## **APPLYING to the PROGRAM**

## Who can apply?

MDs and MD-PhDs (or equivalent) who are within 2 years of finishing their clinical training in any clinical neuroscience specialty can apply. US citizens, non-citizens nationals, permanent residents. Less than 1 yr as an NRSA trainee when beginning the Program.

## When can I apply?

You can apply as early as 2 years before finishing your clinical training (i.e. residency or fellowship). We prefer that you apply early so you can begin preparations for your career and the Program. The minimum amount of time between application and starting is  $\sim 4$  months.

#### What are the criteria for selection?

We are looking for clinicians who show exceptional promise as independent physician-scientists in translational research in neurobiology of disease. Selection criteria include: 🌣 motivation to pursue an academic career in translational research in neurobiology of disease 🌣 clarity of career objectives 🌣 letters of recommendation 🌣 prior research experience 🌣 performance in clinical training 🌣 publication record.

## What is the application procedure?

Look at the list of Penn faculty who are affiliated with our program and figure out who you would like to work with. (Please note that training in other Penn labs is possible, so feel free to contact any faculty member who you feel can train you in laboratory-based translational research in neurobiology of disease.)

Contact that faculty member, or members, to discuss a position in their lab as part of the training program.

Send your CV, career statement, summary of research experience and 2 letters of recommendation (from clinical and/or research mentors) to Dr. Locke. The potential Penn mentor also will contact us and let us

know that you are a candidate for the program. We will be able to let you know within a month or two whether you have been accepted into the program. If you are accepted, you and your mentors together will develop a written research proposal describing the work you will undertake while in the Program. Your written research proposal must be completed and approved by the Steering Committee before you can begin as a trainee.

## **Program Leadership**

Program Director

Marc A. Dichter, MD, PhD dichter@mail.med.upenn.edu; 215-349-5166

#### Steering Committee

Robert Neumar, MD, PhD; David Lynch, MD, PhD Michael Selzer, MD, PhD

## Program Coordinator

Rachel E. Locke, PhD rlocke@mail.med.upenn.edu; 215-573-1729

#### Website

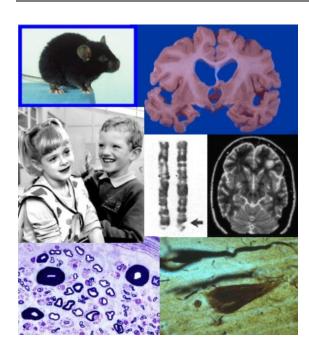
http://www.med.upenn.edu/translational

# Program Faculty All are located on the Penn campus in Philadelphia, Pennsylvania

Marc Dichter, MD, PhD; Steven Arnold, MD; Rita Balice-Gordon, PhD; Jean Bennett, MD, PhD; Wade Berrettini, MD, PhD; Amy Brooks-Kayal, MD; Maja Bucan, PhD; Peter Crino, MD, PhD; John Duda, MD; Joshua Dunaief, MD, PhD; Francisco González-Scarano, MD; Joel Greenberg, PhD; Hakon Hakonarson, MD; Robert Kalb, MD; Dennis Kolson, MD, PhD; Virginia M-Y Lee, PhD; David Lynch, MD, PhD; David Meaney, PhD; Robert Neumar, MD, PhD; Steven Scherer, MD, PhD; Michael Selzer, MD, PhD; J. Paul Taylor, MD, PhD; John Trojanowski, MD, PhD; Frank Welsh, PhD.



## Research Fellowships~ Translational Research in Neurobiology of Disease



Our training program is affiliated with the Hospital of the University of Pennsylvania and the Children's Hospital of Philadelphia. We look forward to hearing from you!

## **OVERVIEW**

#### **HIGHLIGHTS OF OUR PROGRAM**

- Candidates are MDs or MD-PhDs who have finished clinical training in any clinical neuroscience specialty and desire to pursue academic careers as physician-scientists in laboratory-based translational research in the neurobiology of disease. Trainees will engage in closely mentored, laboratory-based research and professional development activities.
- Two experienced faculty mentors will guide each trainee's research development. Mentors will be matched with trainees to offer complementary expertise, in terms of basic research and clinical experience. Each trainee will receive individualized mentoring and instruction in areas including experimental design, data interpretation, and specific investigative techniques.
- Trainee research will focus broadly on neural injury, neurodegeneration and neuroprotection for acute and chronic neurodegenerative diseases, including stroke, traumatic brain injury, spinal cord injury, Alzheimer's disease, Parkinson's disease, motor neuron diseases, status epilepticus, retinal degeneration, depression, behavioral disorders and autism. Projects will be directed toward understanding the genetic, molecular and /or cellular pathophysiology and the development of strategies for prevention, treatment, or cure.

## OVERVIEW, cont.

## AS A TRAINEE, YOU CAN EXPECT TO

- Devote full professional effort the Program; most will be spent in laboratory research, with up to  $\sim 20\%$  in clinical activities.
- Have access to a minimum of 22 laboratories within the core group of trainers
- Collaborate with at least two groups engaged in complementary research
- Receive didactic training in neurobiology of disease
- Attend special workshops on current topics in translational research, including: clinical trials design and conduct; how the pharmaceutical industry acquires and develops new therapeutic agents from academic centers; interaction with regulatory bodies; ethical and regulatory components of human research; practical aspects of new drug, or treatment/device, development; animal models of neurodegenerative diseases; proof-of-principal clinical trials
- Learn effective writing and presentation skills
- Learn how to obtain independent funding and how to develop and run a successful laboratory
- Attend a special "TRNBD" journal club and become skilled at interpreting and critiquing the primary literature
- Network with senior faculty active in translational research in neurobiology of disease as well as with others new to the field

## **FAQs**

## Which Penn faculty serve as mentors?

The core faculty in the Program represent 9 departments at Penn; training in other Penn laboratories is possible. Please see list on other side.

## How long will I spend in the Program?

The expected duration is 2 years; you may stay longer if circumstances warrant.

## How will my time in the Program be spent?

The vast majority of your time will be spent in laboratory research. You also will attend didactic trainings in neurobiology of disease and translational research. Targeted professional development workshops will give you the skills you need to write well, communicate your results, obtain funding, and manage a lab.

## Will I get paid?

Yes. You will receive the NIH-level postdoctoral stipend commensurate with your experience. Your clinical department may provide additional compensation for your clinical work.

## Can I still see patients during my training?

Yes. You likely will spend  $\sim 1$  day per week in clinical activities (this is somewhat flexible); this will help you maintain your clinical skills while gaining insights that you can use to generate interesting hypotheses to fuel your research program.

## At Penn you can be certain you will get the training you need to succeed as an independent physician-scientist in translational research in neurobiology of disease.

We designed our training Program specifically to lower the hurdles that aspiring clinician-scientists face as they attempt to navigate a difficult career path: you will be able to devote full effort to research while receiving a salary, and you will be mentored closely by two experienced faculty. Because you can be accepted into the Program well before your clinical training ends, you can begin to prepare early for your future career. Your mentors and the Steering Committee will make every effort to help you network with others in the field and form collaborations. You will be immersed in a research culture where senior and junior faculty, fellows, postdocs and students regularly interact and where state-of-the-art techniques are readily available You will develop an independent research project that you can take with you when you transition to independent funding. Your mentors and the Program staff will help you write for your first independent funding award.