A key goal for researchers at the Indiana University Melvin and Bren Simon Comprehensive Cancer Center (IUSCCC) (pictured right) is to address the cancer disparities in Indiana and beyond.

My IUSCCC colleague Bryan Schneider, MD is currently leading EAZ171, a trial that hopes to improve outcomes for black women with breast cancer. Black women are 41 percent more likely to die from breast cancer than white women. Recent research shows that patients of African ancestry who take certain chemotherapy drugs have a higher risk for neuropathy.

This study aims to determine which women are most at risk for neuropathy based on their DNA, and to determine which chemotherapy treatment—docetaxel or paclitaxel—will result in less of a side effect of peripheral neuropathy for black women with breast cancer. Schneider’s trial is accruing patients across the United States and parts of Africa.

Last year, Schneider and colleague Milan Radovich, PhD discovered how to predict whether triple negative breast cancer will recur, and which women are likely to remain disease-free. They found that women whose plasma contained circulating tumor DNA (ctDNA) had only a 56 percent chance of being cancer-free two years following chemotherapy and surgery. Patients who did not have ctDNA in their plasma had an 81 percent chance that the cancer would not return after the same amount of time.

It’s research like this that led the National Cancer Institute to award its prestigious Comprehensive Cancer Center designation to the cancer center in August 2019. The comprehensive status recognizes the center’s excellence in basic, clinical, and population research as well as its outstanding educational activities and effective community outreach program across the state. It is Indiana’s only NCI-designated comprehensive cancer center.

The center works with partner organizations around the state to improve the health of all Hoosiers. The collaborative work focuses on reducing the number of new cancer cases and the number of deaths caused by the disease, especially among underrepresented populations. This includes initiatives to increase HPV vaccination rates, as well as developing, testing, and disseminating interventions to increase breast, cervical, and colorectal cancer screening in racially diverse and rural populations in Indiana.

Best known for developing the cure for testicular cancer, the IU Simon Comprehensive Cancer Center has benefitted countless patients around the globe by additionally altering or defining treatment standards for:

- breast cancer
- gastrointestinal cancer, including pancreatic and colon cancers
- genitourinary cancer, such as testis, bladder, and prostate cancers
- hematologic disorders, including multiple myeloma and leukemia
- thoracic cancer
- thymoma and thymic carcinoma
- tumors associated with neurofibromatosis type 1, primarily in children
- umbilical stem cell transplantation

As associate director of clinical research for the center, I see so many of my colleagues conducting impactful trials and research. Their work and our clinical trial participants are paving the way for improved outcomes for all patients.