

2015

Young Investigator Award Recipients

LEI XING is a fifth-year postdoctoral fellow at the University of North Carolina, School of Medicine.

MAPK/ERK Hyperactivation on Neural Circuit Development in NF1

Dr. Xing will test the effect of layer V neuron activation in a genetic mouse model with upregulated ERK/MAPK signaling, which should mimic the effect of reduced neurofibromin activity. He hypothesizes that this may help us understand, and potentially be a marker for, the presence of NF1 features such as cognitive and psychomotor delays.



The Children's Tumor Foundation is pleased to announce the funding of six Young Investigator Awards (YIA) for 2015. The YIA is the Foundation's oldest research award program and serves to advance understanding of the biology of NF1, NF2, and schwannomatosis. Of the six awardees, three are pre-doctoral students and three are post-doctoral fellows. The title of the awardees' application indicates the focus of the research that will be funded through this award.

MARISA ANN FUSE is a predoctoral student at the University of Central Florida.

In Vivo Testing of FDA-Approved Drugs for NF2

The project leverages the work already being done in screening drug libraries, focusing on the potential PI3K and mTOR inhibitors that kill/suppress NF2-deficient schwannoma cells in vitro. This student will then test these drugs for effectiveness.



EBRAHIM TAAHEI SEYEDMOHAMMAD is a predoctoral student at Vanderbilt University.

The Inhibitory Role of Integrin beta3 in NF1 Impaired Osteogenesis

This student will use a tibial dysplasia mouse model to test whether the increased integrin beta3 that he found in NF1-deficient osteoprogenitor cells prevents them from differentiating into osteoblasts, leading to the failure of NF-related bone lesions to heal. He will subsequently test whether knocking down integrin beta3 production can lead to increased fracture healing.



VANESSA MERKER is a predoctoral student at Massachusetts General Hospital.

Coordinating Care for Patients with Schwannomatosis - Assessing the Field and Identifying Opportunities for Improvement

This student will investigate how schwannomatosis patients navigate the health care system with the long term goal of educating the medical community and patient population to improve patient access to appropriate medical care.



DIPAK N. PATIL is a third-year postdoctoral fellow at the Scripps Research Institute.

Understanding the G Protein Coupled Receptor (GPCR) Driven Interaction of NF1 with G Proteins

This project will perform experiments based on observations that activated GPCRs can inhibit neurofibromin's GAP activity by binding G protein subunits, which will lead to better understanding of the molecular mechanism involved in this important signaling regulation. This could lead to new targets for NF1 therapies.



AUBIN MOUTAL is a second-year postdoctoral fellow at the University of Arizona (Tucson).

Molecular Targeting of Migraine in the NF1 Population.

Dr. Moutal will study the interaction of the CRMP2 protein and neurofibromin, to determine whether its perturbation (by reduction of neurofibromin) could be related to migraine in patients with NF1. This work could lead to therapies specifically effective in NF1 or be of general use for migraine headache (or potentially be useful in understanding other NF1 features).

