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MEDICAL SCIENCE

**V. A. Akulinin, A. V. Sergeev, S. S. Stepanov, A. V. Mytsik,
T. Yu. Ponkratova, G. A. Honin**

Cytoarchitectonic of different shares of the human cerebral cortex in chronic ischemia

The study investigates the cytoarchitectonics different segments of the cerebral cortex in a person with chronic ischemia. To do this, intraoperative material (n = 19) using histological, immunohistochemical (neuron-specific enolase) and morphometric methods defines features cytoarchitectonics reorganization of all layers of the frontal, parietal, temporal and occipital cerebral cortex in intact and damaged parts. Morphometric analysis is performed using specially developed algorithms for verification of neurons and their elements in the 8-bit color and 2-bit images. It has been established that reducing the total number density of neurons in the ischemic penumbra zone cerebral cortex accompanied by compensatory increased expression of neuron-specific enolase in the surviving neurons. It is assumed that in chronic cerebral ischemia in all parts and layers of cerebral cortex human being reorganized cytoarchitectonics and interneuronal relations due to compensatory activation function of neurons surviving.

Keywords: person, neocortex, cytoarchitectonics, ischemia, histology, immunohistochemistry.

**N. V. Govorova, S. V. Maksimishin, A. I. Larin, A. N. Tsybulnikov,
V. N. Kalinin, D. A. Alekseev**

Treating patients with acute ischemic in specialized resuscitation of Civil Emergency Hospital № 1 in Omsk

There is conducted the analysis of the results of treatment in 1730 patients admitted to the intensive care unit. The analysis of the indicators of the intensive care unit for patients with acute cerebrovascular accident shows significant number of patients in all nosological groups, and this trend is maintained throughout the study period. The main contingent of patients is with cerebrovascular pathology, and a number of patients with acute cerebrovascular accident exceeded all other nosological forms. During the study period there is a rise of selection to the intensive care bed in all age groups, the most of the patients are aged from 50 to 90 years. It continues to increase the number of patients who are in critical condition at admission, resulting in a significant number of patients in a coma all nosological groups.

Keywords: acute cerebrovascular accident, intensive care.

**V. T. Dolgikh, O. V. Korpacheva, V. N. Lukach, V. V. Rusakov,
Yu. P. Orlov**

The results of basic and applied research on current issues of critical care medicine

For many years, members of the department of pathological physiology, anesthesiology and resuscitation, operative surgery and topographic anatomy, histology, embryology and cellular pathology, Faculty Surgery and faculty therapy study the fundamental and applied aspects of critical states. Over the past five years reserved 4 doctoral and 14 master's theses of the twentieth; 14 received a patent for the invention/utility model, published monographs, in domestic and foreign peer-reviewed journals published articles 310, the number of other publications amounted to more than 110. The results of research staff in place in the practice of most major medical organizations of Omsk region, which is reflected in the 10 published guidelines.

Keywords: critical care medicine, basic and applied research.

**V. T. Dolgikh, L. G. Pyanova, V. A. Likhobov, T. I. Dolgikh,
N. I. Taran, S. M. Khvostuntsev**

The application of carbon sorbents in critical states of organism

At the first stage of the study, 58 patients after surgical removal of abdominal cavity tumors are examined and treated. In 28 patients, the postoperative period is complicated with diffuse purulent peritonitis. So, the complex therapy of these patients is supplemented with 1–2 hemosorption sessions using a VNIITU-1 carbon sorbent in a sterile saline solution. The sorbent, which is awarded with a gold medal of the International Salon of Innovations and Investments, has a mesoporous surface that allows toxic substances of low and moderate molecular weight to be removed from the human body. The hemosorption sessions substantially reduces haematological, immunological and biochemical disorders and ultimately decreases mortality in the early postoperative period by a factor of 3.7. The second stage of the study was aimed to

develop a molded carbon sorbent based on VNIITU-1 for selective sorption of proinflammatory cytokines from blood plasma. Bench testing is performed with blood plasma obtained during plasmapheresis from 15 patients with acute pancreatitis complicated with pancreonecrosis and diffuse purulent peritonitis. The TNF- α , IL-1 β , IL-4, and IgA contents are determined in blood plasma before and after the sorption. The modified hemosorbent VNIITU-1-PVP shows much higher sorption capacity and selectivity than the initial VNIITU-1. This concerns proinflammatory cytokine interleukin-1 β : its concentration decreases by a factor of 33.5 and TNF- α was virtually absent. The level of anti-inflammatory cytokine interleukin-4 is nearly twofold higher as compared to blood plasma that was passed through VNIITU-1. The IgA content remained virtually unchanged.

Keywords: carbon hemosorbents, diffuse purulent peritonitis, proinflammatory cytokines.

A. V. Mordyk, O. G. Ivanova, S. V. Sitnikova

Tuberculosis combined with HIV infection: causes of failures in the treatment

There is carried out a simple retrospective study to identify the causes of failures in the treatment in 220 patients with tuberculosis combined with HIV infection. It is based on the comprehensive statistical analysis including correlation, regression, factor, cluster analysis reveals that the main causes of failure in the treatment of these patients are: peculiarities of the tuberculous process in the later stages of HIV infection, amid severe immunodeficiency; lack of commitment to treatment (as anti-TB treatment as ART), the absence or late start ART.

Keywords: tuberculosis, HIV infection, treatment efficacy.

S. V. Morozov, A. B. Reys

Drainage of pancreatic and common bile ducts

The study includes 11 patients of different sex and age with high risk of postoperative pancreatitis. We have proposed the construction of drainage for the prevention of postoperative pancreatitis. Drainage pancreatic and common bile duct is a catheter with side openings and a side opening pancreatic choledochal in part. Pancreatic part decompresses the duct system of the pancreas, choledochal — biliary system, and simultaneously serves to extract drainage.

Keywords: drainage pancreatic and bile ducts.

V. V. Rusakov

Pathogenetic factors of cardiodepression after severe craniocerebral injury

On the model of isolated heart according to E. T. Fallen mechanisms of damage of heart after severe craniocerebral injury are studied. The usage of medicines, influencing on separate links of pathogenesis in posttraumatic cardiodepression, proves the importance in formation of infringements heart contractility of such pathogenetic factors as hypoxia, oxidative stress, hypoergosis, and overload of cardiomyocytes by Ca²⁺.

Keywords: craniocerebral injury, heart, depression of contractility.

T. F. Sokolova, Yu. V. Emelyanov, E. Yu. Sokolov

Features of post-traumatic encephalopathy in rats with different types of higher nervous activity

Severity of cerebral insufficiency after grievous concomitant traumatic brain injury in rats with high and low type of higher nervous activity in acute and remote periods of injury is analyzed. Prolonged decrease approximately research activity in injured rats is more pronounced in animals with a low type of higher nervous activity.

Keywords: traumatic brain injury, higher nervous activity.

G. A. Baytugaeva

The concept of individualization of infusion therapy in the treatment of sepsis and septic shock (Is there a problem of infusional therapy of sepsis?)

The problem of infusional therapy of sepsis remains actual and is discussed by doctors of many specialties. In this article the review of the researches devoted to infusional therapy at treatment of shock in which the hypothesis of staging (staging) of infusional therapy formulated is made.

Keywords: therapy of sepsis, crystallites, colloids, stages.

E. V. Davydova

Ladasten influence on the state of endothelium and central hemodynamics in patients with initial manifestations of insufficient blood supply to the brain veterans of modern wars

Monotherapy initial manifestations of insufficient blood supply to the brain antiasthenic drug Ladasten leads to normalization of pulsatility in the common carotid artery, suggesting that there is a positive effect of the drug on the state of myogenic regulation of vascular tone. While taking Ladasten the normalization of blood flow velocity parameters in the basin of the posterior cerebral and vertebral artery resistivity index, reducing endothelin-1 and the frequency of episodes of microemboli, which reflects the optimization of autoregulatory mechanisms fundamentally link associated with the manifestation of the act-protective effect of the drug.

Keywords: initial manifestations of insufficient blood supply to the brain, cerebral hemodynamics, endothelium, Ladasten.

E. N. Ermolaeva, L. V. Krivokhizhina

Features of lipidemia at chronic submaximal exercise capacity

When modeling in rats with chronic submaximal exercise capacity, aerobic-anaerobic nature reveals dyslipidemia manifesting an increase of triacylglycerols, phospholipids and total cholesterol. Atherogenic factor remains in the normal range due to a proportional increase of cholesterol in very low density lipoproteins and high-density lipoprotein. The most significant exercise effect on phospholipids and its contribution amounted to an average of 87 % with an individual scale from 80,8 to 93,2 %.

Keywords: chronic physical activity, lipid metabolism.

O. G. Ivanova, T. L. Batishcheva

The main trends in the development of epidemiological situation of tuberculosis in modern conditions (review)

The trend to the improvement of the epidemiological situation of tuberculosis in the Russian Federation and the Siberian Federal District, which is characterized by some decrease in the incidence, prevalence and mortality from tuberculosis, highlighted by a number of domestic and foreign experts. At the same time the level of primary multidrug resistance *Mycobacterium tuberculosis* has increased significantly. The spread of tuberculosis caused by infection with multidrug-resistant TB, amid growing incidence of HIV infection is a serious public health problem, threatening the epidemic of a new type. In this regard, it is important to study the influence of the complex epidemiological, environmental, medical, biological and social factors on the development of the epidemiological situation and the effectiveness of the TB control activities in the region.

Keywords: tuberculosis, epidemiological situation, multidrug resistance of *Mycobacterium tuberculosis*.

S. A. Kantuykov, M. I. Nesterov, E. N. Ermolaeva

The influence of the degree of blood loss at the level of phospholipids and free radical oxidation in the blood

We studied the dynamics of phospholipids, free radical oxidation in the blood during acute hemorrhage of varying severity. Acute blood loss caused momentary intracardiac blood sampling in the amount of 0,5 % of body weight (5–10 %); 1 % of body weight (11–20 %); 2 % of body weight (21–40 %). Phospholipids increased at 1 % (72 h.) and 2 % (48, 72 h.), and 0,5 % decrease in blood loss (24, 72, 120 h.) at 0,5 % blood loss marked activation of the free radical oxidation (24–48 h.). The result is the activation of the antioxidant system (48–120 h.) with subsequent normalization of free radical oxidation (72 h.) and decrease (120 h.) at 1 and 2 % of blood loss characteristic decrease in the intensity of free radical oxidation. It should be noted that the antioxidant protection at 1 % hemorrhage activated sufficiently rapidly — by 24 hours, resulting in a reduction in the free radical oxidation control values from 24 to 120 hours in 2 % reduction in blood loss free radical oxidation (48–120 h.) is not a consequence of activation of antioxidant system. Power is located within the reference values. Thus, shows the differences in the quantitative representation of the phospholipids and intensity of free radical oxidation in the dynamics of hemorrhagic period of 24 h. up to 120 h. Dynamics and severity of the changes depend on the severity and duration of blood loss.

Keywords: critical condition, blood loss, lipid metabolism, phospholipids, free radical oxidation.

A. I. Kondratiev, A. O. Stotsky

Improvement of tactics providing specialized care in acute coronary syndrome

The analysis of the results of treatment of 1953 patients with acute coronary syndrome admitted to the neonatal intensive care unit (cardiac

patients) of the City clinical emergency hospital № 1 in Omsk is done. There is identified growth selection for intensive care bed in all age groups, the main contingent of patients included older patients. It continues to increase the number of patients in critical condition at admission, resulting in a significant number of patients in shock. There are suggested ways of improving the tactics of specialized care.

Keywords: acute coronary syndrome, secondary care.

N. A. Nikolaev, M. V. Kolbina, Yu. P. Skirdenko, V. I. Chesnokov, A. N. Sudakova, V. V. Zhrebilov

Arrhythmogenic cardiac death in hypertensive patients with coronary artery disease

Cases of sudden death in patients with arterial hypertension and coronary heart disease are considered. It is shown that in clinical practice electric instability of the carrying-out system of heart is the most frequent reason of sudden death. The clinical cases of sudden death described in article with not removed electrocardiographic registrars confirm spontaneous nature of emergence of electric instability of the carrying-out system of heart from the outcome in fibrillation of ventricles and irreversible power exhaustion of myocardium.

Keywords: Sudden death, myocardial electric instability.

A. B. Reys, S. V. Morozov, V. L. Poluektov

Surgical treatment of patients with complications postnecrotic pancreas

The study involved 138 patients with a traditional surgical approach when formed, immature cysts and pancreatic fistulas. There are specified indications for puncture and drainage postnecrotic pancreatic pseudocysts. A new method of surgical treatment — transgastralnaya tsistogastrostomiya on the outside drainage of minimal access is developed.

Keywords: postnecrotic cysts and fistulas, traditional and new operations.

D. M. Smirnov, L. V. Krivokhizhina, V. N. Bordunovskiy, O. V. Smirnova

Polymorphism and features of innate and adaptive immunity genes expression in patients with postoperative peritonitis

Multicenter randomized prospective cohort study with retrospective analysis is performed during the period from 2007 to 2014 on the base of 128 patients operated concerning surgical diseases and damages of abdomen. The association of genotypes of IL-1Ra (2r/2r and 4r/5r) and TLR2 (*G753A) with predisposition of early postoperative complications and postoperative peritonitis development are established. The found features of a genes expression from the first days of the postoperative period can be characterized within the concept of «a genomic dis-regulation» at which multidirectional changes in an expression of genes of receptors of innate and adaptive immunity, pro- and antiinflammatory cytokines are observed.

Keywords: gene polymorphism, gene expression, immunity, postoperative peritonitis.

E. F. Surina-Marysheva, E. V. Solovyova

Specialties of sensomotoric movement regulation of 15–16 year-old hockey players depending on the initial functional condition of the nervous system

The article describes the features of the dynamics of the level of sensomotoric regulation of motions among hockey players aged 15–16 in the annual training macrocycle. There is revealed that the level of sensomotoric regulation of motions of 15–16 year-old hockey players dynamically exercised in muscle reduction improving in the middle of the competitive period and does not undergo changes significantly. Low initial functional condition of the nervous system of the players has a negative impact mostly on the abilities of undefined regulation of motions (static form of muscle reduction) at the end of the competition period of the annual training cycle.

Keywords: hockey players, sensomotoric regulation of movements, undefined regulation of motions, functional condition, annual training macrocycle.

L. O. Barskaya, T. P. Khramykh, V. L. Poluektov, P. A. Ermolaeva, K. V. Zavodilenko

The dynamics of the processes of free radical oxidation in the rest of the liver after extended hemihepatectomy (experimental study)

In the experiment there is evaluated the processes of free radical oxidation in the rest of the liver after extended hemihepatectomy. During the first 3 postoperative days processes of free radical oxidation in the rest of the liver after resection limit are characterized by formation of free radicals. By day 7 there is observed depletion of the antioxidant system in the rest of the liver. Structural changes in the rest of the liver

are revealed in 12 hours of the postoperative period and characterized by marked plethora of all departments hepatic lobules and the presence of signs of hydropic, and then, within 3 days, and fatty degeneration with necrosis of the parenchyma, showing its dysfunction in the postoperative period. By 7th day only there are signs of recovery in the form of increased availability of multi-core hepatocytes.

Keywords: liver, hemihepatectomy, free radical oxidation, lipid peroxidation.

S. G. Berezhnov, N. V. Govorova, A. V. Gluschenko, I. V. Voznaya
The analysis of the methods of substitution respiratory therapy in ICU for septic patients

Wide application of various ways of respiratory support for patients with a crushing defeat of lungs is accompanied by high risk of development the fan-induced of damages. For the analysis of efficiency of modern methods of ventilation and ways of protection of patients from a mechanical trauma of lungs a number of large clinical researches, including with the assistance of the Russian clinics is spent. For the purpose of a detailed estimation applied in territory of the Russian Federation of methods of artificial ventilation, national research «RuVent» in which medical institutions of a city of Omsk and the Omsk region did not take part has been conducted. On an example of one of leading medical institutions of a city of Omsk we have tried to analyze dynamics of approaches to application of various ways of respiratory support for patients in critical condition.

Keywords: protective ventilation, ICU, critical condition, multi-level ventilation, ventilator-induced lung injury.

B. A. Dzhabrailova, A. V. Gorbunova, K. A. Tsymbalov, S. V. Palyanov, O. V. Korpacheva
Antiarrhythmic effect of glutamine in experimental cardiac contusion

Early post-traumatic period of the isolated experimental cardiac contusion is characterized by the onset of various cardiac arrhythmias and conduction. Glutamine (enterally in daily dose 250 mg per 100 g of body weight for 10 days before simulation of cardiac contusion) reduces the frequency of arrhythmias, due to its favorable effect on the course of post-traumatic period. Antiarrhythmic effect of glutamine mediated, probably, in its metabolic effects, including increasing of antioxidant protection as a precursor of glutathione.

Keywords: experimental cardiac contusion, arrhythmias, glutamine.

P. A. Ermolaev, T. P. Kramykh, L. O. Barskaya
Mechanisms of damage and compensation of circulation after the maximum permissible resection of the liver in rats

Changes in circulation and bioelectric activity of heart are studied early after the maximum permissible resection of the liver in rats. The following hemodynamic pattern is identified: syndrome of low cardiac output develops starting with the 1st hour after surgery and persists for 1-day, with a gradual restoration of the basic hemodynamic parameters, observed myocardial ischemia up to 7 days after surgery, and bradycardia, registered in the 1st day after the operation.

Keywords: maximum permissible resection of the liver, myocardial ischemia, syndrome of low cardiac output, rats.

O. Yu. Zhukova, E. A. Chigrinskiy, E. S. Efremenko, A. I. Bogunov
Activity of γ -glutamyltransferase in hepatic tissue of alloxan diabet

The article describes activity of γ -glutamyltransferase in hepatic tissue of alloxan diabet. There is shown correlations between activity of γ -glutamyltransferase, reduced glutathione level in hepatic tissue, oxidative stress of diabetes mellitus.

Keywords: γ -glutamyltransferase, diabetes mellitus, oxidative stress.

A. V. Ivanov, Yu. P. Orlov
Free radical oxidation in traumatic disease: is there a way of correction?

There is studied iron metabolism and processes of free radical oxidation in 30 patients of traumatic disease. It is revealed that the traumatic disease of the metabolism of iron, accompanied by intra- and extracellular hemolysis, an excess in the body, reduced iron catalyzes the reaction of free radical oxidation, causes failure of antioxidant systems and causes disturbances of the hemostatic system. The effect of Desferal for iron metabolism, endotoxemia, the hemostatic system and hemodynamics in traumatic disease is studied.

Keywords: traumatic disease, free radical oxidation, antioxidant activity, desferal.

V. E. Karasev
Vacuum extraction of the mammary fibroadenomata and relapse prevention through hormonal therapy

Two groups of women with fibroadenomata of breast are examined and treated. In the core group (26 patients) low-dose monophasic combination oral contraceptives with the ethinylestradiol as an active ingredient at a dose of 20 mcg is prescribed for the period of six months after the surgical treatment. In the group of comparison (22 patients) hormone therapy during the post-operative period does not carried out. The observing time after the operation lasted in average two and a half years. For the two check points the date of the access and the six months after the adenomammectomy are chosen. During this time the laboratory, breast ultrasound and the clinical forms of control of the condition of the mammary gland and of the hormonal background are carried out. The hormonal therapy contributed to the normalization of the hormone level of the male and female sex hormones after the adenomammectomy by means of the aspiration technique. It also contributed to a significant reduction in the risk of the recurrence and the development of new fibroadenomata of breast.

Keywords: fibroadenomata of breast, vacuum aspiration of a tumor, oral contraceptives.

S. V. Kachur, A. O. Solovyev
Pathophysiological evaluation of stress response in the early postoperative period in patients operated on for lung tumors in a multimodal anesthesia

The purpose of this study is to evaluate the severity of the stress hormone response in the early postoperative period after the implementation of traumatic thoracic surgery under general anesthesia different options by determining the level of insulin, cortisol, catecholamines and blood glucose levels in the blood plasma. There is revealed that in the early postoperative period in patients, operated in a multimodal anesthesia catecholamine levels and blood glucose significantly lower than in patients operated on under general anesthesia without neuroaxial blockade.

Keywords: multimodal anesthesia, epinephrine, norepinephrine, dopamine, insulin, cortisol.

E. Yu. Mikheev, S. V. Mischenko
Evaluating hemodynamic effect of a reamberin in the early post-traumatic period of poisoning with acetic acid at a pre-admission stage

In the article the analysis of influence of various infusional therapy at a pre-hospital stage of acute poisoning with acetic acid on hemodynamics is performed. Positive influence of Reamberin on hemodynamics indicators is revealed.

Keywords: acetic acid poisoning, medical care at a pre-admission stage, Reamberin, hemodynamics.

S. V. Mischenko, S. V. Maximishin, A. Yu. Giley
The experience in the use of laryngeal masks in conditions of intensive treatment Center for acute poisoning in the emergency hospital № 1 in Omsk

The evaluation of the use classic laryngeal mask in patients with acute poisoning with ethanol, which are delivered to the Center for the treatment of acute poisoning of the Omsk city in the period October 2014 to March 2015. It is established that the laryngeal mask can serve as a real alternative to endotracheal intubation in the prehospital phase, science it ensures the maintenance of a free adequate pulmonary ventilation.

Keywords: acute poisoning with ethanol, laryngeal mask.

V. V. Nazaretian, V. N. Lukach, A. V. Kulikov
Metabolic therapy of abdominal sepsis

The problem of treatment of abdominal sepsis remains one of the most difficult in practical and theoretical medicine. The success of treatment of abdominal sepsis is not possible without adequate metabolic support and optimal transport and oxygen consumption. This dictates the need of an adjustment in the existing treatment guidelines. The study determined that the inclusion in the program of treatment of abdominal sepsis mexidol and glutamine has a beneficial effect in relation to clinical severity scores of the condition of patients.

Keywords: abdominal sepsis, energy and structural deficit, correction of metabolic disorders, glutamine, mexidol.

M. V. Perestoronina

Comparison of oxygen indicators in capillary blood full term newborns and infants with extremely low birth weight

There are compared oxygen indicators of capillary blood of newborns with extremely low birth weight with term infants without respiratory pathology to determine the pathogenetic principles these indicators. Significant differences of oxygen in capillary blood between infants two groups are revealed on 8th and 9th days of life. Oxygen degradation indicators reflect the formation of bronchopulmonary dysplasia in neonates with extremely low birth weight. Capillary blood indicators can be used to estimate the lung injury in infants with extremely low birth weight. This can be considered pathogenetically justified.

Keywords: infants with extremely low birth weight, capillary blood, blood gas composition, acid-base state of blood.

A. O. Soloviev, O. V. Leonov, D. V. Savostianov, S. V. Kachur
Comparative evaluation of preoperative central hemodynamics and postoperative periods in the surgical treatment of colorectal cancer in different types of anesthesia

Non-invasive Central hemodynamics indices are studied in the preoperative and postoperative periods of surgical malignant neoplasms colorectal area under anesthesia with epidural catheter and anesthesia without a sympathetic block. A study of basic parameters of central hemodynamics shows hemodynamic security this type of anesthesia in combination with quality antinociceptive protection.

Keywords: colorectal cancer, multimodal anesthesia, total peripheral resistance vascular, minute volume of blood circulation.

E. L. Shcheglova

Factors of nonspecific protection in adolescents abuse alcohol

Innate immunity factors of adolescents enrolled in drug treatment hospital with a diagnosis of «alcohol abuse» are studied. Increasing number of active phagocytes while reducing their absorption capacity, but retained ability to complete phagocytosis are identified.

Keywords: adolescents, alcohol, phagocytosis.

E. A. Baygozina

Polymorphism of genes of the family of interleukin-1 as a factor in the pathogenesis of nosocomial pneumonia

The article shows that one of the factors immunopathogenesis nosocomial pneumonia is the gene polymorphism of IL-1 β (-511) C \rightarrow T and IL-1RN*. A genetic marker of risk of its development is a carrier of the allele With the gene of IL-1 β (-511) C \rightarrow T. The severity and clinical features of pneumonia are associated with the presence in the genotype of patients T allele of the gene IL-1 β (-511) C \rightarrow T. The implementation of the pathogenetic actions of this polymorphism is due to the overproduction of the cytokine IL-1b. The susceptibility of nosocomial pneumonia is associated with haplotype IL-1RN*4 - IL-1 β (-511) C \rightarrow T.

Keywords: nosocomial pneumonia, gene polymorphism, interleukin-1, receptor antagonist of interleukin-1.

I. A. Viktorova, I. A. Grishechkina, D. S. Ivanova
Current international and national guidelines of diagnosis and treatment of patients with type 2 diabetes mellitus in ambulatory practice

The review of researches is presented to routine practice of treatment of patients with diabetes in the article representing the analysis 2 types in out-patient conditions. It is shown that modern algorithms of maintaining patients with diabetes are not realized in clinical practice. There is no supervision of HbA1c and lipidic range, insufficient providing test strips for high-quality self-checking of a glycemia that isn't carried out, preferential providing with sugar decreasing preparations is limited.

Keywords: diabetes, out-patient practice, algorithm, diagnostics, treatment.

M. S. Korzhuk, K. K. Kozlov, A. G. Tkachev, A. M. Suzdaltsev, A. I. Malyuk

The experience of treating patients with neck injuries in the Omsk region

The analysis of 179 cases of neck injury in the period from 2007 to 2013 is done. On the basis of clinical and experimental research an improved method of dissecting of blood vessels and stop the bleeding has been developed. It provides reduce the mortality rate of patients with injuries of great vessels of the neck in the Omsk region.

Keywords: neck injury, blood vessels, surgical treatment, stop bleeding, Omsk region.

O. A. Denisova, M. A. Livzan, A. P. Denisov

Comparative evaluation of antisecretory therapy in patients with gastroesophageal reflux disease in the age aspect

The question of choosing the most appropriate drug from the group of proton pump inhibitors in elderly patients with gastroesophageal reflux disease is a difficult task. Thanks to the grouping of patients into clusters there is a real opportunity for individual differentiated therapeutic measures according to the features of health. If the maximum number of unfavorable values of the variables in elderly patients with gastroesophageal reflux disease drug of choice is pantoprazol.

Keywords: gastroesophageal reflux disease, treatment, elderly patients, pantoprazol, omeprazol.

V. I. Gorbunkov, V. I. Solomonov, A. A. Zhernosenko, K. R. Sayfutdinov

The discrete spectral optical radiator with the Planck's intensity distribution for the medical technology extracorporeal photo hemotherapy

The results of the study germicidal low pressure mercury lamp as a radiator are presented. The lamp is located in a closed opaque cavity. Planck's radiator of discrete spectrum was the basis for the development of systems for the procedure photo hemotherapy animals. Design solutions was obtained as a result of the research. All hardware requirements for medical technology extracorporeal photo hemotherapy are performed. Installation has been tested in the West Siberian region, and has been praised.

Keywords: Plank's radiator, photo hemotherapy, the optical radiation's Dosage.

N. A. Zakorkina

The impact of psychosocial factors on the health of adolescents living in Omsk region

The article discusses the importance of psychosocial factors in shaping the health of 17-year-olds living in the territory of Omsk Oblast.

Keywords: adolescents 17 years of age, psychological screening, neuro-psychiatric disorders, assessment of personal characteristics.

N. A. Zakorkina, I. A. Banyushevich

Causation of chronic diseases in adolescents (17 years) living in the Omsk region

The problem of complex influence of socio-economic, educational, biological, medical and other factors affecting the formation of chronic illness among adolescents living in the territory of Omsk region is studied.

Keywords: teens (17 years), chronic disease risk factors.

AGRICULTURAL SCIENCE

Yu. M. Rogatnev, N. A. Kapitulina

Zoning as an information basis for sustainable development of agricultural production

Land resources used by AGRIBUSINESS, even within individual plots of land tenure and a great variety of both natural and economic conditions. Therefore, in order to make effective management decisions in the sphere of agricultural production must know the individual characteristics of the land. The full-fledged surveys require a lot of money, so their lack of acceptable solution is to carry out zoning of agricultural territories on a number of properties land and use of these materials when developing business solutions.

Keywords: zoning, natural potential, economic potential, production efficiency.

A. F. Stepanov, R. N. Tymenov, L. V. Bekenova, D. A. Valiev
Comparative assessment of grades of millet fodder in Kazakhstan

In the article material on studying of 16 grades of millet fodder in the Pavlodar region is explained. The highest efficiency under these conditions grades of selection of the Altai NIISH — Altai fodder, Altai golden and African fodder 151 possess. Collecting nonvolatile solid at these grades from hectare, makes 1,97–2,15 t, exceeding a control grade Fodder 89 for 12–22 %.

Keywords: millet fodder, grades, productivity, green material, dry a veshchestvo.

O. V. Shumakova, O. A. Blinov, D. S. Nardin, O. N. Kryukova, S. A. Nardina

Organizational-economic scheme of creation and functioning of rural tourism cluster of Omsk region

The article describes the creation and operation of rural tourism cluster of the Omsk region. The authors have developed and proposed organizational and economic mechanism of regional rural tourism cluster includes three levels. The first level is represented by individual business entities and small associations within the same municipal district. The second level involves the integration of all business entities engaged in rural tourism sector at the level of individual municipalities and the establishment in each district organization coordinating the interaction of individual economic entities in order to improve the efficiency of rural tourism activities. The third level is represented by the Board of cluster cluster at the regional level, which includes representatives of the regional coordinating organizations and all concerned ministries and departments.

Keywords: rural tourism cluster, organizational-economic scheme, agricultural producers.

D. N. Algazin, D. A. Vorobiev, A. I. Zabudskiy, E. A. Zabudskaya
Improving the energy efficiency of seed germination under greenhouses

The analysis of the vegetable industry in the world and the Russian Federation, defines the main directions of development. The conditions of germination of seeds produced, the theoretical justification for the design of devices for germination of seeds. It shows a device for the germination of seeds «Rosinka». Studies of germination time of seeds of different crops in the device are presented.

Keywords: energy efficiency, germination, seeds, germination time.

M. N. Veselova, S. Yu. Komarova
Identification of typical systems of the Omsk region land-and environmental management and the ways of their development

In the article the authors of the research made typification of regions districts according to the actual and optimum indicators of land-and environmental management. The programme of the region's district development of land-and environmental management systems in order to achieve optimal parameters is suggested. This typification can be used for the analysis of the present-day situation, planning of land use and protection, development of actions for adaptation of land use to the system of a districts environmental management.

Keywords: land use management, environmental management, typical district, agricultural development, forest land area, activities for the development of land-and environmental management.

S. K. Makenova, T. A. Filippova
The historical approach to land use structure formation in the forest-steppe zone of the Omsk Region

The article tells about the structure formation of land use of a forest-steppe zone of the Omsk region. The characteristic of climatic conditions of a zone is given. The dynamics of the agricultural grounds and the cultivated crops are given.

Keywords: natural and geographical factors, forest-steppe zone, land use.

D. S. Nardin, O. V. Shumakova, O. A. Blinov, S. A. Nardina
Perspective directions of development of rural tourism in the municipal districts of the Omsk region

The article is devoted to the development of rural tourism in the municipal districts of the Omsk region. The authors proposed a method of analysis and validation of promising directions of development of rural tourism at level of separate municipal districts of the Omsk region on materials testing methods performed. According to the study carried out the classification of all areas of the region there are identified four classification groups, each of which is justified promising direction of development of rural tourism.

Keywords: development of rural tourism, rural areas, objects of rural tourism activities.

A. V. Rychkov
«Bread for the people»

The article is devoted to consideration of mass mastering of virgin lands in the Soviet Union from the perspective of the history of agricultural science. This approach reveals the reasons for the difficulties of virgin vacations of the lack of scientific development problems and subjective mistakes participants of virgin epics.

Keywords: Mastering of virgin lands, agricultural science, agriculture, USSR.

Yu. A. Bauer, Ya. R. Reingard, T. A. Ivleva
Humus state chernozem soils in the South of Omsk region

The article presents data on the current content of humus in the meadow black soils of the Southern districts of the Omsk region in percent. The estimation of soil in their content of humus is done. The analysis of available data on the cartographic materials sets reason for the decline of humus content in meadow-chernozem soils.

Keywords: humus, humus content, erosion, dehumidification, erosion, deflation, agricultural landscapes.

E. V. Drozdova, L. V. Yushkevich
The impact of intensification in phytosanitary condition of soybeans in the Southern forest-steppe of Western Siberia

One of the most important factors in the sustainable development of grain production in Western Siberia is to protect crops from weeds and prevent the loss of the final harvest of the complex lesions infected grain crops. The application of fertilizers to protect the plants from weeds, infections relates not only to the cost of resources, but also, most importantly, with a possible negative impact on agrophytocenosis and mainly on the environment when improperly applied tools intensification.

Keywords: phytosanitary condition, means intensification epiphytotics, root rot, fusarium, septeriz.

T. A. Ivleva, Ya. R. Reingard, Yu. A. Bauer
Restructuring in soil agro-ecological zones Cherlasky Omsk region

There is studied structure of soil cover in the Southern part of the Irtysh Uvala by agroecological zones. It identifies large tracts of chernozem soils with the inclusion of slobodyanik elementary soil areas where cover is not complex. The material contains practically meaningful data on the primary detailed study of the structure of the soil cover at the scale of 1:100000.

Keywords: soil structure (WBS), the elementary soil area (EPA), agro-ecological area (AER), agroecological score.

E. V. Kotsur, M. N. Veselova
Ecological and economic zoning of agricultural landscapes of Pavlograd in the Omsk region

The article provides a typology of land Pavlograd district of the Omsk region, which is based on group fitness classes on agricultural landscapes. On the basis of typing land done ecological-economic zoning of the area, which is used in dealing with the improvement of economic use of agricultural land.

Keywords: typing lands, ecological and economic zoning, availability of agricultural landscapes, farm use of agricultural land.

M. P. Chupina, A. F. Stepanov
Economic and energetic evaluation of the effect of cover crops on productivity of silphium perfoliatum in the Western Siberia

It shows the energy and economic assessment of the effect of cover crops on the yield of green mass and seeds silphium perfoliatum in the Western Siberia. It is found that both the feed and on the seeds sown silphium perfoliatum advantageous uncoated crop that provides of profitability not lower than 52–94 %, and the cost of production is only 1,02 and 5,6 GJ respectively.

Keywords: silphium perfoliatum, cover crop, fodder, seeds.

V. I. Pleshakova, M. I. Polizhaevskaya, N. A. Leshcheva
Serological diagnosis and pathological features of equine infectious anemia in the Omsk region

A comprehensive study suggests that infectious anemia of horses has spread among the population of horses in different eco-geographic zones of the Omsk region. The highest percentage of infection of animals registered in the northern zone (4,40 %), the lowest in the steppe zone (0,2 %). IFA along with standard reaction (RDP) is not only a highly specific and sensitive, but less time is different in its formulation. The characteristic pathological changes are expressed in violation of exchange ferropigment and proliferative-inflammatory response to retikuloendotelija bodies.

Keywords: equine infectious anemia, serodiagnosis, patomorfologija.

I. P. Ivanova, L. V. Kharina
Reproductive qualities of pigs depending on pedigree accessory

Crossbreeding and its use in pig farming can expand pork production while reducing its cost. Best results are obtained in breeding Landrace boars and purebred large white sows. The superiority of these crossbred

pigs over purebred of the equal age are observed in all studied parameters by 15–25 %. It gives grounds to speak about the efficiency of cross breeding, which shows increasing the viability, intensity of growth rate and live weight at weaning.

Keywords: Pig breeding, hybridization, prolificacy, Landrace, Duroc.

I. A. Korsheva, I. V. Trotsenko

The effectiveness of Sel-Plex usage for production of selenium enriched eggs

In the article questions the production of functional foods are considered. There are analyzed main indicators of egg production when using Sel-Plex order to enrich selenium. Based on the studies there is proved the effectiveness of the use of Sel-Plex as a source of organic selenium in the production of chicken eggs.

Keywords: selenium, functional foods, egg, layer hens, feed additives.

A. S. Guz

The effect of acute urinary retention on clinical condition of rabbits

An acute urinary retention in 10 male rabbits is conducted. There are recorded parameters of heart rate, respiratory rate, rectal temperature, control of bladder filling. The clinical status of the animals is determined before simulation obstruction and in 1,5, 3, 6, 12, 24, 48 and 72 hours.

Keywords: obstruction, acute urinary retention, rabbits, clinical status.

A. S. Guz

The ultrasound biometry of kidneys when ischuria in rabbits

The ultrasound to kidneys and bladder is performed up to experimental ischuria and on the 1st, 2nd, 3rd day of the experiment. The average values of the sizes of the kidneys and the volume of the bladder according to the research stage of ischuria are set during the ultrasound biometry. A comparative analysis of the obtained data is conducted.

Keywords: kidney, bladder, biometry, rabbits.

E. S. Dochilova, S. V. Chernigova, Yu. V. Chernigov

The disorders of muscular-skeletal system of pets in terms of Omsk veterinary clinics

The authors have analyzed the incidence of disorders of the muscular-skeletal system of small pets. According to these studies the fractures of skeleton bones (43,3 % of cases) took place more than the other surgical pathologies. These fractures are the following: femoral fracture (19 %); vertebral fracture (15,7 %); forearm fracture (8,6 %). Soft tissue bruise comprises 27,4 % of cases. The inflammations of large joints (i.e. shoulder joint and hip joint) comprise 20,6 %. Deuteropathies are noticed the least, for example osteoporosis comprises 5,8 % of cases. It is revealed that among all the pets brought to the network of veterinary clinics 325 pets had disorders of the locomotor system. These are 224 dogs (68,9 %) and 101 cat (31,1 %).

Keywords: cat, dog, musculoskeletal system, fracture of skeleton bones, arthritis, osteoporosis, catatrauma.

N. A. Kirsanova, A. P. Efremov, A. V. Erkubaev, O. G. Krapivnaya, V. K. Erokhov

Characteristics of herds of cows in FSUE «Omsk» of Russian Agricultural Science Academy on live weight, age and level of productivity

The article provides data on live weight, age of cows herd FSUE «Omsk» AN regarding these indicators with the productivity of animals. Interrelation between these indicators from representatives of separate lines is given.

Keywords: langue lactation, vile milk, feet milk, milk proteins, milk coefficient.

K. I. Petrov, E. A. Ivanova, O. S. Epanchintseva, A. A. Zhernosenko, N. A. Leshcheva, V. I. Pleshakova

Microbial landscape of uterus in cows of Holstein-Friesian breed in acute postpartum purulent-catarrhal endometritis

There is carried out microbiological examination of the contents of the uterus of cows Holstein-Friesian breed with acute postpartum purulent-catarrhal endometritis. The basic types of microorganisms, the biological properties, including sensitivity to chemotherapeutic drugs, and antibacterial drugs of plant origin are found.

Keywords: cows, endometritis, microflora, sensitivity.

B. Yu. Kassal

Rebreeding the Middle-Irtysh's population of wild boar *Sus scrofa*

Rebreeding the Middle-Irtysh's population of wild boar in the Omsk region began with its re-acclimatization in the 1980s, Along with the results of the settlement with the neighboring southern and western areas. In its development, there are five stages of varying duration and content of the most successful with an average moisture areas and water levels in reservoirs. In forming the population value of moisture territory increased, the duration value decreased occurrence of snow. The continuing growth in the number and extension of the area indicates the incompleteness of the formation of the population.

Keywords: Omsk region, wild boar, reintroduction, the Middle-Irtysh's population, development stages.

V. V. Kornyakova

The use of selenium for the correction of purine metabolism in fatigue in athletes cyclic sports

There is carried out biochemical blood analysis of athletes involved in athletics and skiing in the period of intense exercise. The sportsmen having a signs of fatigue, taking a biologically active additive selenium. It is shown that taking selenium results in lower of purine catabolism, inhibit lipid peroxidation and increased activity of antioxidant enzymes.

Keywords: fatigue, blood, selenium, purines, antioxidant system, athletes.

V. V. Kornyakova, V. D. Konvay, V. A. Muratov

Violation of purine metabolism in humans and rats under fatigue of intensive physical load

The development of fatigue of intensive physical activity adduces to excess of lactate, leading to catabolism of purines, depletion of antioxidant enzymes and activation of lipid peroxidation. These processes occur unidirectionally in the organism of experimental animals and athletes. It allows us to offer the studied in this work biochemical indicators as tests for predicting the development of fatigue in athletes.

Keywords: exercise stress, blood, liver, fatigue, antioxidant system.

A. A. Bondarev, V. G. Nikonova

Pleistocene theriofauna of the Ir river valley in the paleontological collections of Omsk

In the article large mammals of alluvial sites of a valley of the Ir River (Omsk region, Krutinsky district) are described. The fauna includes 10 species of odd-toed and even-toed ungulates, carnivorans, proboscideans and rodents of the open and wooden habitats and is dated to late pleistocene. The role of carnivorous mammals in formation of taphocenose is noted.

Keywords: paleontology, pleistocene, theriofauna, pleistocene megafauna.

A. A. Davydova, N. V. Plikina, A. N. Efremov

Some anatomical features of the mat-grass (*Stipa L.*) genus in the Omsk region

There are 10 species of *Stipa L.* that grow in the Omsk region, 9 of them are included in the Red Book of the Omsk region. 18 morphological and 9 anatomical characteristics are studied among 7 species. The most important determinant signs are established that can be used as additional in determining species of *Stratiotes* genera: arista angle, the length of the first arista to the nodes, length from the second nodes to the end of arista.

Keywords: *Stipa*, Omsk region, morphology, biology.

Yu. Yu. Evseeva, B. Yu. Kassal

Forest plantations of Omsk region

There is represented the total forest area in the Omsk region including in the southern taiga forest and plain a subtaiga forest-steppe areas, forest lands, forested lands with a total reserve of forest plantations in which small-leaved forests occupy 3453,2 thousand hectares, coniferous forests — 1101,6 thousand hectares, tverdolistnye forest 0,7 thousand hectares. On the forest land area is dominated by birch on the area of 2915 thousand hectares, Pine — 796,8 thousand hectares, Aspen — 523,5 thousand hectares.

Keywords: Omsk region, forest area, forest species, timber stock.

O. P. Bazhenova, O. S. Lapa

Criteria for forest management as environmental indicators of sustainable development of Omsk region

For the first time for the Omsk region the possibility of using the forest management criteria as ecological indicators of sustainable development is considered. The analysis of the forests territorial distribution and selected indicators dynamics in the region is carried out. The recommendations on the use of the forest management criteria in order to implement the sustainable development concept of the Omsk region are given.

Keywords: sustainable development, ecological indicators, forest management, forested area, calculated felling rate, risk index.

A. V. Sindireva, O. V. Stepanova, O. F. Khamova
Iodine impact on microbiological activity and phytotoxicity of meadow chernozem soil

The article deals with the impact of iodine on the quantity of soil microorganisms and on the phytotoxicity of the meadow chernozem soil. The activity of microelements is unclear and depends on the dosage and kind of microorganism. The research has shown that, in small doses of iodine stimulates the growth and development rates of the biological tester (garden radish), the higher the dose the lower the impact of iodine.

Keywords: microelement iodine, meadow chernozem soil, soil microbiological activity.

E. V. Donets

The influence of petroleum pollution on ecological-biological special features of buckthorn family (Hippophae rhamnoides L.)

In the work there are given the results of experimental studies for the first time carried out in the conditions of the vegetal experience with the use of petroleum sludge from the buffer ponds of joint stock company «Gazpromneft – ONPZ».

Keywords: petroleum sludge, the sludge pollution of soil, sea buckthorn family, vegetal experience.

E. V. Donets, A. I. Grigorev

The impact of air pollution on ecological and biological characteristics of sea buckthorn (Hippophae rhamnoides L.) under vegetation experiment conditions

The paper presents the results of experimental studies first carried out in the vegetation experiment using the seeds of sea buckthorn, collected from different areas, having different degrees of air pollution.

Keywords: Hippophae rhamnoides, growing experience, technogenic pollution, germination, seedlings.

B. Yu. Kassal

Dalmatian Pelican Pelecanus crispus in the Omsk region

In the period of 1979–2014 years in the Omsk region there is found the parent colony of pelicans curly on the lake Tennis, 7 settlements and 9 summering groups of individuals. The number of individuals in the colonies depends on the water level in the lake. In spring and autumn in the ways of seasonal migrations occur mainly single individuals and

small groups (up to 10 individuals); summer — mostly formed couples and large groups (over 10 individuals).

Keywords: pelican population, the colony, the pond, the Omsk region.

E. N. Ozyakova, N. A. Popolzhukhina

Water quality as one of the criteria of a comprehensive assessment of the security of educational institutions

Ensuring environmental security is a component of comprehensive security. Environmental safety agencies directly connected with the organization of production control in which assessed the water quality of the centralized system of drinking and hot water.

Keywords: safety, environmental safety, drinking water, production control.

K. S. Larionov, V. V. Merkulov, E. G. Kholkin

Oil contaminated waste rendering specification by reagent encapsulation

The article deals with oil contaminated waste rendering technique. It should be stressed that the method used is based on the reagent encapsulation one. The authors took into account the recommendations of the other researchers while choosing components correlation entering the chemical reaction in the process of oil contaminated waste rendering. The experiment's results have been presented. They involved motor oil spilling model in case of transport accident in the process of its usage. The recommendations concerning the optimal components correlation which are required for performing a complete rendering process have been also presented.

Keywords: oil pollution, oil contaminated waste, salvaging, rendering, reagent encapsulation.

S. B. Lovinetskaya, A. V. Sindireva, V. G. Ereemeeva

The analysis of factors affecting oil pollution soils of the roadside areas

The article is devoted to the topical problem of soil contamination. The content of oil products in soils of the roadside areas of the city of Omsk and the Omsk region is given. There is analyzed the factors affecting their accumulation in soil. It is revealed that the strongest impact on the accumulation of oil-products in the soil have the proximity gas stations, pedestrian crossings and intersections. Due to the complexity of the evaluation of the joint effect of the factors in the conditions of the city, this problem is poorly understood and requires further investigation.

Keywords: petroleum products, soil, roadside areas, highways.

A. A. Makenova

The analysis of ecological stability parameters of the Omsk Region

The provision of agricultural sustainable development is possible in the case when agriculture is adapted for local natural ecosystems, and the territory is arranged on the basis of the principles of landscape ecology. Two integrated indicators to an assessment of degree of balance of the steppe zone territory by S. N. Volkov technique are used in the research: the coefficient of ecological stability of the territory and the coefficient of anthropogenous load of the territory.

Keywords: steppe zone, ecological balance of an ecosystem, anthropogenous load of a landscape.

Информация

ОМСКИЙ ГОСУДАРСТВЕННЫЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ

Совет по защите докторских и кандидатских диссертаций

рассматривает докторские и кандидатские диссертации по специальностям:

05.11.13 — приборы и методы контроля природной среды, веществ, материалов и изделий (технические науки);

05.12.04 — радиотехника, в том числе системы и устройства телевидения (технические науки).

КОСЫХ Анатолий Владимирович (председатель), тел.: 65-34-07, 65-25-98, 65-64-93

ХАЗАН Виталий Львович (ученый секретарь), тел. 65-85-60

Объединенный совет по защите докторских и кандидатских диссертаций

рассматривает докторские и кандидатские диссертации по специальностям:

05.09.01 — электромеханика и электрические аппараты (технические науки);

05.09.03 — электротехнические комплексы и системы (технические науки).

БУБНОВ Алексей Владимирович (председатель), тел. 65-31-65

ЛЫСЕНКО Олег Александрович (ученый секретарь), тел. 65-31-65

Совет по защите докторских и кандидатских диссертаций

рассматривает докторские и кандидатские диссертации по специальностям:

01.02.06 — динамика, прочность машин, приборов и аппаратуры (технические науки);

05.02.02 — машиноведение, системы приводов и детали машин (технические науки);

05.02.18 — теория механизмов и машин (технические науки).

БАЛАКИН Павел Дмитриевич (председатель), тел. 65-21-26

БЕЛЬКОВ Валентин Николаевич (ученый секретарь), тел. 65-26-09

Совет по защите докторских и кандидатских диссертаций

рассматривает докторские и кандидатские диссертации по специальности:

05.04.13 — гидравлические машины и гидропневмоагрегаты (технические науки).

ЩЕРБА Виктор Евгеньевич (председатель), тел. 65-31-77

НЕСТЕРЕНКО Григорий Анатольевич (ученый секретарь), тел.: 65-35-84, 65-24-18

Совет по защите докторских и кандидатских диссертаций

рассматривает докторские и кандидатские диссертации по специальности:

02.00.04 — физическая химия (химические науки).

КИРОВСКАЯ Ираида Алексеевна (председатель), тел. 65-98-11

ЮРЬЕВА Алла Владимировна (ученый секретарь), тел. 65-98-11

Совет по защите докторских и кандидатских диссертаций

рассматривает докторские и кандидатские диссертации по специальности:

05.14.02 — электростанции и электроэнергетические системы (технические науки).

ГОРЮНОВ Владимир Николаевич (председатель), тел. 65-21-74

ОСИПОВ Дмитрий Сергеевич (ученый секретарь), тел. 65-36-82

Совет по защите докторских и кандидатских диссертаций

рассматривает докторские и кандидатские диссертации по специальностям:

05.07.06 — наземные комплексы, стартовое оборудование, эксплуатация двигателей и летательных аппаратов (технические науки);

05.07.07 — контроль и испытание летательных аппаратов и их систем (технические науки).

КУЗНЕЦОВ Виктор Иванович (председатель), тел. 65-96-77

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По вопросам о работе советов обращаться по адресу:

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