NYU Department of Neurology
Neuro-Epidemiology Division

- Neuro-Epidemiology is the investigation of populations and groups with neurological conditions. The NYU Department of Neurology has grown tremendously during the past three years, and has strength and depth in all of the major sub-specialties. These include general neurology, multiple sclerosis, autoimmune disorders, neuro-ophthalmology, autonomic disorders, neuromuscular disease, neurogenetics, Parkinson’s disease and movement disorders, headache and cognitive neurology/Alzheimer’s disease. There is a brand new division of Global Health in Neurology, and NYU Langone Medical Center has one of the world’s premiere multidisciplinary concussion centers. Bringing all of these important content areas and sub-specialties together is Neuro-Epidemiology.

- The Neuro-Epidemiology Division was created to provide continuity between the disease-related divisions in neurology with regard to departmental research strategy, clinical research content and methodologies, and training the next generations of clinician-investigators. The Division also has impacts within the larger School of Medicine and NYU Langone Medical Center through collaborations with the Concussion Center, Neuroscience and senior leadership.

- Faculty membership of the Division is diverse, and includes individuals from most of the clinical areas and divisions. A common thread includes the fact that most faculty members have completed or are pursuing a master’s level or higher degree in epidemiology or public health. A biostatistician from the Department of Population Health (NYU School of Medicine’s department that encompasses epidemiology and biostatistics) also works closely with the Neuro-Epidemiology division and the faculty of the Department of Neurology. Division faculty include, but are not limited to, the following members:
  - Laura Balcer, MD, MSCE (vice chair, multiple sclerosis, concussion)
  - David Younger, MD (neuromuscular disease)
  - Mia Minen, MD, MPH (headache)
  - Aaron Lord, MD (neuro-intensive care, completing MSCI degree at NYU)
  - Bernadette Boden-Albala, PhD (stroke epidemiology, health disparities research, associate dean at NYU School of Global Public Health)
  - Jacqueline French, MD (epilepsy, guidelines and practice parameters, trials)
  - Daniel Friedman, MD (epilepsy, databases, completing MSCI at NYU)
  - Jori Fleisher, MD, MSCE (health literacy, quality and safety, Parkinson’s)
  - Sujata Thawani, MD, MPH (neuromuscular disease, measurement scales)
  - Thomas Wisniewski, MD (associate chair for research, Alzheimer’s disease)
  - Mengling Liu, PhD (Interim Director, Biostatistics, Department of Population Health)
NYU is unique in having a Division of Neuro-Epidemiology within the Department of Neurology. There are close links to the Department of Population Health (several faculty have secondary appointments) and to the NYU School of Global Public Health. These features enable the neuro-epidemiology division to directly collaborate with and serve the needs of faculty and, even more importantly, trainees within the clinical department. Supporting the clinical mission of the department by providing research expertise and training is at the center of the neuro-epidemiology division’s focus.

Affiliations with the Department of Population Health ensure a unique emphasis on training and providing expertise in clinical research methodologies and study design. This differs a bit from the public health approaches that characterize other neuro-epidemiology programs in the U.S., many of which are housed within schools of public health.

Goals of the Neuro-Epidemiology Division are several-fold, and include the following key areas: 1) providing methodologic expertise in clinical research for faculty and trainees in the Department of Neurology (study design, biostatistical support, formulating research questions, interfacing with the Institutional Review Board [IRB] and Sponsored Programs [SPA] for protocols and grant submissions, ethical/responsible conduct of research); 2) training of faculty, residents, fellows, and research coordinators in clinical research methods and logistical elements as listed above (this includes the Patient-Oriented Research Curriculum [PORC], a one-of-a-kind program in the U.S. and perhaps worldwide for teaching residents and other neurology trainees); 3) supporting neurology faculty and coordinators in the execution of research by providing hands-on courses in grant preparation (quarterly Specific Aims Club, monthly K-Club [for faculty submitting NIH K-awards or first faculty grants]); 4) serving as methodologic mentors for trainees at all levels pursuing scholarly projects, master’s degrees, and K-award applications; 5) creating a shared “toolbox” of web resources for departmental faculty, coordinators and staff.

The Neuro-Epidemiology Division in Neurology at NYU is also unique in emphasizing training and development of young clinician-investigators. This is in concert with the overall departmental research strategy of cultivating a pipeline of young investigators as the focal point of our research mission. As such, there are no less than seven junior faculty who are currently applying for NIH K-awards, the first faculty grants for clinical research that provide substantial (>75% effort) protected time for research and related training with the support of content and methodologic mentors. At younger levels of training, Dr. Wisniewski’s team has already submitted an NIH T32 training grant application to support fellows who seek specialized neuro-epidemiology and basic science training in neurodegenerative disease. Dr. Balcer’s team, in collaboration with the Department of Population Health and the School of Global Public Health, will submit a T32 training grant application in May 2016 that focuses on epidemiologic and global health research in neurology. Dr. Balcer also collaborates with the School of Medicine Vice Deans and Associate Deans for research in submitting grants and implementing programs that facilitate young investigators in their career development (Doris Duke Clinical Research Foundation,
for example). In January 2016, Drs. Balcer and Wisniewski will submit an R25 grant to the NIH to support a 6-12 month intensive research experience for NYU neurology residents. Thus, all levels of training are emphasized and valued as indispensable to cultivating the collective next generation of researchers.