How to Detect Multiple Analytes from One Sample, Including Antibiotic Residues and Bacterial Contaminants

Free Seminar, November 3, 2011 (7:30-8:30am)

Join us for breakfast and discover the future in the multiplex detection of food contaminants. We invite you to enjoy a delicious selection of cereals, pastries and drinks.

Part I: How to use your lab resources more efficiently: multi-analyte suspension array affinity assays!

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Part II: Ensure food safety and quality with UNISENSOR rapid, multi-analyte and on-field testing.

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It is long understood that the simultaneous detection of multiple analytes within a single sample in a single analysis run is not only more efficient, but opens new diagnostic approaches as well. Besides reduced analytical costs, less sample handling, fewer sample switching errors and less waste, it allows the profiling of herds, flocks or product batches. For example, declaring a swine herd free from specific (transmissible) diseases and/or free from residues of the most prevalent classes of antibiotics using one identical affordable platform. This is not possible with instrumental high-end techniques such as mass-spectrometry.

The detection of antibiotics in food matrices has been dramatically developed for many years to give users, trust, accuracy and speed. Among the undisputed actors in the field, Unisensor has greatly contributed by providing simple and field tests for rapid detection in milk. *In vitro* approaches have been patented and are today available.

On the other hand, arrays of beads, where each bead can be identified using a flow cytometer, have been produced for the user by RnAssays in such a way that they allow the detection of e.g. *Salmonella enterica* spp., *Trichinella spiralis*, *Toxoplasma gondii*, PRRS virus, *Actinobacillus pleuropneumoniae* serotypes simultaneously. In this modular system, many other pathogens can and will be added to this series. The Residue Plex product line, using the technology developed by Unisensor, targets the simultaneous detection of residues of several families of antibiotics in different analytical matrices. We thus have entered an intriguing next phase in affinity screening testing, providing higher quality data than the conventional assays. Our solutions will set a new standard in assays.