

## An emerging and potential foodborne pathogen detection technique: Biosensors

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### Abstract

Food safety is a global health goal and the foodborne diseases take a major crisis on health. Therefore, detection of microbial pathogens in food is the solution to the prevention and recognition of problems related to health and safety. For this reason, a scrutinized literature survey has been carried out aiming to give an overview in the field of microbiology as foodborne pathogen detection. Conventional and standard bacterial detection methods such as culture and colony counting methods, immunology-based methods and polymerase chain reaction based methods, may take up to several hours or even a few days to yield an answer. Obviously, this is inadequate, and recently many researchers are focusing towards the progress of rapid methods. Although new technologies like biosensors show potential approaches, further research and development is essential before biosensors become a real and reliable choice. New bio-molecular techniques for food pathogen detection are being developed to improve the biosensor characteristics such as sensitivity and selectivity, also which is rapid, reliable, effective and suitable for in situ analysis. Our presentation not only offers an overview in the area of microbial pathogen detection but it also describes the conventional methods, analytical techniques and recent developments in food pathogen detection, identification and quantification, with an emphasis on biosensors.

### Biography:

Dushyant Singh has completed his Masters degree in microbiology and pursuing his PhD in food microbiology. He is working as a Scientist in well esteemed organization in the field of quality evaluation of food microbiology. He has also serving as resource person for various national as well as international training programme organized by government of India (FSSAI, MoFPI & various state food laboratories). He has published more than 20 research papers in reputed journals. He has more than 16 year's experience in the field of food microbiology for quality evaluation according to ISO/IEC:17025:2017..