

Michael Widlansky, MD, and Mary Eapen, MBBS, Widen Physician Scientist Career Path for Medical Residents

Dr. Michael Widlansky, Associate Professor of Medicine and Director of the Cardiology Fellowship Program, and Dr. Mary Eapen, Professor of Medicine and Senior Scientific Director of the Center for International Blood and Marrow Transplant Research, were recently awarded an R38 grant from the National Heart, Lung, and Blood Institute (NHLBI). The program, Stimulating Access to Research in Residency (or StARR), is designed to help residents pursue careers as physician scientists with mentorship, training, and protected research time. StARR will offer a versatile, integrated, and effective training opportunity for the next generation of clinical and translational researchers right here at MCW. Dr. Widlansky expects that the program will establish a pipeline of physician scientists who can develop and grow into successful MCW faculty members.



Drs. Widlansky and Eapen have seen a large, national drop in the number of active physician scientists—that is, practicing clinicians who dedicate at least 50% of their time to research. This drop is attributed to the period of time between a student finishing medical school—a time when many students are very interested and engaged in research—to the time they finish their post-graduate training. Over the course of this gap, individuals tend to focus more on clinical responsibility and less on developing as a scientist. MDs pursuing subspecialties may not finish their program for 5-7 years after they've completed medical school and are understandably eager to begin their practice. In response to this shortage, the National Institutes of Health, particularly the NHLBI and the NCI (National Cancer Institute), developed the Stimulating Access to Research in Residency program. StARR is designed to provide dedicated, protected research time to individuals during their residency, providing in depth training and experience as a researcher. After this exposure, the trainee is in a good position to secure a faculty role at an academic medical center and is also highly competitive for national funding and career development awards.

StARR is uniquely specific to medical residents. Other training programs, such as T32 training grants or affiliated postdoctoral awards, tend to attract PhDs without MDs or MDs at more advanced stages of research and clinical training. The MCW StARR program is based in the Department of Medicine and is tailored to the medical resident. Residents who are accepted into the program will complete two years of clinical internal medicine training, then two more years of training during which their time would be split between research activities (80%) and clinical activities (20%). Depending on their research interests, trainees are matched with a group of secure investigators. This includes a primary mentor who will monitor the resident's progress following an individual development plan, ensuring the key benchmarks

are being hit. An educational component supplements the training with formal classwork to ensure all residents have an appropriate baseline of scientific knowledge. The residents will pursue original research projects that fall under the umbrella of the NHLBI, a broad array that could include bone marrow transplant, liquid tumor, lung disease, cardiometabolic diseases, endocrinology, and many others.

In addition to protected research time, successful trainees are exclusively eligible for the forthcoming NIH K38 program “StARRTS,” a Transition Scholar program that offers a 1-2 career development grant beyond the R38. MCW is one of only 6 organizations nationally that is offering the NHLBI StARR program, joined by Vanderbilt, Children’s National of Washington, DC, the University of Utah, Duke, the University of Pennsylvania, and the University of California-San Francisco. NCI has also released a StARR program at Columbia University.

Although this program didn’t exist when Dr. Widlansky was training, he followed a similar path after his medical residency, completing two years of formal research training in biostatistics and epidemiology and basic research in vascular biology. This experience buoyed his advancement and his ability to be competitive for career development awards after his own cardiology fellowship, so he recognized the importance of developing as a researcher at an early point in his career. He also understood the need to not only engage in research, but to afford the time necessary to really get a program off the ground. Not until their second year will a researcher really begin to experience success, including the release of publications, the foresightedness to assess opportunities, and the development of concepts in general. Unlike other institutions offering one year of protected time, the MCW program is offering two years of research training. In addition to its unique length, the proposal put forth by Dr. Widlansky and Dr. Eapen benefited from the large footprint that MCW has established with NHLBI. A cadre of our investigators excel in these fields and have participated in study sections, reviews, and other national activities. Additionally, many of the program’s senior members are physician scientists themselves who hold both an MD and a PhD. Dr. Widlansky and Dr. Eapen will serve as Co-Directors of the program. Co-Investigators Subramaniam Malarkannan, PhD, and Nicole Lohr, MD, PhD, are serving as Associate Directors, and senior faculty in the Cardiovascular Center, the Hematology-Oncology division of Medicine, and the Center for International Blood and Marrow Transplant Research will provide mentorship and oversight.

Activated on July 1, 2018, the program will remain active for four years and is currently recruiting through the Internal Medicine residency. Ideally, these residents will not only train here, but grow within the organization and become faculty leaders here. The StARR program is a perfect example of how MCW stands out as a leader in medical research and education.



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