

Postdoctoral Training Opportunity at Michigan Medicine

Summary

The Lawrence lab (Cardiology) and Murphy Lab (Molecular & Integrative Physiology; Michigan Neuroscience Institute) have recently received NIH funding to study the role of cerebral microvascular dysfunction in the context of Alzheimer's disease. We have recently found that there is significant vascular remodeling occurring concurrently with amyloid plaque development and cognitive impairment in the 5XFAD mouse model of amyloidogenesis. Our preliminary data suggests that inhibition of plasminogen activator inhibitor 1 (PAI-1) may ameliorate the pathogenic changes in vascular architecture and improve cognitive function in aged 5XFAD mice. An overview of the project can be found [here](#).

Required Qualifications

Successful candidates must hold a PhD in neuroscience or physiology and have previous experience using mice as a model system to study 1) neurological/psychiatric disease states or 2) cerebrovascular physiology. Experience with confocal microscopy and advanced imaging methodologies is highly desired.

Candidates should also have experience (or a desire to learn) how to assess cognitive function in mice. A strong publication record appropriate with time in training is expected. Because this is a collaborative project, applicants must be highly organized, strongly motivated and possess strong communication skills and be able to work within a team based environment.

Training Opportunities

While the successful candidate would be focused on the specific project outlined above, ample opportunities exist for additional training both methodological (neurophysiology, calcium imaging, vascular biology) and conceptual (both labs work in multiple disease domains). Successful candidates will receive personalized mentoring and will also be encouraged to expand their own mentoring skills.

Why Michigan Medicine?

Michigan Medicine is one of the largest health care complexes in the country. Based on the number of scientific articles published in 82 high-quality natural-science journals, Nature Research ranks Michigan Medicine #3 of 100 leading healthcare institutions worldwide for scientific research in 2020.

Biomedical research at Michigan Medicine leverages our close association with the College of Engineering. In addition, our close physical proximity to the College of Literature, Science, and the Arts (LS&A) fosters rich collaborations and facilitates laboratory training opportunities for the 30,000+ undergraduates within LS&A.

Finally, Ann Arbor was recently ranked #2 out of 100 "Best Places to Live" by [Livability](#).