SUMMARY

Babushkina O.Ph., Panova T.S. **The rehabilitation of senior class girls with the bearing disorder** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №.3. – P. 3-8.

The results of influence of various complexes of physical rehabilitation of the physiological parameters of 16 year old girls are discussed in the article. The rehabilitation was carried out at school № 23 of Simferopol city.

Key words: physical rehabilitation, the bearing disorder, senior class girls

Glivenko A.V. **The functional significance of lead and cadmium for cardiac activity in medical students** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 9-12.

An investigation of funcional significance of lead and cadmium for functioning of heart of 26 18-20 year old students of Crimean Medical University was carried out. It is revealed that the content of the investigated heavy metals in hair was within the mark. A positive correlation between the level of cadmium in the organism and 9 parameters of the chronotropic function of heart and negative correlations befuren lead and 4 design indices of heart rate were discovered.

Key words: students, heart, chronotropic function, heavy metals, lead, cadmium.

Djeldubaeva E.R., Chuyan E.N., Moscovskyh A.A. **A preliminary antistress effect of low intensity, electromagnetic field of extremely high frequency during an experimental pain stress in rats** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 13-21.

In the experiments where a single and course use of electromagnetic field of extremely high frequency were applied on rats the following results were obtained: electromagnetic radiation rendered a pronounced anesthetic effect during pain stress, caused by both hypodermic injection of formalin and intraperitoneal injection of acetic acid in the experiments.

Key words: low intensity electromagnetic field of extremely high frequency, stress, tonic pain, visceral pain.

Evstafyeva I.A. **Functional state of central nervous system of teenagers as connected to content of arsenic in hair** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 22-24.

The veseavch on 25 teenagers living on urbanized territory, was carried out. The content of arsenic in hair was at a normal limit (0,21-2,42 μg), but the mean valnes exceeded the norm for children (1μg). The positive correlation between high-frequency EEG-waves and arsenic was revealed, but a more significant correlation was revealed for psychological characteristics (frustration, extraversion, unprotected).

Key words: central nervous system, teenagers, hair, arsenic.

Evstafyeva E., Tymchenko S., Gruzchevsky V. **Evaluation of tone of the Autonomic Nervous System status and concentration of toxic and essential elements in children** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 25-30.

Recent scientific researche proved that concentration of toxic and essential elements effects the tone of the Autonomic Nervous System (ANS). Thus, we decided to research on some particular elements (lead, cadmium, cooper, zinc), which cold effect ANS. In our research we examined the tone of ANS in 20 12 year old children. On the whole the concentrations of elements were within normal values, except for a few cases. The results revealed that children had unbalanced tone of ANS with prevalence of parasympathetic one. We used a non-parametrical method of statistical analysis to (by Spearman) find out a correlation between the selected elements and the children's ANS tone. The physiological role of elements according to the correlation was as followis: Cd, Cu < Zn < Pb.

We revealed that ANS tone might have been effected by toxic and essential elements even when the concentration of elements was within normal values. And ANS tone by means of heart rate variability can be a prognostic marker of such an influence.

Key words: tone of the autonomic nervous system, children, heart rate variability, lead, cadmium, cooper, zinc.

Yolkina N.M. **Changes of some biochemical indices of human erythrocytes in conditions of active oxygen forms generation *in vitro*** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 31-34.

It has been shown that under initiation of oxidative reactions in vitro (Fenton's system) the contents of hemoglobin and methemoglobin were increasing in human erythrocytes and the levels of glucose and glucosilated hemoglobin were decreasing in these conditions.

This fact may be as an evidence of glucose desintegration under effect of active oxygen forms. Also it may be a result of intensification of glucose metabolic process directed on maintenance of erythrocyte cells integrity and their functional activity.

Key words: erythrocytes, hemoglobin, methemoglobin, glucose, active oxygen forms.

Zalata O.A. **Evoked potentials characteristics in connection with calcium and strontium content in an organism of pupils** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 35-40.

The calcium and strontium content measured by the method of X-ray fluorescent spectroscopy was found. The calcium deficit in 12-13-years pupils was discovered. The hair concentration of strontium was within the upper limit of norm. Statistically significant correlations between cognitive characteristics of evoked potentials and calcium and strontium contents were shown. Amount of reliable correlations was fluctuating within the limits of correlation coefficient values for calcium $0.33<r<0.43$, for strontium $0.33<r<0.48$.

Key words: evoked potentials, calcium, strontium, pupils

Zolotnitsky A.P. **On some aspects of vital functions of the pacific oyster (Crassostrea gigas thunberg), liong in the black sea** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 41-47.

The processes of respiration and filtration of a pacific oyster, liong in the Black sea, are investigated. It is shown, that their intensity is close to those of a natural biotope and connected with mass by power functions. The seasonal alterations of speed of these processes caused by genesial activity of molluscums are marked. The characteristic of interrelation of oysters production and metabolism in water of various saltiness is given. It is found out, that the energy consumption is increased for biosynthesis of mass of oyster organic matter in water of a low saltiness.

Key words: Black sea, pacific oyster, respiration, temperatures, saltiness, energy, metabolism.

Ivanov S. P. **The role of exogenous and endogenous factors in the determination of flying activity of megachilid-bees (Hymenoptera: Apoidea: Megachilidae) in Crimea** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 48-60.

There were studied the species peculiarities of flying activity of wild bees, *Anthidium manicatum*, *Pseudoanthidium lituratum*, *Hoplitis manicata*, *H. bidentata*, *Heriades crenulatus*, *Osmia brevicornis*, *O. cerinthidis*, *O. coerulescens*, *O. cornuta*, *O. rufa*, *Megachile apicalis*, *M. maritima*, *M. parietina M. rotundata* and *M. versicolor*. The terms of the morning increase and the evening decrease of the quantity of bees on blooming plants are determined by the threshold value of air temperature and by the level of solar insolation. In the rest part of the day the dynamics of bees' flights is determined by the ratio of the quantity of bees collecting provisions from the blooming plants and by the quantity of bees doing other activities in the nests. That means that the bees are destroying the evenness of distribution of the females in the phases of the nest building cycle. This distribution has the regular nature for every species under study and is caused by changes of speed on which bee females undergo some particular phases of nestbuilding cycle in different parts of the day-time.

Key words: Megachilidae, daily activity, flying dynamics, mechanisms of regulation.

Kotov S.F., Zaldak S.N. **Influence of humidity, salinity and competition on the anatomic structures of vegetative organs of Salicornia europaea L. и Suaeda acuminata (C.A.Mey.) Moq.** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 61-68.

The anatomic structure of stem and leaves *of Salicornia europaea* and *Suaeda acuminata* was investigated. Influence of moistening, salinity and intraspecific

competition is set on the metrical parameters of epidermis, stoma, water-suppling parenchyma and chlorenchyma in leaves and stem *of S. europaea* and *S. acuminata.*

Key words: humidity, salinity, competition, halophytes, epidermis, water-suppling parenchyma, chlorenchyma.

Matsyura A.V. **Indirect methods of density estimation in ecological researches** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – № 3. - P. 69-75.

Indirect methods of population density were considered. The basic mathematical indices were presented and their implications and limitations were examined. The applied ecological software Density from Distance was worked out. The main algorithms of the plotless methods of population's density calculation were figured out.

Key words: population density, indirect methods, plotless methods, applied ecological software.

Melnichenko E.V., Snapkov P.V., Mishin N.P., Efimenko A.M., Ozerova L.A., Parkhomenko A.I., Romashevskiy D.V., Mirnaya A.V., Makarova N.A. **Central circulation reactions under conditions of traction myorelaxation at the mesodermal reflexogenic areas C_3 – Th_8** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 76-80.

To estimate the effect of traditional myorelaxation on central circulation state there were recorded the indices of *central* cardiogeodynamics in the 20 youths before and after 10-15 minutes traction session at C_3 – Th_8 area. Circulation changes representing decreased sympathetic effect on cardiovascular system and circulation redistribution in favor of central blood-current were discovered. Traction myorelaxation of cervical-pectoral area showed high sedative effect on central mechanisms of circulation regulation.

Key words: traction, myorelaxation, biologically active points, segmental reflex areas, central cardiogeodynamics

Mihailova T.I. **Age changes of energy mechanisms in 9-16 years sportsmen** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3 – P. 81-86.

Peculiarities of enerqy potential of young judoists at differeut stages of ontogeny and sport training were oudied. Scientific data and our proprior investigations were analyzed. Cause-and-effect relation between indices of energy supply of judoists on one hand and their sport preparation on the other hand were analyzed too.

Key words: ontogenesis, glicolity serviceability, the fosfogenity mechanism.

Mutev A.V. **Influence of the specific loadings in the process of employments by the sporting combats on the indices of the cardiorespiration system of deaf teenagers** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 87-88.

Adaptation of the cardiorespiration system and its reaction on the physical loadings

of deaf teenagers depend on age and amount of series of specific exercises. With the increase of age the dosed physical loadings related to implementation of technical elements in the sporting combats are executed more «economically».

Key words: cardiorespiration system, deaf teenagers, sporting combats.

Nikolenko O.V. **Evaluation of byochemistry blood composition in gymnasts.** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 89-92.

The regular sports traning effect on gymnast eritrocitic membranes lipid composition and blood plasma in interconnection with peroxide oxidation active condition is studied. Obtained results allowed to pvove the fact of existant metabolic reorganizations depending on the training loadings,so to demonstrate the compensatory-adaptive reactions in organism of the sportsmen.

Key words: byologic membranes, blood plasma, peroxide oxidation, lipid composition.

Ovsyannikova N.M., Repinska E.V., Evstafyeva I.A., Gruzevsky V.A., Moskovchuk O.B., Slusarenko A.E. **Functional state of teenagers cardio-vascular and immune systems in connection with cooper and zinc content in the body** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3 – P. 93-99.

The research of cardio-vascular system state of the 15-years old teenagers in connection with cooper and zinc contents in the body is carried out. The average content of zinc in teenagers was within the limits of norm, coming to its lower border. Statistically significant correlation of immune and hemodynamic parameters with concentration of cooper and zinc in hairs at the state of physiological rest was not revealed. In the conditions of physical loading the correlation between the parameters of heart activity and hemodynamic parameters. and concentration of zinc and cooper in the hair have been revealed. The specific physiological effects of zinc on the vascular system and cooper on heart activity were shown.

Key words: cardio-vascular system, immune system, hemodynamic parameters, metals.

Pavlenko V.B., Sheryemyetyeva O.Y., Kalashnik O.A. **Reflection of Aggressiveness lewe corresponos patterns to of theevoked EEG-potentials** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 100-106.

It was discovered that amplitude and temporal characteristics of evoked EEG-potentials are correlated with aggressiveness in men.

Key words: aggression, personality, EEG-potentials.

Pavlenko O.M. **Neurobiological approach to the investigation of the effects of psychotherapy** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta

im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 107-114.

The article introduces the critical literature review of biological mechanisms of psychotherapy.

Key words: brain, psychotherapy, functional tomography, EEG-potentials.

Panova S.A., Duganov E.B. **Influence of computer on the indices of memory, attention, speed of information perception of the 6-th and 7-th yeer school students** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 115-117.

Comparative researche of mental capacity change of rural school pupils (6-7 class) before and after a 30 minute work at a computer was carried out. The decrease lof indices of long-term memory and speed of information perception was discoveret.

Key words: computer, mental capacity.

Pehimenko G.V. **Aminoacid composition of serum albumin characteristic for some representatives of reptiles and birds classes** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 118-123.

The quantity study of aminoacid composition in serum albumins of some representatives of the reptiles and birds classes is carried out. Judging by the high contents of aminoacids: Glu, Ala, Leu it can be assumed that the investigated proteins can have an increased contents of α-spiral participants on the one hand and according to the presentce of aminoacids: Val, Ile, Met in the proteins it can be concluded that they tend to have an organization of β-structure, on the other hand.

It should be noted that a nonsignificant changes of conservatism range for every aminoacid can be obserued that shows some evolutionary conservatism in the contents of the aminoacids of the examined proteins.

Key words: serum albumin, aminoacids composition, comparative biochemistry.

Ponomareva V.P., Chuyan E.N. **Changes of fermentative activity of peripheric blood leucocytes of probationers with different profile of functional asymmetry under the influence of electromagnetic radiation of extremely high frequency of different localization** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 124-139.

Under the influence of electromagnetic radiation of extremely high frequency of different localization on healthy probationers the increase of functional activity of bactericidial, hydrolytic and energy systems of blood leucocytes was observed.

The achieved results serveasan evidence of precise dependence of the level of observed changes of cytochemical indices and the degree of expressiveness of the effect of sensor asymmetry of probationers and the electromagnetic radiation of extremely high frequency influence localization too. The choice of effective localization of electromagnetic radiation of extremely high frequency influence could be done on the

basis of preliminary determination of sensor asymmetry of a person. The results of the research contribute to practical application of electromagnetic radiation of extremely high frequency for the sake of adaptation potential increase in an organism, which can be used in clinical and pedagogical practice.

Key words: individual profile of functional asymmetry, electromagnetic radiation of extremely high frequency, neutrophiles, lymphocytes, leucocytes.

Reshetniak O.A. **Pecularities of cardiovascular system adaptation to physical loading in students with different levels of training** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 140-143.

Testing results of the groups of students of different levels of sport mastering as to their cardiovascular system adaptation to physical loading is presented in the paper. A valid correlation of pulse arterial pressure, stroke and minute volume data after physical loading and five minutes restoration has been determined.

Keywords: adaptation, cardiovascular system.

Romanenko V.A., Kochura D.A. **The sensory system organization in persons with different levels of genetical anxiety and neuroticism**// Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 144-150.

The article represents a study of sensory system organization in persons with different temperamental properties.

The acoustic and visual sensory systems' heightened sensibility has been discovered in persons with high level of anxiety and emotional instability. The higher accuracy of measurement of dynamical efforts and lower accurate rate of time interval evaluation are typical for these persons too.

Key words: threshold of sensibility, temperamenta properties.

Safronova N.S., Bukov Y.A. **The influence of food supplements on the functional condition of the cardio-vascular system and forming the adaptive reactions of the organism** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 151-156.

Influence of the intake of natural biologically active supplements on cardio-vascular system parameters of students with tense life manner was research. Correlation between the activity of the adaptive reactions of the cardio-vascular system and the forming a non-specific states of patients after the intake of supplements was studied. Obtained results allone to recommend Chyawanprash and Stresscom as a remedy that enlarges the protective-adaptive reserves of the organism of the persons with constant physical and psychoemotional strain.

Key words: food supplements, cardio-vascular system, nonspecific adaptive reactions.

Snapkov P.V., Timofeeva A.M. **Complex rehabilitation of the patients with osteochondropathy of hip joint on the ambulant-polyclinical stage** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 157-162.

The article describes the complex rehabilitation of the patients with osteochondropathy of hip joint on the ambulant-polyclinical stage and the indices of effectiveness according to the diagnostic criteria values.

Key words: osteochondropathy, aseptic necrosis, kinesthetic examination, amplitude of movements, muscular syndrome, rentgenography, blood quotient, psycho-emotional state, therapeutic gymnastics, massage, electrophoresis, ozocerite, magnetotherapy.

Stanishevskaia T.I. **Reactivity of the system of microcirculation in girls during a thermal test** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 163-171.

By use of the method of laser Doppler flow the analysis of reactivity of capillary of blood flow is cjnducted girls of 16-18 years old. Reaction of tissue blood flow in girls on the local rise of skin temperature developed in two phases, that is related to the change of mechanisms of tissue blood flow. The level of reactivity of micro vessels at thermal hyperemia substantially relies on types of microcirculation.

Key words: laser Doppler flow, thermal hyperemia, shallow-bodied type, deep-bodied type, medium-bodied types of microcirculation, reserve of capillary blood flow.

Syshko D.V., Grugevskaya V. F., Mutev A.V. **Vestibule stability in sportsmen with different vestibility-vegetative type of reactions** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 172-175.

In sportsmen with different vestibility-vegetative types of reactions different vestibule stability is found out. The sportsmen with hyperkinetic and eukinetic reaction of the cardiovascular system on the vestibule irritations possess much higher vestibule stability.

Key words: vestibule stability, sportsman, type of reaction.

Temuryants N.A., Chuyan E.N., Verko N.P. **Hypokinesia modifies the physiological reactions on EMF EHF influence** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 176-179.

From the 13th till 31st day of study the effect of hypokinesia, modify ind the adaptive reactions developing as a result of electromagnetic field of extremely high frequency action was discovered.

Key words: electromagnetic field of extremely high frequency, hypokinesia, adaptive reactions.

Tereshenko F.A. **Computer Prediction of Protein Spatial Structure** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – № 3. – P. 180-186.

Prediction of protein spatial structure from its aminoacid sequence is an important problem of modern biology. This review analyses the most widespread approaches to the problem of protein tertiary structure prediction: ab initio, homology modelling and threading, as well as the approaches to evaluation of prediction reliability by newly developed methods.

Key words: protein spatial structure, aminoacid.

Chornaja V.N. **Influence of the food compliments of modified oak extract on some indices of metabolism in animals** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 187-190.

Effect of the modified oak extract which was used as a food compliment on some indices of metabolism in animals is described in this article.

Key words: flawooids, biologically active substance, syntes of protein, nuclein index, level of gemoglobins.

Cherniy S.V., Kovalenko A.A. **Effect of verbally induced emotional states on running EEG properties** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 191-197.

Changes in EEG rhythmical activity under effect of verbal stimuli of different emotional valencies presented, possible mechanisms of EEG patterns formation under effect of the stimuli described.

Key words: emotional states, EEG.

Chuyan E.N., Zayachnikova T.V. **Modifying effect of hypokinetic stress on the change of activity of the sympathoadrenal system during infection in rats** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3 – P. 198-205.

Effect of hypokinetic stress in changing the functional state of the sympathoadrenal system in animals infected by *Mycoplasma hominis* is studied. It is shown that maintenance of catecholamine in the red corpuscles of peripheral blood in animals after the infection by *M. hominis* depends on the initial state of the organism determined by preventive influence. In rats, which were under conditions of limited mobility, there was a more considerable increase of maintenance of catecholamine in the red corpuscles of peripheral blood before the infection, than in animals which were under conditions of the ordinary moving mode before the infection.

Key words: hypokinetic, infection, sympathoadrenal system, catecholamine, modifying action.

Chujan E.N., Makhonina M.M. **The role of the opioid peptides in modifyind the melatonin qauntity in a rat blood serum at normal and stress conditions under the effect of electromagnetic field of extremely high frequency** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 206-212.

There was studied the role of the opioid peptides (OpP) system in modifyind of the melatonin quantity in a blood serum under the isolated and combinated with hypokinesia low intensity electromagnetic field of extremely high frequency (EMF EHF) action. It is shown that a prohibition of the OpP receptors by the synthetic non-selective blocking agent naloxone of all subtypes opioid receptors is graded of EMF EHF action on the melatonin concentration changes in blood serum as well as at norm conditions and stress actions. Experimental results proved the participation of the OpP in the mechanism of biological actions of EMF EHF and OpP influences on the melatonin concentration in the peripheral blood.

Key words: opioid peptides, low intensity electromagnetic field of extremely high frequency, melatonin.

Shiryayev N.V., Shiryayev V.V., Efimenko A.M., Luzin A.V. **Experimental discharge of the papain fragments of the human IgG** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 213-216.

In this paper a new modification of the method of discharge of the papain fragments of polyclonal IgG is described. The discharge was made with the help of modern biochemical methods.

Key words: immunoglobulin, papain fragments, ion-exchange chromatography, gel-filtration, enzyme-linked immunosorbent assay.

Shramko J.I. **Mononuclear–phagocytes rat lung system's kinetic during an influence of small doses of xenobyotics** // Uchenye zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Series «Biology, chemistry». – 2005. – V. 18 (57). – №. 3. – P. 217-222.

There was proven that xenobiotics act negatively on the main regulatory systems and lead to distress and illness.

Key words: lungs, xenobiotics, mononuclear-phagocyte system.