

Dear colleagues,

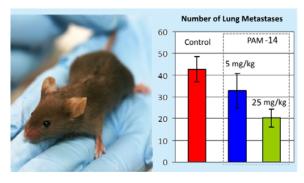
This month we would like to introduce our project "PAM-14 – An Anticancer Compound".

Cancer remains one of the leading causes of morbidity and mortality worldwide. According to the World Health Organization, by 2035 the number of new cancer cases is expected to rise to 24 million per year.

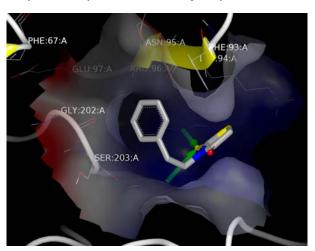
The compound PAM-14 reached the stage of preclinical studies.

The new compound showed a high inhibitory activity during the *in vitro* studies performed on B-16 (murine melanoma cell line).

Antimetastatic and antineoplastic properties of the drug were studied on mice with grafted tumors. According to the report results, the administration of PAM-14 in dose 25 mg/kg led to a decrease of tumor growth index, as well as to a reduction of the number of lung metastatic lesions by 2-3 times.



The drug is characterized by both the significant therapeutic effect and the much lower toxicity, as compared to the majority of anticancer agents.



PAM-14 Receptor Binding. Hydrogen bonds are shown by green arrows and are formed with guanidinium groups of Arg96 and Arg205.

PAM-14 is attributed to class IV toxicity. The intragastric administration of PAM-14 to mice at a dose of 4 g/kg of body weight did not cause intoxication and death of the animals. The drug might be effective in cases of resistance to conventional cytotoxic agents.

The *in silico* study of PAM-14 binding profile to its biotarget allowed planning the research aiming at elucidation of the mechanism of action.

The drug could be used in monotherapy or in combination with other anti-cancer chemotherapeutics, thus contributing to the treatment efficacy.

We expect that our new low-toxic drug will show a clinically proven significant antimetastatic and antineoplastic effect.

Our pipeline is constantly updated with new promising molecules. We will be happy to provide you with more details about the projects that are at early stages of development in our next letter.

Sincerely yours, Rakhimdjan Roziev.

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