

Nuclear Medicine Residency Program

University of Washington
School of Medicine
Department of Radiology
Seattle, Washington

Updated: July 2015

Introduction

The Nuclear Medicine Division at the University of Washington was established in 1962 and has had a postdoctoral training program since its inception. It is part of the Department of Radiology within the School of Medicine.

The current one-, two- or three-year residency program is designed in compliance with, and is approved by, the Accreditation Council on Graduate Medical Education. This program provides a balanced and in-depth experience in all aspects of the basic science and clinical training of nuclear medicine. The program is approved for six (6) full time residents. Applicants may be board eligible in another specialty, or have completed at least one or two years in other specialty training. The one-year program is available for diagnostic radiologists who wish to pursue special competence in Nuclear Radiology from the American Board of Radiology (ABR) or receive American Board of Nuclear Medicine (ABNM) Certification.

Joint arrangements with other departments for coordinated training may be available.

The University of Washington also has a one-year PET/CT Fellowship program with emphasis in cancer imaging. Please contact nmadmin@uw.edu for additional information and application packet. Applicants to the one-year PET/CT Fellowship must have successfully completed a residency program in nuclear medicine, a diagnostic radiology residency, or a fellowship in nuclear medicine for application eligibility.

Residency Program Outline

The nuclear medicine residency is designed to provide fundamental training in the following areas:

- Physics of nuclear medicine
- Nuclear medicine instrumentation
- Mathematics and statistics of nuclear medicine
- Computer sciences
- Nuclear pharmacy
- Radiation safety and protection
- Dynamic and static imaging
- Metabolic tracer studies
- Absorption and distribution kinetics
- Radionuclide therapy
- Laboratory quality control
- Regulatory aspects of nuclear medicine

- Diagnostic nuclear medicine
- Cross-sectional imaging
- Hybrid imaging (PET/CT, SPECT/CT) and correlative imaging

The first year emphasizes clinical training in the affiliated hospitals. A series of basic science lectures, Journal Club, Reading Club, and weekly clinical conferences are a part of the Nuclear Medicine program throughout all years of training. There is

laboratory experience in nuclear pharmacy and instrumentation. An interactive test is given at the end of the introductory course.

The second and third years provide opportunities for further in-depth clinical training. This allows for specialized clinical training, such as cardiac nuclear medicine, neuroimaging, oncologic imaging, or pediatric nuclear medicine. Nuclear medicine residents receive in-depth training in CT cross-sectional imaging, PET and SPECT imaging, and in integrating the information provided by hybrid imaging systems (PET/CT, SPECT/CT) together with other relevant clinical data. This is particularly emphasized for oncologic imaging.

In collaboration with the Division of Endocrinology, the Division of Nuclear Medicine participates in the care of a large number of patients with a variety of thyroid diseases. Residents are expected to become involved in special divisional clinical or research projects upon entering the program. Research time is incorporated in several of the clinical rotation modules. Opportunity for extended experience in specialized study or research during or beyond the second year is available on an individual basis and is encouraged for physicians entering academic or research careers.

Clinical Facilities

The Nuclear Medicine Division involves six centers affiliated with the medical school, each with its own clinical nuclear medicine service: University of Washington Medical Center (UWMC), Harborview Medical Center (HMC), VA Puget Sound Health Care System (VAPSHCS), Swedish Medical Center (Swedish), Seattle Children's Hospital, and the Seattle Cancer Care Alliance (SCCA). The administrative offices for the academic program are located at UWMC.

Each nuclear medicine service has a well-equipped diagnostic clinic that includes gamma cameras, single-photon computed tomography (SPECT), and on-line computers dedicated to nuclear medicine. More than 12,000 in vivo diagnostic procedures are performed annually. There are active clinical PET/CT services at UWMC, HMC, SCCA, VAPSHCS and CHRMC.

Faculty

The Division of Nuclear Medicine faculty includes eight physician scientists, six basic science post doctorates, and an advanced registered nurse practitioner. Two additional nuclear medicine physicians provide teaching on a part-time basis. There are several additional basic scientists affiliated with the program who provide teaching and research opportunities.

ADAM ALESSIO, Ph.D., Research Associate Professor, Radiology; Adjunct Research Associate Professor of Biomedical Engineering and Mechanical Engineering

FATEMEH BEHNIA, M.D., Acting Associate Professor of Radiology, Division of Nuclear Medicine

STEPHEN R. BOWEN, Ph.D., Assistant Professor, Radiation Oncology and Radiology

RICHARD CHENG, M.D., Adjunct Assistant Professor, Department of Radiology; Assistant Professor, Cardiology

HEDIEH ESLAMY, M.D., Assistant Professor of Radiology, Seattle Children's Hospital; Assistant Program Director, Nuclear Medicine Residency Training Program

PAUL E. KINAHAN, Ph.D., Professor of Radiology; Head, Imaging Research Laboratory; Adjunct Professor, Bioengineering, Electrical Engineering, and Physics

KENNETH A. KROHN, Ph.D., Professor of Radiology and Radiation Oncology; Associate Program Director, Cancer Imaging Program; Adjunct Professor of Chemistry

MEENA KUMAR, M.D., Nuclear Medicine Physician VAPSHCS

THOMAS K. LEWELLEN, Ph.D., Professor Emeritus of Radiology, Physics and Instrumentation Development

DAVID H. LEWIS, M.D., Professor of Radiology; Director of Nuclear Medicine, Harborview

Medical Center, Brain Imaging; Program Director, Nuclear Medicine Residency Training Program

LAWRENCE MacDONALD, Ph.D., Research Assistant Professor, Radiology; PET/CT and Nuclear Medicine Physics, SCCA

MANUELA MATESAN, M.D., Ph.D., Acting Assistant Professor of Radiology, Division of Nuclear Medicine

ROBERT S. MIYAOKA, Ph.D., Research Professor, Radiology; Director of Small Animal PET Imaging; Director of SPECT/CT Physics; Adjunct Research Professor, Department of Electrical Engineering

MARGUERITE T. PARISI, M.D., M.S., Professor of Radiology, Adjunct Professor of Pediatrics; Division Chief Ultrasound, Seattle Children's Hospital

JOSEPH G. RAJENDRAN, M.D., DMRT, FASNC, FACNM; Professor of Radiology and Radiation Oncology (Adjunct), Division of Nuclear Medicine; Chief of Diagnostic Imaging (Radiology) VAPSHCS

LAURIE SOINE, ARNP, Ph.D., Teaching Associate, Division of Nuclear Medicine and Division of Cardiology; Clinical Assistant Professor, Department of Biobehavioral Nursing and Health Systems in the School of Nursing

HUBERT VESSELLE, Ph.D., M.D., Professor of Radiology; Adjunct Professor, Bioengineering; Director of the Division of Nuclear Medicine, Department of Radiology, UWMC; Director, PET/CT Fellowship Program

How to Apply to the University of Washington Nuclear Medicine Residency Program

It is preferred for applicant to have completed a minimum of one year ACGME accredited postdoctoral training in the United States prior to nuclear medicine training. We do not coordinate the PGY-1 year for candidates. Exceptional candidates may be eligible for an exemption after review by the University of Washington GMEC Committee. Training requirement is dependent on whether applicant is a US graduate or IMG. Post graduate training has to have provided broad experience in Clinical Medicine. Individuals with additional training are encouraged to apply.

To apply, please complete the attached application form and return pages 6 through 8, along with supporting documentation requested to:

David H. Lewis, M.D., Director of Nuclear Medicine Residency Program
University of Washington Medical Center
1959 N.E. Pacific St., Box 356113
Seattle, WA 98195-6113.

Please answer all questions carefully. When you select your references, please inform them of that fact and ask them to write to us directly at the time your application is submitted.

If you need further assistance, please contact University of Washington Nuclear Medicine administration at: nmadmin@u.washington.edu

Requested documentation:

- UWNM Resident Application (pages 6 through 8, completed)
- CV
- Copy of USMLE Score Reports [Step 1, Step 2(CS), Step 2 (CK), and Step 3]
- Medical School Transcript(s)
- Dean's Letter from Medical School graduated
- Letters of reference – minimum of 3 (mail original letters directly to the University of Washington Nuclear Medicine Program Director)
- Personal Statement

For International Medical Graduates, also include:

- Copy of ECFMG
- Copy of Visa

How to Apply to the University of Washington Nuclear Medicine Fellowship Program

Applicants to the one-year PET/CT Fellowship must have successfully completed a residency program in nuclear medicine, a diagnostic radiology residency, or a fellowship in nuclear medicine for application eligibility.

Please contact nmadmin@uw.edu to receive a Nuclear Medicine Fellowship application packet; or for additional information about either the Nuclear Medicine Residency or Fellowship Training Programs

Application for University of Washington Nuclear Medicine Residency Training

INSTRUCTIONS

The completed form should be returned to David Lewis, M.D., Division of Nuclear Medicine, University of Washington Medical Center, 1959 N.E. Pacific St., Box 356113, Seattle, WA 98195-6113.

TYPE OF APPLICATION: Residency 1 year 2 year 3 year program

Date _____ Date you wish to begin training _____

Full name _____

Date of birth _____

Citizenship _____

Business address _____ Phone _____

Home address _____ Phone _____

PREMEDICAL EDUCATION

College	Address	Date: From-To	Degree
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_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

MEDICAL EDUCATION

College	Address	Date: From-To	Degree
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_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

INTERNSHIPS, RESIDENCIES, AND FELLOWSHIPS

Position	City	Institution	Type of service	Date From-To
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_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

USMLE Step 1: ____/____ Step 2 CK: ____/____ Step 2 CS: Pass / Fail Step 3: ____/____

ARE YOU LICENSED TO PRACTICE MEDICINE? _____ Where? _____

MILITARY SERVICE AND PRESENT STATUS _____

Board Eligibility _____

• ECFMG status or other qualifications _____

• Visa type _____ Visa number _____ Visa expiration _____

HONORS, SCHOLARSHIPS, GRANTS _____

MEMBERSHIP IN PROFESSIONAL SOCIETIES _____

PUBLICATIONS _____

SPECIAL TRAINING AND INTERESTS

• Have you had any special training or experience in the basic science or clinical aspects of nuclear medicine? If so, please describe:

YES answers to the following questions require a written explanation on a separate sheet (positive responses to questions do not necessarily preclude acceptance).

Have you ever been involved in a malpractice lawsuit or claim (whether or not you were individually named as a defendant)? Yes No

Have you ever been called before any entity for questioning concerning unprofessional conduct, incompetence, negligence, unsafe practices, or mental or physical impairment? Yes No

If you have been licensed to practice medicine, has any such license, or application for it, ever been denied, revoked, suspended, or restricted? Yes No

Have you ever been addicted to, or treated for addiction to, a controlled substance drug, or chemical? Yes No

Have you ever used a prescription drug, including controlled substances, for other than therapeutic purposes? Yes No

Are you currently suffering from any disability or illness (mental or physical) that could affect your ability to fully practice medicine? Yes No

- **On a separate sheet write a note listing your reasons for selecting nuclear medicine, your long-range objectives in nuclear medicine, and the amount and type of training you desire.**
- Where do you contemplate locating after your training? _____
- Upon completion of the program, you intend to receive:
 - ABNM certification by examination
 - ABR Nuclear Radiology Special Competency by examination

REFERENCES

- Please ask the dean of the medical school from which you graduated to send a letter of characterization, including your rank in your graduating class (Dean's letter).
- List a minimum of three additional references. Include the director of your internship or residency program (please contact them and ask each to write a letter of reference at this time).

Name	Title	Address
_____	_____	_____
_____	_____	_____
_____	_____	_____

Applicant Signature

Date