

The Icahn School of Medicine at Mount Sinai



Department of Rehabilitation Medicine Residency and Fellowship Programs



Icahn
School of
Medicine at
**Mount
Sinai**

Department of Rehabilitation Medicine

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Joseph Herrera, D.O.
Chairman
Lucy G Moses Professor

Joseph Herrera, DO is the System Chair of the Department of Rehabilitation Medicine at the Icahn School of Medicine. Board certified in physical medicine and rehabilitation as well as in sports medicine, he is also the creator and director of Mount Sinai's accredited Sports Medicine Fellowship Program. This program was the first of its kind in New York City. As Director of the Department's Physical Medicine and Rehabilitation residency program since 2008, Dr. Herrera has developed an excellent training experience for his house staff.



Dr. Herrera's clinical and clinical research interests include sports-related injuries, electro-diagnostic studies, fluoroscopic guided spine and joint interventions, and use of ultrasound for diagnosis and guided treatments. Dr. Herrera co-edited and was a contributing author on two textbooks which have been distributed globally and published in multiple languages. He has also been featured in *The New York Times Magazine* as a Super Doctor for four years.

Through an appointment to the New York State Athletic Commission and as Chief Team Physician for USA Boxing Metro, Dr. Herrera has an unusual opportunity to treat and evaluate amateur and professional athletes. He has received the Rocky Marciano Physician of the Year Award for excellence in Sports Medicine. Dr. Herrera lectures regularly at the Association of Academic Physiatrists national conferences.

Dr. Herrera earned his Doctor of Osteopathic Medicine degree at the School of Osteopathic Medicine in the University of Medicine and Dentistry of New Jersey. Following internship at Saint Michael's Medical Center in Newark, he pursued his residency in physical medicine and rehabilitation at New York-Presbyterian Hospital, serving as Chief Resident. Dr. Herrera completed his training with a fellowship in interventional spine and sports medicine at Mount Sinai Beth Israel and has been a full-time faculty member of the Icahn School of Medicine at Mount Sinai since 2005.



Affiliated Hospitals:

**Mount Sinai Health System
Elmhurst Hospital
The James J. Peters Veterans Affairs Medical Center**

Chairman, Department of Rehabilitation Medicine

**Joseph Herrera, DO, FAAPMR
Lucy G. Moses Professor & Chairman
Department of Rehabilitation Medicine**

Residency Program Director

Miguel X. Escalon, MD

Associate Program Directors

Svetlana Ilizarov, MD

Spinal Cord Injury Fellowship Director

Thomas Bryce, MD

Sports Medicine Fellowship Director

**Joseph Herrera, DO
Gerardo Miranda-Comas, MD (Associate)**

Brain Injury Director

Kirk Lercher, MD

MISSION STATEMENT

The Residency Training Program in Physical Medicine and Rehabilitation at The Icahn School of Medicine at Mount Sinai is dedicated to the development of outstanding physiatrists who demonstrate excellence in the areas of knowledge acquisition and application, skill development, clinical judgment, team leadership and interpersonal communication. The residents will acquire a broad knowledge of physical disability and its effect upon the disabled individuals functional abilities, emotional adjustment, social interactions and vocational and avocational pursuits. The resident physiatrist will demonstrate expertise in functional assessment and become adept at critical appraisal of pertinent literature, thus laying the foundation for ongoing continuing education and future contribution to the field.



INTRODUCTION

The residency training program in Physical Medicine and Rehabilitation (PM&R) of the Icahn School of Medicine at Mount Sinai was established in 1959. With the goal of training skilled physiatrists dedicated to caring for individuals whose disabilities range from mild to the severe, the program exposes trainees to a strong clinical and didactic teaching program. This is accomplished by drawing on the facilities and the resources of three teaching hospitals affiliated with the Icahn School of Medicine at Mount Sinai. As a result of this collaboration, the program has gained a national reputation for the quality of its patient care, teaching and research.

The Residency Training Program is fully accredited by the Accreditation Council for the Graduate Medical Education. The program is under the direction of Joseph Herrera, D.O., a faculty member at Mount Sinai. Dr. Herrera is the Director of Medical Education and the Chairman in the Department of Rehabilitation Medicine. He is nationally known for his expertise in Interventional Spine and Sports Medicine.

TEACHING FACILITIES

The three hospitals participating in the training program are: The Mount Sinai Health System (MSHS), Elmhurst Hospital Center (EHC), and the James J. Peters Veterans Affairs Medical Center (VAMC).

All of the affiliated hospitals are within 30 minutes drive of the main campus, which is located at MSMC. Inter-hospital transportation is facilitated

by the availability of a regularly scheduled shuttle bus service that operates between MSHS, EHC and the VAMC. The program's affiliated hospitals have more than 120 inpatient rehabilitation beds. These rehabilitation units admit more than 1,000 disabled individuals to their services each year and account for more than 250,000 outpatient visits annually.

How to Apply

For further information, please call Joseph Herrera, D.O. at
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trum of spine and sports-related disorders. The unique integration of non-operative and surgical specialists within Mount Sinai gives fellows the opportunity to develop outstanding clinical skills grounded in an evidence based framework. Scholarly activity is encouraged and expected.

The fellowship offers comprehensive training, including interventional pain management procedures of the spine and limbs, sports medicine, ultrasound guided procedures, EMG, and general musculoskeletal care. Fellows go to a weekly musculoskeletal/sports clinic

The program admits two fellows per year, and is funded by income from the Mount Sinai Faculty Practice. Rotations are at Mount Sinai Hospital and Mount Sinai Beth Israel.



THE MOUNT SINAI HEALTH SYSTEM (MSHS) incorporated in 1968, encompasses the Mount Sinai School of Medicine and the Mount Sinai Hospital. Through this partnership, the medical school is able to bring the expertise of the hospital's world-renowned medical staff into its classrooms. Established in 1963, the Mount Sinai School of Medicine has a tradition of superior education, outstanding research and innovative patient care. Having nearly 500 students, the medical school has 29 clinical and basic science departments. The Mount Sinai Hospital, founded in 1852, is one of the largest, oldest and best known voluntary hospitals in the United States. It is fully accredited by the Joint Commission for the Accreditation of Hospitals and is approved for internship and residency training by the Accreditation Council on Graduate Medical Education. Mount Sinai is an 1,181 bed tertiary-care hospital treating over 40,000 inpatients annually.

The medical center occupies a four block area on Fifth Avenue across from Central Park in Upper Manhattan. It includes the Guggenheim Pavilion, a unique 11 story, state of the art hospital designed by world renowned architect I.M. Pei, where most patient care occurs. The recently renovated, state of the art inpatient rehabilitation units are located on two floors of the Klingenstein Clinical Center. Several other hospital, laboratory and service buildings complete the campus, including the Annenberg Building, a 31-story structure housing the medical school, outpatient clinics, and research laboratories.

A major Outpatient Department (OPD) serves the community of Upper Manhattan, as well as a broad spectrum of patients from other areas. Approximately 500 physicians participate in ambulatory care in the OPD's 160 specialty and subspecialty clinics, which handle more than 340,000 outpatient visits annually. Of interest to those training in the field of PM&R are specialized clinics for individuals with spinal cord injury (SCI), brain injury (BI), orthotics and prosthetics, neurological disorders and various musculoskeletal conditions.

Research commitments at MSMC have continued to expand. Several floors of the Annenberg Building are devoted to laboratory investigations, including extensive animal research. A new 250,000 square foot research building, located at Madison Avenue and 100th Street, has recently been completed. MSMC provides a wide range of facilities and supportive services. These include the Department of Biomathematical Sciences, which provides statistical consultation to all faculty. The **Levy Library**, located on the 10th and 11th floors of the Annenberg Building, has a collection of more than 150,000 books and bound journals, and receives approximately 2,500 periodicals and serial publications as a supplement to reference and bibliographic databases, including MEDLARS, BIOSIS and all others available through the National Library of Medicine's MEDLINE network. Facilities exist for residents to access the database used by the library e.g., Medline, from their home computer.

The department provides comprehensive interdisciplinary rehabilitation services to patients hospitalized for acute rehabilitation, as well as to outpatients. The department manages 50 inpatient acute rehabilitation beds, mak-

ing it one of the largest acute rehabilitation programs in New York City. The department is CARF accredited for its spinal cord injury, brain injury, stroke, amputation and comprehensive rehabilitation programs. The facility covers two floors and patients receive therapy in a gym on their respective unit. Designed to enhance communication among staff members of the interdisciplinary team and maximize individuals time in therapy, these units are noted for the excellence of care provided. The Department has been designated by the National Institute on Disability and Rehabilitation Research (NIDRR) as a Model System of Care for Brain Injury and Spinal Cord Injury.

Along with our specialized rehabilitation programs for amputations, neurological disorders, spine pain, musculoskeletal disorders, strokes and heart disease, the department is known for its extensive interdisciplinary programming and excellence in musculoskeletal medicine, sports medicine, spinal cord injury and brain injury. All our state of the art programs are led by highly trained, experienced physiatrists.

The Outpatient Service also sees a variety of disabilities including, but not limited to, spinal cord injury (SCI), brain injury (BI), musculoskeletal disorders, sports injuries, neurological disorders and amputations. Clinics are held regularly and include musculoskeletal medicine, general rehabilitation, prosthetics & orthotics, BI & SCI.

The Department consists of a staff of more than 150 individuals providing services for more than 100,000 patient visits per year. The staff includes: 22 Psychiatrists, 80 Registered Nurses, 48 Physical Therapists, 29 Occupational Therapists, 9 Speech Pathologists, 10 Psychologists (plus trainees), 5.5 Social Workers, 2 Recreation Therapists and 1 Vocational Counselor. Seven PM&R residents are assigned to MSH at all times. The Department has been allocated approximately 3,500 square feet of space for administrative and research purposes, and more than 10,000 square feet for the treatment of in and outpatients.

The Mount Sinai Health System has expanded to include Mount Sinai St. Luke's, Mount Sinai West and Mount Sinai Beth Israel making it the largest health system in Manhattan.

ELMHURST HOSPITAL CENTER (EHC) Of the 17 facilities operated by the New York City Health and Hospitals Corporation, EHC is widely considered to be the "jewel" of the municipal hospital system. Under an affiliation agreement, in effect since 1965, the hospital has been professionally staffed and operated by MSMC, ensuring that services rendered meet the high standards set by MSMC. It is located in a residential area in the borough of Queens and provides primary, secondary and tertiary care for the two million residents of that borough. In order to facilitate communication and the flow of staff between these two institutions, MSMC operates a shuttle bus, which travels between MSMC and EHC eight times daily. The ride takes less than one half hour.

ance, disability insurance, discounts for recreational activities in New York City, including Broadway shows, concerts, etc.

[Spinal Cord Injury \(SCI\) Medicine Fellowship](#)

Program Director: **Thomas Bryce, M.D.**

Program Length: 1 Year

Fellows rotate through inpatient and outpatient programs at The Mount Sinai Hospital and affiliated institutions, including the James J. Peters Bronx VA Medical Center, and The Rusk Institute for Rehabilitation Medicine at New York University Medical Center. At each facility, the fellow works with experienced clinical staff including physiatrists, neurologists, neurosurgeons, orthopedic spine surgeons, and many rehabilitation professionals.

Each fellow has a continuity outpatient experience gained by serving as the primary medical contact for a panel of outpatients that they build throughout the year. Additionally, the fellow is expected to complete a scholarly project related to SCI. Practical experience, didactic training and scholarly work prepare the fellow to sit for the subspecialty examination in SCIM, which is administered annually in the fall by The American Board of Physical Medicine and Rehabilitation. The fellowship program includes a weekly journal club, weekly formal SCIM didactics, and weekly formal training on research methodology.

The training program in SCI Medicine at Mount Sinai has been accredited by the Accreditation Council for Graduate Medical Education (ACGME) since July 2000. The program, which admits one fellow per year, has been funded by the United Spinal Association and the Craig Neilsen Foundation since 2014.

[Sports Medicine Fellowship](#)

Program Director: **Joseph Herrera, D.O.**

Associate Fellowship Director: **Gerardo Miranda-Comas, M.D.**

Program Length: 1 Year

The Sports Medicine and Interventional Spine Fellowship was the first ACGME accredited sports medicine program in a Rehabilitation Training Program in the Tri-State area. The goal of the fellowship is to train broadly competent, non-operative specialists in the evaluation and management of the full spec-



ty and residents to serve as Chief Residents. The department also sponsors an accredited fellowship training program in spinal cord injury medicine and an accredited fellowship in sports medicine.

Patient care is the major vehicle for residency training. However, extensive didactic instruction is provided through formal lecture session, conferences and journal clubs. The lectures, which occur regularly on a weekly basis throughout the residents training, cover all areas of rehabilitation. During the residents second year, they will participate in a cadaveric dissection of the back and extremities to enhance their knowledge of pertinent anatomy. In addition, all residents are required to attend regional courses on prosthetics and orthotics. All senior residents are provided with financial support to enable them to attend the annual meeting of the American Academy of Physical Medicine and Rehabilitation or the Association of Academic Physiatrists. Support is also provided to residents who are presenting a paper at a national conference or seminar.

RESEARCH ACTIVITIES

Research is a major area of focus in the Department of Rehabilitation Medicine. In recent years the Department has been awarded major grants to study various aspects of spinal cord injury and brain injury. The major areas of research identified for the Department include:

- Spinal Cord Injury**
- Traumatic Brain Injury**
- Electrodiagnosis**
- Pain Management**
- Neurological Rehabilitation**
- Sports Medicine**
- Musculoskeletal Ultrasound**

BENEFITS

Each physician presently has four weeks of paid vacation annually and receives an extensive benefits package. Benefits include: major medical insurance, prescription plan, dental insurance, life insurance, malpractice insurance



The 622-bed hospital has 16 clinical services headed by full-time directors and sponsors 19 postgraduate educational programs in medical and surgical specialties. The Ambulatory Care Service at EHC receives about 430,000 patient visits each year. Additionally, its Emergency Department is a receiving center for New York City Emergency Medical Services ambulances and handles 100,000 patients annually. EHC has been designated a regional Level I Trauma Center for the borough of Queens. It has an outstanding Emergency Department, equipped and staffed to receive SCI and TBI patients.

The Rehabilitation Medicine Service at EHC is the most comprehensive rehabilitation facility in the borough of Queens. The Department consists of a 10-bed inpatient unit with extensive outpatient facilities. It has a very active electrodiagnostic service, performing more than 750 tests annually, a large outpatient and consultation pediatric service and PM&R clinics for different physical disabilities and musculoskeletal conditions. Additionally, the attending physiatrists and residents participate in the Hand Clinic with Orthopedic and Plastic Surgeons. The Department's staff includes 7 physiatrists (all members of the MSMC faculty), 14 physical therapists, 8 occupational therapists, an ADL therapist, a rehabilitation psychologist, a speech pathologist, an acupuncturist, 1 recreational therapist, 1 social worker and 32 nurses. Eight PM&R residents are assigned to these services, which are directed by Jeffrey Fine, M.D., an outstanding educator known for his commitment to resident education, and supported by Jerry Weissman, M.D., a peerless teacher.

THE JAMES J. PETERS VETERANS AFFAIRS MEDICAL CENTER (VAMC) is a 620 bed federally owned, general medical and surgical hospital. The Department of Physical Medicine and Rehabilitation (PM&R) is under the direction of Heidi Klingbeil, M.D., who is recognized as an innovator and outstanding teacher at the bedside, in the clinics and as a lecturer.

Svetlana Ilizarov, MD supervises and is actively involved in the training of the PM&R residents at VAMC. The department has unique programs for evaluation and management of acute and chronic pain of musculoskeletal and neurological disorders and a variety of musculoskeletal pain syndromes. Residents also receive extensive training in electrodiagnostic medicine, injection techniques, and acupuncture. Four PM&R residents are assigned to VAMC.

The VAMC operates an 80 bed spinal cord injury (SCI) unit serving the veteran population of New York City and the surrounding areas. This unit averages 131 inpatient admissions and 2,175 outpatient visits annually. The SCI unit also receives patients with acute SCI and traumatic BI, who were injured while on active military duty. The Department of Rehabilitation Medicine provides consultation services to the patients on the SCI Unit.

A multi-disciplinary team provides inpatient services and consists of Physicians, Nurses, Psychologists, Social Workers, Rehabilitation and Recreation

Therapists and Dieticians.

TRAINING PROGRAM IN PM&R

The American Board of PM&R requires four years of postgraduate training to be eligible for Board Certification. This includes one year of internship in which the resident acquires basic clinical skills, plus three years of training in PM&R. All training however, must be in a program approved by the Accreditation Council on Graduate Medical Education. In general, applicants are expected to arrange for their own preliminary year. Applicants are encouraged to apply for the one-year preliminary Internal Medicine programs at MSMC and EHC.

An average of seven new residents are accepted into the program annually for the three (3) years of training. Assignments to the inpatient, outpatient and consultation services are planned so that there is a balance between patient care and didactic teaching. Each resident rotates through the Rehabilitation Medicine Departments of the various affiliated hospitals. The residents take night-call on an average of once every eighth night with the frequency of call weighted by seniority, such that the frequency of night call decreases as one proceeds through the program. The program is fully compliant with New York State and national duty hour regulations for residents.

There are designated rotations in pediatric rehabilitation, spinal cord injury, brain injury, electrodiagnosis and musculoskeletal medicine in addition to general rehabilitation. Each resident receives four months of elective time to focus their training according to their specific interests. Training in neurology is provided as part of the rotation through the spinal cord injury service at MSMC. Each resident is required to complete a scholarly work of presentation quality by the end of their training. Although the actual order of rotations varies from resident to resident, a typical set of rotations would be as follows:

<u>Location</u>	<u>Rotation</u>	<u>Duration</u>
EHC	Inpatient Services	2 ROTATIONS
EHC	Electrodiagnosis	2 ROTATIONS
EHC	Pediatric Rehab Service Outpatient Clinic/Ward	2 ROTATIONS
EHC	Consultation Services	2 ROTATIONS
MSHS	Brain Injury	2 ROTATIONS
MSHS	Spinal Cord Injury	2 ROTATIONS
MSHS	Musculoskeletal Medicine (w/ interventional spine procedures, Sports)	2 ROTATIONS
MSHS	Day Float	1 ROTATION
VAMC	Invasive Physiatry/ Electrodiagnosis	1 ROTATION
VAMC	Outpatient Services/ Pain Management/ Acupuncture	3 ROTATIONS
* Your Choice	ELECTIVE	2 ROTATIONS

In summary, during the 3 years of residency, a resident will spend approximately 12 months at MSMC, 13 months at EHC, 7 months on the Rehabilitation Services at the VAMC, and 4 months on an elective. Electives may be taken within the Mt. Sinai system or at outside facilities.

Resident supervision is provided by the full-time and part-time medical staff of the affiliated hospitals, who all have faculty appointments at the Department of Rehabilitation Medicine, Icahn School of Medicine at Mount Sinai. Residents, while on the inpatient units, are usually assigned between 10-13 patients. Senior residents are expected to participate in the mentoring of the more junior residents. Three of the senior residents are selected by the facul-