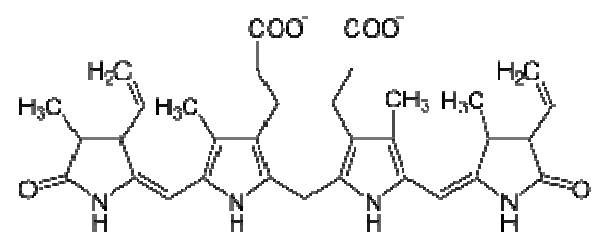
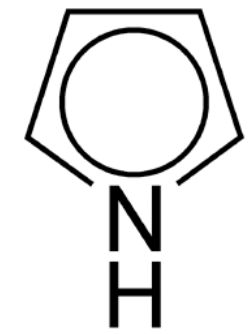
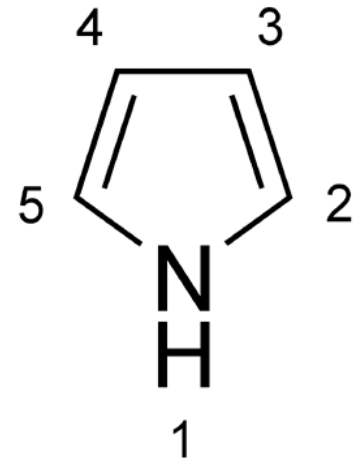
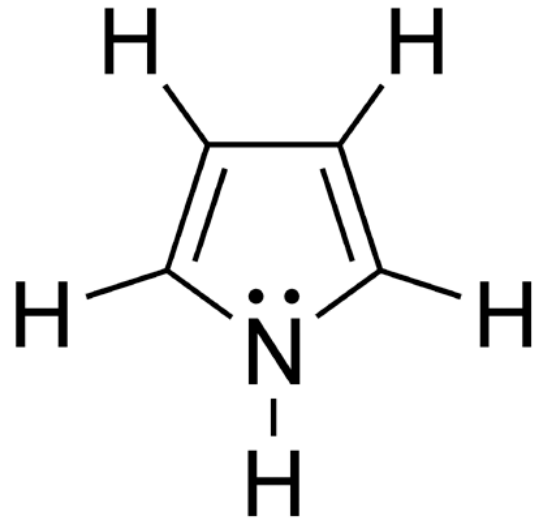


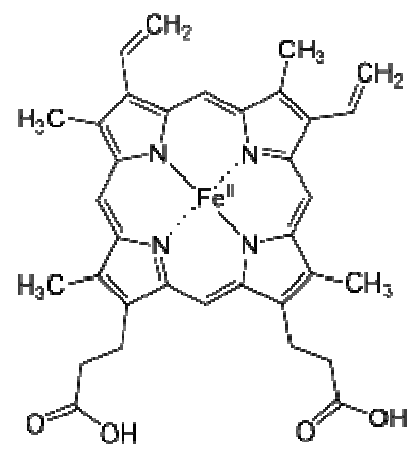
Heterocyclic hydrocarbons containing nitrogen

Vladimíra Kvasnicová

pyrrole - aromatic, component of „tetrapyrroles“

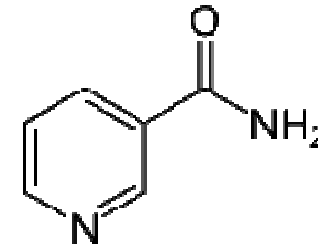
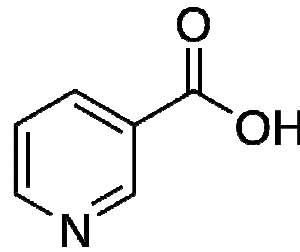
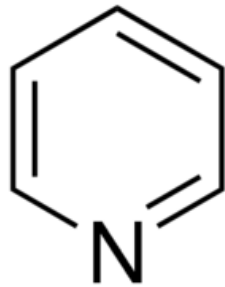


bilirubin (linear tetrapyrrole)



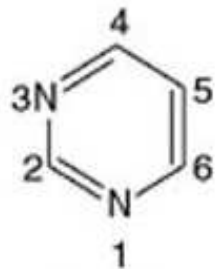
heme (cyclic tetrapyrrole)
= prosthetic group of hemoglobin and other hemoproteins

pyridine - aromatic, component of vitamin B3



vitamin B3 = nicotinic acid or nicotinamide

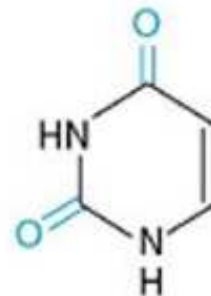
pyrimidine - aromatic, its derivatives are **bases** of nucleic acids



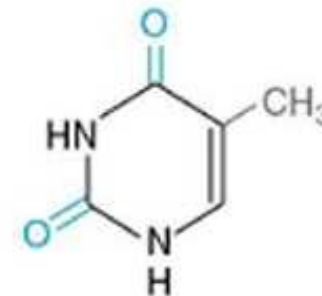
Pyrimidine



Cytosine

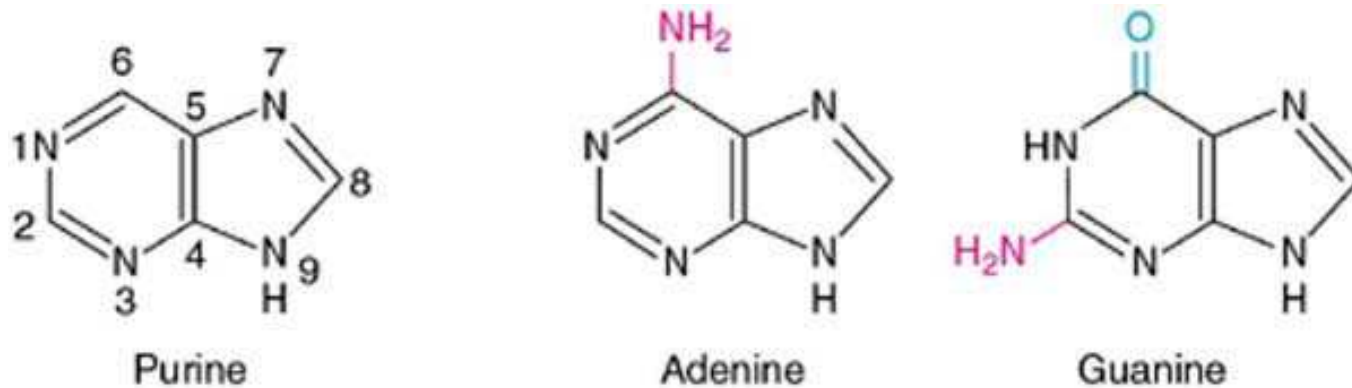


Uracil

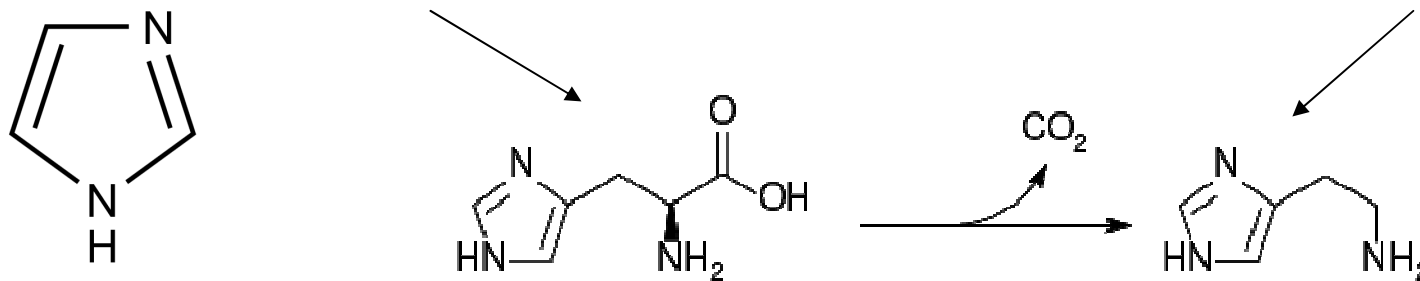


Thymine

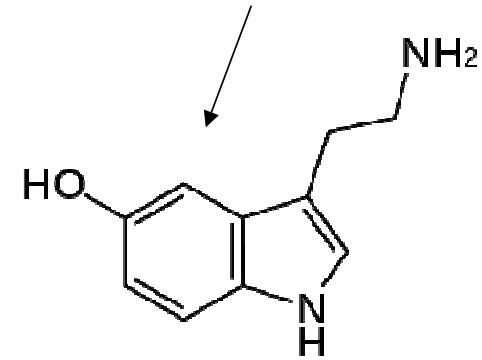
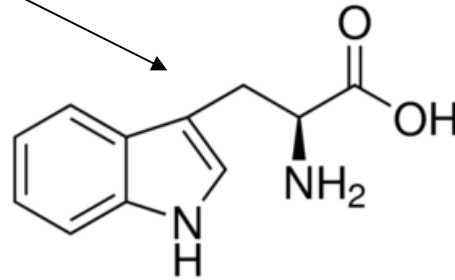
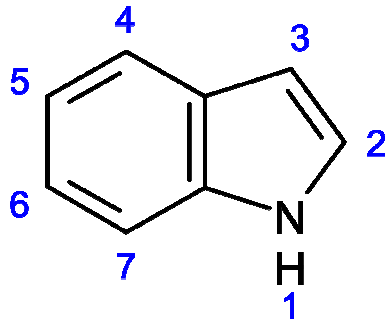
purine - aromatic, its derivatives are bases of nucleic acids



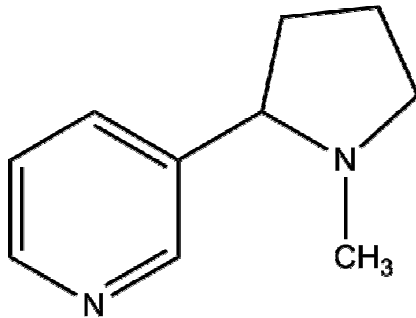
imidazole - aromatic, component of amino acid **histidine** and its derivative **histamine**



indole - aromatic, component of amino acid
tryptophan and its derivative **serotonin**



nicotine - aromatic, component of cigarettes



*consists of pyridine and
pyrrolidin rings*