

## АННОТАЦИИ НА АНГЛИЙСКОМ ЯЗЫКЕ (ABSTRACTS)

### **POSSIBILITY OF USING OF SALIX BABYLONICA IN PHARMACY**

Kompantseva E.V., Frolova O.O., Dementieva T.M.  
oxifarm@mail.ru

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk  
Eastern State Medical University, Khabarovsk

Under review is *Salix babylonica* L., which is widely cultivated in Russia as an ornamental plant. The purpose of the review is to summarize the literature on the chemical composition and pharmacological activity of the Babylonian willow. In Russia, only the qualitative composition of the studied species studied, pharmacological studies have not been conducted. Abroad, there is a positive experience of *Salix babylonica* in folk medicine, and obtained results that indicate a high content of biologically active compounds. Shown in the survey data suggest the prospect of studying the Babylonian willows growing in the southern regions of Russia for use in medicine and pharmacy.

Keywords: *Salix babylonica*, willow, chemical composition, pharmacological activity.

### **EXPLORING NEW PROPERTIES KNOWN DRUGS. REPORT I. THEORETICAL EXPLANATION AS TO OBTAINING AND INVESTIGATION OF NEW DISAGGREGANTS BASED ON KNOWN DRUGS**

Pogrebnyak A.V.  
pspa2007@yandex.ru

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

Search for new applications of known drugs is unique among methods of finding drugs. Significant savings is the benefit of this approach. Known drugs are well studied, change their application does not require extensive research accompanying the introduction of the pharmaceutical market of new substances. In this paper, an example of extending the scope of known drugs is shown by the example of promising research in a number of well-known disaggregants drugs using techniques of molecular modeling, quantum chemistry and multivariate statistical analysis.

Keywords: molecular modeling, new properties of known drugs, the prognosis of biological activity, disaggregants.

### **FORECASTING AND EXPERIMENTAL DETERMINATION OF DESTRUCTION IMPURITIES AND IN THE PHARMACEUTICAL COMPOSITION OF THE HYPOTENSIVE ACTION**

Kompantseva E.V., Babyak A.V., Mudretsova Y.V., Glushko A.A.  
annav.babyak @ gmail.com

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

Determination results of impurities verapamil hydrochloride and lisinopril dihydrate using computer modeling and HPLC coupled with mass spectrometry (HPLC-MS) reported in this article. Prediction and calculation of the thermodynamic characteristics of the substances carried by the method of RM1 and programs HyperChem. Mass spectrometric analysis was performed on a quadrupole mass analyzer in the recording mode of the positive ions within the range  $m/z$  100-1000. The study found that described in the regulations extraneous verapamil and lisinopril are the products of degradation of materials. Prediction of degradation products of lisinopril dihydrate fully confirmed the data of the ion current chromatograms and mass spectra of the substanc-

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es. However, in the case of verapamil simulation results coincided with the degradation products by HPLC-MS analysis for two of the four predicted substances.

Keywords: destruction, verapamil, lisinopril, forecasting, HPLC-MS analysis.

### **BOTANICAL GARDEN - HISTORICAL FLASHBACK AND PERSPECTIVES**

Adzhienko V.L., Voronkov A.V., Grigorenko S.V., Vdovenko-Martynova N.N., Serebryanaya F.C., Zhitar B.N., Nersessian L.V., Stachinsky A.N.

[martynovann@yandex.ru](mailto:martynovann@yandex.ru)

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

The article presents information on the formation Botanical Garden at Pyatigorsk Pharmaceutical Institute, the history of its formation, the current status of the collection. Indicated perspective directions of development the Botanical Garden as a scientific and cultural center of Pyatigorsk.

Keywords: Botanical Garden, introduction, Pyatigorsk.

### **PROBLEMS OF REHABILITATION TREATMENT OF SERVICEMEN AND CIVILIANS HAVE SUFFERED IN EMERGENCIES**

Kabakova T.I., Gatsan V.V.

[kabtais@mail.ru](mailto:kabtais@mail.ru)

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

Especially the provision of pharmaceutical care to servicemen and civilian victims of terrorist acts, are studied in terms of rehabilitation treatment on the example of the branch "Pyatigorsk" sanatorium resort "The North" of the Ministry of Defense. Sanatorium treatment of persons with traumatic lesions of the nerve root and plexus is a complex that includes spa therapy in the form of baths, mud, mineral water and medicines for the relief of pain. With limited financing a number of problems that require solutions for high-quality medical and psychological rehabilitation of victims in emergency situations. According to a study developed regulations on the organization of nursing and pharmacy functional staff responsibilities due to changes in the scope and content of their work duties in the present conditions

Keywords: rehabilitation, emergency, spa treatment, medicines, financing.

### **PHARMACOEPIDEMIOLOGY IN THE ASSORTMENT POLICY-PRODUCER OF DRUGS**

Krasnov V.Y.

[djaptekars1987@mail.ru](mailto:djaptekars1987@mail.ru)

Peoples' Friendship University of Russia, Moscow

The analysis of the range of the medicines presented by the pharmaceutical company «Servier » in the Russian market, applied is carried out at treatment of a wide range of diseases. The expert assessment of a pharmacoepidemiology approach is carried out during the developing, introduction and a promotion of medicines. Adaptation of innovative methods of formation of product range and the range taking into account a pharmacoepidemiology for domestic pharmaceutical companies is made.

Keywords: pharmacoepidemiology, medicines, assortment, analysis

## **AGASTACHE FOENICULUM – A PERSPECTIVE SOURCE OF MEDICAL PRODUCTS.**

Chumakova V.V., Popova O.I.  
veronika.chumakova@gmail.com

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

A phytochemical study has been conducted to explore *Agastache foeniculum* (Lamiaceae), which is widely used in oriental medicine for colds, inflammation of the gastrointestinal tract and urinary system; externally for fungal dermatitis, seborrhea, hair growth and strengthening. In the course of the experiment methods of chemical (such as alkalimetry, permanganatometriya, chelatometry) and physico-chemical (such as mass spectrometry coupled with GC, differential UV spectrophotometry, HPLC, planar chromatography) analysis have been applied. The established range of biologically active compounds, especially essential oils and phenolic compounds, indicates the possibility of using *Agastache foeniculum* herb as a raw material source for producing drugs with antioxidant, antimicrobial, antimycotic and pilotropnym effect.

Keywords: *Agastache foeniculum*, essential oil, flavonoids, gallic acid.

## **HYDROXYCINNAMIC ACIDS INFLUENCE ON CEREBRAL CIRCULATION SYSTEM**

Ivashev M.N., Chuklin R.E.  
ivashev@bk.ru

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

Increasing attention is being given in the official medicine use of plant origin for the prevention and treatment of early stages of disorders of the cardiovascular system, including oxycinnamic acids. The flow rate of cerebral blood flow were recorded by the standard method using hydrogen clearance implanted platinum electrodes placed on the surface of brain sagittal sinus drain region in the sinuses. Caffeic and ferulic acid in the course application significantly increase the level of cerebral blood flow rate in the animals in the experimental rules. Caffeic and ferulic acid at course prophylactic use for 14 days significantly reduced the severity of cerebrovascular pathological phenomena (hyperperfusion and hypoperfusion), which significantly reduces the risk of tissue edema of the nervous system during the first phase - hyperperfusion and also reduces the mortality rate of animals during the second phase - hypoperfusion.

Keywords: coffee and ferulic acid, cerebral blood flow, experimental pharmacology.

## **THE INFLUENCE ON SPEED ANTISTAX RESTORE FUNCTIONALITY ANIMALS AFTER INTENSE EXERCISE**

Voronkov A.V., Slietsans A.A., Muraveva N.A.  
prohor.77@mail.ru

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk  
Volgograd State Medical University, Volgograd

A promising approach for the correction of functional disorders associated with fatigue, is the use of antioxidant resources, particularly flavonoids. Therefore, the aim is to study the influence of Antistax a dose of 100 mg / kg per os on the performance and portability of intense exercise in rats. Intense exercise simulated swimming animals with a load equal to 5% of body weight for 7 days. Physical performance was evaluated on a long voyage. Application Antistax significantly increased the efficiency of the animals after intense exercise compared with the control groups and the intact animal.

Keywords: physical activity, performance, endothelial dysfunction, oxidative stress, antioxidants, flavonoids, Antistax.

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**USE OF IR AND  $^1\text{H}$ NMR ANALYSIS FOR IDENTIFICATION OF THE NEW BIOLOGICALLY ACTIVE SUBSTANCE DERIVATIVE OF GABA: 4-AMINO-3-(PYRIDIL-3)-BUTYRIC ACIDS DIHYDROCHLORID**

Belikov V.G.<sup>1</sup>, Borovsky B.V., Larsky M.V.

Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

Based on the measured IR and  $^1\text{H}$ NMR spectra of the substance 4-amino-3-(3-pyridyl)-butanoic acid dihydrochlorid carried interpretation of absorption and structural fragments installed analyte. The results led to the recommendation of these research methods to be used in pharmaceutical analysis as a substance and a drug for structure determination and identification of the substance.

Keywords: derivatives of gamma-amino butyric acids, an infra-red spectrum,  $^1\text{H}$ NMR the analysis, identification, pyridini a ring, primary an amino group, carboxi group.

**STUDY OF THE CHEMICAL COMPOSITION OF PROCESSING INTEGRATED PRODUCTS MUD OF TAMBUKAN**

Karagulov H.G.<sup>1</sup>, Stepanova E.F.<sup>2</sup>, Evseeva S.B.<sup>3</sup>  
efstepanova@yandex.ru

<sup>1</sup>Co. Ltd. "Biviteks", Nalchik

<sup>2</sup>Pyatigorsk Medical and Pharmaceutical Institute – a branch of the Volgograd State Medical University, Pyatigorsk

<sup>3</sup>Co. Ltd. "SIGMABIOSINTEZ", Georgievsk

Studies of quality of products of complex processing mud of Tambukan: press, alcohol and oil extractions performed. The presence of humic acid and dehydrating the alcohol extraction of carotenoids and chlorophyll in the oil alcoholic extraction of phytosterols in oil extraction using qualitative reactions, TLC, UV spectrophotometry.

Keywords: mud of Tambukan, complex processing, extracts, extraction, carotenoids, chlorophyll, humic acid.