papilionoids" a spectrum of flavonoids, isoflavones and pterocarpans has important taxonomic significance. In taxonomy of the most advanced groups much attention is paid to non-protein amino acids, especially to canavanine.

Knowledge of primary and secondary metabolites, many of which have significant pharmacological activity is important for reconstruction of phylogenetic relationships and for searching the new potentially valuable medicinal plants.

## EFFECTS OF ADAPTOGENIC ACTIVITY OF "MORNING ADAPTOGEN" PHYTOPREPARATION

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Today stress is a major health problem. Some symptoms of stress are raised when disciplining your kids, exhaustion in work, when managing your finances, or when coping with a challenging relationship. Stress is everywhere. And while a little stress is OK — some stress is actually beneficial — too much stress can wear you down and make you sick, both mentally and physically. With a new adaptogenic preparation of "Morning adaptogen" which composition include extracts to roots of *Eleutherococcus senticosus* Rupr. et Maxim., rhizomes of *Leuzea carthamoides* DC., leaves of *Bergenia crassifolia* L., fruits of *Rosa hips*, fruits of *Crataegus sanguinea* Pall.and fruits of *Coriandrum sativum* L.

The purpose of the study was to evaluatie adaptogenic activity of "Morning adaptogen" phytopreparation. In the models of stress: forced swimming test (FST), tail suspension test (TST), open field test and estimation of memorizing ability in reflex of passive avoidance test

(RPA). Scheme of experiment and characteristics of groups are presented in table 1.

"Morning Adaptogen" showed potent effect on metabolism during stress, demonstrating the lowest stressinduced body weight loss. Preparation did not showed stimulating activity, but helped to keep good condition and natural reaction during repeated stress. That was considered as most positive effect, because helped to save capacities for long-term, and finally to show potent effect during forced swimming test. "Morning Adaptogen" effectively normalized psychoemotional state of animals in open field test, demonstrated most potent anti-anxiety effect in BALB/c and C57BI/6 mice. Preparation has no any toxic effect during repeated 7-days administration, did not revealed signs of allergy or irritation, did not influenced normal body weight gain and organ morphology, explorative behavior and did not affected memory.

Table 1. Scheme of experiment in male laboratory mice

Days of study	strain C57BI/6	strain Balb/C
1–5	Training in light/dark chamber (formation of reflex) — RPA	
6	open field test, results of RPA formation, FST, TST-estimation of initial level	
7–12	Administration of adaptogen	
11	3 h after administration, open field test and RPA with 1 h interval	
12	3 h after last administration, FST, TST with 1 h interval, euthanasia	

## DETERMINATION OF AFLATOXIN B1 IN MEDICAL PLANTS BY ENZYME-LINKED IMMUNOSORBENT ASSAY (ELISA) BASED ON ANTI-AFLATOXIN B1 MONOCLONAL ANTIBODY

## © Gravel I.V., Raysyan A.S., Shanin I.A., Eremin S.A.

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Microorganisms may not only have adverse side effects and complications, but may also be one reason for reducing the quantitative content of active biologically active substances during storage. Further research is needed to determine mycotoxins in medicinal plants

of pharmaceutical grade to justify the inclusion of this indicator in the modern regulatory documentation. One of the most widely used approach is an enzymelinked immunosorbent assay (ELISA), which has become a standard tool for the monitoring of mycotoxins.