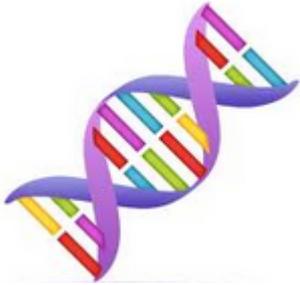


FDA deservedly crowing about new use of biotechnology

By ACSH Staff — June 3, 2014



FDA is [now using](#) ^[1] cutting edge biotechnology whole genome

sequencing to help identify the sources of foodborne illness outbreaks. This technique involves identifying the precise sequence of DNA constituents in a bacterial sample taken from people with an illness, and compares it to samples taken from suspected foods. This is a precise and powerful use of bioengineering that can reduce the time spent in identifying the source of outbreaks, and thus allow the agency to more quickly take action to stop the sales of contaminated foods and recall those already in the marketplace.

Not only does this procedure help consumers by speeding up the recall process, its specificity helps manufacturers and distributors by assuring that uninvolved foods will not be recalled.

For example, on their website, the agency describes an outbreak of *Salmonella montevideo* in 2009-2010 that sickened nearly 300 people in 44 states. The usual tracking procedures asking people what they had eaten before they became ill and correlating the responses with food sources led to 3 possible sources. These were: a spiced salami, pistachio nuts, or the spicy coating on the salami. But the typical lab techniques couldn't pinpoint which of the three was the culprit. This uncertainty could have resulted in recalls of both the pistachios and the salami. Fortunately, use of genome sequencing was able to pinpoint the real source the spice coating on the salami, and the pepper in that coating was found to be contaminated.

There is now a new network, the so-called [Genome Trakr Network](#) ^[2], that involves both State and Federal Public Health laboratories. These labs identify and list the genomes of microbes from outbreaks of foodborne illnesses, and make them available to both domestic and international labs.

ACSH's Dr. Ruth Kava applauded this effort, saying It has been a problem in the past to accurately and swiftly identify the sources of foodborne illnesses by strictly epidemiological and standard laboratory techniques. Whole genome sequencing can both speed up the identification procedures and make them more specific, thus benefiting both consumers and producers. She continued, This is just another example of how biotechnology can benefit human health with no risks at all.

Source URL: <https://www.acsh.org/news/2014/06/03/fda-deservedly-crowning-new-use-biotechnology>

Links

[1] <http://www.fda.gov/food/foodscienceresearch/wholegenomesequencingprogramwgs/default.htm>

[2]

<http://http://www.fda.gov/Food/FoodScienceResearch/WholeGenomeSequencingProgramWGS/ucm363134.htm#tracr>