

On-site biosensors to detect pathogens

Researchers at the University of Rhode Island, the United States, have developed biosensors that can detect *Salmonella*, *E. coli* and several other pathogens. These novel biosensors utilize fibre optic technology to quickly and accurately detect and quantify bacteria levels in meat, poultry and other foods. These on-site biosensors provide results within an hour.

Several sensors were developed based on vibrating quartz crystals or fibre optic probes along with *Salmonella* antibodies that bind pathogen cells to the sensor. The latest version also uses microscopic magnetic beads called microspheres. The surface of the beads are covered with antibodies that collect the pathogen and are labelled with a fluorescent dye. Then the beads are magnetically focused in front of optical fibres and a laser signal reports the pathogen concentrations. *Contact: Mr. Todd McLeish, the United States. Tel: +1 (401) 8747 892; E-mail: tmcleish@advance.uri.edu. (Website: <http://www.newswise.com/articles/2000/7/ECOLI.URI.html>)*