



Med Center Health<sup>®</sup>

The Medical Center at Bowling Green

# CANCER REPORT 2023

## **OPENING DOORS TO LEADING EDGE CANCER TREATMENT** **Precision Medicine and Clinical Trials**

As a member of the UK Markey Cancer Center Affiliate Network and the UK Markey Cancer Center Research Network, The Medical Center at Bowling Green brings the most advanced cancer care available to Southcentral Kentucky. In addition to collaborating in ground-breaking research, The Medical Center can provide access to additional specialty and subspecialty physicians and care, including clinical trials, genetic counseling and advanced technology, while allowing patients to stay close to home for most treatments.



The UK Markey Cancer Center is the state's first and only National Cancer Institute-designated cancer center and achieved NCI's highest honor in 2023 — Comprehensive Cancer Center Designation. NCI Comprehensive Cancer Centers are recognized for their scientific leadership, resources, and depth and breadth of research. The Medical Center's membership in the Affiliate Network and Research Network impacts cancer prevention, detection, treatments and survivorship for residents of Southcentral Kentucky.

## Precision medicine, Markey collaboration delivers hope to Bowling Green patient



Med Center oncologist Catherine Heltsley with Richard Simpson, who was diagnosed with stage 4 lung cancer in 2022. Photo by Joe Imel.

When Richard Simpson complained of an unusual and sudden pain in his shoulder, he got an X-ray, but it didn't indicate what was wrong. When the pain persisted, doctors ordered a CT scan. Soon after, the 76-year-old Bowling Green resident got a concerning call from his doctor: the scan showed a tumor in the upper lobe of his right lung.

He was immediately referred to an oncologist at The Medical Center at Bowling Green. That's where he was diagnosed with stage 4 non-small cell lung cancer in December 2022.

It was the end of what had been a difficult year for Simpson, who had just lost his wife of 45 years. Simpson, who is blind and had relied heavily upon his late wife, was still trying to adapt to his new life.

"Even today, I'm still trying to make sense of it all," Simpson said. "The diagnosis was such a shock since I didn't have a history of smoking. It was just a lot to take in at once."

### Trust in his treatment

At Simpson's first appointment with Med Center Health oncologist Catherine Heltsley, M.D., he learned he might be a candidate for a new kind of treatment that targets the DNA

mutations in his tumor. He'd need to have a biopsy and biomarker testing to find out.

Heltsley ordered a genomic analysis, which was sent to the University of Kentucky Markey Cancer Center's Molecular Tumor Board for review. There, a team of experts met to discuss the genetic profile of his case and recommend a treatment.

The Medical Center at Bowling Green is part of the UK Markey Cancer Center Research Network. The collaboration with community hospitals across Kentucky gives cancer patients access to the latest treatments and clinical trials closer to home.

**"I knew right away I was in good hands with Dr. Heltsley. And with the hospital's partnership with Markey, I was confident I was getting the best care currently available anywhere." - Richard Simpson**

Testing results showed the tumor had a mutation affecting the mesenchymal-epithelial transition, or MET, gene. MET mutations are found in only about 3% of patients with non-small cell lung cancer and are more common in older patients and nonsmokers.

"It was exciting news," Heltsley said. "MET mutations are associated with cancer growth, but there are medications available that can target them and stop the cancer from spreading."

"It sounds crazy to say when you're faced with a stage 4 cancer diagnosis, but I felt really lucky," said Simpson. "It was a blessing to just have some hope there was a treatment out there that might work."

Simpson started a targeted therapy called capmatinib (Tabrecta) in February 2023. Within weeks, the pain in his shoulder — caused by the tumor compressing nerves and blood vessels — was gone. By April, the tumor was gone, too. A scan showed no signs of cancer.

**“He’s had an excellent response. Results like this are rare for someone who isn’t receiving targeted therapy. If we were just using standard chemotherapy, they would be unheard of.” - Catherine Heltsley, M.D.**

“I’ve watched some friends go through chemo and deal with horrible side effects, and I’m happy to avoid that, especially at 76-years old,” Simpson said. “Right now this treatment is giving me a good quality of life, which is more than I could have hoped for.”

### **A strong support network**

Simpson’s blindness is caused by retinitis pigmentosa, a genetic disease that causes cells in the retina to break down slowly over time.

“I didn’t fully lose my vision until my 50s, so I’m used to that and get along just fine. But losing my partner of 45 years has been something I’m still adapting to,” he said. “Add in cancer diagnosis and treatment, and it’s been quite the rollercoaster.”

Simpson credits a strong support network of family and friends for helping him through the ups and downs of diagnosis and treatment. His son lives nearby and visits him several days a week and helps with transportation to doctor appointments. He also has a caregiver who comes by to help with errands and household tasks.

Simpson says he also makes sure to stay busy. He’s active in his church and has a network of friends who he still meets for lunch every week. He also spends a lot of time with his grandchildren — he just welcomed his third this summer.

### **More hope for patients than ever before**

For many patients like Simpson, biomarker testing opens the door to targeted treatments that can be more effective and have fewer side effects compared to traditional treatments like surgery, chemotherapy and radiotherapy.

Targeted treatments are the foundation of precision medicine, an approach to cancer care tailored to the specific genetic characteristics of an individual’s cancer.

Precision medicine is rapidly advancing, which can make it complicated for doctors to select the best treatment based on the results of biomarker testing. Molecular tumor boards offer a solution: the multidisciplinary team of clinicians and researchers are up-to-speed on the hundreds of different actionable genetic mutations, changing guidelines for their treatment, and the latest clinical trials.

Markey’s Molecular Tumor Board will review patients’ genomic profiles at no cost to physicians at UK HealthCare and at regional hospitals throughout Kentucky — like The Medical Center at Bowling Green.

“Advances in precision medicine offer more hope for patients than ever before, and increased access to molecular tumor board review means more patients across Kentucky can get access to the latest cancer treatments,” said Jill Kolesar, Pharm.D., a professor in UK’s College of Pharmacy and co-director of Markey’s Molecular Tumor Board.

Through Markey’s Research Network, Simpson also enrolled in a new clinical trial led by Kolesar across the state and Diego Cabrera, M.D. at Med



*Through Markey’s Research Network, Simpson is participating in a clinical trial that will examine the impact molecular tumor board review has in cancer patient outcomes. Photo by Shaun Ring.*

Center Health, which will examine the impact molecular tumor board review has in cancer patient outcomes for people with late stage lung cancer in rural Kentucky.

With Kentucky leading the nation in lung cancer incidence and mortality, the results will provide an understanding of the direct impact that tumor board review can have.

### **World-class treatment, close to home**

Markey is one of just 56 cancer centers in the U.S. designated by the National Cancer Institute as a Comprehensive Cancer Center. The designation recognizes excellence in

cancer care and research. It also means that Markey patients can take advantage of new treatments and clinical trials not available elsewhere.

For patients like Simpson, it means confidence that they are getting the best available cancer care without having to leave the state.

“I never even had to leave Bowling Green for an appointment, and I’m extremely thankful for that,” Simpson said. “At The Medical Center at Bowling Green, I knew I was getting the same care here that I’d get in Nashville, or Lexington or any of the nation’s top cancer centers.”

## **MEET TINA BERGER**

### **Clinical Research Coordinator**



As the Clinical Research Coordinator for The Medical Center at Bowling Green, Tina Berger embraces the opportunity to provide an open door for patients who wish to be on the leading edge of cancer treatment.

We want our cancer patients here in Bowling Green to be able to receive cutting edge treatment at home where they have support of family and friends, as opposed to having to travel outside their community,” said Berger.

Tina’s role as the Clinical Research Coordinator requires rigorous and ongoing training in the conduct of clinical study and research ethics to support the local availability of important clinical study. As a clinical research professional, Tina provides information about participation in clinical research and information about specific studies.

Before the opening of a study at The Medical Center, a Site Initiation Visit is conducted. The

doctor or person who chaired the study at UK makes a short presentation of what the study is about, what it involves, and the pros and cons for the patients. Med Center Health staff – including the research coordinator, physicians and nurse practitioners – then seek out the patients who have the certain types of diseases the trial requires and who are eligible to enroll. That information is provided to UK and they decide if the study is approved to move forward at The Medical Center.

Tina works hand-in-hand with Med Center Health’s Medical Oncology and Radiation Oncology practices. If a patient’s cancer and other medical assessments meet the eligibility criteria for a clinical study, and the patient wishes to participate, Tina meets with them to explain the study, making sure the patient understands the steps involved and the pros and cons.

Research studies involve people of all kinds, including those who are healthy and those who are seriously ill. Most standard treatments we use today are the result of clinical trials.

For more information, call Tina Berger at **270-745-1036** or visit **MedCenterHealth.org/ClinicalTrials**.