Molecular characterization of some virulence genes of *Salmonella enterica* serotype sandow and saintpaul isolated from environment of dairy farms at Assiut Province, Egypt

Eman Khalifa Sedeek[1] and **Sotohy Ahmed Sotohy**[2]
[1]Alexandria University, Egypt
[2]Assiut University, Egypt

Dairy farm environment could become contaminated with *Salmonella* following outbreaks of illness, colonization of animals or by general contamination. The present study investigated a total number of 95 samples collected from three dairy farms in three different localities at Assiut Province including air (25), water (35) and manure (35) samples for detection of *Salmonella* species by bacteriological isolation, morphological, biochemical and serological identification followed by molecular characterization for the presence of six virulence genes; *pefA* (700bp), *mgtC* (677bp), *stn* (617bp), *sopB* (517bp), *invA* (284bp) and *avrA* (422bp) in *Salmonella* isolates. Bacteriological examination revealed the isolation of 3 (3.2%) *Salmonella* isolates from totally examined samples, which were identified serologically as one (2.9%) *Salmonella enterica* serotype sandow isolated from water and two *Salmonella enterica* serotype saintpaul from air and manure (one from each with 2.9% of each). Molecular characterization of the three *Salmonella* isolates revealed that all six tested virulence genes; except sopB (517bp); presented in *Salmonella enterica* serotype sandow isolated from water, while all 6 tested virulence genes found in *Salmonella enterica* serotype saintpaul isolated from manure and found that invA (284bp) was the only virulence gene located in *Salmonella enterica* serotype saintpaul isolated from air. This study highlighted on the potential sources for *Salmonella* contamination moreover the epidemiology of salmonellosis in dairy farms that necessitate following of strict healthful measures to reduce the risk of *Salmonella* infection that still constitutes a significant world zoonosis particularly through contamination of dairy farm environments that contribute to extend the recycling of *Salmonella* that considered the most vital sources of animal and human infection with *Salmonella*.

Biography

Eman Khalifa Sedeek is an Acting Dean of Faculty of Veterinary Medicine, Alexandria University, Matrouh Branch; Assistant Professor of Microbiology and Immunology; Manager of Information Technology (IT Unit). She has her expertise in Biotechnology, Food Microbiology, Animal Microbiology and Molecular diagnostic Microbiology. She has the first record in Egypt and worldwide for isolation and identification of *Trichoderma pseudokoningii* Rifai from Egyptian immunocompromised cattle with *Mycobacterium bovis* infection with international record from Mycological Center, Assiut University, and has been published in Nature Precedings.

dr_eman_vet@yahoo.com