

The Future Is Now: Total Lab Solutions Offers Innovative Diagnostic Testing Proven to Save the Lives of Cancer Patients

Total Lab Solutions is helping change the way oncologists treat cancer—and, in turn, improving patient care.

WEST BLOOMFIELD TOWNSHIP, MI, UNITED STATES, July 10, 2023 /EINPresswire.com/ -- Total Lab Solutions is helping change the way oncologists treat cancer—and, in turn, improving patient care.

Headquartered in Troy, Michigan and Houston, Texas, Total Lab Solutions offers diagnostic testing, specializing in toxicology, infectious disease, clinical hematology, respiratory pathogens, and oncology—specifically next-generation sequencing of DNA and RNA.



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“With [Next-Gen Sequencing](#), we’re utilizing [targeted DNA and RNA panels](#) with AI analysis tools. Tumors have biomarkers, and some biomarkers show that the tumor is resistant to certain therapies. So, depending on the genetic makeup of that tumor, providers can match cancer patients with the best therapy,” said Blake Bourque, Chief Commercial Officer of Total Lab Solutions.

Traditionally, a surgeon will perform a biopsy, and send the tissue to a laboratory. Then, a pathologist will prepare the sample—embedding it into paraffin wax and cutting it into

slides to view under a microscope.

“The pathologist will look at the sample with their microscope, and determine, for instance, ‘That

looks like a squamous cell. We're going to prescribe them with this med.' But, with this traditional testing, they can't see that the particular cell may have a genetic marker that prevents the medication they were going to prescribe from being effective," said Bourque.

Scott Zack, Chief Executive Officer of Total Lab Solutions, proudly shared his thoughts on the potential impact of their groundbreaking diagnostic testing. "At Total Lab Solutions, we believe that personalized medicine is the future of cancer treatment. Next-generation sequencing is giving

patients and oncologists a powerful tool to create tailored treatment plans, offering hope and improved outcomes for many facing this devastating disease," said Zack.



[Cancer treatment isn't a one-size-fits-all solution](#)—even for two patients with the same diagnosis. For instance, Bourque said many lung cancer patients don't receive a Next-Generation Sequencing test, which means a provider wouldn't know whether the medication they're prescribing is compatible with the genetic make-up of the patient's specific tumor.

"If a provider prescribes the wrong medication to a patient, it could kill the patient—not the cancer. But Next-Generation Sequencing allows us to be able to do what's called 'targeted therapy.' The biomarkers show which medication a patient should or shouldn't use for the best results," Bourque added.

According to an article in the Fukushima Journal of Medical Science, targeted therapy against actionable gene mutations shows a significantly higher response rate and a longer survival rate compared to conventional chemotherapy.

When a tumor mutates, it's adapting to protect itself from the current therapy—which is why a patient needs to be continuously monitored for signs of relapse. If a patient starts relapsing, Total Lab Solutions offers a test called a liquid biopsy, which means the patient will get their blood drawn to determine whether the tumor has mutated instead of needing another traditional biopsy.

"The beginning of a person's treatment could look completely different than the end of their treatment," Bourque said, "And this test determines whether their current treatment needs to evolve treatment plans."

“Our test gives almost all the known cancer DNA and RNA biomarkers in the scientific library—which is over 1,600 RNA genes. There’s no comparison to an eyeball test and guessing at the correct therapy—compared to a DNA/RNA analysis of the tumor. Our primary responsibility to the patient is to nail the diagnosis so the provider knows exactly what they’re dealing with,” said Bourque.

In November 2022, Bourque, former owner of BoulderGX in Texas, partnered with Scott Zack, CEO of Total Lab Solutions in Michigan, to merge their two clinical diagnostic laboratories. Now, under the banner of Total Lab Solutions, both laboratories have broadened the access to diagnostic innovation and insights empowering better health outcomes for communities throughout the Midwest, the Gulf Coast, and beyond.

Scott Zack highlighted the company’s vision for the future: “We are dedicated to making next generation sequencing accessible to every cancer patient, no matter where they are in the country. As we continue to expand our network of oncologists, we hope to make a tangible difference in the lives of thousands of patients and their families, ultimately contributing to a brighter future for cancer care,” said Zack.

In the last five months, Bourque and Zack have brought Next-Generation Sequencing to about 20 oncologists. They are working to expand this number so that, someday, this state-of-the-art and life-saving diagnostic testing will be used by oncologists across the nation.

“Science has taken a generational leap forward just in the last five years in the ability to match the perfect therapy with the tumor. If you’re not using this process now, then you’re receiving incomplete data. I cannot see any reason, whatsoever, why a physician wouldn’t use Next-Gen Sequencing testing to help diagnose their patients,” Bourque commented.

“Currently, we don’t have any oncologists in Michigan working with us. We want to change this. So, we’re encouraging oncologists and cancer patients in Michigan who are interested to contact us. Our target—as more and more providers use next-generation sequencing—is that the survival rates for cancer will go up dramatically,” added Zack.

Anyone interested in Next-generation Sequencing should email info@totallabsolutions.com. For more information about the services provided by Total Lab Solutions, visit <https://totallabsolutions.com>.

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