

# Roadmap to a Fellowship

Created by the 2005 Resident Physician Council Board

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## Introduction

Physical medicine and rehabilitation (PM&R) is an exceptionally diverse field. The wide array of clinical practice settings can be overwhelming to residents as they investigate future career options.

The AAPM&R’s Physiatrist in Training (PHiT) Council created this document for residents wishing to pursue post-graduate fellowship training. We intend for this to serve as an introduction to many subspecialties available within PM&R. In addition, this Roadmap provides useful information on board certification with links to many other organizations and web pages. **This guide has two sections: a timetable for consideration of post-graduate fellowship training and a description of PM&R subspecialty fellowship fields.**

This document is not an all-inclusive source of information on post-graduate fellowship opportunities; those who aspire to sub-specialized training are encouraged to discuss their interests further with faculty and colleagues. For further interest in subspecialty training programs, we encourage you to look at the AAPM&R website at the fellowship database.

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## LOOKING AHEAD DURING RESIDENCY

### Post-Graduate Year 2

During the PGY2 year, most residency programs expose residents to the fundamentals of PM&R. Residents should focus on the philosophy of PM&R and begin to explore aspects of the field that interest them. Attending physicians can be a tremendous source of information regarding their practices. However, it is uncommon that a PM&R resident in his or her PGY2 year will have a full understanding of the diversity of the field. One is therefore recommended to keep an open mind about future career goals and practice settings.

### PGY2 FELLOWSHIP TIMELINE

1. Obtain a broad exposure to the philosophy of PM&R.
2. Build on experiences and consider practice options:
  - a. Inpatient vs. Outpatient
  - b. Research
3. Consider practice setting:
  - a. Academic hospital
  - b. Community hospital – urban vs rural
  - c. Single vs multi-specialty group
  - d. Private practice
  - e. Veteran Administration
4. Consider geographic location, your budget, expenses, expected stipend and cost-of-living in different locations.

5. Attend conferences on topics of interest and begin networking. Submit poster presentations to conferences. Share your interests with attending physicians and colleagues so that you may be considered for available research and clinical opportunities.
6. Explore national organizations, which can provide valuable information for fellowships and career opportunities. These organizations may provide discounted memberships and conference rates for residents.
7. **If considering pain medicine or sports medicine at all**, don't wait to start scheduling projects and volunteer opportunities. You can change your mind later but those fellowships are looking for those who start the process early.

## Post-Graduate Year 3

By the third post-graduate year, residents should have a thorough understanding of the physiatrist's mission to maximize function and quality of life. The PGY3 year presents an opportunity to participate in research, gather knowledge about areas of interest and hone presentation skills. It is also the time to document interests and skills that may prove valuable when vying for fellowship positions. The best way to do this is to routinely update your curriculum vitae with your leadership, research and academic accomplishments.

### PGY3 FELLOWSHIP TIMELINE

#### PGY3 (Early)

1. Consider elective rotations in areas of interest. Be sure to network and get a letter of recommendation if needed.
2. Participate in journal clubs and resident lectures on topics of interest. This is a great opportunity to formulate research ideas.
3. Develop research on a topic of interest.
4. Consider virtual or in-person lecturing opportunities in the field.
5. Begin preliminary research on fellowship opportunities – use the internet and query attending physicians, current fellows and senior residents.

#### PGY3 (Mid)

1. Take advantage of opportunities to rotate in different practice settings.
2. Submit poster presentations to conferences, and publish finished or ongoing research.
3. Decide on what type of fellowship to pursue.
4. Collect information on fellowship programs using the AAPM&R Fellowship Database.

5. Visit individual program websites for curriculum description and application materials (contact by email or phone as necessary).
6. Discuss your plans for fellowship application with recent alumni graduates and PGY4 residents and seek their advice.
7. Take special note of when programs start accepting applications and their deadlines. These deadlines do vary across fellowships and programs.
8. Start asking attending physicians for letters of recommendation.

## **PGY3 (Late)**

1. Apply early, and be diligent in noting application deadlines, as they may vary significantly.
2. Prepare an updated CV and have at least one other person review it.
3. Compose a personal statement and have at least one other person review it. Often universities have a writing center that might be able to give you feedback significantly.
4. Gather official documents necessary for fellowship application. Board score reports, medical school/internship diploma, Dean's letters, medical school transcripts and copies of medical licenses may be needed for the application process.
5. When planning your 4<sup>th</sup> year schedule, keep in mind that most fellowships start interviewing as early as July through the fall. You might want to schedule rotations that are flexible with possible interview dates.
6. **Pain** starts interviewing before July, ask your upper levels about their interview dates to plan your schedule.
7. Consider putting together a spreadsheet with the programs you intend to apply to, contact information and any key details that you feel set the program apart. Also note any contact you have had with the program.

## Post-Graduate Year 4

By the time the PGY4 year has started, the fellowship application process should be in full swing. Fellowship programs often need to make their decisions early to allow for credentialing of their fellows. The selection process can begin as early as the first month of the PGY4 year and generally is complete by the winter.

## **PGY4 FELLOWSHIP TIMELINE**

1. Fellowship applications should be submitted by mid-summer (June/July) at the latest.

2. Prepare for interviews by requesting time off to travel.
3. Try to apply as soon as the application cycle opens.
4. Interviews typically begin in the summer and go through the fall.
5. Once a fellowship offer has been accepted, expect immediate pursuit of credentialing.

## FELLOWSHIP OPPORTUNITIES AND BOARD SUBSPECIALTY CERTIFICATION

In order to organize the many opportunities available, this document will separate fellowships into two categories: **fellowships that lead to certification by the American Board of Physical Medicine and Rehabilitation (ABPMR)** and **fellowships that do not lead to ABPMR board certification**.

The ABPMR is one of the 24 certifying boards that hold active membership in the American Board of Medical Specialties (ABMS), which functions in cooperation with the Council on Medical Education of the American Medical Association. Currently, the ABMS has granted the ABPMR the right to offer subspecialty certificates to ABPMR diplomates in *spinal cord injury medicine, pain medicine, pediatric rehabilitation medicine, neuromuscular medicine, hospice and palliative medicine, sports medicine* and *brain injury medicine*.

Board subspecialty certification provides assurance to the public that a medical specialist has successfully completed an accredited training program and an evaluation, including an examination process, designed to assess the knowledge, experience and skills requisite to the provision of high-quality patient care in that subspecialty. Certification is not the same as licensure, and the ABPMR does not confer medical licenses. Ultimately, the ABPMR will only confer subspecialty certification to graduates of fellowship programs accredited by the American College of Graduate Medical Education (ACGME).

Board requirements are routinely updated. For current information on all ABPMR recognized subspecialties and certification requirements, please refer to the ABPMR website. Also, a list of all ACGME accredited programs by specialty can be found [on their website](#).

It is important to note that choosing a fellowship requires consideration of many factors, especially the educational content and educational experience. There is a myriad of excellent subspecialty training programs available to physiatrists that are not ACGME-accredited. Fellowship accreditation is based on specific requirements of the ACGME and does not necessarily correlate with the ability of the fellowship to teach the skills you seek. Hence, choosing a fellowship based solely on its accreditation status is not advised.

### Fellowships that Lead to ABPMR Subspecialty Certification

The following section will briefly describe some of the characteristics of the six subspecialty areas that may lead to certification by the ABPMR. Individual subspecialty requirements will not be discussed because requirements for board certification are frequently revised.

Of note, in 2015, physicians dually-boarded in Physical Medicine and Rehabilitation and an ABPMR-recognized subspecialty will no longer be required to maintain certification in both specialty and subspecialty. Subspecialty time-limited certificate holders may choose to maintain both primary and

subspecialty certificates or maintain only the subspecialty certificate(s). Please visit the ABPMR website for further detail.

### Brain Injury Medicine (or Acquired Brain Injury)

Traumatic brain injury fellowships typically involve 12 months of training after residency. Some fellowships have the option to extend the fellowship to 24 or even 36 months for research purposes. TBI fellows may be exposed to neurotrauma consults, acute inpatient neurorehabilitation, neuroradiology, neuropathology, neuropharmacology, headache management, baclofen pump management, botulinum toxin/neurolysis and spasticity clinics. Some programs include other types of acquired brain injury (anoxia, encephalopathy, brain tumor). Every program is different, so applicants should research programs for curriculum details. Completion of a PM&R or neurology residency is required to apply. Research specific to TBI is usually encouraged but may not be required.

At the end of fellowship training, the specialist should be qualified to run a TBI inpatient unit, work in outpatient TBI/neurorehabilitation clinics and act as a consultant specialist in this area.

#### *Useful websites and organizations for Traumatic Brain Injury Medicine:*

- ABPMR
- TBI Model System National Data and Statistical Center
- Brain Injury Association of America
- CDC
- North American Brain Injury Society
- American Society of Neurorehabilitation
- National Aphasia Association (NAA)
- Brain Trauma Foundation

Physiatrists must have completed an ACGME-accredited brain injury fellowship program in order to become subspecialty certified by the ABPMR in the subspecialty of brain injury medicine.

### Hospice and Palliative Medicine

Hospice and Palliative Medicine focuses on the comprehensive care of patients with terminal illness, including pain management and end-of-life care. A physiatrist who specializes in Hospice and Palliative Medicine possesses the expertise to minimize suffering experienced by patients with life-limiting illnesses. The physiatrist works with an interdisciplinary team to maximize quality of life while addressing physical, psychological, social and spiritual needs of both the patient and the family. The demand for specialists in this area continues to increase with longer life expectancy and improved management of life-threatening illness.

#### *Useful websites and organizations for Hospice and Palliative Care Medicine:*

- ACGME
- American Academy of Hospice and Palliative Medicine
- The AGS Foundation for Health and Aging
- The American Geriatric Society

## Neuromuscular Medicine

Neuromuscular Medicine focuses on the care of patients with disorders affecting the motor neuron, nerve roots, peripheral nerves, neuromuscular junction, or muscle. At least 6 months are spent in rotations that involve the clinical care of patients with neuromuscular disorders. The remaining 6 months may be spent in other clinical areas, such as electrodiagnosis, medical genetics, muscle pathology, and research. By the end of the fellowship, one should be comfortable in clinical care and assessment of patients with neuromuscular disease, including diagnostic evaluation, treatment, management and counseling.

A list of ACGME accredited fellowship opportunities can be found on the American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM) website. In addition, the AANEM offers a Neuromuscular Medicine Self-Assessment Examination (NMSAE). This is a useful study guide for physicians in the practice of neuromuscular medicine, and it can serve as a teaching tool in residency.

It is important to note that certification in Neuromuscular Medicine by the ABPMR is unrelated to the American Board of Electrodiagnostic Medicine's (ABEM) certification examination.

### *Useful websites and organizations for Neuromuscular Medicine:*

- American Academy of Neurology (AAN)
- American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM)
- American Board of Electrodiagnostic Medicine (ABEM)

## Pain Medicine

According to the American Board of Psychiatry and Neurology, pain medicine is the medical discipline concerned with the diagnosis and treatment of the entire range of painful disorders. Because of the vast scope of the field, pain medicine is a multidisciplinary subspecialty. As such, the expertise of anesthesiology, physical medicine and rehabilitation, neurology and psychiatry is united to provide the highest quality of patient care. Currently, accredited fellowships are offered through anesthesia, PM&R, and a few neurology departments. Programs must be aligned with institutions that have residencies in at least two of the four specialties in order to be recognized by the ACGME.

Although the ABMS has endeavored to homogenize pain medicine fellowships, residents should recognize that fellowships provide different experiences depending on the primary specialty designation. For example, anesthesia-based programs may focus more heavily on pharmacology, acute/post-operative pain, cancer pain, and interventional procedures. PM&R-based programs may emphasize functional restoration, musculoskeletal and sports medicine training, interventional spine, and electrodiagnosis.

Physiatrists must have completed the ACGME-accredited pain medicine fellowship program in order to become subspecialty certified by the ABPMR in the subspecialty of Pain Medicine. However, there are many excellent interventional spine fellowship opportunities that are not ACGME accredited. It is important to note that accreditation is not necessarily required to perform percutaneous interventions. However, some carriers, institutions and communities may require Board subspecialty certification as a condition of credentialing to perform percutaneous procedures. Pain Fellowships participate in the National Resident Matching Program and instructions for fellowship applications can be found at [nrmp.org](http://nrmp.org).

## *Useful websites and organizations for Pain Medicine:*

- American Academy of Pain Medicine (AAPM)
- American Pain Society (APS)
- American Society of Interventional Pain Physicians (ASIPP)
- American Society of Regional Anesthesia and Pain Medicine (ASRA)
- International Association for the Study of Pain (IASP)
- The International Society for the Study of the Lumbar Spine (ISSLS)
- North American Spine Society (NASS)
- North American Neuromodulation Society (NAMS)
- PainRounds
- Spine Intervention Society (SIS)
- The Student Doctor Network (SDN) pain medicine forum
- World Institute of Pain (WIP)

## **Pediatric Rehabilitation Medicine**

All pediatric rehabilitation fellowships are ACGME accredited and either one or two years in duration, depending on whether the fellow has completed a traditional PM&R residency or a combined pediatrics and PM&R residency. More information is available at the ABPMR website. Clinical experiences may include, but are not limited to, inpatient pediatric rehabilitation units, outpatient pediatric clinics, pediatric subspecialty rotations (neurology, NICU, PICU, orthopedic surgery, genetic disorders, etc), consults, and research.

Fellows will be involved in the comprehensive evaluation and care of children and adolescents with diseases such as cerebral palsy, brain injury, spina bifida, spinal cord injury, neuromuscular disease, developmental delay, genetic syndromes, musculoskeletal injuries, rheumatic disease, cancer and chronic pain. Spasticity management including botulinum toxin injections and baclofen pump management is emphasized.

Most fellowship training programs are designed to prepare individuals for full-time careers in pediatric rehabilitation medicine. Graduates of these programs often become program directors, instructors, or laboratory investigators in university medical schools or medical centers.

## *Useful websites and organizations for Pediatric Rehabilitation:*

- American Academy for Cerebral Palsy and Developmental Medicine (AACPDM)
- American Academy of Pediatrics (AAP)
- National Center for Medical Home Implementation
- Developmental Behavioral Pediatrics Online
- National Institute of Child Health and Human Development – Resources for Researchers
- TelAbility – Enhancing the lives of children with disabilities
- The Society for Developmental and Behavioral Pediatrics (SDBP)

## **Spinal Cord Injury Medicine**

Subspecialty certification in SCI medicine is offered in order to enhance the quality of care available to individuals with spinal cord dysfunction. A physiatrist with subspecialty certification in SCI should be

proficient in treating patients with traumatic and non-traumatic SCI, as well as managing rehabilitation needs in the acute and chronic setting. Training also focuses on prevention and treatment of potential secondary complications of SCI.

Currently all SCI Medicine fellowships are ACGME accredited and 14 of the 19 SCI fellowships are designated by the National Institute on Disability and Rehabilitation Research (NIDRR) as a Model SCI System.

Fellowships are generally 12 months in duration and may be divided into inpatient rotations, consults, and outpatient rotations. Outpatient months may include opportunities in research, PT/OT/Orthotics, pulmonary care, as well as rotations in orthopedic, neurosurgery, spasticity and pediatric clinics.

Interested candidates should consider several electives prior to or during their fellowship year. Rotations in urology (preferably with exposure to urodynamic studies), neurosurgery, occupational therapy, and clinics in multiple sclerosis, post-polio, pulmonary critical care/ventilator management, wound care, prosthetics and orthotics, wheelchair prescription, sports medicine and pain medicine, may enhance the skills of a SCI subspecialist.

Fellows who are interested in research can apply for a separate 2-year SCI research fellowship, the VA Advanced Fellowship Program in Advanced Spinal Cord Injury Medicine. There are currently 8 sites offering the Advanced SCIM fellowship.

*Useful websites and organizations for Spinal Cord Injury Medicine:*

- American Paraplegia Society (APS)
- American Spinal Injury Association (ASIA)
- International Spinal Cord Society
- National Spinal Cord Injury Statistical Center
- Paralyzed Veterans of America (PVA)
- United Spinal Association
- Academy of Spinal Cord Professionals

## Sports Medicine

Sports medicine is the medical subspecialty concerned with exercise as an essential component of health throughout life, medical management and supervision of recreational and competitive athletes and all others who exercise, and exercise for the prevention and treatment of disease and injury.

The curricula of a sports medicine fellowship will typically include training and experience with pre-participation physical evaluations, exercise prescriptions, evaluation and treatment of musculoskeletal and medical problems in the athlete, emergency on-field assessment and triage, event administration, musculoskeletal imaging, the role of the physician in the sports medicine team, functional anatomy, biomechanics, exercise physiology, ergogenic aids, sports nutrition, bracing and orthoses, and sports training and conditioning.

Typical procedures that one may receive training in during a sports medicine fellowship include musculoskeletal ultrasound (both for diagnosis and procedure guidance), diagnostic and therapeutic aspiration and injection of peripheral joints, bursae, and tendon sheaths, compartment pressure testing,

and casting, splinting, and acute fracture management. There are some PM&R Sport Medicine fellowships that provide training in spinal procedures and electrodiagnostics.

Fellowship candidates should look into the specific training opportunities that the various fellowships offer. For example, how much access is there to athletic teams and athletes? What are the responsibilities of the fellow for event coverage? What are the procedural training opportunities? Is there a didactic curriculum to help the fellow prepare for the sports medicine certifying examination? What are the opportunities for the fellow to become a team physician?

There are currently 12 ACGME-accredited sports medicine fellowships available through the primary specialty of physical medicine and rehabilitation. However, graduating physical medicine and rehabilitation residents are also eligible to apply for sports medicine fellowships through other specialties, such as family medicine, internal medicine, pediatrics and emergency medicine.

As of 2011, the PM&R based accredited sports medicine fellowships have joined the primary care sports medicine match. Therefore, applicants will need to utilize the National Resident Matching Program when creating their rank lists. More information can be found through the NRMP website. Due to recent changes, applicants are encouraged to contact the individual programs directly for specifics of the application process. The ACGME requirements for all sports medicine fellowships are essentially the same, regardless of primary specialty. The certifying examination that one is eligible to take after the fellowship is the same regardless of the primary specialty prior to fellowship.

*Useful websites and organizations for Sports Medicine:*

- American College of Sports Medicine (ACSM)
- American Medical Society for Sports Medicine (AMSSM)
- The Physician and Sports Medicine

### Fellowships without ABPMR Certification

The following section will briefly describe characteristics of several subspecialty areas that do not lead to subspecialty certification by the ABPMR. These fellowships are not accredited by ACGME but may be more tailored to an individual candidate's career goals. Within PM&R, a fellowship can be created in just about any subspecialty by individuals, specialty groups or multi-specialty practices, private organizations, or public institutions that have no affiliation with ACGME or a certifying board. For example, there are a number of excellent pain, interventional spine, musculoskeletal, and sports fellowships listed in the AAPM&R Fellowship Database that are not accredited by ACGME. Although one is not eligible for ACGME board certification, such fellowships may still offer valuable training opportunities for the right applicant.

### Musculoskeletal/Spine Fellowships

Musculoskeletal/Spine Fellowships typically involve 12 months of training after residency. Fellows will be exposed to both diagnosis and management of acute and chronic musculoskeletal disease and spine disorders. There is typically a heavy emphasis on procedure training including peripheral joint injections, caudal epidural/transforaminal and interlaminar epidurals/facet injections, medical branch blocks, radio frequency ablation, musculoskeletal ultrasound and electrodiagnostics.

Some musculoskeletal/spine fellowships incorporate other procedures such as stellate ganglion blocks, spinal cord stimulator placement, discography, prolotherapy and spasticity management (botulinum toxin injections and baclofen pump placement). There may be some athletic event coverage incorporated into the fellowship but the larger spectrum of sports medicine is still not the emphasis of these fellowships. Research may be a requirement by the completion of the fellowship. The majority of these fellowships are based out of an outpatient private practice setting but there are some that are in an academic setting.

The musculoskeletal/spine fellowship provides a unique opportunity to learn management of disease/disorders of the musculoskeletal system, which incorporates some elements of pain and sports medicine fellowships. Although there are similarities to some PM&R based Pain and Sports Medicine fellowships, the applicant should keep in mind that musculoskeletal/spine fellowships do not lead to ABPMR board certification.

## Stroke

Stroke fellowships are designed to expose the trainee to all aspects of clinical care of stroke patients from hospitalization and acute rehabilitation to long term care. Fellowships are available in both PM&R and neurology-based programs. Fellows gain skills in the treatment of major stroke syndromes, cognitive disability, and spasticity. Fellows rotate through stroke and brain injury services and may have an opportunity to learn botulinum toxin injection and other techniques for managing spasticity and dystopia. Research may be a part of the fellowship requirement and some programs may provide 2 years of training for those interested in pursuing research and/or academic pursuits.

### *Useful websites and organizations for Stroke Rehabilitation:*

- American Academy of Neurology (AAN)
- American Heart Association
- National Institute of Neurological Disorders and Stroke
- American Stroke Association
- American Society of Neurorehabilitation
- National Aphasia Association (NAA)
- National Stroke Association

## Multiple Sclerosis (MS)

There are some PM&R programs that offer MS fellowship training, but most post-graduate opportunities are offered by neurology-based programs. Interested PM&R applicants are encouraged to contact neurology-based programs and inquire about their eligibility. MS fellowships involve participation in MS outpatient clinics, inpatient consultation, electrodiagnostic medicine, radiology, research, and formal didactics or journal clubs.

### *Useful websites and organizations for Multiple Sclerosis:*

- American Academy of Neurology (AAN)
- Multiple Sclerosis Association of America (MSAA)
- National Multiple Sclerosis Society

## Neurorehabilitation

Neurorehabilitation fellowships combine elements of TBI, stroke, SCI, and neuromuscular training programs into one program. The fellowship experience and research requirement vary between programs, and residents should become familiar with each program's design to decide which opportunity is the best fit. Fellowship training may introduce the clinician to advanced techniques for spasticity and dystonia management, including neurolytic procedures and intrathecal pump management. Programs may also include additional training in clinical and dynamic EMG and motion analysis.

### *Useful websites and organizations for Neurorehabilitation Medicine:*

- American Academy of Neurology (AAN)
- National Institute of Neurological Disorders and Stroke
- North American Brain Injury Society
- The American Society of Neurorehabilitation
- The American Stroke Association
- The National Aphasia Association (NAA)
- The National Stroke Association

## Electrodiagnostic Medicine

Fellowships are generally available to PM&R or neurology residents who have successfully completed ACGME accredited residencies. Fellowships are designed to build on the electrodiagnostic concepts and skills acquired during residency. Programs usually offer didactics in neurophysiology, pathology, and clinical neurophysiological features of disease. Most fellows will perform electrodiagnostic studies on adults and children with a wide range of neuromuscular diseases. In addition, many fellowships offer training opportunities using special techniques, including single fiber EMG, somatosensory, visual, auditory evoked responses, and intraoperative monitoring. Also, some programs may provide rotations in sensory, autonomic, and movement disorder laboratories. Clinical and research requirements vary by program. The fellowship program should exceed the requirements for electrodiagnostic training as defined by the American Board of Electrodiagnostic Medicine for fellows to be eligible to sit for the ABEM certification exam.

The AANEM website offers a listing of available fellowships in electrodiagnostic medicine. Also, the AANEM offers a Training Program Self-Assessment Examination (TPSAE) that is a useful study guide for physicians in the practice of electrodiagnostic medicine.

### *Useful websites and organizations for Electrodiagnostic Medicine:*

- American Academy of Neurology (AAN)
- American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM)
- American Board of Electrodiagnostic Medicine (ABEM)

## Cancer Rehabilitation

The scope of Cancer Rehabilitation includes the diagnosis and management of neuromuscular and musculoskeletal impairments related to cancer and its treatments such as surgery, radiation therapy, chemotherapy, and stem cell transplantation. Trainees will work within an interdisciplinary team

consisting of rehabilitation nurses, physical and occupational therapists, case managers, and social workers.

Upon completion of the fellowship one is expected to integrate medical, social, and functional history to generate a comprehensive rehabilitation plan.

As a result of advances in cancer screening and treatment, cancer patients are living longer and the numbers of cancer survivors has risen exponentially. The need for cancer rehabilitation specialists has also escalated during this time. Academically inclined graduates will be prepared to establish rehab programs within a cancer center or develop a cancer rehabilitation program within a PM&R department.

#### *Useful websites and organizations for Cancer Rehabilitation:*

- American Society of Clinical Oncology
- National Cancer Institute
- Cancer Survivorship Research

#### Occupational and Environmental Medicine

Occupational and Environmental Medicine is a mixture of clinical medicine and public health. This field is dedicated to promoting the health of workers through preventative medicine, clinical care, research and education. Specialists in this field are adept at treating job-related diseases, recognizing and resolving workplace hazards, instituting rehabilitation methods, and providing well-managed care within and outside the workplace.

Training provides a range of skills in population and preventative medicine, epidemiology and disease surveillance, toxicology, biostatistics, and health services administration. Programs may be 1 to 2 years in duration and many candidates receive credit towards a degree in public health. The American College of Occupational and Environmental Medicine (ACOEM) is the premier organization for learning more about the field and for finding lists of potential training programs.

#### *Useful websites and organizations for Occupational and Environmental Medicine:*

- American College of Occupational and Environmental Medicine (ACOEM)
- American Journal of Industrial Medicine
- Association of Occupational and Environmental Clinics (AOEC)
- Occupational Medicine (journal)
- Occupational Health and Industrial Medicine (journal)

#### Research

The AAPM&R Research Committee has posted a Resident's Research Packet on the Academy website to introduce residents without prior exposure to research. Everything one would need to get started on a research project is available at the link below. Also, the Academy website has additional links for [research funding and research guidance](#) in the resident section.

Fellowship opportunities in research are often funded via research grants. Research fellowships may be offered by individual institutions, so interested applicants should contact individual programs and visit their websites to learn more about available opportunities. The Association for Academy Psychiatrists website includes links for programs, such as rehabilitation medicine scientist training program (RMSTP

K-12 grant). The RMSTP K-12 fellowship is 75% research and 25% clinical work. Successful applicants will engage in rehabilitation research from inception (e.g., study formulation, grant-writing, etc.) to manuscript publication. NIDRR offers one-year research fellowships (Switzer fellowship) annually. Small grants are available from the Foundation for PM&R and often internally at academic institutions.

Some programs may also provide training on developing grant-writing skills. However, for those who are not interested in applying for a full research fellowship, there are intensive grant-writing workshops in rehabilitation research offered throughout the country. Senior level trainees, as well as junior and mid-level faculty are encouraged to attend. Attendees receive guidance in grant-writing, clinical trial design, biostatistics, informatics, collaboration, budgeting and career development through lectures and individual consultation. Interested applicants must apply for these workshops and come prepared with protocols and/or grant applications in draft form.

#### *Useful websites and organizations for Research:*

- [AAPM&R Resident's Research Packet](#)
- Association for Academic Physiatrists (AAP) RMSTP (K-12) Fellowship
- National Institute of Disability and Rehabilitation Research (NIDRR)
- National Institutes of Health (NIH) Career Development Awards (K Awards, T Awards, F Awards)
- Enhancing Rehabilitation Research in the South (ERRIS) (example of a grant-writing workshop)
- Foundation for PM&R New Investigator Grants

#### Other Fellowship Opportunities

The scope of PM&R is unique in that residents are exposed to a variety of medical specialties and types of practices. Thus, many physiatrists may not choose just one particular specialty area. In fact, many PM&R physicians incorporate different philosophies and techniques into their clinical practice and focus their career goals on areas of personal interest.

For example, residents have gone on to pursue post-graduate training in areas such as cardiopulmonary rehabilitation, geriatrics, osteoporosis, regenerative medicine, neuropsychology, informatics and outcomes research, clinical neuropsychology, women's rehabilitation and clinical neurophysiology, among others.

Residents interested in a focused career in a particular area are encouraged to do their own background research, and talk with attendings in their own departments, other clinical departments, or in their community. Information may also be obtained by rotating at the fellowship programs in consideration, reading available literature, contacting program directors, and talking to former or current fellows and residents who have had some experience with the programs under consideration.

#### Conclusion

AAPM&R's PHIT Council is committed to serving the interests of all resident members of the AAPM&R. We hope that you find this document valuable and that you are more informed about the many opportunities available for post-graduate training. If you have questions that are not answered within this document, or if you have information about additional fellowship opportunities not listed above, please send your comments to [info@aapmr.org](mailto:info@aapmr.org) and direct your email to the PHIT Council.