PROGRAM DURATION

The program consists of two years of full-time clinical training, with progressively increasing responsibilities under the supervision of qualified medical physicists. Residents rotate through each modality twice. By the end of the 2nd rotation, residents are expected to practice independently in each subject field under appropriate supervision. These expectations are described in *Program of Study*.

The hybrid pathway includes two years of full-time equivalent (FTE) clinical training plus one-year FTE research, resulting in a three-year total program. This is implemented using a continuous effort model where each 1-month rotation period is extended to 1.5 months

that include two weeks of time dedicated for research. Hybrid fellows are considered full-time residents during the whole three years.

The program follows the ABR Residency Leave Policy for training requirement for initial certification. The requirement states that "*Beginning with the 2021-2022 academic year, residents will be considered eligible for Initial Certification without an extension of training with "Time Off" that does not exceed an average of eight weeks (40 workdays) per academic year over the duration of the residency.*" Details of the Policy can be found at the ABR website: https://www.theabr.org/exam-details/residency-leave-policy. In addition, Institutional and Program Policies and Procedures will be applied for each specific type of Time Offs, for example, vacation, medical leave, academic leave, and others. These Policies and Procedures or their links are provided in Residency Handbook.

REQUIREMENTS TO BE ADMITTED TO PROGRAM

Entrance

The program follows the requirements set forth in standards 3.1 and 3.2 of the CAMPEP Residency Standards.

3.1 Residents entering a medical physics residency educational program shall have a strong foundation in basic physics. This shall be demonstrated either by an undergraduate or graduate degree in physics, or by a degree in an engineering discipline or another of the physical sciences and with coursework that is the equivalent of a minor in physics (i.e., one that includes at least three upper-level undergraduate physics courses that would be required for a physics major). In addition, residents may enter any medical physics residency educational program if they have successfully completed either:

CAMPEP-accredited MS or PhD graduate program, or

a CAMPEP-accredited certificate program.

3.2 Residency programs with a duration of 3 years (or greater) and that have an associated CAMPEP-accredited graduate program or certificate program may also conditionally accept residents who possess a PhD in physics or related discipline, but who have not graduated from a CAMPEP-accredited graduate program or completed a CAMPEP-accredited certificate program. The remedial education of such residents shall be well-defined in collaboration with the associated graduate/certificate program director and should be equivalent to the completion of a CAMPEP-accredited certificate program. In addition, all courses used for remediation must be within a single associated graduate/certificate program.

Didactic Curriculum

Residents with any deficiencies in their prior didactic training will be required to attend courses offered by the Medical Physics Graduate Program Which will be outlined in a remediation plan developed for the resident by the program directors of the graduate school and the residency. The results of examinations in these courses will be part of the resident's permanent file.

Graduate Courses available for remedial study:

Title	Hours
Introduction to Medical Physics I: Basic Interactions	3
Introduction to Medical Physics II: Medical Imaging Physics	3
Introduction to Medical Physics III: Therapy Physics	3
Introduction to Medical Physics IV: Nuclear Medicine Physics	3
Introduction to Medical Physics V: Therapy Physics 2	
Introduction to Medical Physics VI: Imaging Physics 2	
Radiation Detection, Instrumentation and Data Analysis	
Introduction to Radiation Protection	
Fundamental Anatomy, Physiology and Biology for Medical Physics I	
Fundamental Anatomy, Physiology and Biology for Medical Physics II	

Residents must obtain a temporary license to practice professional medical physics from the State of Texas before the start their clinical training in the residency program.

CONFERENCE/SEMINAR ATTENDANCE

A variety of seminars and conferences in medical imaging take place each month within the institution and division. The residents will be required to attend relevant seminars and conferences, to develop an in-depth understanding of the clinical problems associated with medical imaging. Residents are expected to attend all the seminars and journal clubs held by the Department of Imaging Physics or the Residency Program, unless a conflict exists with their clinical commitments, or they are on leave. Attendance at other seminars is at the discretion of their Clinical Coordinators or the Program Director. Seminar attendance is documented through resident reports to the Clinical Coordinator. If the Coordinator perceives an attendance deficit, the resident is counseled, and additional seminars are assigned. Required and optional seminars include but are not limited to the following:

MD Anderson Institutional Grand Rounds

Diagnostic Imaging Seminars

Imaging Physics Seminars

Imaging Physics Residency Seminars

Imaging Physics Residency Journal Club

Medical Physics Summer Trainee Series

Radiation Physics Seminars

CHIEF RESIDENT

I. OVERVIEW

- The Chief Resident is a leadership position served by a distinguished resident or fellow* in the Imaging Physics Residency Program.
- The Chief Resident facilitates communication between the Program Director, faculty, administrative/technical staff and the residents.
- The Chief Resident advocates for residents and works to improve the residency experience.
- The Chief Resident's specific responsibilities are outlined in Section III. Other responsibilities of the Chief Resident are delineated by the program director.
- For MD Anderson Fellows in Medical Physics enrolled in the hybrid pathway, the time and effort associated with the Chief Resident role is solely within the clinical residency and does not impact their research effort.

II. SELECTION AND TERM

- Eligible candidates are residents in their final year of training at the time completing the service as the Chief Resident.
- Residents/fellows first vote among themselves and determine a ranking order of eligible candidates who they feel are best suited to represent them. The Program Director, with clinical coordinator input, will select the Chief Resident.
- The Chief Resident will be appointed by the Program Director for a period of one year. The appointment can be terminated at any time by the Residency Program Steering Committee.
- A standard term begins on September 1st and ends on August 31st of the following year. However, a flexibility of +/- two months can be granted to each term by the Program Director, based upon the appointment dates of the outgoing and incoming Chief Resident.

III. SPECIFIC RESPONSIBILITIES

A. Meeting and Communication

- The Chief Resident will communicate regularly with the Program Director and inform the Program Director of any important resident/fellow concerns. Weekly meetings would be reasonable.
- The Chief Resident will attend the Residency Program Steering Committee meetings in an ex officio, non-voting role.
- The Chief Resident will attend departmental meetings assigned by the Department Chair.
- The Chief Resident will attend institutional committee meeting as recommended by the Program Director.

B. Scheduling

- In conjunction with the Program Director and clinical coordinators, the Chief Resident will assist in managing the rotation schedules.
- The Chief Resident will coordinate and arrange resident's clinical support outside of scheduled rotations when needed.
- The Chief Resident will coordinate coverage for resident absence because of sick days, vacation days, and attendance at meetings/conferences, etc.
- The Chief Resident will manage the schedule of seminars and presentations relating to the Residency Program.

C. Recruitment and Onboarding

- The Chief Resident will work with the Program Director on the recruitment process of new residents and fellows.
- The Chief Resident will coordinate resident staff participation in the residency candidate interview process.
- The Chief Resident may be requested by Department Chair to participate in the recruitment of department faculty and staff.
- The Chief Resident will provide orientation to new residents and fellows.

D. Mentoring

- The Chief Resident will provide personal and professional advice to residents/fellows as appropriate.
- The Chief Resident will act as a role model and assist in maintaining professional atmosphere, conduct, and attitude of residents/fellows.
- The Chief Resident will promote resident/fellow morale.
- The Chief Resident will remain accessible and communicative with residents for the purpose of understanding concerns.
- The Chief Resident may call a meeting to provide group dialogue on a potential concern.

E. Program Development

- The Chief Resident will work with the Program Director in design and implementation of the development and improvement of the Residency Program.
- The Chief Resident will assist with updates of the Program of Study, program websites and other documents.

Clinical Projects Policy

Resident Participation in Clinical Projects Policy and Procedure
Imaging Physics Residency Program
Department of Imaging Physics, Division of Diagnostic Imaging
The University of Texas MD Anderson Cancer Center

I. Overview

1. Residents and Fellows (Residents*) may participate in one or more clinical project(s) as part of their clinical training.

2. Each two-year Resident is required to participate in at least one clinical project during residency.

3. Fellows are not required but encouraged to participate in clinical projects.

II. Requirement of Clinical Projects

1. The clinical project must be one that is approved by a Section Chief or Director of Clinical Operations. Prioritization should be aligned with clinical operations as governed by the Section Chief or Director of Clinical Operations.

2. Resident participation in a clinical project should be in alignment with the expected residency training experience with approval from the Clinical Coordinator (CC) or Clinical Education Committee (CEC).

3. Each clinical project should have a Lead Physicist who is one of the supervising physicists of the Residency Program. The Lead Physicist will provide supervision of Residents on that project.

4. The Lead Physicist is expected to provide feedback on the Resident's performance on the project to the appropriate CC or the CEC for evaluation of the Resident.

5. CCs are expected to provide a list of clinical projects related to their clinical rotations for advising Residents regarding participation while in those rotations. Clinical projects that involve multiple rotation areas may be available through applicable CCs or the Program Director.

III. Participation in Clinical Projects

1. Participation in a clinical project approved by the Section Chief during a clinical rotation can be proposed by the Resident or supervising physicists. Participation proposals should be made to and approved by the applicable CC for the rotation. When proposals are made by supervising physicists, the request must be made directly to the CC and work shall not

proceed until approval is granted.

2. Participation in a clinical project during the wrap-up time should be proposed by the Resident to the CEC and approved by the CEC.

3. Approval of the participation should be based solely on considerations of the Resident's clinical training, not scientific merit of the project. Typical reasons for disapproval include but are not limited to:

(1) The Resident may not be able to achieve expected clinical competencies of the rotation, as defined in program of study, due to the anticipated time and effort commitment on the project.

(2) The Resident is proposing participation in multiple projects at the same time, which may result in the inability to achieve the clinical training objectives of those projects within limited duration of the rotation.

IV. Duration of Participation

1. Participation in a clinical project during a clinical rotation should terminate at the end of the rotation, rather than at the completion of the project. It is not a requirement to complete the project during the clinical rotation and participation from multiple residents is permitted.

2. Participation in a clinical project during the wrap-up time should be in accordance with the Resident's pre-approved wrap-up plan.

3. Exceptions to IV.1 and IV.2 may be granted through the approval by both the CC(s) of subsequent rotation(s) and the CEC, when participation is determined not to compromise the Resident's overall clinical training.

4. Fellows should only use their clinical time for clinical projects. Use of their research time on clinical projects will be considered as an exception that requires approval with specified conditions by their Research Mentor.

V. Academic Aspect of Clinical Projects

1. Clinical projects are not required to result in academic achievement (e.g. publication, abstract, and/or scientific presentation).

2. Standards for ethics in research (AAPM Code of Ethics Part III) are to be followed.

FIRST ROUND OF CLINICAL ROTATIONS

Resident will work closely with staff physicists involved in clinical activities within Diagnostic Radiology and Nuclear Medicine during their first round of clinical rotations. This period will be approximately 1 year for 2-yr residents and 1.5 years for 3-yr fellows. The resident's performance will be evaluated in an ongoing manner with their assigned Clinical Coordinator and on at least an annual basis by oral examination. Resident's performance will be evaluated by the clinical coordinator for each rotation. Additional reading assignments may be given to strengthen theoretical understanding of various clinical procedures. The resident will keep a log documenting his or her participation in these activities.

New Innovations is a secure, web-based residency evaluation system for evaluation of residents. Imaging Physics residents will complete evaluations, enter procedures, or review evaluations of their own performance. Faculty will have additional access to view the performance reports of those residents they advise. All resident evaluations are completely confidential and are only reported in aggregate to ensure anonymity. Reports of individual resident and faculty performance are also secured to ensure that only the individual and his/her supervisor or directors can see individual performance data. The Program Manager will give you access to the New Innovations system. Your username and password will be emailed to you. A current resident in the program will show new resident how to use the New Innovations system.

https://www.new-innov.com/Login/Login.aspx

The Residency Training Program will generally commence in July and residents will participate in a two-month Clinical Orientation and a one-month Research Orientation (for fellows) as an introduction to the program. The clinical orientation will serve to familiarize them with the inventory and operation of clinical imaging equipment at M. D. Anderson. The following broad areas will be covered during the first rounds of rotations. Normally, these tasks will be performed several times as the need arises.

- ***X-ray equipment performance evaluation, acceptance testing and quality control:*** Performance evaluation of x-ray generators/sources including collimation assessment, focal spot assessment, beam filtration, radiation output, output linearity and reproducibility, technical factor calibration assessment, automatic exposure control and automatic brightness stabilization evaluation (reproducibility, kVp and thickness tracking, density adjustment settings, mechanical and electrical safety.)
- ***Image receptor review:*** Grid uniformity, system speed consistency, system image quality (contrast, resolution, noise, artifacts), receptor alignment, receptor input exposure rate determination.
- ***Development and monitoring of quality control programs:*** QC for mammographic compression, reading room viewing conditions, repeat analysis, and mammographic phantom image evaluation, s/n ratio, uniformity and artifacts.
- ***Radiation safety surveys:*** Evaluation of tube head leakage, workload determination, equipment radiation safety features, assessment of auxiliary shielding (e.g., drapes, aprons, and transparent shields), broad beam transmission measurements, personnel monitoring report interpretation, interpretation of regulations.

- ***Patient dose monitoring:*** In-air measurements of exposure and exposure rates from x-ray equipment and measurements with phantoms using ionization chambers, patient dose measurement using film and other dosimetry devices, calculation of skin entrance dose, internal organ dose, effective dose equivalent, risk estimation, evaluation of potential for deterministic effects, calibration and quality assurance of dosimeters and automated dosimetry systems.
- ***Mammography:*** Image quality, dose, and artifact tests and evaluations as required by the Mammography Quality Standards Act (MQSA) and the Texas Board of Radiological Health.
- ***Computed tomography:*** Multislice detector configurations, image thickness, radiation profiles, helical slice sensitivity profiles (SSPs), high-contrast resolution, low-contrast resolution, radiation dose measurements, soft copy monitor luminance measurement, CT number linearity, image noise and artifacts.
- ***MRI equipment performance evaluation:*** Magnetic and radiofrequency shielding tests, magnetic field homogeneity assessment, radiofrequency field stability assessment, gradient field calibration assessment (geometric accuracy), assessment of slice thickness and spacing, signal-to-noise ratio measurements (for various types of radiofrequency coils), image uniformity assessment, high- and low-contrast resolution measurements, testing of ultrafast imaging (echo planar imaging) and spectroscopy modes, ACR MR Accreditation Program phantom testing and analysis, MR safety, imaging artifacts, and pulse sequence and imaging option reviews.
- ***Nuclear medicine/PET:*** Image quality, quantitative planar imaging, quantitative PET and SPECT, radionuclide dosimetry and radionuclide therapy treatment planning, nonimaging instrumentation, radiopharmacy operations, site planning and shielding design, installation and acceptance testing of nuclear medicine cameras, radiation exposure of patients, personnel and members of the general public.
- ***Ultrasound equipment performance evaluation:*** Depth, external measurement and caliper calibration, mis-registration, sensitivity, gray scale display and dynamic range, resolution and power measurements.
- ***Additional experiences:*** Involvement in discussion of equipment purchase, design of quality control and radiation safety program, presentation of radiation safety in-service education, x-ray room shielding design, consultation regarding radiation safety, patient doses and image quality improvement.
- ***Education experiences:*** The resident will be involved in laboratory supervision of medical physics graduate students as well as give lectures to the radiation technologist school.
- ***Mock oral board exam:*** Each spring the second year residents will participate in a mock oral board exam patterned after the American Board of Radiology oral examination in Diagnostic Radiologic Physics. The examiners are all board certified Diagnostic

Radiologic Physicists. Other examinees include M.D. Anderson junior faculty preparing for their national boards.

The training program requires each three-year fellow to present their research progress annually. Our guidelines suggest the presentation duration be based on time in the program. With 15, 20 and 30 minute presentations expected for 1st, 2nd and 3rd year fellows respectively.

SECOND ROUND OF CLINICAL ROTATIONS

During the second round of rotations, the resident will be assigned duties to be completed under the direction of medical physics faculty. The resident will be involved in the same types of experiences as during the first round but will work more independently during the second year (meeting with staff and the program director monthly). The resident will take responsibility for equipment performance evaluations and patient dose monitoring under the supervision of appropriate qualified medical physicists. As required by state law, the overall responsibility for the medical physics service will always remain with a staff physicist.

Senior residents are encouraged to involve in supervising laboratories for our graduate program, lecturing and supervising laboratories for the radiology residents, participating in the continuing education short courses offered by Imaging Physics. Senior residents are expected to involve in mentoring of junior imaging physics residents. They will continue to attend seminars, give at least one internal seminar, present at a national or regional chapter meeting, and continue to be assigned clinically oriented projects. Residents are also expected to complete research requirements outline in the Program of Study.

PROGRAM GRADUATES

Resident Name	Year of Completion	Medical Physics Specialty	Current Status	Board Certification
Kerry Krugh, Ph.D.	2002	Diagnostic Physics	Assistant Professor, University of Toledo Medical Center	ABR
Ishtiaq Hussian Bercha, M.S.	2003	Diagnostic Physics	Medical Physicist, Children's Hospital Denver Colorado	ABR
John Rong, Ph.D.	2003	Diagnostic Physics	Professor, MD Anderson	ABR
Ho-Ling Anthony Liu, Ph.D.	2005	Diagnostic Physics	Professor, MD Anderson	ABR
Ruijie Liu, Ph.D.	2005	Diagnostic Therapy Physics	Instructor, MD Anderson	ABR
Vadivel Devaraju, Ph.D.	2006	Diagnostic Physics	Assistant Professor & Medical Physicist University of Mississippi Medical Center	ABR
S. Cheenu Kappadath, Ph.D.	2007	Nuclear Medicine	Associate Professor, MD Anderson	ABR, ABSNM

Elena Tonkopi, M.S.	2008	Diagnostic Physics	Medical Physicist, Queen Elizabeth II Health Science Center	ABR
Philip Tchou, Ph.D.	2009	Diagnostic Physics	Diagnostic Medical Physicist, Wilford Hall Medical Center	
Rebecca Marsh, Ph.D.	2009	Diagnostic Physics	Assistant Professor, University of Colorado School of Medicine	ABR
Nicholas Shkumat, M.S.	2010	Diagnostic Physics	Medical Physicist, The Hospital for Sick Children	ABR
Alexander Pasciak, Ph.D.	2010	Diagnostic Physics	Assistant Professor at University of Tennessee Med Ctr	ABR
Andreea Dohatcu, Ph.D.	2011	Diagnostic Physics	Imaging Physicist, UT Medical Branch Galveston	ABR
James Winslow, Ph.D.	2011	Diagnostic Physics	Medical Physicist, Duke University Medical Center	ABR
Ching-Yi Hsieh, M.S.	2012	Diagnostic Physics	Research Associate, Wayne State University	DABR
Travis Greene, M.S.	2012	Diagnostic Physics	Medical Physicist, Radiation Services, Inc.	ABR
Wendy Siman, Ph.D.	2012	Diagnostic Physics, Nuclear Medicine	Assistant Professor, University of Colorado Denver - Anschutz Medical Campus	ABR
Nathan Busse, M.S.	2013	Diagnostic Physics	Diagnostic Medical Physicist, Colorado Associates in Medical Physics (CAMP)	ABR
Shannon Fritz, Ph.D.	2013	Diagnostic Physics	Senior Physicist, Sutter Health	ABR
Cristina Dodge, M.S.	2014	Diagnostic Physics	Physicist, Advent Health	ABR
Leland Page, Ph.D.	2014	Diagnostic Physics	Medical & Radiation Physics, Inc.	ABR
Guang Li, Ph.D.	2015	Diagnostic Physics	Assistant Professor, University of Maryland, School of Medicine	ABR
Steven Bache, M.S.	2016	Diagnostic Physics	Mission Health	ABR
Benton Pahlka, Ph.D.	2017	Diagnostic Physics	Texas Children's Hospital	ABR
Diana Carver, Ph.D,	2017	Diagnostic Physics	Assistant Professor, Vanderbilt University	ABR
Hua Asher Ai, Ph.D.	2017	Diagnostic Physics	Medical Physicist, Rush University	ABR
Chris MacLellan, Ph.D.	2018	Diagnostic Physics	Medical Physicist, Beth Israel Deaconess Medical Center, NC	ABR
Chris Walker, Ph.D.	2019	Diagnostic Physics	Assistant Professor, Department of Imaging Physics, MD Anderson Cancer Center	ABR

Samuel A. Einstein, Ph.D.	2019	Diagnostic Physics	Medical physicist and Faculty Member, Penn State College of Medicine	ABR
Sam Fahrenholtz, Ph.D.	2019	Diagnostic Physics	Medical Physicist, Mayo Clinic, AZ	ABR
Henry Szu-Meng Chen, Ph.D.	2021	Diagnostic Physics	Assistant Professor, Department of Radiology, University of Colorado	ABR
Megan Jacobsen, Ph.D.	2021	Diagnostic Physics	Assistant Professor, MD Anderson	ABR
Jorge Jimenez, Ph.D.	2021	Diagnostic Physics	MRI Image Reconstruction Engineer, Dr. Thomas Witzel, Radiomics Team Qbio Inc.	
Drew Mitchell, Ph.D.	2022	Diagnostic Physics	Adjunct Faculty, Indiana University and Moi Teaching and Referral Hospital, Eldoret, Kenya, Africa	ABR
Allan Thomas, Ph.D.	2022	Diagnostic Physics	Diagnostic Physicist, West County Radiological Group, St. Louis, MO	ABR
Keith Michel, Ph.D.	2023	Diagnostic Physics	Senior Imaging Physicist, Houston Methodist, Houston, TX	
Jeremiah Sanders, Ph.D.	2023	Diagnostic Physics	Assistant Professor and Associate Consultant at Mayo Clinic, Scottsdale, AZ	ABR
Peng Sun, Ph.D.	2024	Diagnostic Physics	Medical Physicist, Boston Children's Hospital	ABR
Cayla Wood Zandbergen, Ph.D.	2024	Diagnostic Physics	Assistant Professor at the University of New Mexico Health Science Center	
Jun Hong, Ph.D.	2025	Diagnostic Physics		
Benjamin Lopez, Ph.D.	2025	Diagnostic Physics, Nuclear Medicine	Assistant Professor, MD Anderson	
Emily Thompson, Ph.D.	2025	Diagnostic Physics	Postdoctoral Fellow, MD Anderson	

DIAGNOSTIC RADIOLOGIC PHYSICS PRACTICE ORAL BOARD EXAMINATION

Residents are required to take the in-house Diagnostic Radiologic Physics Practice Oral Board Examination each year.

Each attendee will participate in 2.5 hours of oral examinations. Examiners are board certified physicists in the Department of Imaging Physics.

The purpose is to provide the student with a simulation of the environment of the American Board of Radiology oral examination, using ABR-type questions and board-certified examiners with expertise in specific modalities tested. This program has been conducted internally for the past many years with a high success rate. In addition, the practice exam serves as a part of the annual evaluation of trainee's knowledge and preparedness in the residency program.

Objectives: After taking the Diagnostic Radiologic physics practice oral board exam the student will appreciate his or her individual areas of weakness far enough in advance of the actual boards to make remediation by additional study. In addition, the exam will allow the student to practice the formation and expression of coherent answers in a risk-free setting. Examiners will provide some guidance during the examination and feedback to students on their performance.

EXAM TOPICS:
Radiography & mammography (includes dental and DEXA)Fluoroscopy and interventional imagingComputed tomographyMRIUltrasound, professionalism, and ethics.

DISMISSAL AND DUE PROCESS

If a resident fails to demonstrate adequate progress or competence, or behaves unethically, it is the Program Director's responsibility to advise, censure, or dismiss a resident, after due process. This will be first discussed in the Clinical Education Committee (CEC) where an action plan and timelines will be determined. If the issue is related to research conduct or research performance of a fellow, the plan will be constructed with the research mentor and the PSC. Due process will include review and approval of the recommendation for dismissal by the PSC. The resident will be notified in writing of cause for dismissal. For conflict resolution issues, each resident has access to the MDA Ombuds Office, which offers an impartial and confidential opportunity for dispute resolution. The following Institutional policies will be followed.

- Non-Renewal and Termination of Appointment Policy for AVA/TAA Trainees (http://inside.mdanderson.org/institutionalpolicy/ACA0062)
- Education & Training Disciplinary Actions and Appeals Policy (http://inside.mdanderson.org/institutionalpolicy/ACA0068)
- Academic Actions and Appeals in Training Programs Policy (http://inside.mdanderson.org/institutionalpolicy/ACA1194)

ADMINISTRATIVE INFORMATION

- Administrative Support
- Request for Time-Off
- Paychecks
- Badges/Keys/Passwords
- Mail/Communications
- Getting Around/Parking
- Travel Request
- Travel Funds
- Mileage Reimbursement to the HALS and Parking Fees
- Book Allowance
- Office Supplies and Presentation Materials
- Laboratory Coats
- Scrubs
- Library Information
- Computing Resources
- iPhone
- AAPM Dues
- TX Temporary Licensure
- Funding Levels
- Benefits
- Office Space

Administrative Support

The Program Manager for the Imaging Physics Residency Program, located at the University of Texas M.D. Anderson Cancer Center, Room, FCT14.5032, provides administrative support and is responsible for ensuring residents are in compliance with institutional and departmental policies, and procedures.

The Training Program Coordinator for the Imaging Physics Residency Program, located at the University of Texas M.D. Anderson Cancer Center, Room, FCT14.5034, is the primary administrative support contact and is responsible for maintaining resident personnel files, issuing keys, scrubs, supplies, etc. and ensuring residents are in compliance with institutional policies and procedures. All forms mentioned in this document may be obtained from the Program Office.

Request for time-off

The Office of Research Trainee Programs has a leave policy that applies to all residents appointed with funding for at least 12 months. These residents are eligible annually for:

- 160 hours (20 days) vacation to be taken with Program Director's approval during the 12 months and requested at least one week in advance of leave.
- 100 hours (12.5 days) sick leave

Residents must request approval via email from Program Coordinator (or Research Mentor if during research time for Fellows) and Program Director and copy the Program Manager. The Resident must provide the following in the request; Date(s), Code (i.e. VAC, Sick, and Conference) and coverage. The Resident must enter the time off in Kronos.

Badges/Keys/Passwords

The Training Program Coordinator in the Program Office is responsible for issuance, collection and reporting lost or stolen:

- Radiation safety badges
- Keys to offices and other areas as identified by Program Director
- Computer access log in name and temporary password

Mail/Communications

All phone messages, supervisor communications and mail will be placed at the resident's desk or transmitted via email.

Please check your email at least once daily! Inform the Program Office of any changes to your home residence address and phone number.

Getting Around/Parking

MD Anderson Campus Building Information
Click here to find directions to Our campus locations. You can also download the MD Anderson Directions app through the Apple App Store or Google Play Store and it will provide directions to the buildings and parking garages as well as throughout the buildings once onsite.

MD Anderson Shuttle Information
Shuttles are available to provide transport between MD Anderson buildings around TMC, Main Campus, Mid Campus and South Campus Research Buildings

Track shuttle routes - Live ETA: www.mdabus.com

MD Anderson Parking
MD Anderson offers discounted parking to trainees on certain lots at a rate of $22 per month. Complete a Trainee Parking Formand take the following items to the Parking Office:

- Employee ID badge
- Valid driver's license
- Vehicle license plate number
- Payment information
- Valid MD Anderson trainee ID badge

Parking Office
Pressler Garage (PGA4.2000)
1155 Pressler St, Houston, TX 77030
Phone: **713-563-7275**
Email: **parking@mdanderson.org**

Travel Request

In order to travel on official business related to your training or research project (e.g., present at local or national meetings) an "Concur Travel Request" must be completed at least four weeks in advance of the date of travel. Residents will work with the Training Program Coordinator for completion of all travel arrangements.

- During and After Travel – Save all original itemized receipts for airfare, meals, hotels, taxi fares, shuttles, etc. If you are splitting the cost of a room with another resident, have the hotel provide each resident with an original bill for their portion of the hotel charges with own name. Within five days of return from trip, provide Administrative Assistant with all receipts to complete a "Travel Reimbursement Expense Report."
- Concur Residents will need to grant delegate access to the Program Manager and Training Program Coordinator.

Travel Funds

The program provides each residents a $2,500.00 yearly allowance to cover the cost of flights, hotel and meals while traveling for business purposes.

Mileage Reimbursement to the HALs and Parking Fees

The program provides each residents a $340.00 yearly allowance for mileage reimbursement when traveling to the HALs and for parking fees.

Book Allowance
The program provides a $1,500.00 yearly allowance divided amongst all residents for books.

Office Supplies and Presentation Materials

The Program Office provides office supplies; the Training Program Coordinator is the person responsible for office supplies. If you use the last of an item, or plan to use a large quantity of a particular item(s), please advise the Training Program Coordinator. All supplies are stored in the FCT 14th floor educational area.

Presentation Materials

MDACC has an in-house, on-line media presentation department. To utilize this service, you must obtain an account number from your supervisor for the work and provide the program assistant with the number. Our division offers medical graphics services free of charge, however, they have strict guidelines that must be followed. The expectation is for residents to use the free services first.

DI Media Resources Order Request: **Create New Request**

Photocopies

A copy machine is located in the FCT 14th floor educational area for your use along with a fax machine and color printer. For emergencies, a back-up copier, fax machine and color printer can be found in the administrative area on FCT 14th floor.

Laboratory Coats

The institution provides two lab coats per resident and cleaning services. The Training Program Coordinator supporting residents will escort you the first time to the lab coat office. There, you will order your lab coats and thereafter for getting lab coats laundered. Residents are responsible for making sure their lab coat is clean and neat at all times.
Lab Coat Order Form

Scrubs

Residents will be provided with institutional issued scrubs as needed. The Training Program Coordinator will take responsibility for obtaining two sets of scrubs for each resident. Residents will be responsible for returning dirty scrubs and replacing with clean scrubs as needed. Scrub Machine Access Request

Library Information

The Department of Imaging Physics maintains a department library on the 5th floor of the CPB5.3000 suite just outside of the Imaging Physics Conference Room, CPB5.3374.

Resident Computing Resources

All program residents receive a laptop computer, docking system, keyboard and two monitors with access to the internet and printers. A work from home bundle consisting of a docking station, headset, velocloud, keyboard and 1 monitor is also issued. Residents will be provided with standard software supported by the institution. All computer

hardware support should be addressed to 4-info by calling 713-794-4636. Assistance is also provided by the Training Program Coordinator.

iPhones

All residents will receive an iPhone once the on-boarding is complete.

AAPM Dues

The Imaging Physics Residency Program currently has a policy to pay annual dues for membership in the American Association of Physics in medicine. The Training Program Coordinator will be submitting the payment at the request of the resident. Dues for other societies may additionally be covered upon resident request and director approval.

Texas Temporary Medical Physics Licensure

The State of Texas currently requires residents to hold a temporary license to practice medical physics in the State of Texas. The cost of the license will be covered by the program while in the program. In order to receive reimbursement, please provide the Program Coordinator with proof of payment. An expense report will be processed for reimbursement, which typically takes up to 21 days for processing. Reimbursement must take place within 45 days of submitting payment.

TEXAS BOARD OF LICENSURE FOR PROFESSIONAL MEDICAL PHYSICISTS

Guidance for the Supervision of Temporary Licensees

This document is intended to guide the supervising medical physicist and the medical physicist with a temporary license (TMP) in complying with the board's supervision rules in Title 22, Texas Administrative Code §601.2. Medical physicists who follow the guidance in this document are practicing within the rules. (It is possible that other practice not described by this guidance might also be in compliance with the rules.)

Definitions

Title 22 Texas Administrative Code §601.2 provides the following definitions:

(22) Supervision -- To oversee the work of a medical physicist holding a temporary license in the performance of those duties defined as the practice of medical physics. For the purpose of fulfilling the work experience and examination requirement the supervisor shall be responsible for the temporary licensee's work during this period. An individual is considered to be supervised if:

- the supervisor is routinely and substantially present at the facility during the performance of duties at that facility by the individual being supervised; and
- the supervisor assumes the responsibility, and is provided with the authority, to observe and correct the actions of the individual being supervised.

(23) **Temporary License** -- a certificate authorizing an individual to practice medical physics under the supervision of a licensed medical physicist.

Additional definitions to be used in this document (but not found in the board's rules) have been adapted from the definitions used by the Centers for Medicare and Medicaid Services in 42 Code of Federal Regulations (CFR) §410.32:

General Supervision -- the TMP works under the overall control and direction of the supervisor, but the supervisor's presence is not required during the performance of the work.

Direct Supervision -- the supervisor is present in the building or institution and immediately available to furnish assistance and direction throughout the work. The supervisor need not be in the room where the work is being performed.

Personal Supervision -- the supervisor is physically present in the room where the TMP is working.

The Responsibilities of the Supervisor

Supervision is a responsibility that should not be undertaken lightly. The supervisor assumes professional responsibility for the work done by a TMP. The license and professional reputation of the TMP's supervisor are as much at risk in an incident that is the doing of the TMP as if the supervisor had personally caused the incident.

The role of the supervisor is akin to that of the master in an apprenticeship. The supervisor is teaching the TMP, i.e., the apprentice, the profession of medical physics. This teaching requires regular, high-quality interactions between the supervisor and the TMP during which medical physics is practiced by the TMP under the guidance of the supervisor. As the TMP grows in professional maturity, it is appropriate for the supervisor to allow the TMP greater responsibility and autonomy, with the understanding that the supervisor will still countersign all work of the TMP and will take full professional responsibility for it as if it were the supervisor's own work.

The supervisor must have a relationship with the TMP that allows the supervisor to observe the work of the TMP and to correct that work if necessary. If the TMP and the supervisor work for different employers, if the TMP and the supervisor routinely work in different locations, if the supervisor has an extensive travel schedule and thus is often unavailable, or if the supervisor has not seriously accepted the obligations to teach the TMP and to assume full professional responsibility for the TMP's work, the supervisor should not fill out and sign the Agreement of Supervision Form and the TMP should secure a supervisor who can perform these duties as required by the law and the board's rules.

A supervisor should not normally be supervising more than two TMPs at once except as discussed below and the board may ask for more details of the supervision plan for exceptions to this recommendation. A supervisor cannot reasonably provide personal or direct supervision to TMPs who are working at different locations.

The Responsibilities of the Temporary Licensee

The TMP must not practice medical physics without adequate supervision. If the TMP finds him- or herself making independent decisions with no Licensed Medical Physicist to consult for help or no Licensed Medical Physicist to countersign the work (e.g., a shielding

recommendation or a treatment plan), the TMP should not be doing the work because the TMP is not adequately supervised.

If the relationship between the supervisor and the TMP changes (for example, because either one of them takes a new job), it is the responsibility of the TMP to secure a new supervisor before continuing to practice medical physics in Texas. Unsupervised practice as a TMP in Texas may not be counted toward the experience requirement for full licensure and would be illegal if counted toward clinical experience for examination by a certifying body.

If the TMP is licensed in more than one specialty, the supervisor must be fully licensed in all of the TMP's specialties or else the TMP must secure more than one supervisor so that all specialties are supervised by fully licensed medical physicists in those specialties. It is the responsibility of the TMP to ensure that his or her supervisors have the required licensed specialties at the time of the application for a temporary license.

A General Progression of Supervision

A supervision plan that consists of personal supervision (as defined above) for the first six months, direct supervision for the remainder of the first year and general supervision in the second year would satisfy the rules. In the second year, the supervisor should be accessible by telephone whenever the TMP and the supervisor are not at the same location.

When a TMP is getting six months' experience in an additional specialty, a period of three months of personal supervision followed by three months of general supervision with ready access to the supervisor by telephone is acceptable.

Medical Physics Residencies

All faculty members of a medical physics residency program should be fully licensed in the specialties that they teach. A supervisor who is on the faculty of a medical physics residency program may delegate day-to-day supervision of residents enrolled in that program to his or her colleagues on the faculty who are fully licensed medical physicists, provided that a fully licensed medical physicist in the appropriate specialty countersigns each item of work product by the TMP and that the formal supervisor shares with the delegate the authority to observe and correct the work of the TMP. It is reasonable for one faculty member to be the formal supervisor of all of the residents, even more than two at a time, and to delegate day-to-day supervision to other qualified faculty members. It is not appropriate for a more senior resident who is still practicing on a TMP license to countersign the work of a more junior resident in lieu of faculty supervision. Although senior residents' teaching junior residents under faculty supervision is entirely appropriate, both should sign a report or chart as supervised trainees and the countersignature of a fully licensed medical physicist is still required. The fully licensed medical physicist who actually supervised an item of work should countersign that work, but the formal supervisor is still ultimately responsible for the work of the TMP. The number of TMPs should not normally exceed two per faculty member.

Group Practices

If there are several fully licensed medical physicists in a group practice, it is acceptable for the supervisor to share supervision duties with his or her fully licensed colleagues as described above for residency programs. The number of TMPs should not normally exceed two per fully licensed medical physicist.

Funding Levels

The program offers a competitive salary that is comparable to our standard GME level starting from PGY2.

Insurance Benefits

Insurance benefits are available to persons holding educational appointments for a period of at least four- and one-half months and who receive a stipend. Insurance benefits for residents are the same benefits as those available to classified employees.

The health insurance plan offered by the University of Texas System is UT select, a preferred provider organization (PPO) plan, administered by Blue Cross and Blue Shield of Texas. The plan, which is effective the first calendar day of the month following the date of employment, is free of cost to the resident.

Optional insurances are available, i.e., term life ($10,000 coverage free of cost to trainee), personal accident insurance ($10,000 coverage free of cost to trainee), long-term disability insurance, long-term care insurance and vision insurance.

Dental insurance is optional: there are two plans from which to choose. Both plans require payroll deductions. Dependent coverage is available, at cost, with health, dental, term life, accident and vision.

My UT Benefits.

OTHER BENEFITS

Teacher Retirement System (TRS)

Residents are required to participate in the TRS. A monthly deduction is withheld, but this may be returned (minus the tax penalty) or rolled over into another retirement fund at the conclusion of the appointment. Graduate research assistants are not allowed to participate in TRS.

Tax Sheltered Annuities

Trainees can make a tax-deferred monthly contribution towards an optional retirement plan.

UT Flex

A tax-free reimbursement account for medical expenses and dependent care allows residents to deposit a portion of their stipend prior to taxation into flexible spending accounts. Please contact Inspira for all inquiries at (844) UTS-FLEX (887-3539).

Office Space

Residents are provided an office space located at FCT14.5015 or 14.5017. Each resident is provided with

a 60” desk, chair, iPhone, 2 monitors and overhead storage for educational materials. A work from home bundle that consist of a docking station, velocloud, keyboard, mouse and 1 monitor is also provided. The resident rooms are outfitted with two white boards, printer and places to hang lab coats.

PROGRAM EVENTS AND ACTIVITIES

- Program Orientation
- Program Administrative and Departmental Orientation session for incoming residents
- Department Seminar Series
- AAPM Alumni Reception

Program Orientation

Program orientation will take place within the first week of the resident entering the Program.

This session will be your opportunity to sit down with the Program Director and learn about your training and expectations.

Program Administrative and Departmental Orientation Session for Incoming Residents

In this orientation session you will learn about all the administrative aspects of the program and departmental policies and procedures. This session will be conducted by the Program Manager and Training Program Coordinator, it will take place during your first week in the program.

Meet with Program Director

Every three weeks, Resident will meet the Program Director in an informal session to hear about issues, concerns or ideas for improvement as it pertains to the IP Residency Program. This is also a time to discuss projects and the resident’s progress in the program.

Department Seminar Series

All residents are expected, and in some cases required, to participate in a variety of program and departmental-based activities that are held throughout a year.

- **Imaging Physics Department Seminars:** Residents are expected to attend the department seminars. As seminars are identified, Outlook Calendar invitations will be sent out to mark your calendar.
- **Residency Program Seminars:** This is a monthly seminar series focusing on topics related to residents’ clinical training. Residents are required to attend this seminar series and make presentations supervised by clinical faculty.
- **Presentation on Research Project:** Residents are required to make a

presentation on their research project annually in special seminars organized by the Program or the Department.

UTMDACC INSTITUTIONAL POLICIES

- Duty Hours and Working Environment Policy for AVA-Trainees (http://inside.mdanderson.org/institutionalpolicy/ACA00686)
- Vacation Leave Policy for AVA/TAA Trainees (http://inside.mdanderson.org/institutionalpolicy/ACA0097)
- Time off and Leave Policy (http://inside.mdanderson.org/institutionalpolicy/ADM0302)
- Employee Reporting Requirements During Emergency Conditions Policy (http://inside.mdanderson.org/institutionalpolicy/ADM0297)
- Institutional Guideline for Personal Appearance (See attached below)

INSTITUTIONAL GUIDELINES FOR PERSONAL APPEARANCE

Governing Policies*:
Appearance and Demeanor Policy (UTMDACC Institutional Policy # ADM0261)
* Refer to the governing policy, listed above, for more complete guidance and instructions.

General Appearance	Accessories
• Personal appearance must be appropriate to the work being performed. • The MD Anderson name badge should be worn in accordance with the Identification (ID) Badge Policy (UTMDACC Institutional Policy # ADM0282). • Outer garments must be in good taste (style and fit), clean, in good repair and well pressed. • Clothing with holes, frayed edges or patches are not acceptable. • Clothing should generally not be more than one badge width above the knee. • Revealing clothing is not acceptable at any time. Other unacceptable clothing includes: tight fitting shirts, pants, jeans or skirts, micro minis, low cut necklines, tube/halter/tank/midriff shirts, muscle shirts, tank tops, see-through fabric tops, and tight fitting clothing made of spandex or Lycra, strapless tops, tops with spaghetti straps, exceptionally tight or loose garments or bare midriffs). • Attire should never be offensive, disruptive, or provocative (e.g., racist slogans, obscene words or words with a double meaning or political slogans are not acceptable).	• Safety precautions in some areas may not permit jewelry. • Devices or equipment that are not otherwise acceptable but that assist an employee's mobility, hearing, speech, sight, or otherwise mitigate a physical or mental impairment may be approved via the ADA accommodation process (see Accommodating Disabilities in the Workplace Policy (UTMDACC Institutional Policy # ADM0286)) and must be consistent with applicable safety standards. **Footwear** • Footwear must provide a safe and secure footing and offer protection against potential hazards. • For safety and health reasons, employees performing laboratory tests and other related bench work activities must wear closed-toe shoes. • Shoes must be in good taste (style), clean and in good repair. Tennis shoes in good condition are allowed. • Hosiery/Socks for men and women may be required for health and safety reasons.

• Disposable shoe covers must not be worn outside the immediate work area unless necessary for infection control reasons. • No hats or caps unless required for reasons of ethnicity or religion, or to comply with departmental guidelines or health and safety reasons. • If a respirator is required as part of an employee's job, departmental guidelines or health and safety standards may prohibit beards or moustaches. Business Casual Clothing • Clothing on such days should continue to project a professional appearance. • Departments may allow denim, jeans, T-shirts and/or sweatshirts (plain or with MD Anderson designs or logos).	**Grooming** • Good personal hygiene is an essential element of appearance. • Artificial fingernails may not be allowed based on the Hand Hygiene Policy (UTMDACC Institutional Policy # CLN0452). **Hair** • If beards or moustaches are worn, they must be kept clean, well-trimmed, and neat. • Employees who work in special cleanliness areas (e.g., dietary) must keep hair restrained by hairnets. **Fragrances** Fragrances should be used sparingly, if at all, especially by employees having patient contact. Fragrances may be prohibited in areas where individuals are allergic to them.

Note: Divisions and/or Departments may have additional guidelines. Anyone needing an exception to the below guidelines should contact the EEO and Employment Practices Department.

DEPARTMENT OF IMAGING PHYSICS TRAINEE TRAVEL POLICY

DEPARTMENTS OF IMAGING PHYSICS & RADIATION PHYSICS TRAVEL POLICY FOR GRADUATE RESEARCH ASSISTANTS IN THE GSBS MEDICAL PHYSICS PROGRAMS

PURPOSE

This policy statement provides guidance regarding and clarification of institutional and departmental travel policies for all Imaging Physics and Radiation Physics trainees. Antecedent policies are cited in the reference section of this document. The sole objective of trainee travel is to further the education of the trainee.

POLICY STATEMENT

The Department of Imaging Physics of The University of Texas M. D. Anderson Cancer Center will support with funding or educational leave only travel that meets the criteria stated in this policy. All trainees are expected to comply with the provisions of this policy and those underlying it unless exceptions have received the prior approval of the Deputy Chair for Education or the Chair of Imaging Physics.

SCOPE

This policy applies to granting of leave and the reimbursement of Imaging Physics Trainees for travel.

STRATEGIC VISION

Enhance the quality and outcomes of our educational programs by providing the travel resources necessary for trainees to participate in regional, national or international scientific and/or professional activities. The trainees should be prepared to take full advantage of this opportunity by focusing on both formal and informal opportunities to interact with faculty and peers from other institutions at all times during their travel. This includes attending structured components of the meeting (scientific sessions, etc.) and informal events (dinners, etc.) as suggested by their mentors.

DEFINITIONS

BTA – *Business Travel Authorization* the process by which the institution prepays certain travel expenses for an employee rather than reimbursing the employee after the fact.

Imaging and Radiation Physics Trainee (subsequently "trainee") -- any employee within the Department of Imaging Physics of The University of Texas M. D. Anderson Cancer Center who has an appointment through the institutional Office of Trainee and Alumni Affairs, including undergraduate students, graduate students, research interns, post-doctoral research fellows and clinical residents.

Designated Headquarters – The nominal location where a trainee works. In most cases this would be the location of his or her office or desk.

The Program – This refers to the Medical Physics Graduate Education Program of The University of Texas Graduate School of Biomedical Sciences, the Imaging Physics Residency Program of The University of Texas M. D. Anderson Cancer Center, or the Postdoctoral Fellowship Program of the Department of Imaging Physics, as appropriate. Each of the programs is administered by the Department of Imaging Physics of The University of Texas M. D. Anderson Cancer Center.

Travel – Permission to be absent from the institution for educational purposes and the process by which related, approved expenses are reimbursed falls under the administrative category of "travel."

PROCEDURE

General Guidelines for Imaging Physics Trainee Travel

1.0 Travel Approvals

All absences from a trainee's designated headquarters for travel on institutional business must be approved before the travel takes place. Trainees who are absent without proper approval are considered to be absent without leave and are subject to forfeiture of pay and discontinuance of benefits for the duration of the absence.

2.0 Administrative Support for Travel

Approval and administrative support for the travel for trainees will be the responsibility of the trainee's Program Director and of the Executive Director for Education. Processing of travel requests and related reimbursement requests will be provided by the Program Directors' support personnel. All business air travel must be booked through The University of Texas MD Anderson Cancer Center's approved travel agents.

3.0 Local Travel

Attending in-city meetings that do not require an overnight stay are not considered Travel, per se. In these cases, the absence approval process in section 1.0 must still be followed, but the Travel Reimbursement form is not required. Parking and registration costs are reimbursable expenses for local conferences, but others, including taxi fares, car rental and meals will not be reimbursed. These disallowances are derived from State and Federal Regulations relating to point-of-service issues.

4.0 Combined Business and Personal Travel

Only business travel expenses are reimbursable, but M.D. Anderson recognizes that, on occasion, personnel may wish to combine required business travel with personal time.

The BTA cannot be used to book any personal airfare. If the travel includes a "personal leg," then it must be booked and paid for separately. In addition, the State Rate may not be used for personal travel.

Families should not accompany trainees on official travel as family responsibilities can distract the trainee and detract from the educational benefit of the trainee's attendance at the conference.

Trainees may, with the permission of their Program Director, extend their absence with a family vacation either before or after a conference or other business travel.

5.0 Length of Stay

Expenses incurred prior to the beginning, or after the conclusion, of official business are not reimbursable. The Program may allow, at the approver's discretion, one day prior and one day after the business scheduled for domestic travel and two days before and after for international travel. In these circumstances, hotel and meal expenses are reimbursable but not rental cars or other incidentals. In some circumstances, at the approver's discretion, extending the time away to include a Saturday night stay may be justified in order to reduce overall travel expenses.

6.0 Eligibility

Trainees will receive leave and Program/departmental funding to attend one national meeting and/or one chapter meeting each academic year with the permission of the relevant Program Director. This is a privilege that is intended to enhance the education of the trainee. As such, it cannot be "banked" from year to year or transferred from one trainee to another.

7.0 Airfare

Currently, there are two choices of airfares available:

- *State Rate Airfare* – Government fare, flexible, low airfares, MDACC preferred.
- *Lowest Available* – Restricted availability, Saturday night stay may be required, $100 fee charge for changed, non-refundable tickets.

The department will book airline tickets at the cheaper fare, whether it be the state rate airfare or the lowest available, unless there is a possibility that the resident may need to make a change before or during the travel. Air transportation is to be "coach" class.

8.0 Personal Car

If a trainee chooses to travel to a meeting by personal car, the reimbursement will be the lesser of (1) actual mileage based at the current state reimbursement rate, or (2) the average cost of round-trip airfare. The department discourages the use of personal automobiles unless it takes less time to drive than to fly or unless several people can travel together by automobile more economically than flying.

9.0 Registration

Trainees must register for meetings via the ProCard to avoid out-of-pocket expense.

10.0 Hotel

Hotel reimbursement for attending a meeting will be based on the State of Texas Office of Comptroller Guidelines for out-of-state lodging rates found at URL:

https://fmx.cpa.state.tx.us/fm/travel/out_of_state/index.php

Trainees traveling are expected to share rooms. Trainees are responsible for booking their own rooms and providing the hotel information to the appropriate support personnel. Based on the cost of the hotel room and the State's out-of-state lodging allowance, the department will determine how many trainees must room together. Each trainee will be responsible for providing an original receipt in his/her name for his/her share of the hotel room upon return to the office. This should be discussed with the hotel at the time of check in and obtained when checking out as it is very difficult or impossible to obtain such receipts later.

11.0 Meal Allowance

Before trainees travel to a meeting, they will be informed of the allowable maximum reimbursement amount per day for meals according to the State of Texas Office of the Comptroller Out-of-State Meal Allowance Chart found at:

https://fmx.cpa.state.tx.us/fm/travel/out_of_state/index.php

Original itemized receipts will be required for any meal costing more than $25. **Alcoholic beverages are not reimbursable as part of travel meal expenses as a matter of state law.**

12.0 Airport Parking

Trainees will be reimbursed for parking their cars at the airport while on official business. Trainees are encouraged to car-pool to the airport and to use an economy lot when possible.

13.0 Non-Reimbursable Expenses (unless approved prior to travel by approver)

- Video Rental
- Phone Calls
- Cabs (other than to and from the destination airport to the meeting hotel or location)
- Incidentals
- Rental Car
- Internet services

14.0 Traveler Reimbursements

Reimbursement requests must be for actual expenses. If a daily limit is stated for reimbursement without receipts, that is not a "per diem" allowance but rather a convenience for the traveler. Travelers may not claim reimbursement in excess of their actual expenses and thus "make money" on official travel. The traveler will be required to swear an oath to this effect as part of the reimbursement request. Trainees are expected to turn in their report of expenses with all original receipts within three working days of their return to work after travel.

REFERENCES

Trainees travel on funding from Fund Group 1

General Travel Guidelines: http://inside.mdanderson.org/departments/accounts-payable/travel/general-guidelines.html

Airfare: http://inside.mdanderson.org/departments/accounts-payable/travel/airfare.html

Airport Parking: http://www.theparkingspot.com/Promotions/CorporateHome.aspx?CCode=MDAn1219

Hotel/Lodging: http://inside.mdanderson.org/departments/accounts-payable/travel/hotel-guidelines.html

Meals: http://inside.mdanderson.org/departments/accounts-payable/travel/meals.html

Mileage: http://inside.mdanderson.org/departments/accounts-payable/travel/mileage.html

Taxi/Shuttle/Car Service: http://inside.mdanderson.org/departments/accounts-payable/travel/taxi-services.html

Rental Car: http://inside.mdanderson.org/departments/accounts-payable/travel/car-rental.html

Registration Fees: http://inside.mdanderson.org/departments/accounts-payable/travel/registration-fees.html