

At the Forefront of Cancer Innovation

BETHANY SLECKMAN, MD



Dr. Bethany Sleckman, medical oncologist, first became interested in cancer research in medical school – and it was the human element that attracted her.

“I did rotations with oncologists as a medical student,” she says, “and I saw how scared and anxious patients are, and how much they need the reassurance of hope.”

But she was also struck by the altruism of many of the patients she saw.

“People are interested in helping other patients,” she said. “They want to pay it forward. They frequently ask us if anyone can learn from their cases, and they want to participate in finding medications and helping move the science forward.”

It was this genuine concern for patients, as well as an abiding passion for research, that led her to where she is today: the principal investigator for Mercy St. Louis oncology. It’s a role that requires as much managerial know-how as scientific.

“I’m responsible for the conduct of the studies and all that that entails,” she says. “I review the patient CT scans, manage enrollment in the study – making sure the patients meet the study criteria – check for response, investigate potential adverse side effects and oversee the reporting.”

She readily admits that her job involves keeping a lot of balls in the air, but since she began doing research when she joined Mercy in 2003, she’s had time to refine those skills as well.

“I really enjoy the multidisciplinary aspect... Cancer research draws from such a broad cross-section of medicine. It’s inspiring to see the specialist expertise all come together.”

Lung cancer, she says, is an excellent example of this.

“Lung cancer is particularly hard to beat,” she says, “in part because it’s not just the cancer you have to take into account. There are also other, non-cancer smoking-related issues, as well as lifestyle-related issues. These all compound to weaken the body and the patient and make treatment much more complex.”

Her current research highlights one of the most innovative advances in cancer research in the last ten years: the use of

drugs Keytruda and Pembrolizumab to stimulate the body’s own immune system into fighting cancer.

“Historically, this is a tricky proposition, trying to harness the immune system against cancer,” Dr. Sleckman says, “because there can be side effects, as anyone familiar with autoimmune diseases can tell you. There can be very serious side effects; we don’t want the immune system to start attacking other, healthy organs. It’s a project that requires very careful handling.”

“We applied this immunoresponse approach in clinical trials across the spectrum: various types of cancers, various stages, dosage, etc. Initially, it was found to be effective against melanoma – that was the first application that got FDA approval. Then came non-small-cell stage 4 lung cancer.”

From there, the research expanded to include combining chemotherapy with immunotherapy.

“A project like this really brings home the size and scope of what medical research looks like these days,” Dr. Sleckman says, pointing out that the study was eventually conducted across 16 different countries. “And it wouldn’t be possible without harnessing big data. Every study uses electronic data capture—all the information goes into massive databases and are monitored by our research partners.”

The results were encouraging.

“It’s exciting to see how it improved patient outcomes, in terms of progression-free survival and general survival,” she says. “The one-year overall survival rate was 70% vs. 50% with chemo alone. Some of our patients experienced full remission.”

After nearly two decades of work, Dr. Sleckman says that it’s seeing how her work impacts patients on a day-to-day basis that continues to inspire her and her commitment to research.