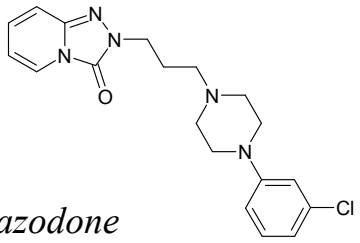
DESIGN AND SYNTHESIS OF NEW TRIAZOLOPYRIDINE DERIVATIVES

Karpina V.R., Kovalenko S.S., Bondarenko A.B., Kovalenko S.M.
The National University of Pharmacy, Kharkiv, Ukraine
v.karpina01@gmail.com

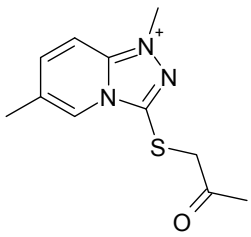
Triazolopyridines have not been studied enough especially concerning their physiological action. However it is known that the compounds with triazolopyridine-fragment possess a wide range of biological activities and are widely used in medicine. There are known analgesic, anti-inflammatory, antibacterial, antiviral, antihypertensive, antitumor, cardiovascular effects. Trazodone (antidepressant drug) is the most well-known representative of compounds which contain 1,2,4-triazolo[4,3-a]pyridine core.

Antidepressant

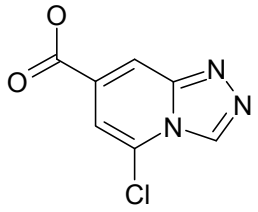


Trazodone

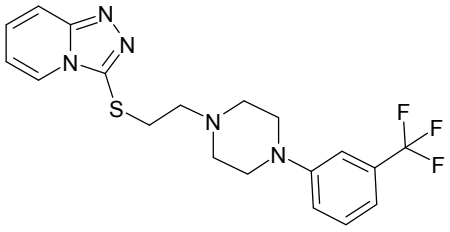
Factor XIIIa inhibitors

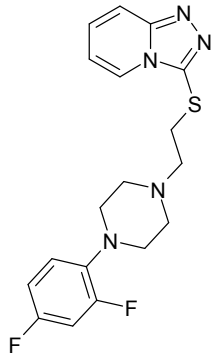


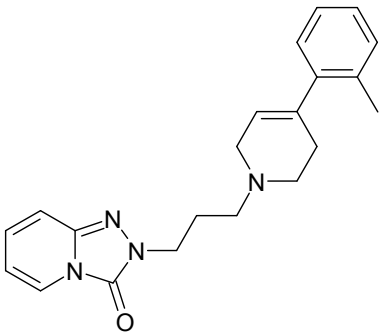
Mediator Release inhibitors



A n a l g e s i c a c t i v i t y







We have generated chemical space for new triazolopyridine derivatives. The designed libraries are intended to be used for different targets to treat different diseases. Some derivatives were synthesized in order to validate the chemistry. They were described by several techniques including H-NMR, C-NMR, mass-spectrometry to confirm their structural characteristics. Apart from triazolopyridine moiety our compounds contain different interesting functional groups and pharmacologically active fragments. We anticipate that these will provide interesting biological activities. Further advances of this strategy in the synthesis of small molecules and medicinal chemistry programs will be reported.