

When rheumatologist Mehrdad Maz, MD, visited KU Medical Center (KUMC) as a potential recruit in 2010, he marveled at the expansion taking place throughout the campus. But beyond that, he was impressed with the culture of the Division of Allergy, Clinical Immunology and Rheumatology, a legacy of cooperation established by Daniel Stechschulte, Sr., MD, who founded the division in 1973.

**“I saw a camaraderie, a sense of collegiality, a genuine interest in working together as a team to help each other and take care of patients,” he said.**

In 2011 Maz became director of the division, which comprises two distinct subspecialties that share a common understanding—the science of immunology. The faculty includes physicians and scientists dedicated to improving the quality of patient care, identifying new mechanisms in the pathogenesis of diseases, supporting and initiating clinical trials for new drug development and the education of future physicians and scientists.

Maz notes that the 1950 Nobel Prize for Medicine was awarded to his alma mater for the discovery of cortisone. The development marked a major advancement for the treatment of rheumatoid arthritis. This explains why Maz displays a framed reproduction of “La Cortisone” by the French painter Raoul Dufy, who presented signed prints of the watercolor as a gift to Mayo Clinic Nobel Laureate rheumatologist Dr. Philip Hench. Before then, little could be done to provide even temporary pain relief, and the disease frequently advanced to involve multiple organs and led to the development of deformities and disabilities. Cortisone also led to significant advancement in the field of allergy, paving the way to the development of life-saving medications for patients with asthma and other allergic diseases.

Since then, the arrival of new therapeutic agents has revolutionized the treatment of rheumatoid arthritis and asthma, as well as other autoimmune and allergic disorders. Maz finds it particularly gratifying to be able to generate new knowledge about these complex diseases through research projects at KUMC.

Thanks to continued research, physicians better understand these disease processes. Treatment options have increased. Patients who once struggled with chronic conditions can

now lead productive lives, something that inspired Dr. Maz and his colleagues.

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Researchers at KUMC are conducting clinical trials of a number of new agents.

Herbert Lindsley, MD, heads the division’s clinical trials unit, which is primarily focused on rheumatoid arthritis (RA). He is the institutional principle investigator of several multicenter biologic agents for treatment of patients with severe RA.

The major focus of immunologist Kottarappat Dileepan, PhD, is conducting research into the role of mast cells in the regulation of innate immune mechanisms and inflammatory response. He has published many articles on mast cell research in national journals.

One study he is currently involved in is examining the role of mast cell mediated innate immune regulation in cardiovascular disease. In this project he is using human coronary artery endothelial cell cultures, gene knockout mouse models and human carotid artery plaques to evaluate the contributions of toll-like receptors in the progression of cardiovascular disease.

Another project Dileepan is leading is research into the role of mast cells in the pathogenesis of hepatic steatosis, the abnormal retention of lipids in a cell. The purpose of this project is to determine the role of mast cell-derived histamine and proteases in the pathobiology of fatty liver development.

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Training the next generation of doctors is an important component of the division as well. An innovative program called Patient Partners has enlisted trained patients with arthritis to be part of the KUMC 2<sup>nd</sup> Year Musculoskeletal Education Module for more than 20 years. The goal of the program is to help medical students develop skills to recognize inflammatory arthritis so they can provide patients with early diagnosis and appropriate treatment.

The program enlists arthritis patients and provides them with extensive training so they in turn become educators who can demonstrate the exam. During the musculoskeletal workshop patient educators guide students through a full-body musculoskeletal exam, joint by joint.

This intervention encourages students to learn by touching individual joints and increases their understanding of how arthritis impacts lives of patients and their families.

“Students learn joint examination by looking and touching,” says Dr. Lindsley, who oversees the program.

“Particularly for musculoskeletal diseases, trained patients can impart unique insights that a textbook cannot provide. Students place high value on this clinical skills workshop,” says Lindsley.

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Community outreach has been important to physicians in the division.

Selina Gierer, DO, has provided education on allergies and immune deficiency as part of the division’s ongoing health maintenance efforts in the community.

Maz has been a guest speaker for meetings of the Vasculitis Foundation, a national patient support organization that is headquartered in Kansas City.

At one event, he told patients why KUMC is the place to be.

“As an academician, I have the privilege of caring for patients with complex diseases requiring a multidisciplinary approach to evaluation and management in a state-of-the-art setting,” he said. “My colleagues and I benefit from collaboration with experts in other medical or surgical fields. We enjoy teaching and supervising medical students, residents, and fellows, with the knowledge that we are training future physicians. Lastly, knowing we play a potential role in research into pathophysiology of disease and development of new therapeutics that could benefit the patients and the medical community is truly rewarding.”



Mehrdad Maz, MD



A 40-YEAR TRADITION OF  
COLLABORATION

1973  
2013