

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ
ФАКУЛЬТЕТ ІНОЗЕМНОЇ ФІЛОЛОГІЇ
ТА СОЦІАЛЬНИХ КОМУНІКАЦІЙ**



СОЦІАЛЬНО-ГУМАНІТАРНІ АСПЕКТИ РОЗВИТКУ СУЧАСНОГО СУСПІЛЬСТВА

**МАТЕРІАЛИ V ВСЕУКРАЇНСЬКОЇ НАУКОВОЇ КОНФЕРЕНЦІЇ СТУДЕНТІВ,
АСПРАНТІВ, ВИКЛАДАЧІВ ТА СПІВРОБІТНИКІВ**

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complications of diabetes which contain: in the first place polyneuropathy – 0.12, retinopathy – 0.03 and nephropathy – 0.02.

Conclusions. In the structure of prevalence of the endocrine system diseases the first place takes diffuse goiter, the second – obesity, the third – diffuse goiter II-III type, the fourth – diabetes. Nevertheless, the prevalence in the region is lower than in comparison with the Ukrainian index. Neuropathy, retinopathy and nephropathy are dominated among the complications. Rising the diabetes prevalence and consequences of disease complications made the research of this pathology in children of primary importance.

EXPLORING OF GENETIC FACTORS OF PATHOGENICITY AND ANTIBIOTICS RESISTANT OF STAPHYLOCOCCUS AUREUS

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Relevance of the article. Staphylococcus aureus (*S. aureus*) is an opportunistic pathogen of human and animal skin and nasal mucous membrane but sometimes they can cause infections affecting many organs. In human this pathogenic microorganism can cause skin infections such as boil, carbuncle, and furuncle. *S. aureus* can also cause several diseases such as bacteremia, endocarditis, osteomyelitis and toxic shock syndrome, scalded skin syndrome and Staphylococcal foodborne diseases (SFD).

Objective. Analysis of modern literary sources for evaluation of hazard factors *S. aureus*.

Some *S. aureus* are methicillin-resistant (MRSA) and vancomycin-resistant, and infection caused by these resistant strains may be fatal because of lack of alternative antibiotics. MRSA has been well known for being resistant to β -lactam antibiotics, which are the most common antimicrobial agents used to fight against staphylococcal infection. Researchers reported that methicillin resistance in staphylococci was carried by a specific mobile genetic element (MGE) called staphylococcal chromosome cassette *mec* (SCC*mec*). *S. aureus* produces extracellular proteins and toxins, that are major factors of pathogenicity. The most important toxins are called Staphylococcal enterotoxins (SEs). There are 17

major serologically distinct SEs (SEA through SER with no SEF). The SEC has three antigenically distinct subtypes: SEC1, SEC2, SEC3, and SEG has a variant form called, SEGV. Enterotoxins are heat-stable, and are produced when the temperature of food is at or below 46 °C. Consumption of preformed toxin induces vomiting and diarrhea within 1–6 h. The genes for enterotoxin production are present in pathogenicity islands in the chromosome, in plasmids, and in temperate bacteriophages.

Since research findings and outbreak investigations have suggested that SFD is largely due to faulty food handling practices, knowledge and skills in food industry workers are warranted. Outbreak investigations have suggested that improper handling of cooked or processed food is the main source of contamination.

Results. Recent findings of high prevalence of *S. aureus* including MRSA in raw retail meat impose a potential hazard to consumers, both as classic SFD and as a potential source of colonization of food handlers.

Conclusion. SFD is one of the most common causes of foodborne disease worldwide. Prevention of *S. aureus* contamination from farm to work is crucial. Further study is required to fill the research gap.

JUSTIFICATION OF THE FRANCHISING ECONOMIC EFFICIENCY

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The main focus of regeneration and socio-economic development of all regions of Ukraine, without any exceptions, is support and development of small and medium enterprises. Moreover, it is urgent to develop and implement new and adapt existing economic tools and methods including modern conditions of the economy. Analysis of international experience shows that one of the perspective directions of strengthening small and medium business is the development and support of franchising.

For businesses, an important and effective step is to use the franchise relationship because the foundation of the market economy on the one hand is large companies that give stability and controllability, determine the level of scientific, technical and productive capacity, and on the other hand, small business, which creates a competitive environment characterized by high mobility and ensures the independence of