

## **Marlene and Paolo Fresco Movement Disorder Fellowship Request for Applications (RFA)**

The Marlene & Paolo Fresco Institute Clinical Movement Disorders Fellowship program is now open for applications. This fellowship program is accepting applications on a rolling basis with applicants evaluated upon submission and qualified applicants receiving awards until the annual budget is exhausted. Successful applicants will be able to start the fellowship on or after March 1, 2025 and will receive support for clinical and research training at the Marlene and Paolo Fresco Institute for Parkinson's and Movement Disorders at New York University Langone Health (NYULH).

Successful applicants will participate in the international fellowship program between NYULH and a funded partner institution in Italy. The fellowship includes two years of support for training, with the first year at NYULH (\$70,000/year) and the second at a partner institution (nominated by the applicant) in Italy (\$35,000/year). Fellows completing the program may be eligible for further support through competitive grant opportunities offered by the Fresco Parkinson Institute in Italy.

This program is designed to support talented and motivated Italian citizens who have completed an M.D. degree and a four-year residency program in Neurology and Neurophysiopathology.

Successful candidates will benefit from state-of-the-art research facilities at NYU as well as from the extensive and thriving clinical-research community in New York City. Marlene & Paolo Fresco Institute Clinical Fellows will enjoy competitive salaries and benefits. The accepted fellow will receive a salary commensurate with standard compensation and taxation levels between the two countries.

Application documentation to be submitted:

1. CV ([NYU Format](#))
2. A one-page cover letter including a summary of the candidate's:
  - History and commitment to a clinical or research career in Movement Disorders
  - Potential to develop a successful career in Movement Disorders
  - Expectations about the training to be obtained with this fellowship
3. The application must include letters of references from at least two previous or current mentors (up to four mentors) that include their respective qualifications and previous experience.
4. A copy of all degree certificate(s) with grades and clinical licensure(s)
5. Information about the center that will host you in Italy (description of the center's overall structure and programs, ongoing research projects, mentor's CV, etc.).
6. A one-page description of research interests/possible research proposal.

7. Evidence of English language proficiency, as determined by one of the following:

- TOEFL score of at least 65 or IELTS score of at least 5.5 (completed within five years at the time of application submission)
- Signed documentation from an academic institution or English language school
- If none of the above documents are available, English language proficiency will be determined during an interview conducted by the sponsor either in-person, by videoconferencing, or by telephone

Prospective applicants should send the application documentation to [Monica.Norcini@nyulangone.org](mailto:Monica.Norcini@nyulangone.org), [Xavier.GuellParadis@nyulangone.org](mailto:Xavier.GuellParadis@nyulangone.org) and [Sara.Budar@nyulangone.org](mailto:Sara.Budar@nyulangone.org) by **11.59 pm NY time on October 20, 2024** in order to start by March 1, 2025. Applicants could suggest a preferred start date for their fellowship; however, the Marlene & Paolo Fresco Institute reserves the right to offer alternative start dates with the goal of identifying a mutually-acceptable start date for the fellowship. For any questions, please contact Dr. Monica Norcini.

The first year of the fellowship will be the one-year Movement Disorder Fellowship at the Marlene & Paolo Fresco Institute for Parkinson's and Movement Disorders at New York University School of Medicine and NYU Langone Health. The second year of the fellowship will be a supported clinical and scientific immersion fellowship at an Italian institute or university proposed by the applicant.

### **Movement Disorder Fellowship**

#### **Marlene and Paolo Fresco Institute for Parkinson's and Movement Disorders**

Department of Neurology  
NYU Grossman School of Medicine  
NYU Langone Health

**Clinical Program Director:** Steve Frucht, M.D.

**Associate Program Director:** Xavier Guell Paradis, MD, PhD

**Division Administrator:** Rodica Draghici

**Program Manager:** Monica Norcini, Pharm.D, Ph.D

**NYU Program Manager:** Sara Budar, Ph.D

**One-year fellowship at NYULH, non-ACGME-accredited**

**One-year fellowship in Italy**

### **BACKGROUND:**

The Fresco Institute (FI) for Parkinson's and Movement disorders in the Department of Neurology at NYU Langone Health administers a non-ACGME-accredited training program in Movement Disorders. The one-year program provides fellows with focused training that involves developing expertise in several specialties including: phenomenologically classifying movement disorders; neuroanatomy, pathophysiology, basic science and molecular biology, neuroepidemiology, and neuroimaging, as well as applying neuropharmacology and advanced therapeutic interventions (e.g., deep brain stimulation and botulinum toxin injections).

## **PROGRAM ADMINISTRATION:**

### **Duration of Training in NYULH: 1 year**

**Prerequisites for training:** Successful completion of a clinical residency in neurology or related specialties in Italy.

### **Responsibilities of Program and Program Director to the Fellow**

- The program will provide a supportive work environment, office space, and resources to conduct clinical and research training
- The program will provide salary support and benefits consistent with NYULH guidelines for Post-Doctoral Fellows.
- The director and faculty will provide appropriate supervision for all clinical activities
- The director will support the fellow in the successful completion of research project(s), and preparation for presentation/publication
- The director will provide timely evaluations to fellow

## **CLINICAL TRAINING:**

Objective of the curriculum is to develop expertise in diagnosing, treating, and managing patients with movement disorders. We provide comprehensive exposure to the following specialties within the Movement Disorders as recommended by the American Academy of Neurology (AAN):

- Clinical neurology: adult and pediatric movement disorders (Refer to Appendix A)
- Psychiatry for interface of movement disorders in primary psychiatric conditions, drug-induced movement disorders, and psychogenic movement disorders
- Neuroimaging: MR, CT, PET patterns in movement disorders
- Neuroepidemiology: epidemiological issues relative to movement disorders and clinical trial design
- Molecular biology, neuropharmacology, neurochemistry, and neurophysiology:
- Neurosurgery in the context of interventions for movement disorders
- Neurological education: teaching experience for physicians, health professionals, patients, and the public in movement disorders

### **Clinical experience**

The fellow will see patients with a variety of movement disorders at the FI for six half-day sessions per week. All patients seen by the Fellow will also be seen by a supervising movement disorders attending. The Fellow will be responsible for answering calls from patients they saw and to only make recommendation(s) under the supervision of an attending physician.

The fellow will also see patients at the NYULH Center for Neuromodulation where they will be trained in the assessment of candidates for deep brain stimulation (DBS) for the treatment of a variety of movement disorders. The fellow will discuss all the programming changes with the attending. By the end of the fellowship, the fellow should be very familiar with the post-operative management and long-term programming of the stimulators. There will be ample opportunity to observe in the operating room and learn the basics of intra-operative monitoring if interested.

### **Research training**

Fellows will have four half-day sessions per week dedicated for research. Fellows may be asked by faculty to assist with preparing case reports, case series, and review articles for publication. Timely completions of such projects are expected provided ample time has been provided.

Fellows are expected to submit an abstract (s) to at least one national or international conference during their fellowship.

Fellows will be expected to participate in the biannual International Fresco Symposium and present any ongoing research or clinical projects.

### **The clinical staff**

The following staff will provide clinical training for the fellow:

- Steven J. Frucht, M.D.
- Xavier Guell Paradis, MD, PhD
- Un Jung Kang, M.D.
- Patrick Drummond, M.D.
- Claire Miller, MD, PhD
- Betsy Thomas, M.D.
- Michael Pourfar, M.D.
- Giulietta Riboldi, MD, PhD

### **EDUCATION:**

The staff at the FI places a high value on continuing education in order to optimize the care that can be delivered to patients. To that end, the following items have been instituted to help address this goal and will be applicable to the Fellow as well.

- The fellow will be sponsored to attend at least one meeting per year and is strongly encouraged to attend the annual meetings of the American Academy of Neurology or the International Congress of the Society for Movement Disorders.
- The fellow will be sponsored to attend any meeting at which they are presenting, if funding is available.
- The fellow will join the FI clinical team for weekly meetings.
- The fellow will join the FI research team for weekly meetings to monitor and review research projects.

The fellow will be expected to attend the following **teaching conferences**:

- **Weekly video rounds** occur every Tuesday from 5PM – 6PM. Hosted by Dr. Frucht, interesting video case vignettes will be presented by the fellows from the previous week's patient encounters. Review of phenomenology, differential diagnoses, and treatment approaches will be discussed in an open forum with movement disorder's faculty, residents, fellows, and students.

- **Journal Club occurs every Thursday Morning**

For the Journal Club, pivotal and seminal paper publications in high impact journals will be studied and presented by the Fellows. Journal club is expected to help build and solidify confidence in fellows' skills to critically evaluate the medical literature.

Basic Principles of Research will also include written educational material and will cover introduction to clinical research methods and ethical conduct of research.

Pre-specified deliverables: fellows are required to complete the Collaborative Institutional Training Initiative (CITI) tutorial in human subject research. Fellows are also expected to effectively contribute to their research group's projects to warrant a lead author abstract submission to a regional/national meeting.

Optional deliverables: to reinforce knowledge in their field of study or interest, fellows are encouraged to write a curated literature review paper, abstract for an international meeting, and/or prepare an original manuscript for publication.

Incorporating research experiences and additional research methods coursework into the fellowship will encourage fellows to explore and define their interest in clinical/translational research while building their skills and enhancing their confidence.

### **Core competencies**

#### Patient Care:

The fellow will demonstrate competency in:

- Obtaining an accurate and comprehensive history in patients with Parkinson's disease or other movement disorders
- Performing the movement disorder exam
- Understanding the differential diagnosis, laboratory and imaging investigations, and management of Parkinson's disease and other movement disorders
- Determining the appropriate candidates with Parkinson's disease, tremor and dystonia, for deep brain stimulation
- Understanding the basic principles of rehabilitation of the Parkinson's disease patient
- Developing and implementing independent clinical plans for patients with Parkinson's disease and other movement disorders

#### Clinical Evaluation of Movement Disorders (adapted from AAN guidelines)

- Skills to recognize and document patterns of clinical findings in movement disorders when the patient is at rest
- Skills to perform a complete general neurological examination
- Skills to perform a focused examination for movement disorders including turning, rest, assuming a posture, performing a task

- Skills to recognize and document patterns of clinical findings in movement disorders when the patient maintains a posture
- Skills to recognize and document patterns of clinical findings in movement disorders when the patient executes a task
- Skills to evaluate tone
- Skills to evaluate walking
- Familiarity and ability to apply standardized rating scales for movement disorders
- Skills to recognize and document non-neurological findings typical of movement disorders
- Utilizing the Unified Parkinson's Disease Rating Scale (UPDRS) and other relevant movement disorders scales

### **Practice Based Learning and Improvement**

#### The fellow will:

- Research pertinent literature on interesting cases
- Present cases of educational value at weekly video rounds
- Participate in clinical, research, and educational conferences of the FI
- Prepare 1-2 lectures that will be presented to neurology residents on specific topics in movement disorders
- Prepare lecture(s) for medical students
- Write consultation letters and other notes as needed in the electronic medical record
- Familiarize him/her with the scope of FI research activities and make appropriate referrals for studies
- Be available to present Parkinson's related information to patient groups

### **Professionalism**

#### The fellow will:

- Demonstrate respect for patients and all center personnel
- Respond to communication from patients and health professionals in a timely manner
- Order and follow-up on appropriate laboratory and diagnostic tests in a timely manner
- Document the patient's course in the medical records in a timely fashion
- Demonstrate ethical behavior, integrity, honesty, compassion, and confidentiality in the delivery of care

### **Interpersonal and Communication Skills**

#### The fellow will:

- Communicate effectively with the FI staff of physicians, nurses, social workers, and administrators
- Communicate effectively with referring physicians
- Interact appropriately and compassionately with patients

**Monitoring of Fellow**

Formal evaluations will occur every six months following direct observations of the fellow and discussions with other teaching staff involved in the fellowship.

Review of the faculty evaluations will be conducted one-on-one between each fellow and Drs. Frucht and Guell Paradis to reaffirm basic knowledge, patient management skills, understanding of research methodology and the academic process of writing for peer-reviewed journals, lecturing and teaching. Constructive performance feedback will be provided to the fellows. Evaluations will be reviewed by faculty and the trainee. A permanent record of the evaluation will be maintained and be accessible to the trainee and authorized personnel.

Fellows will be given the opportunity to review the program and faculty through New Innovations on a semi-annual basis. This feedback will be shared with faculty in an effort to promote transparency and ongoing programmatic growth.

## APPENDIX A

### Hypokinetic Movement Disorders

- Parkinson's Disease
- Parkinsonism-plus syndromes
- Multiple system atrophy, Progressive supranuclear palsy, Cortico-basal Degeneration
- Lewy body dementia
- Stiff person syndrome

### Hyperkinetic Movement Disorders

- Huntington's disease
- Other forms of chorea
- Sydenham's chorea, Chorea gravidarum, Lupus chorea, Tardive dyskinesia
- Primary dystonia
- Secondary forms of dystonia
- Hallervorden-Spatz disease
- Gilles de la Tourette syndrome
- Other primary tic disorders
- Secondary tic disorders
- Stereotypies seen in primary psychiatric illnesses
- Stereotypies seen in neurological conditions
- Painful legs/moving toes
- Action and non-rest tremors
- Essential or familial tremor
- Physiological tremor
- Drug-induced tremors, and tremors of metabolic and medical illnesses
- Rubral tremor
- Tremors seen in cerebellar disorders
- Wilson's disease
- Hemifacial spasm
- Essential Myoclonus
- Secondary myoclonus
- Startle syndromes
- Gait disorders
- Cerebellar ataxias
- Paroxysmal dyskinesias
- Restless leg syndrome
- Akathisia
- Tardive syndromes