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Salmonella Detection Rates Continue to Fail

Traverse City, MI – *Salmonella* is the number one cause of death and hospitalization due to a food pathogen, yet a percentage of food laboratories fail to detect or rule out contamination of the common food pathogen. A study of 17,881 proficiency testing results from 1999 to 2013 found that laboratories continue to submit false positives and false negatives when testing for *Salmonella*.

Salmonella is estimated to cause 1.2 million illnesses in the United States each year with approximately 23,000 hospitalizations and 450 deaths, according to the Centers for Disease Control and Prevention. Failure of a laboratory to detect accurately *Salmonella* may have significant public health consequences. Conversely, if a laboratory falsely states a sample is contamined, the economic losses to the food industry may be great.

"It's important for the laboratory to be accurate in its findings," explained Christopher Snabes, BS, MS, CFS, lead author of the study. "Good laboratories participate in proficiency testing in order to assess objectively their accuracy and make subsequent adjustments in their education and protocols."

The study, produced by the American Proficiency Institute (API) in Traverse City, Michigan, examined data over a 15 year period. It found that false negative rates, erroneously stating that no contaminant was present, ranged from 1.9% to 10.6% for *Salmonella*, spp. detection. False positive rates ranged from 2.1% to 5.9%.

"Unfortunately, not all food laboratories are motivated to enroll in proficiency testing programs," continued Snabes. "Without the implementation of model laboratory standards, as provided for in the Food Safety Modernization Act, the actual detection rates may be even worse."

API is a private institute that supplies proficiency testing programs for food laboratories and clinical laboratories. The study is presented by API at the American Society for Microbiology, 114th General Meeting in Boston, MA, on Monday, May 19, 2014.