PL7. RECENT ADVANCES OF TARGETED SYNTHESIS, MODIFICATIONS AND BIOACTIVITY OF QUINAZOLINE ALKALOIDS AND THEIR ANALOGUES

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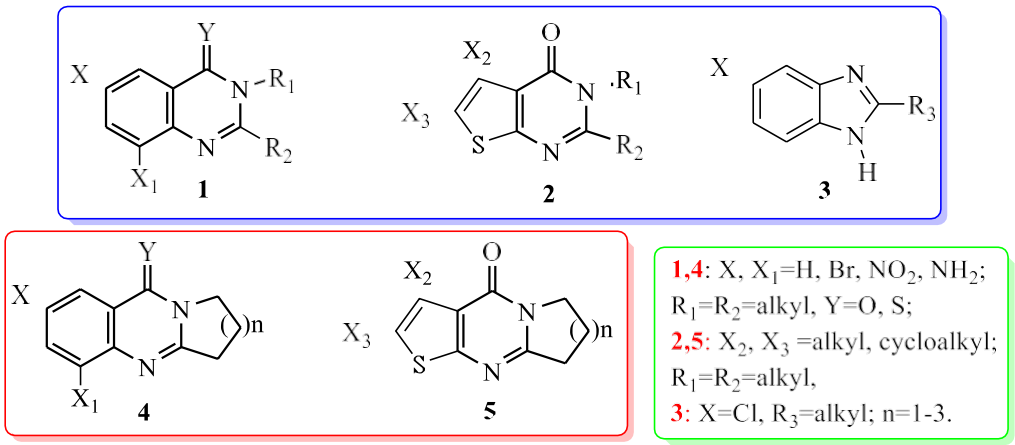
It is important to create targeted synthesis methods of highly effective pharmacologically active compounds and to successfully use them in various fields of the national economy. In this regard, it is important to create cheap and effective local preparations, to further improve their physico-chemical and biological properties. Bi- and tricyclic quinazolines are considered as important objects for medicinal chemists, because they are the scaffold of several potent anticancer drugs. Leading examples are the well-known *erlotinib, vandetanib, lapatinib, icotinib* and *gefitinib*. Several new annulated pyrimidines and imidazoles were selected by the National Cancer Institute (USA) for the treatment of different types of human cancercell lines. The analysis of research conducted in the field of organic, bioorganic and medical chemistry shows that very extensive scientific and practical research is being conducted with compounds containing the pyrimidine and imidazole rings in the molecule, and the number of drugs created on their basis is increasing [1-4]:



In this work, targeted synthesis, modification and application of bi- and tricyclic quinazolines (**1,4**) and their heterocyclic analogues (thienopyrimidines – **2,5** and benzimidazoles - **3**) will be discussed.

Keywords: Quinazoline; analogue; anticancer

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