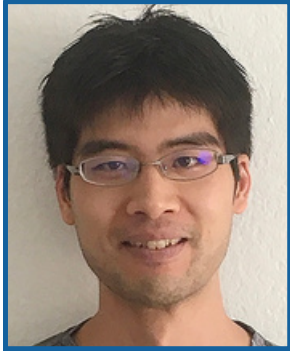




NATHAN SHOCK CENTERS
OF EXCELLENCE IN THE
BASIC BIOLOGY OF AGING

PILOT AWARDEE SPOTLIGHT



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Albert Einstein College of Medicine

2022 Einstein NSC Pilot Award

Restoring proteostasis through small molecule-induced degradation of soluble epoxide hydrolase

How did you become interested in aging?

Healthy aging, extending life with well-being, is a fundamental human aspiration and dream of human beings. I am interested in the potential for developing drugs that promote healthy aging by targeting the biological processes that underlie aging and its related diseases.

Briefly describe your project in non-scientific terms. What questions are you trying to answer?

Can we restore proteostasis, an important hallmark of aging, using our drug candidate molecules?

What previous research or experience informed the development of this proposal?

I developed the first in class small molecule degraders of soluble epoxide hydrolase, an important enzyme that regulates lipid metabolism, proteostasis, and aging. Recent studies have shown that this enzyme has detrimental effects in age-related diseases. Thus, I wondered if we could use our drug candidates for restoring the aging process.

What's exciting about your project's potential impact?

Our research has the potential to lead to the development of new drugs against Alzheimer disease, diabetes, obesity, heart disease, age-related macular degeneration, and other age-related diseases.

If your project is successful, what is the next step?

We will test the developed compounds in animal models of aging-related diseases.

How has support from and collaboration with the Nathan Shock Centers helped further this project and/or your research overall?

The support helped us to develop next-generation compounds with improved potency and stability and test their efficacy. We are currently filing a patent application as well as preparing a manuscript to report our exciting findings.