

# DESIGN AND SYNTHESIS OF NEW [1,2,4]TRIAZOLOPYRIDINE DERIVATIVES

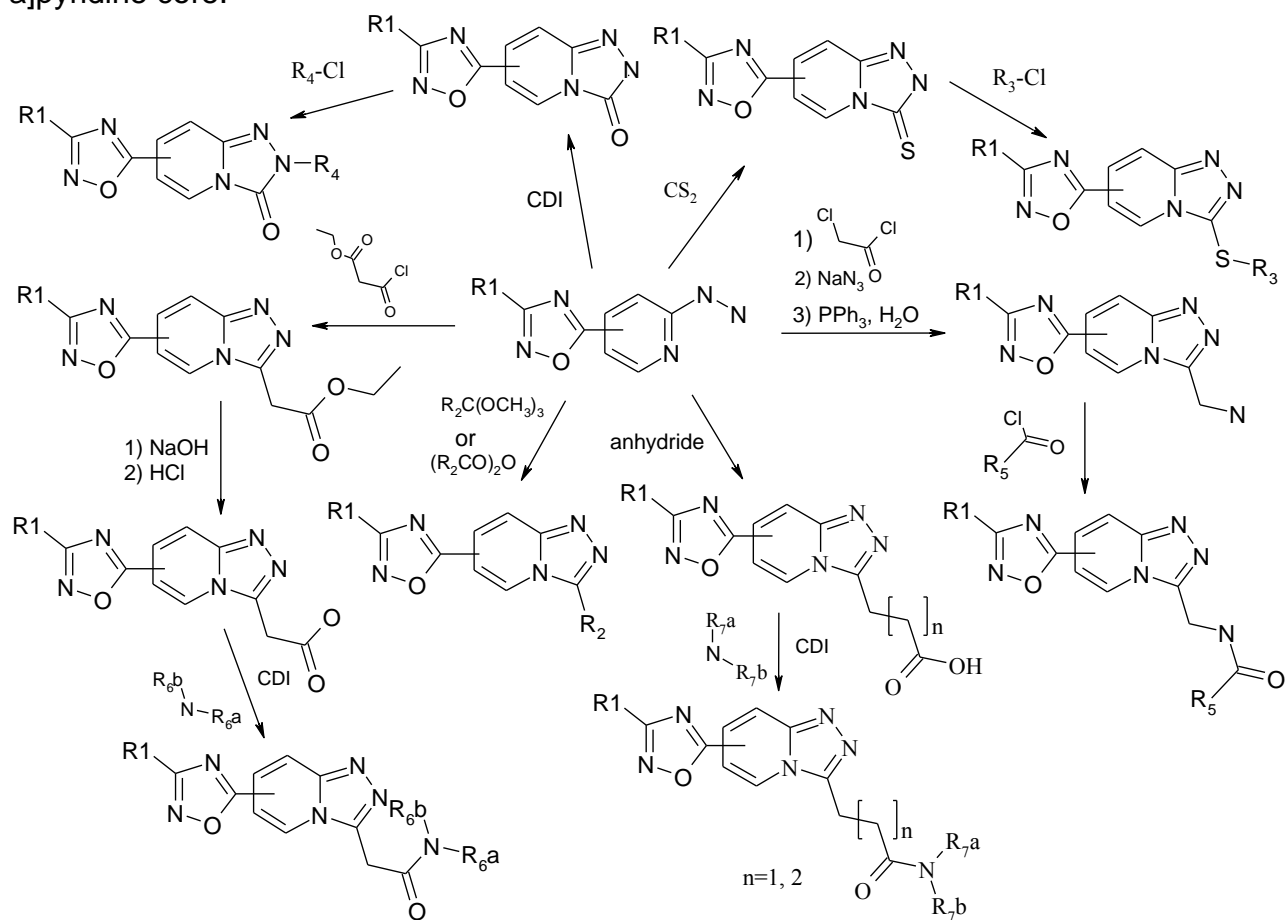
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[1,2,4]Triazolopyridines are an important class of heterocycles with broad utility in the pharmaceutical industry. It is known that the compounds with triazolopyridine-fragment possess a wide range of pharmaceutical and biological activities. There are known antibacterial, antithrombotic, anti-inflammatory, anti-proliferative, herbicidal, antifungal, anticonvulsant, and anxiolytic activities. Trazodone (antidepressant drug) is the most well-known representative of compounds which contain 1,2,4-triazolo[4,3-a]pyridine core.



We have generated chemical space for new [1,2,4]triazolopyridine derivatives with a 1,2,4-oxadiazole cycle in different positions of pyridine core. 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  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, mass-spectrometry to confirm their structural characteristics. Further advances of this strategy in the synthesis of small molecules and medicinal chemistry programs will be reported.