

Graduate Student in Cancer Biology Receives Early-Career Recognition and Awards

A national fellowship grant and a young investigator award at a major medical conference highlight the early achievements of a Sylvester Comprehensive Cancer Center trainee in the Sheila and David Fuente Graduate Program in Cancer Biology at the University of Miami Miller School of Medicine.



Third-year Ph.D. candidate Clara Troccoli, whose research focused on treatment of advanced prostate cancer.

Supervised by faculty member Priyamvada Rai, Ph.D., a Sylvester member and associate professor in the Department of Medicine's Division of Medical Oncology, third-year Ph.D. candidate Clara Troccoli recently received a fellowship from the National Institutes of Health's National Cancer Institute.

"Clara receiving this prestigious NIH F31 Fellowship on the first try does not surprise me. I witness her dedication and drive in everything she does in my lab," Dr. Rai said. "Her commitment to cancer research is inspiring to see in our next generation of investigators, and this training fellowship will help boost her efforts even further."

Troccoli, an investigator in Dr. Rai's Sylvester-affiliated cancer biology lab, is leading a research project to learn whether activation of a novel signaling pathway can be enhanced through repurposing non-cancer-related, FDA-approved drugs. The goal is to limit castration-resistant prostate cancer (CRPC), an incurable and terminal form of the malignancy. This pathway was identified in a novel cell-based screen developed in the Rai lab, which already yielded another validated CRPC target, thioredoxin-1. That previous research by Dr. Rai, Troccoli and others appeared in 2017 in [Nature Communications](#).

In addition, Troccoli won the 2018 Larry Oberley Young Investigator Award at the Society for Redox Biology and Medicine Annual Meeting in Chicago. Troccoli was awarded the highest-scored abstract/presentation in cancer biology research for her investigation of molecular drivers of androgen deprivation resistance and emergence of CRPC.

"I am humbled and honored to receive each of these national awards," Troccoli said. "The NIH fellowship allows me to continue investigating the molecular mechanisms that need to be either inhibited or promoted for optimal treatment of advanced prostate cancer and jump starts my career as a future independent researcher. And it's great to be recognized with the young investigator award from this national group of redox biology experts."

Kerry Burnstein, Ph.D., professor and chair of the Department of Molecular and Cellular Pharmacology, and associate director of Sylvester's Office of Education and Training (OET), said, "Having CAB trainees successfully compete for NIH funding spotlights the quality of our graduate program at a national level and will help us recruit talented students in the future. Based on my collaboration with Clara and her mentor, I can personally attest to her academic talent, dedication and collegiality."

Clara added, "I could not, however, have received this kind of recognition without the support of Dr. Rai, Dr. Burnstein, and the rest of our amazing team here at the OET. The resources provided by OET, including travel awards and the trainee grant-writing workshops, as well as the follow-up mentor-focused session led by Dr. Mary Lou King, gave me a highly competitive edge and honed my skills as a researcher and grant writer."

In addition to focusing on her own research, Troccoli supports and encourages her peers as president of the [Biomedical Graduate Student Government](#) at UM. In this leadership role, she helps to address the academic, professional and social needs of the graduate student body by connecting her fellow early-career researchers with university administration mentors and advisors.

"It is incredibly rewarding to see Clara continue to make advances in her career as a promising cancer researcher," Dr. Rai said. "She is well on her way to making a true difference in the lives of people living with advanced treatment-resistant prostate cancer. It is a privilege to be her mentor."