

Biography of Dr. Anil Shanker

An accomplished researcher and educator, Dr. Anil Shanker leads the research and innovation enterprise at Meharry Medical College. He oversees grants management, regulatory affairs, technology transfer, research facilities and instrumentation, research centers, and transdisciplinary thematic clusters where disciplines converge to address health disparities in underserved populations. He also provides strategic direction for developing institutional, state, federal, and corporate programs and partnerships to advance innovation, research, education, and commercialization at Meharry.

Highly regarded internationally for his contributions to cancer immunology and immunotherapy, Dr. Shanker is a tenured Professor of Biochemistry, Cancer Biology, Neuroscience and Pharmacology in the School of Medicine at Meharry. His pioneering studies discovered a new paradigm of T cell help in facilitating the function of innate natural killer cells in solid tumor microenvironments.

Since joining Meharry in 2010, Dr. Shanker has conceived and implemented ambitious research directions in integrative cancer immunology, bioengineering, computational biology, immunotherapy, and neuroscience. His research initiatives complement Meharry's existing strengths in biochemistry, immunology, and cancer biology. Working in collaborative, multi-institutional settings, Dr. Shanker studies complex problems pertaining to cancer and Alzheimer's disease. His research has been continuously funded by federal grants from the National Institutes of Health (NIH).

In addition to basic science research, Dr. Shanker also participates in clinical trials. One such is the EMD Serono-sponsored Phase II clinical trial involving multi-centric lung cancer immunotherapy, conducted by the Eastern Cooperative Oncology Group and the American College of Radiology Imaging Network. Dr. Shanker is also an active faculty member of the Host-Tumor Interactions Research Program at Vanderbilt-Ingram Cancer Center, Vanderbilt Center for Immunobiology, Vanderbilt Institute for Infection, Immunology and Inflammation, and Vanderbilt Memory and Alzheimer's Center. Besides supporting fellow investigators in their research, Dr. Shanker is keenly involved in teaching courses in cancer biology, immunology, and biochemistry. To prepare students for the rapidly expanding field of cancer immunotherapy, he developed a new course in cancer immunotherapy in the School of Graduate Studies and Research (SOGSR) that focuses on applying basic principles of immunology to pressing fundamental problems in cancer therapy.

In his research laboratory, Dr. Shanker is an excellent mentor to his trainees and postdoctoral fellows. Many of them have received prestigious awards from scientific societies and organizations such as the AAI, AACR, SITC, ASCB, FASEB, HHMI, and NIH for their research in his lab. Many of his lab alumni have moved on to faculty or scientist positions. One of his students, Samuel Troy Pellom Jr., who graduated in 2015, was recognized as the "most published" Ph.D. candidate at Meharry.

Dr. Shanker has served in leadership roles in the Faculty Senate and various committees at Meharry, including as Chair of the Faculty Council of the SOGSR where he advocated to upgrade the graduate school curriculum. He also worked with the Education Committee of the American

Association of Immunologists (AAI) on an immunology curriculum development initiative to assist universities and colleges in undergraduate immunology instruction.

Dr. Shanker is a fellow of the International Union Against Cancer and an overseas fellow of the Royal Society of Medicine (UK). He has received numerous awards in recognition of his contribution in higher education, research, and service. These include the NIH Director's Award of Merit as well as Minority-Serving Institution Faculty Scholar awards from the American Association for Cancer Research (AACR), AAI, and the Society for Immunotherapy of Cancer (SITC). During 2009 to 2010, Dr. Shanker was a panel member in the NCI Immune Response Modifier Program. He currently serves on the advisory committees for the Minority Access to Research Careers Program at Tennessee State University and the Master of Science in Professional Science Program at Middle Tennessee State University, where he advises on matters related to science and engineering as well as educating the next generation of scientists. He also provides substantial service to various National Science Foundation and NIH Scientific Review panels that focus on basic and translational immunology research, specifically Cancer Health Disparities, Cancer Immunopathology and Immunotherapy. Due to his vast research expertise, various foundations and foreign funding agencies in Canada, the Netherlands, France, Belgium, Italy, the UK, and the UAE often solicit his review. He is frequently invited to deliver keynote, plenary, and distinguished talks, or to chair sessions at various scientific forums. Last but not least, Dr. Shanker also serves in editorial roles at leading immunology and cancer-related journals.

Before joining Meharry, Dr. Shanker worked as a Scientist in the Cancer and Inflammation Program at the National Cancer Institute (NCI). He performed his postdoctoral fellowship with Dr. Thomas J Sayers in the Laboratory of Experimental Immunology at the NCI-Frederick, Maryland, and with Dr. Anne-Marie Schmitt-Verhulst in the Laboratory of T Cell Function at the CNRS/INSERM Centre d'Immunologie de Marseille-Luminy, France. Dr. Shanker obtained a Ph.D. in tumor immunology from Banaras Hindu University, and graduated with Master's and Bachelor's degrees with honors from the University of Delhi, India.

Dr. Shanker is committed to advancing health equity and education that empower the underprivileged and improve the well-being of humankind. He wrote letters to the Presidents of the United States Ronald Reagan, George HW Bush, and Bill Clinton to urge them to commit to attaining a global environment that is equitable, conflict-free, and peaceful. Presidents Bush and Clinton both acknowledged and appreciated the thoughtfulness of his letters. Recent events are a grim reminder that the road to social justice and equity remains long and hard. Nonetheless, Dr. Shanker remains motivated and confident that scientific engagement in the community can act as a catalyst for social enrichment and elimination of inequity.