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The article describes the work priorities M. M. Tzekhnowitzer. Describes the production of various types neurovaccinia. Characterized by immunization of animals living typhous neyrovirusom. The efficiency formalized and karbolizovannoy neurovaccinia in experiments on guinea pigs and human volunteers. Considered theoretically important works M. M. Tzekhnowitzer in modern vaccine.	
<b>Keywords:</b> neyrovirus, titrazh, subinfektsionnye dose, injection, typhus, vaccine, immunity.	
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<b>FEATURES OF ETIOLOGIC SPECTRUM OF ACUTE ALLERGY, URTICARIA FOR CHILDREN DEPENDING ON SEX AND AGE BY NOMOGRAPHIC METHOD</b>	
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In this work there are presented the results of allergy testings of 186 children suffering from acute allergy, urticaria. The aim of this study was the specification of casually significant allergen depending on sex and age. Results of testing are processed by a method of the mathematical analysis, raised in nomograms according to which, considering the nosological entity of disease, sex and age of a patient, it`s defined causally significant allergen.	<b>21-26</b>
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ANTIBACTERIAL PROPERTIES OF PHARMACEUTICAL COMPOSITIONS WITH ORNIDAZOLE	

AND FLAMIN

Bobritskaya L.A., Ruban H.A., Osolodchenko T.P., Shcherbak O.N., Dmitrievskiy D.I.

For the treatment of protozoal-associated bacterial infections of a pharmaceutical composition in capsule form, which includes ornidazole and herbal substances flamin. Established antimicrobial activity against anaerobic (*Clostridium perfringens* 28, *Clostridium noyvi* 277, *Peptococcus niger*, *Bacteroides fragilis* 13/83) and aerobic (*Staphylococcus aureus* ATCC 26923, *Escherichia coli* ATCC 25922, *Bacillus subtilis* ATCC 6633, *Pseudomonas aeruginosa* ATCC 27853) bacteria and fungi (*Candida albicans* ATCC 653/885).

**Key words** : antibacterials preparations, capsule, ornidazole, flamin.

**ИСПОЛЬЗОВАНИЕ ПОЛИМЕРАЗНОЙ ЦЕПНОЙ РЕАКЦИИ ПРИ ИЗУЧЕНИИ МУЗЕЙНЫХ ШТАММОВ *CORYNEBACTERIUM DIPHTHERIAE*, ЦИРКУЛИРОВАВШИХ НА ТЕРРИТОРИИ УКРАИНЫ В 60-Е ГОДЫ XX ВЕКА**

**Мироненко Л.Г., Доан С.И., Савчук А.И.**

POLYMERASE CHAIN REACTION USAGE IN STUDYING OF *C. DIPHTHERIAE* MUSEUM STRAINS, WHICH WERE ISOLATED IN UKRAINE IN 60 YEARS OF XX CENTURY

Myronenko L.G., Doan S.I., Savchuk A.I.

The 22 *C. diphtheriae* museum strains were studied by polymerase chain reaction with specific primers on *tox*-gene and arbitrary primer № 45. These strains were isolated in 1961 in Gorlovka of Donetsk region and in 1963 in Kharkov. The certificates of these museum strains were specified and supplemented due to this investigation. The half of these studied strains were genetic similar and belong to single PCR-type. Besides that, three genetic isolated types were circulating in the East region of Ukraine in this and latest periods.

**Key words**: *C. diphtheriae*, polymerase chain reaction with specific and arbitrary primers.

32-39

**ВИВЧЕННЯ ВПЛИВУ ПЕРОРАЛЬНОГО ВВЕДЕННЯ АНТИГЕННИХ ПРЕПАРАТІВ ЗБУДНИКА ДИФТЕРІЇ НА РОЗВИТОК ШКІРНОЇ РЕАКЦІЇ У КРОЛІВ**

**Бабич Є. М., Єлисеєва І. В., Ждамарова Л. А., Білозерський В. І., Бобирева І. В.**

STUDY OF INFLUENCE OF PREVIOUS ORAL APPLICATION OF DIPHTHERIA ANTIGENIC PREPARATIONS ON RABBIT ALLERGIC REACTION FORMING AFTER SKIN TEST

Babych Ye. M., Yelyseyeva I. V., Zhdamarova L. A., Belozersky V. I. , Bobireva I. V.

It's studied an influence of previous oral application of diphtheria antigenic preparations on allergic inflammation forming after skin test. It's used destroyed by ultrasonic microbe cells *C.diphtheriae* var. *gravis* *tox+* massachusetts, free from destroyed cells by the use of centrifugation supernatant and refined concentrated diphtheria toxoid. Experimental rabbits are fed to 3,5 ml of one of antigenic preparations (the total protein dose is 33,6 mg), control ones are fed to saline. In a week all animals were injected intracutaneously 0,2 ml each of corresponding antigenic preparation. The findings testify to decreasing manifestation tendency of rabbit skin reactions on antigenic preparations.

**Key words**: diphtheria pathogen, antigenic preparations, oral immunization, skin allergic reaction.

40-43

**РОЛЬ МОНОЦИТАРНО-ФАГОЦИТАРНОЙ СИСТЕМЫ В ФОРМИРОВАНИИ ПРОТИВОВИРУСНОЙ РЕЗИСТЕНТНОСТИ У МЫШЕЙ ПОСЛЕ ПРЕДВАРИТЕЛЬНОГО ВВЕДЕНИЯ КРИОКОНСЕРВИРОВАННОЙ КОРДОВОЙ КРОВИ**

**Кожина О. Ю., Останкова Л. В., Останков М. В., Бондарович Н. А., Гольцев А. Н.**

ROLE OF MONOCYTE PHAGOCYtic SYSTEM IN FORMATION OF ANTIVIRAL RESISTANCE IN MICE AFTER PRELIMINARY INJECTION OF CRYOPRESERVED CORD BLOOD

Kozhina O.Yu., Ostankova L.V., Ostankov M.V., Bondarovich N.A., Goltsev A.N.

Now the task of preventive maintenance and search of biologically active substances, capable to make active the nonspecific immune response, remains an actual during flu epidemic. It has been previously established, that cryopreserved leucoconcentrate of human cord blood (cLHCB) can act as modulator of activity of immunity. In the given work there was estimated influence of preventive injection of cLHCB and its components on functional activity of monocyte phagocytic system cells (MPSC) in mice in the conditions of the induced influenzal infection. Preliminary introduction of cLHCB and its components 6 months prior to infection by flu virus makes 2 times increase of functional activity of macrophages, preventing inhibition of a nonspecific link of immunity. Thus, cLHCB inhibit of secondary immune deficiency development. The found increase in phagocytic activity of peritoneal cavity cells and 3 times increasing of CD11b-marker expression after preventive injection of cLHCB testifies to rise of adherence and protective potential of MPSC that is one of possible mechanisms of formation of resistance to a flu virus. It is shown, that intranasal cLHCB injection before development of viral infection it can be recommended as the method of preventive maintenance of flu.

**Keywords**: cryopreserved cord blood, monocyte phagocytic system, flu preventive maintenance.

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**ЗНАЧЕНИЕ СОДЕРЖАНИЯ НЕКОТОРЫХ ИНТЕРЛЕЙКИНОВ СЫВОРОТКИ КРОВИ В ОПРЕДЕЛЕНИИ ТЯЖЕСТИ ТЕЧЕНИЯ ХРОНИЧЕСКОГО ЛАРИНГИТА У ЛИЦ С ПЕРСИСТИРУЮЩЕЙ ГЕРПЕСВИРУСНОЙ ИНФЕКЦИЕЙ (ВПГ 1,2ТИП)**

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**Гарюк Г.И., Куликова Е.А., Зуетир Самир**

**CYTOKINES AND C-REACTIVE PROTEIN CONTENT IN SERUM BLOOD OF PATIENTS WITH CHRONIC LARYNGITIS DISEASE**

Garyuk G. I., Kulikova E.A., Zaiter Samir

Some kinds of interleukines with chronic laryngitis disease were investigated. There is “cytokines explosion” of the patients with chronic laryngitis with persistent herpes simplex virus. Comparative investigation cytokine profile in serum blood is demonstrated: balanced reaction cytokines profile of patients with chronic laryngitis without persistent herpes simplex virus and dysbalanced reaction of patients with laryngitis (hyperergation). Increased content IL-6 and low content g-interferon and tumor necrosis factor (TNF-a) are predisposition of chronisation inflammation processes in larynges. This situation needs sighting correction.

**Key words:** herpes simplex virus, cytokines, chronic laryngitis disease.

**ОСОБЕННОСТИ ГОРМОНАЛЬНОГО ФОНА ПРИ ОСТРОМ АЛЛЕРГОЗЕ, КРАПИВНИЦЕ У ДЕТЕЙ**

**Шмулич О.В., Мясоедов В.В.**

**ESPECIALLY HORMONAL ACUTE ALLERGIES, URTICARIA IN CHILDREN.**

**Shmulic O.V. h, Myasoedov V.V.**

54-56

In the work the results of research TSH, T3, T4, cortisol levels in children with acute allergies, urticaria. Significantly increased TSH in the absence of changes in the concentrations of T3, T4, cortisol, which is the rationale for the use of synthetic corticosteroids in the treatment of acute allergosis, urticaria.

**Key words:** acute allergosis, urticaria, children, kartzol, T3, T4, TSH.

**ЛАБОРАТОРНА МОДЕЛЬ ХРОНІЧНОГО СТАФІЛОКОКОВОГО ТОНЗИЛІТУ**

**Скляр Н.І., Калініченко С.В., Рижкова Т.А., Бабич Є.М., Журавльов А.С., Мані Ханс, Ждамарова Л.А., Шкодовська Н.Ю., Балак О.К.**

**LABORATORY MODEL OF CHRONIC STAPHYLOCOCCAL TONSILLITIS**

Sklyar N.I., Kalinichenko S.V., Ryzhkova T.A., Babych E.M., Zhyravlev A.S., Mani Hans, Zhdamarova L.A., Shkodovska N.Yu., Balak A.K.

Investigation and development of new preparations for chronic tonsillitis (CT) treatment and prevention requires application of appropriate laboratory model. For the development of CT laboratory model chronic pyoinflammatory process was reproduced in chinchilla rabbits using *Staphylococcus aureus* 209 P (ATCC 6538-P) reference-strain. Preliminary sensitizing of animals with inactivated causative agent and repeated infection with the reference-strain made it possible to work out reproducible model of chronic tonsillitis. Adequacy of chronic tonsillitis development was confirmed by the results of microbiological and pathomorphological researchers. The proposed laboratory model can be used for solving of theoretical and practical medicine and pharmacology topical problems.

57-60

**Key words:** laboratory model, staphylococcus, chronic tonsillitis.

**ЖИТТЄЗДАТНІСТЬ ТА АДГЕЗИВНІ ВЛАСТИВОСТІ ПРОБІОТИЧНИХ ШТАМІВ МІКРОБІВ, ЩО ВХОДЯТЬ ДО СКЛАДУ ЛІОФІЛІЗОВАНИХ КОМЕРЦІЙНИХ ПРОБІОТИКІВ, ВИКОРИСТОВУЄМИХ В ПРАКТИЦІ**

**Солонина Н.Л.**

**VIABILITY AND ADHESIVE PROPERTIES OF BACTERIA PROBIOTIC STRAINS FROM THE LYOPHILIZED COMMERCIAL PROBIOTICS WHICH ARE USED IN PRACTICE**

Solonina N.L.

Nowadays probiotics are produced in lyophilized form in order to prolong the shelf-life of the product. But the longitude of probiotic bacteria cells inactivation stage can last up to 8-10 hours. In adult patients with diarrhea syndrome and in infants the speed of food transport is much higher and the major part of probiotic bacteria cells is naturally eliminated from the host organism. The viability of microorganisms that compose the basis of commercial probiotics used by health professionals and veterinary surgeons in Ukraine was determined. It was shown that viability of bacteria in commercial lyophilized probiotic preparations during reactivation stage is displayed differentially. According to the adhesion parameters highly adhesive microorganism cultures in probiotics “Bifidumbacterin”, “Bificol” and “lactobacterin” were found. It was proven that the quantity of viable cells decreases significantly in “Colibacterin”, “Narine”, “Probifor” and “Subalin” when the preparation’s lyophilized form is changed into the liquid form. The low adhesion ability of microorganisms was shown for “Subalin”, “Linex”, “Bifidumbacterin-forte”, “Narine” and “Probifor”.

61-65

**Key words:** probiotic, viability, adhesion.

**АНТИМИКРОБНЫЕ СВОЙСТВА ГИДРОКСИАПАТИТНЫХ ПОКРЫТИЙ С СОДЕРЖАНИЕМ ХИТОЗАНА И СЕРЕБРА НА ТИТАНОВЫХ СУБСТРАТАХ ПО ОТНОШЕНИЮ К МИКРООРГАНИЗМУ E. COLI ATCC 25922**

66-73

**Суходуб Л.Б., Осолодченко Т.П., Яновская А.А., Радченко А.Е., Кучма И.Ю., Казмирчук В.В.,**

**Волянський Ю.Л., Суходуб Л.Ф.**

**ANTIMICROBIAL PROPERTIES OF HYDROXYAPATITE COATINGS CONTAINING OF CHITOSAN AND SILVER ON TITANIUM SUBSTRATES IN RELATION TO MICROORGANISMS *E.COLI* ATCC 25922**

Sukhodub L. B. , Osolodchenko T. P., Yanovska A. A., Radchenko E. A., Kuchma I. Y., Kazmirchuk V. V., Volyansky Yu. L., Sukhodub L. F.

In this work it was studied the antibacterial properties of coatings based on HA, with Chitosan and silver ions additions, produced by substrates termodeposition method from aqueous solutions with varying concentrations of Chitosan (0.025 and 0.1 g/l) and silver (1 mg/l) as the antimicrobial components as well as three-part cover, consisting of a film of Chitosan, HA and silver. Study on antibacterial properties of composite coatings on the pathogen *E.coli* ATCC 25922 was held by Spectrophotometric measurement and analysis of optical density of suspensions, containing samples. 3 series of measurements data were averaged. The results showed that the concentration of antimicrobial components have indicated a bacteriostatic effect of coatings on the culture of *E. coli* AS ATCC 25922 in physiological solution at a temperature of 37 °C. The most effective was the three-part cover consisting of a film of chitosan, HA and silver.

**Keywords:** hydroxyapatite, Chitosan, silver, microorganism *E. coli*, optical density, antibacterial activity.

**РАЗРАБОТКА ОСНОВНЫХ ПОЛОЖЕНИЙ САНИТАРНЫХ НОРМ И ПРАВИЛ ЭПИДЕМИОЛОГИЧЕСКОЙ БЕЗОПАСНОСТИ ФОНТАНОВ УКРАИНЫ И РОССИИ**  
**Мануйлов М.Б., Мартынов А.В., Маньковский В.В.**

**DEVELOPMENT OF THE MAIN PROVISIONS OF SANITARY NORMS AND RULES EPIDEMIOLOGICAL SAFETY FOUNTAINS OF UKRAINE AND RUSSIA**

Manuilov MB, Martynov AV, Mankovsky VV

The article presents the main points of sanitary norms and rules of operation of fountains operating in recirculation mode (water recycling) and their water supply from water bodies or water supply systems (flow mode), developed on the basis of standards of operation of swimming pools. Based on a proposal formulated standards specifications applicable to the disinfection system and water purification fountains operating in recirculation mode, implemented in the form of technology based on the bactericidal properties of silver ions and copper. The presented approach to biosecurity fountains found support from the Ministry of Health of Ukraine and has been the basis of input sanitary norms and regulations will come into effect in 2013.

74-82

**Keywords:** fountains, standards specifications, silver ions and copper

**ВИЗНАЧЕННЯ НАЯВНОСТІ ЛЕКТИНІВ У СИРОВИНІ КУКУРУДЗИ ЗВИЧАЙНОЇ ТА ВИВЧЕННЯ ЛЕКТИНОВОЇ АКТИВНОСТІ**

**Карпюк У.В., Кисличенко В.С.**

**IDENTIFICATION OF LECTINS OF ZEA MAYS RAW MATERIAL AND THE STUDY OF LECTIN ACTIVITY**

Карпюк UV., Kyslychenko VS.

The aime of the study was to identify lectins in the Zea mays raw material: roots, stems, heads, leaves and corn silk and study their activity. Lectins activity has been studied using the biological method of rat erythroagglutination. This method is based on formation of aggregates of lectins and rats erythrocytes. The activity unit was the floor amount of lectins that agglutinate erythrocytes. The protein nature of extracts that agglutinate has been determined using Bradford method. The lectins activity of Zea mays roots was 6,21±0,11 unit/mg of protein; of heads – 2,61±0,17 unit/mg of protein; of leaves – 0,62 ±0,05 unit/mg of protein; of corn silk – 1,06±0,08 unit/mg of protein; of stems – 0,97±0,09 unit/mg of protein. The greatest lectins activity was in leaves, stems and corn silk.

83-85

Key words: Zea mays, lectins, lectin activity

**ЛЕКЦІЇ (LECTURES)**

**БАКТЕРИАЛЬНЫЕ БИОПЛЕНКИ И ИНФЕКЦИИ (Лекция)**

**Чернявский В. И.**

**BACTERIAL BIOFILMS AND INFECTION (LECTURE)**

Chernjavsky V.I.

The lecture presents published data on the biofilm – a special form of organization of the microflora of the human body, the role of microbial biofilms in the genesis and development of many common diseases. Different mechanisms of antimicrobial resistance development in biofilm are reviewed in the article.

86-90

**Key words:** bacterial biofilms, extracellular matrix, dynamic and static methods, antimicrobial resistance