Postdoctoral Position in Cell Biology/Neuroscience  
Rutgers, The State University of New Jersey  
Newark, New Jersey, United States

The Hilfiker laboratory has an opening for a postdoctoral position funded by a grant from the Michael J. Fox Foundation (MJFF) and from intramural funds.

We are interested in studying the molecular mechanisms of neurodegeneration in genetic forms of Parkinson’s disease (PD). PD is an incurable neurodegenerative disorder currently affecting more than 5 million people worldwide. Causative mutations in LRRK2 are the most common form of familial PD, and variations increase risk for sporadic PD, suggesting that LRRK2 is key to the entire PD disease spectrum. LRRK2 is a protein kinase, and all currently identified pathogenic mutants increase the kinase activity. Therefore, LRRK2 kinase inhibitors, which are currently in various phases of clinical trials, may be beneficial therapeutics at least for patients suffering from LRRK2-related PD. The substrates phosphorylated by LRRK2 cause alterations in centrosome-related events. We are interested in understanding the mechanism(s) underlying such LRRK2-mediated cellular alterations with the goal of identifying novel disease-modifying therapies, and to determine whether these cellular alterations can be employed for patient stratification purposes.

Job description:

We are seeking highly motivated postdoctoral candidate with a background in high-resolution cell biological approaches. Under the supervision of the PI, the candidate will investigate centrosome-related alterations and phosphorylated LRRK2 substrate localization in cells from healthy control and PD patients (both symptomatic and asymptomatic) due to various mutations in LRRK2. The aim is to develop sensitive cellular assays in peripheral cells which correlate with LRRK2-PD, and thus may be efficiently translated into screening larger cohorts of sporadic PD patients who may also benefit from LRRK2 kinase inhibitor treatment, as well as to gain novel insight(s) into mechanisms underlying both genetic and sporadic PD.

The postdoctoral researcher will have access to numerous core facilities, including a microscopy facility with confocal microscopes and tissue culture facilities. Being located in a medical school, we are surrounded by a large and multidisciplinary neuroscience and cell biology community with a strong interest in translating our findings to the clinic. As part of the MJFF LRRK2 Biology Consortium, we actively collaborate with both national and international research groups on understanding PD pathomechanisms with the goal of identifying disease-modifying therapies for this devastating disorder.
Candidate’s profile:

- Should have a PhD in the fields of Neuroscience, Cell Biology, Biological Sciences, or closely related fields
- Should have a demonstrated record of achievements and publications
- Should have excellent communication skills and the ability to work in a collaborative environment
- Should be able to perform independent research and motivated to develop his/her own research ideas
- Must have experience in cell biology (primary cells and cell lines), high-resolution image acquisition and image analysis
- Experience with in vitro culture of murine neurons and astrocytes is welcome, but not required

The contract will be initially for 24 months, with possibility of extension dependent on grant funding. The salary and related benefits are in-line with Rutgers University regulations.

Motivated candidates should send a CV, a letter outlining their interest/motivation, as well as the names/contact information of two references via email to:

Sabine Hilfiker, PhD
sabine.hilfiker@rutgers.edu

Application deadline: January 15th, 2020

Relevant publications:


