

Precision Medicine: Tailoring Treatment to the Individual

Cancer is the #2 killer in Louisiana, but not a single one of the more than 26,000 cases predicted to be diagnosed in Louisiana in 2019 will be alike.

Today, we are honing in more precisely on this killer. LCRC researchers are developing ways to tailor cancer therapies for each patient. Precision medicine is providing physicians new treatment options for each individual. Advances in understanding the genetic drivers of cancer and the role of the immune system in the fight hold significant promise for the development of therapies personalized to the individual patient.

Each cancer occurrence is an evolutionary event with its own genetic changes modulating over time in response to treatment. Similar changes may be found in different types of cancers. LCRC researchers are making progress identifying these cancer-causing modifications and developing targeted therapies that address them. This is providing new treatments for physicians to choose from, altering the treatment to complement the personalized genetic makeup of each patient's cancer.

Immunotherapy leverages a patient's own immune system to fight disease by locating hidden cancer cells. LCRC researchers are developing approaches that mark these cells making them easier for the immune system to detect and destroy. They are also working on techniques to boost a patient's immune system to strengthen the response it mounts against cancer.

These advancements are not confined to the lab. They are increasingly accessible in communities in rural areas throughout the state of Louisiana. LCRC and its partners are making these new treatments available to patients via our expanding clinical trials network.

Not long ago, the prospect of personalizing one's cancer treatment based on their unique genetic makeup was merely visionary. Today, it is a reality at the Louisiana Cancer Research Center.

Our cancer prevention, education efforts, and genetic screening are helping to identify cancer in earlier stages and we are treating them more effectively than ever, saving more lives everyday.