A process can go no faster than the slowest step in that process. In urine culture testing, one of the slowest steps takes up to two days to deliver results.

However, scientists at George Mason University in Fairfax, Va., have invented an innovative new technology that can reduce this step to hours instead of days, while providing highly accurate results.

Disclosed in 1997, the "QuikiCult Rapid UTI Detection System" detects urinary tract infections much faster by identifying high concentrations of infectious bacteria using light spectrophotometry and automated computer-driven analysis. The research was funded by the university and the private sector.

"Doctors and patients benefit from faster reporting times — as little as three hours for most negative samples, compared to 24-48 hours using current testing methods."

The QuikiCult System makes it possible to test larger samples, increased protection from contamination, fewer false positives and reduced labor costs for operators.

Because the system is portable and easy to operate, QuikiCult System is ideal for non-laboratory health care settings, including hospitals, doctors’ offices, rural or remote clinics and nursing homes. By operating the system at the point of
collection, fresh samples can be tested quickly and provide more accurate results.

The technology was licensed in 2004 to Maryland-based Macrobionetics, which supplies customized testing equipment for industrial companies and government agencies. The company is selling the QuikiCult System under the name "CultureStat" to health care facilities and reference laboratories across the United States and Canada.

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