

Alumni spotlight: Research, service define graduate's Tulane experience

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Recent Tulane graduate Navya Murugesan is spending part of her summer conducting research with Tulane clinical health psychologist Michael Hoerger.

Navya Murugesan graduated from Tulane University in May with a bachelor's degree in neuroscience, but she couldn't bring herself to part ways with her beloved alma mater. There was still work to be done — in the form of research with Michael Hoerger, a clinical health psychologist and associate professor at Tulane whose work aims to support quality of life in adults with cancer.

Undergraduate and graduate researchers often work with professors to advance knowledge in their field of study. Student researchers' specific tasks can vary depending on the discipline, the nature of the research project and their level of involvement.

A former Goldwater Scholar, Newcomb Scholar and Louisiana Legislative Scholar, Murugesan has worked in Hoerger's lab since July 2021, just before the start of her sophomore year. As a research assistant in the Tulane Psycho-Oncology Research Program, she has conducted clinical research that aims to reduce the emotional burden of cancer, particularly for patients in the Deep South. She's also assisting Hoerger on his research around long COVID.

"That research evolved into an independent study on long COVID and the symptom of brain fog (and other cognitive effects)," said Murugesan, a native of India who grew up in Baton Rouge. "I thought it was very relevant to my college experience, which started during the pandemic."

Hoerger said Murugesan is finishing up a paper based on her independent study and will look to get it published in a medical journal. Murugesan, who also minored in sociology, has previously co-authored multiple manuscripts on such topics as financial toxicity of cancer treatment, pandemic anxiety and the mechanisms of palliative care.

"She's a great student who will likely go to medical school and be very successful on that path," Hoerger said. "She's a real go-getter who is good at finding opportunities."

Her work with Hoerger is one of many research experiences for Murugesan since she entered college in 2020. In 2021, she served as a Summer Research Scholar at MD Anderson Cancer Center. Her research in the Department of Genomic Medicine led to the publishing of a paper, as first author with a post-doctoral mentor, in *Molecular & Cellular Oncology*.

In the summer of 2022, she worked at the Children's Hospital of Philadelphia (CHOP) as a CHOP Research Institute Summer Scholar. And from January to April 2022, she worked virtually as a research assistant at the Stanford University School of Medicine, where she co-authored a chapter of an immunology textbook for medical

students, “The Handbook of Cancer and Immunology.”

“It was one of the most tedious research tasks I had every pursued but incredibly rewarding,” Murugesan said.

During her four years at Tulane, Murugesan balanced research with campus leadership positions, community service and work experiences. Her leadership roles included resident advisor, vice president of programming for the Residential Hall Association and treasurer of The Research Ambassadors. Since June 2017, she has also worked as a national spelling bee coach, having competed in various national competitions herself.

Off campus, Murugesan volunteered at Children’s Hospital, the New Orleans Medical Reserve Corps, The Prism Project of Greater New Orleans and The Willow School. At Willow, she worked with students in a biomedical innovations course, helping them develop their first-ever independent research projects in preparation for a collegiate research symposium presentation.

Hoerger said Murugesan’s experience demonstrates the importance of student research in both graduate school and career preparation. Engaging in research can also help students develop critical thinking and analytical skills and contribute to the advancement of a particular field.

“It’s really valuable to get these experiences early on, because it will open the doors to future research opportunities,” he said.

Murugesan’s advice for first-year students interested in research is “to not only chase their research dreams but to also take active steps to pursue their goals. At Tulane, our faculty’s warmth extends beyond the classroom, as professors eagerly guide students toward research opportunities.”

She added, “I genuinely loved all of my summer research program experiences, so I would highly advocate for freshmen to explore those avenues early on, as applications usually open during winter break.”

After her work with Hoerger ends this summer, Navya will pursue a one-year rheumatology research fellowship at the Yale School of Medicine, where she will

explore scleroderma in one lab and bridge fields of global health with rheumatology in another. She hopes to matriculate to medical school in fall of 2025, aiming to integrate research into her medical career to advocate for and enhance patient outcomes.

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