



Dear colleagues,

This month we would like to raise a very important issue - the metabolic syndrome. Metabolic syndrome is manifested, among other things, through the alteration of lipid and carbohydrate metabolism, leading to the development of cardiovascular disease and diabetes, which are currently the primary causes of death worldwide.

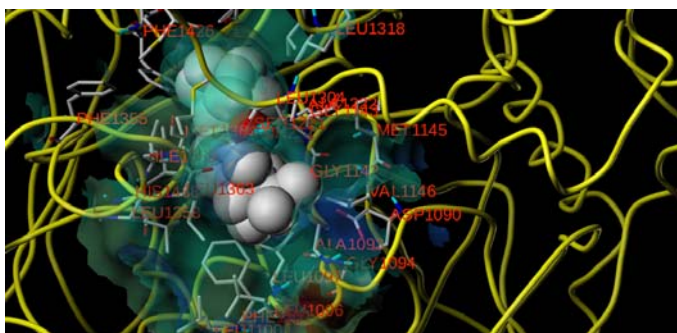
Market demand for drugs for the prevention and treatment of metabolic syndrome is increasing.

As we have mentioned in our previous letter, the non-clinical trials and the studies of the mechanism of action of the drug candidate for the treatment and prevention of metabolic syndrome (PAM-10) are in progress.

The studies have revealed that the drug normalizes blood flow in various organs and tissues, including the highly ischemic ones and regulates the blood pressure. PAM-10, moreover, protects NO (nitric oxide - factor ensuring normalization of vascular tone) from the reactive oxygen species. Based on evidence gained as a result of preclinical research, we suppose that PAM-10 will take its rightful place among the few drugs with endothelium protective action.

The drug also exhibits cerebroprotective, antithrombogenic and antiplatelet activity; it reduces blood viscosity and improves blood flow; possesses anti-ischemic and antiradical action, as well as retinoprotective effect.

PAM-10 could also be used for ophthalmopathy treatment, particularly for retina degenerative diseases, as well as in case of alteration of peripheral circulation, intermittent claudication, diabetic angiopathy, trophic disorders, frostbite, post-thrombotic syndrome.



Docking Results of PAM-10 into the Active Center of Hepatic Carboxylesterase 1

an in vitro study.

Phase 1 clinical trial of PAM-10 is planned for the end of 2014.

During April the dossier for PAM-8 "Drug for the Reproductive Function Recovery" was filed to the Ministry of Health of the Russian Federation. Clinical study of phase 1b is planned.

The preparation of registration dossier for PAM-1 "A Novel Compound with Antiviral Activity against Influenza and Other Acute Respiratory Infection Viruses" continues.

The project "Virtual Exhibition of Innovative Active Molecules" (VEIAM) was actively developed this month. VEIAM is an electronic platform designed to display the current information on projects' progress.

In our next letter we will be happy to present you the detailed information about VEIAM, its purpose and the opportunities it offers to its participants.

Sincerely yours,

Rakhimdjan Roziev, MD, Ph.D.

Non-clinical efficacy studies were carried out at the laboratory of circulation pharmacology from the Scientific Research Institute of Pharmacology of Siberian Branch of the Russian Academy of Medical Sciences.

For the moment, preclinical studies of the final dosage form are in progress. The laboratory and test output regulations have been developed, and the non-clinical toxicology, pharmacokinetic and efficacy studies of the substance have completed.

PAM-10 docking into a series of putative targets was performed. The best results were obtained for human carboxylesterase 1 involved in the cholesterol metabolism. It should be noted, that PAM-10's ability to inhibit the activity of this enzyme was proved in