

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

**МАТЕРІАЛИ XI ВСЕУКРАЇНСЬКОЇ  
НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ  
СТУДЕНТІВ АСПІРАНТІВ ТА ВИКЛАДАЧІВ  
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО  
ЦЕНТРУ КАФЕДРИ ІНОЗЕМНИХ МОВ**

**“TO MAKE THE WORLD SMARTER AND SAFER”**

(Суми, 23 березня 2017 року)

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
SUMY STATE UNIVERSITY  
FOREIGN LANGUAGES DEPARTMENT  
LANGUAGE CENTRE

**MATERIALS OF THE ELEVENTH  
ALL UKRAINIAN SCIENTIFIC PRACTICAL  
STUDENTS', POSTGRADUATES' AND INSTRUCTORS'  
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## EMERGENCE OF ANTIMICROBIAL RESISTANCE IN BACTERIA: IS IT A POINT OF CONCERN?

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Pathogenic bacteria or pathogen is responsible for occurrence of infectious diseases in humans and animals. Medical intervention in an infection primarily involves attempts to eradicate infecting pathogen using substances that actively inhibit or kill it, which are known as antibiotics.

In the animal production sector, antimicrobials are used for the treatment of infections in single animals and in flocks. Prophylactic application of antimicrobials is used to prevent the spread of infections from sick to healthy animals in the same production unit. Antibiotics are also used for growth promotion purposes.

However, their application has led to the emergence and spread of antibiotic resistance. Since revolutionary discovering of penicillin, almost simultaneously, scientists faced to the problem of resistance of bacteria to antibiotic. According to scientific researches, on the one hand, sub-therapeutic use of antimicrobials as feed supplements has been recognized as a potential driving force in accelerating the emergence of antimicrobial-resistant bacteria. On the other hand, the clinical use of antimicrobials also drives the emergence of antimicrobial-resistant bacteria.

Thus, the intestinal flora of healthy animals is considered to be the most important reservoir of resistant bacteria and genes (INFOSAN 2008). As contamination of carcasses with fecal flora during slaughtering occurs, animal-origin foods may serve as a vehicle to transport resistant bacteria and genes between animals and humans (van den Bogaard and Stobberingh 2000).

Antimicrobial resistance in foodborne pathogens and commensals is of global concern due to its public health consequences. European Food Safety Authority (2008) reports about evidence of the link between extensive antimicrobial use in the food-producing animal sector and the appearance of resistant strains in human beings. There are many reports regarding prevalence of antimicrobial-resistant bacteria, that have been recovered from various foods, including vegetables, confectionary, milk and dairy products, but the majority of resistant strains have been isolated from traditional retail meats and poultry.

Constant inadequate usage of antimicrobials in the animal producing sector leads to occurrence of “superbugs” – multidrug resistant bacteria, including those resistant to clinically important, frontline antimicrobials. Infections with resistant pathogenic bacteria often result in reduced treatment efficacy, prolonged illness, increased morbidity and mortality. This fact emphasizes the public health value of continuing efforts to educate animal producers in due handling, consumers in proper food handling and preparation methods, as well as the importance of sustained surveillance of isolates from throughout the food production area to detect emerging antimicrobial resistance phenotypes.

#### PECULIARITIES OF LIPID PROFILE DISORDERS FOR PATIENTS WITH TYPE 2 DIABETES MELLITUS AND ARTERIAL HYPERTENSION

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Dyslipidemia is one of the key risk factors of cardiovascular disease (CVD) for patients with type 2 diabetes mellitus (DM). Endothelial and vascular dysfunction in large arteries and microcirculation are caused by chronic hyperglycemia,