



KENNY NGUYEN

BS in Neurobiology and Physiology with a minor in Psychology, Purdue University (2018); MEd in Mind, Brain, and Education, Harvard University (2021); MD, Larner College of Medicine, University of Vermont (pending)

What have you been doing since the publication of your article in JPUR, volume 5?

After graduating from Purdue in 2018, I decided to gain more clinical experience by working at INscribe, a scribing company local to Lafayette, Indiana. During my two-year tenure as a medical scribe, I accompanied 60 physicians in the emergency, hospitalist, head and neck surgery, gastroenterology, family medicine, and intensive care departments across four Indiana University Health Hospitals. I now serve as hiring director for Indiana Emergency Care, a private practice physician group and parent company of INscribe. Additionally, I recently completed a Master of Education from Harvard, and am currently attending the Larner College of Medicine.

What are your career goals?

I aspire to become a physician and educator. Specifically, I would like to specialize in head and neck surgery after obtaining an MD. Helping to care for patients as a scribe showed me the benefits of integrating the philosophies and humanistic concepts of education into medicine; to unify my interests in medicine and education, I would like to eventually work at a university-affiliated medical center to both practice medicine and teach medical students.

How did the research you did as an undergraduate at Purdue impact your current endeavors? What is the value of undergraduate research?

The lessons I learned from research extend beyond scientific inquiry. Undergraduate research was the first opportunity I had to apply what I learned from the classroom directly into tangible and impactful work. I became a critical and creative thinker, team player, and communicator to both scientific and community audiences. Research also showed me that science is not an individual endeavor but rather the result of collaboration and human synergy. These skills will be valuable in many career paths and domains of life outside of science.

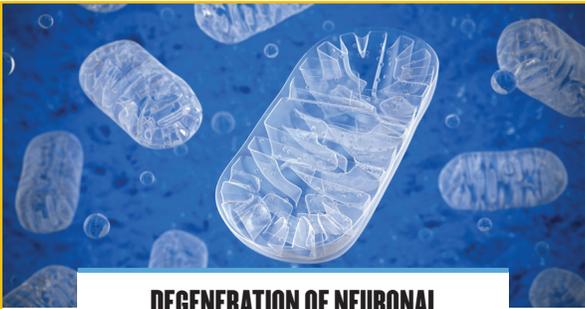
How did the faculty mentor relationship impact you during your time at Purdue?

What I remember about my time at Purdue is not my grades or how stressed I felt during exams but rather the meaningful relationships I formed with my faculty mentors. Dr. Peter Hollenbeck and Dr. Daniel Suter, my research advisors, as well as my course professors Dr. Kimberly Kinzig and Dr. Zahra Tehrani, all encouraged my scientific exploration and guided me through my career decisions. They always believed in me, even when

I myself was uncertain. My faculty mentors continue to provide invaluable mentorship without which I would not be where I am today.

How did the experience of publishing an article in JPUR benefit you? What advice would you give to other undergraduates at Purdue who are interested in contributing to the journal?

JPUR is a rare and unique opportunity for undergraduates to publish their research; I cannot encourage students enough to



DEGENERATION OF NEURONAL MITOCHONDRIA IN PARKINSON'S DISEASE:
Mitochondrial Turnover in Neuromuscular Junctions of Parkin Mutants

Student Author



Kenny Nguyen is a junior majoring in neurobiology and physiology and minoring in psychology at Purdue University. He has been working in the Hollenbeck Lab since 2015, studying the degeneration of mitochondria in neurons and their implications in Parkinson's disease. For the summer of 2015, he was selected as a Summer Undergraduate Research Fellowship (SURF) intern, and he received the William H. Phillips Undergraduate Research Grant from the Department of Biological Sciences. He has also interned at the National Institutes of Health, researching mitochondrial trafficking in neurodegenerative diseases. Nguyen plans to either pursue an MD, a PhD, or a career in the medical field.

Mentors



Peter H. Hollenbeck is a cellular neurobiologist whose laboratory has for many years studied the life cycle of mitochondria in the nervous system. He is a professor of biological sciences and is the associate vice provost for faculty affairs. He received his PhD from

UC Berkeley, conducted postdoctoral research at the MRC Cell Biophysics Unit in London, England, and was an assistant and associate professor at Harvard Medical School before joining the Purdue faculty in 1997. He has received both the Top Teacher award from the College of Science and the Charles B. Murphy Outstanding Undergraduate Teaching Award.



Hyun Sung received his BS and MS in life sciences at Hanyang University and is currently a PhD candidate in neuroscience and physiology at Purdue University. He is interested in mitochondrial dynamics in Parkinson's disease and is working on mitochondrial axonal transport with organelle turnover in *Drosophila* motor neurons.

Nguyen, K. (2016). Degeneration of neuronal mitochondria in Parkinson's disease: Mitochondrial turnover in neuromuscular junctions of Parkin mutants. *Journal of Purdue Undergraduate Research*, 6, 41–48. <http://dx.doi.org/10.5703/1288284316155>

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take advantage of this opportunity. During the publishing process, I learned how to organize and communicate my findings and the importance of peer feedback. These skills greatly benefited me when I was drafting my manuscript for the *Journal of Neuroscience* a year later. Publications are also a great stepping-stone for securing additional opportunities. Mine was definitely instrumental in my acceptance to a research fellowship at the National Institutes of Health as well as to graduate and medical schools.

What advice would you give to other undergraduates at Purdue who are interested in doing research?

I highly recommend research for any student, freshman to senior, who is interested in hands-on experience and innovation. Particularly if you are interested in pursuing higher education after undergrad, they love to see it. Research is a fantastic opportunity to grow your skill set for any type of job and concurrently contribute to the greater body of knowledge. And if you are interested, don't be afraid to reach out to professors about how to get involved. I have never had a professor not be interested in sharing their work with me when I expressed interest: after all, it is their life's work!

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