

## Huntsville company helping develop tools to let government spot pathogens in tiny amounts

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**HUNTSVILLE, Ala.** - For a number of reasons - think Ebola for starters - the federal government wants reliable devices that can detect and identify pathogens in very small amounts, and a Huntsville company is helping. **Diatherix Laboratories**, located in the HudsonAlpha Institute for Biotechnology, has won a second federal contract for research into detecting rare pathogenic organisms. Diatherix has already developed a highly sensitive detector called the Target Enriched Multiplex Polymerase Chain Reaction (TEM-PCR). It can detect pathogens in concentrations as low as 10 organisms per milliliter, the company says. Now, researchers will use the TEM-PCR to determine exactly "how low we can go," in the words of CEO Dennis Grimaud, in detecting three pathogens: *Francisella tularensis*, *Escherichia coli*, and *Babesia microti*.

None of these pathogens is found in any significant number in the natural environment. But because they could be fatal and could easily spread in some circumstances, the government wants to be able to find them quickly and reliably in any outbreak.

The tests will be done in Huntsville at the institute, Grimaud said Tuesday. "It's all safe," he said.

The government will provide the organisms, and Diatherix will use a tiny bit of each to "spike" a growth medium to see how small a sample will register on its machine.

"Diagnostics are a crucial component of the public health strategy to reduce the burden - and potential threat - of infectious diseases," Elena Grigorenko, Diatherix vice president and principal researcher, said in a statement. "We are honored to work with the federal government on this important project, and are pleased that our TEM-PCR technology can be applied for detection of low prevalence pathogens."