Off to a Brilliant Start

Don Nguyen dreamed of a career in cancer biology research but knew there were no guarantees. Dr. Nguyen trained as a post-doctoral fellow at Memorial Sloan Kettering Cancer Center, one of the best cancer institutes in the country. When it came time to establish his own laboratory, however, he faced a landscape of disappearing federal funding and intense competition.

Yale Cancer Center’s Cadet Program is designed to help young scientists navigate that landscape. When he came to Yale, Dr. Nguyen received advice on equipping and staffing his lab. He won YCC pilot funding set aside for young investigators. That support allowed him to get impressive results in his study of lung cancer metastases – and staffing his lab. He won YCC pilot funding set aside for young investigators.

Dr. Nguyen dreamed of a career in cancer biology research and was recruited in the past four years.

Don Nguyen, PhD, David Stern, PhD, and Valentina Greco, PhD

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highly competitive institution with so many accomplished scientists, people are extremely collegial and generous with their time here,” said Dr. Nguyen.

When he has questions, Dr. Nguyen can stick his head in the office next door and confer with fellow cancer biologist David Stern, PhD, who is a Professor of Pathology, Associate Director of Shared Resources at YCC, and leader of the Cadet Program. YCC has seen a huge influx of young faculty, with almost 100 assistant professors, half of whom were recruited in the past four years.

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so impressive that he has since obtained an RO1 grant from the National Cancer Institute, which was highly competitive.

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Dr. Nguyen, Young faculty are typically attracted by the strength of Yale’s resources, both human and technical, adds Dr. Stern. YCC scientists can access advanced genome sequencing and stem cell technologies and expect to collaborate with leading basic and clinical scientists.

Though YCC junior faculty are “extraordinarily strong” as scientists, they must also learn the work of managing a lab and establishing a reputation that will enable them to secure consistent funding, says Dr. Stern. A senior scientist tends to get a great deal of credit for any work that happens in a lab, thus overshadowing most of the accomplishments these younger researchers made in their post-doctoral years. “They’re at risk of falling off the map,” explained Dr. Stern.

Despite this vulnerability, the early years of a scientist’s career are often the most productive. “They’re at the top of their game. They have great bench skills and they’re highly motivated.” Becoming a manager and courting fame can be vexing for scholars who want to concentrate on science. “The need to devote time to financial planning and lab management rather than only focusing on scientific projects is challenging,” said Katerina Politi, PhD, another cancer biologist in the Pathology Department studying mutations associated with drug resistance in lung cancer. But she realized it is particularly important to link basic scientists with faculty who care for patients so that research focuses on the areas where it can best advance clinical care.

Providing a platform within YCC encourages young scientists to focus their work on cancer.

“The Yale Cancer Center Cadet Program builds bridges,” said Dr. Greco, noting that she’s a geneticist with an appointment in the dermatology department who regularly interacts with biologists.

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Her lab developed a method to watch stem cells regenerate tissue in real time in living animals, an achievement with the potential to improve understanding of how cancers develop. Dr. Greco says that many senior faculty are helping her along the way, notably Daniel DiMaio, MD, PhD, YCC’s Scientific Director. But regular meetings with peers are also valuable.

“A mentor is anybody who has gone through a process that I haven’t yet,” she explained. As her career progresses, she’ll continue to seek the kind of collegiality she’s enjoyed as a cadet. “You can go faster and be more effective,” Dr. Greco said.