# Revolutionizing Food Safety through the Integration of Biomolecular Engineering, Nanotechnology, and AI

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Xibus Systems, Inc. announces the development of XiSafe™ for high-speed detection of disease-causing bacteria in food and beverages.

According to the WHO, food safety is key to sustainability and economic security. Yet headlines daily detail the continual occurrences and serious impact of foodborne illness leading to a massive number of deaths and millions in lost work time worldwide annually.

Xibus' Founder, MIT Professor, Tim Swager, states "food safety testing is required by regulatory agencies worldwide. Each year $8 billion is spent on food pathogen testing. Despite that large sum spent on testing, the public routinely suffers from contaminated food with more than 400,000 fatalities annually worldwide, recalls abound, food brands suffer, and enormous quantities are thrown away. We saw the need for a powerful, easy to use test to help ensure public safety."

Xibus' President & CEO, Peter Antoinette, states "current food bacterial testing, even modern 'fast' methods, are still slow and take a day or more to get results. Food continually deteriorates after harvest. Suppliers are under tremendous pressure to ship before spoilage occurs. Untested foods go through the supply chain and reach the family table. Xibus is developing XiSafe™ -- an unprecedented integration of molecular engineering, nanotechnology, and AI to revolutionize the speed of pathogen testing. XiSafe™ test times are 8-12 hours depending on the organism and food matrix. It is a total system, designed for high throughput testing conducted by food and beverage producers, processors, and users."

"We exclusively licensed the core biomolecule technology developed by MIT Chemical Engineering Professor, Hadley Sikes. Those molecules are engineered to target and attach to a specific bacteria. Our scientists conjugate those molecules to our proprietary super-

fluorescent nano-beads to create a powerful, foundational reagent for bacteria detection," mentions Xibus' CTO, Matthias Oberli.

Oberli concluded, "The XiSafe test is as powerful as PCR but fundamentally more useful for industrial based testing. It ensures high accuracy by utilizing sample sizes that are 1,000 times larger than the microliter limits imposed by PCR testing. Given we are tagging specific organisms with powerful fluorescent labels, and using AI analytics to identify the target from background bacteria and food materials, customers get the power of PCR with none of the limitations."

Xibus Systems seeks interested customers for a demonstration of XiSafe™.

Read the original article on PR Newswire.