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MOLECULAR METHODS USED FOR THE DETERMINATION OF PATHOGEN MICROORGANISMS AT MEAT AND MEAT PRODUCTS

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All required nutritional ingredients taken at the sufficient level is prerequisite for healthy growth. For this reason, metabolites that consist on the result of microbiological contamination must be known very well, beside the compound of consumptive foodstuff. The meat and meat products are rich foodstuffs especially from the point of protein, vitamin, and mineral matters. Therefore, meat and meat products have to take among consumed nutrients absolutely. The meat is a foodstuff that spoiled very quickly. They can be affected human health negatively, beside the shelf life of meat and meat products the results of microorganism growth. Pathogen bacterial strains are mostly present such as *Arizona hinshawii*, *Bacillus anthracis*, *Campylobacter coli*, *C. jejuni*, *Clostridium botulinum*, *C. perfringens*, *Escherichia coli* O157:H7, *Listeria monocytogenes, Pseudomonas mallei*, *Salmonella* spp., *Yersinia enterocolitica, Staphyloccus aureus* etc. at meat and meat products. Rapid and easy identification of pathogen microorganisms at meat and meat products for qualified and reliable food production have become important. For this reason, the tendency of alternate methods, which have faster, reliable, and repeatability as compared with conventional methods have been increased. The molecular based methods have been founded among these methods. The molecular based methods used for identification of pathogen microorganisms at meat and meat products can be arranged as PCR, PFGE, MLST (Multi-Locus Sequence Typing), 16S rDNA, MALDI-TOF (Matrix Assisted Laser Desorption/ Ionization- Time of Flight), FISH (Fluorescent in Situ Hybridization), DNA Hybridization, DNA Micro Assay, etc.

Keywords: Pathogens, molecular microbiology, meat products

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