INTERACTION OF SUBSTITUTED 5-AMINOPYRAZOLES WITH β-DICARBONIL COMPOUNDS

Tkachenko P. V.[1], Netosova K. Yu.[1]
Scientific supervisor: prof. Zhuravel I. O.[2]
National University of Pharmacy, Kharkiv, Ukraine
Kharkiv Medical Academy of Post-graduate Education, Kharkiv, Ukraine
irina.tox@gmail.com

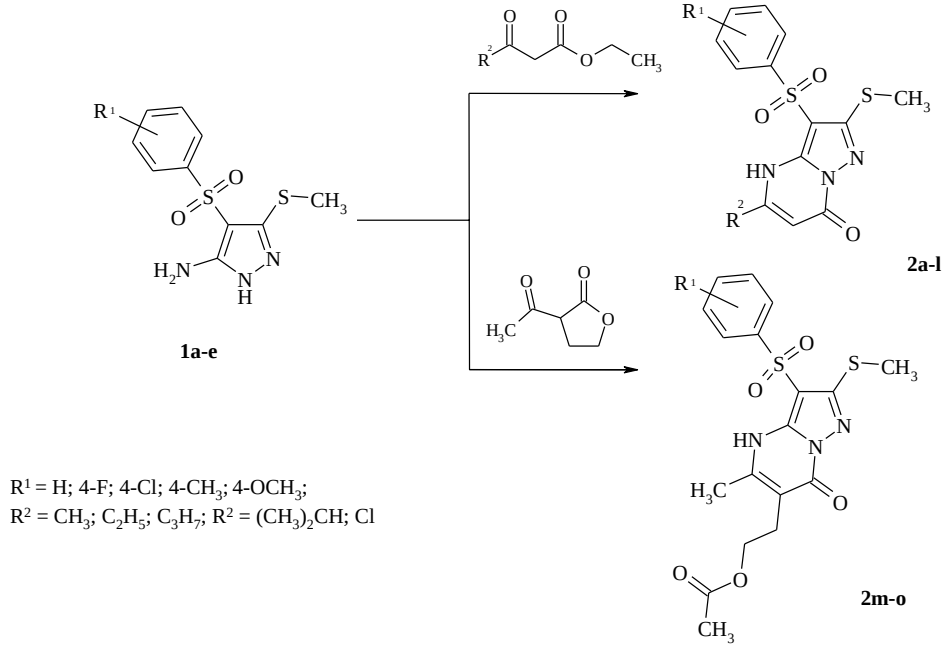
Introduction. In this paper we described the interaction of 5-amino-4-arylsulfonyl-3-methylthiopyrazoles with β-dicarbonyl compounds, which leads to the formation polycyclic systems of pyrazolo[1,5-*a*]pyrimidines for targeted synthesis of the novel pharmaceutical agents.

Aim. Synthesis of new substances in the series 5-amino-4-arylsulfonyl-3-methylthiopyrazoles.

Materials and methods. Methods of organic synthesis, physical and physical-chemical methods of analysis of organic compounds were used.

Results and discussion. Reaction 5-amino-4-arylsulfonyl-3-methylthiopyrazoles **1a-e** with some substituted acetyl acetates was carried out in acetic acid media with high yields and short time. As a result of the developed synthetic procedure 2-methylthio-3-arylsulfonylpyrazolo[1,5-*a*]pyrimidin-7(*4H*)-ones **2a-l** was obtained, which was confirmed by the results of TLS, LCMS and by data of ^{1}H NMR spectroscopy.

The reaction with acetylbutyrolactone occurs through opening of the tetrahydrofuran ring to form the corresponding *O*-acetyl derivatives **2m-o**.



R^1 = H; 4-F; 4-Cl; 4-CH_3; 4-OCH_3;
R^2 = CH_3; C_2H_5; C_3H_7; R^2 = $(CH_3)_2CH$; Cl

Conclusions. The obtained polysubstituted pyrazolo[1,5-*a*]pyrimidin-7(*4H*)-ones are promising enough for the further biological research.

DOCKING STUDIES AND ANTICONVULSANT ACTIVITY OF N-(5-ETHYL-[1,3,4]THIADIAZOLE-2-YL)-NITROBENZAMIDE

Yuldashev Sanjarbek
Scientific supervisor: prof. Perekhoda L. O., assist. Suleiman M.M.
National University of Pharmacy, Kharkiv, Ukraine
suleiman.nfau@outlook.com

Introduction. Diseases of the nervous system, which are accompanied by convulsions, are one of the most common and difficult to cure, and the known medicines for their treatment contribute to addiction. In this regard, scientists are actively searching for safe and effective biologically active substances with