

**Title:** Development and Evaluation of Methods for Microbological and Chemical

Analysis

**Principal Investigator:** Robert Silver

**Sponsor:** U.S. Army/TARDEC

## **Summary:**

It is imperative that microbiological and chemical methods be competently developed and thoroughly evaluated to establish their usefulness and effectiveness in protecting the public health and safety, while enhancing facilitation of the importation of safe, high quality FDA-regulated products. This research identifies and evaluates microbiological and chemical methods that may serve to reduce analytical time or that may serve to screen commodities more effectively to enhance FDA's risk assessment methods as well as improve FDA sampling for traditional analytical methods.

The objectives of this research includes evaluating microbiological and chemical methods including new screening methods, technologies, instrumentation and test kits to detect pathogens and toxins in various food or other FDA regulated product matrices and assess methods identified by the FDA for specific analyses in food and other FDA regulated products that ultimately will be used in the regulatory arena and for counterterrorism response.

New methods may also prove useful for rapid determination of pathogens or contaminants in FDA regulated products by FDA laboratories, third party laboratories or field personnel. In addition, methods, technologies, instrumentation, and test kits may also prove useful for field investigators, regulatory microbiologists, chemical analysts, third party analysts, and even importers and shippers seeking to achieve a rapid determination of the presence of pathogens, toxins, or other contaminants in FDA-regulated products.